3 COMMENT DOCUMENTS

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00001

-----Original Message-----
From: Krroll1234@aol.com [mailto:Krroll1234@aol.com]
Sent: Friday, May 11, 2001 9:40 PM
To: Kimberly.Collins@horne.com
Subject: ACWA

Your letter states that "all public comments will be considered", I know this one won't. **1-1**
Yes, I went to your "Dog And Pony Show" while you were on tour through Anniston.
I heard you scramble to explain how an experimental Closed loop system works ???
This is not about destruction of chemical weapons, it is about money, My money.
I can't believe that our elected leaders would even give you the time of day.
You represent everything that is bad in America. I am not a radical person, and very few things upset me. What you are doing (Fleecing of America) is something that boils my blood. If you cared anything about this country you would admit that your Rube Goldberg dollar machines won't work and crawl under a rock. **1-2**
You won't do that because this is about a chance to make a buck off the Government by scare tactics.
I hope you all can look yourselves in the mirror as you spread the propaganda.
Like I said, I know these won't be considered !

Ken Rollins
American Citizen and proud of it !

00002

From: Holt, Ken(BER) [abkholt@NMHG.com]
Sent: Monday, May 21, 2001 12:03 PM
To: ACWA (E-mail)
Subject: ACWA - Blue Grass Army Depot

I am a life long resident of the Madison County area. I have been a director on the Berea Chamber of Commerce for 20 + years. I have heard thousands of opinions about the pros and cons of weapons destruction at our facility in Richmond, KY. As far as I am concerned we have analyzed this topic to the point of doing nothing. For whatever reason its seems no one can agree on the place, method, process, who should monitor, etc. I'm sure no one would like this destruction process to be in their county. The fact is, we have it, its dangerous to transport it, its getting older and more dangerous as time passes. 2-1

Whether we like it or not, the U.S. Army is the best qualified group to decide how, when and where to make this happen. I put my trust in your decisions and pray to God your right. If I can help in anyway to get this project moving please feel free to contact me.

Ken Holt
859-986-6208 (work days)

00003

From: Baird [Bairdf@att.net]
Sent: Tuesday, May 22, 2001 10:31 AM
To: acwacomment@anl.gov
Subject: Richmond Chemical Weapons

To whom it may concern,

Hello, I am writing this letter in regard to a letter my wife and I received asking for our opinion on the Chemical Weapons destruction technologies.

First and foremost, we believe that incineration is by far the easiest, most familiar, and studied technique around. We also believe 3-1
that if activists would not have gotten involved, the chemical weapons would have been destroyed years ago. The chemical weapons in the Blue Grass Army Depot are more of a threat just sitting their in their bunkers. So, here are my suggestions on what should be done.

1. Build the most modern safe incineration plant ever.

2. Deploy broadband internet within a radius of a 3 miles around the base, so that the people always are infomed.

3. Build a 24/7 web site that will show status of plant incinerations and any other info pertinent to schedule and safety. The site should have up to the second wind direction and safety routes in case of an accident. (This would be better than the current weather boxes)

I believe information is very important. We live about 1 mile from the base on the east side (Waco). My neighbors and I are tired of all the talk. Lets get this show underway. I also believe Senator McConnell is using this issue for self promotion, and blowing the issue out of proportion.

Sincerely

Ron and Becky Fraser

00004

From: soffer [soffer@seark.net]
Sent: Tuesday, May 22, 2001 3:48 PM
To: acwacomment@anl.gov
Cc: PBA Barbara. Slifer PAO; Outreach Office; The Alliance
Subject: Draft Environmental Impact Statement, May 2001

This email is in response to the Assembled Chemical Weapons Assessment (ACWA) draft environmental impact statement (EIS) summary of May 2001 for Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites. The following comments are provided for inclusion in the ACWA Program Final Environmental Impact Statement:

Honorable James "Jitters" Morgan, Mayor of White Hall, Arkansas, asked me to express his concern that the descriptions of areas adjacent to Pine Bluff Arsenal on pages S-31 and S-34 of the Draft EIS do not accurately describe the areas and downplay the population data. The Mayor asks that this be corrected in the final document.

My comments are:

The description of Pine Bluff Arsenal in S.5.1 on page S-31 (Affected Environment) is carelessly deceptive and lacking in pertinent demographics and other readily available data discernible even to the most casual observer. The comments on page S-34 (Visual Resources), while reasonably expected to address what/who will view the end product, is nonetheless deceiving.

It appears the writer's intent was to situate Pine Bluff Arsenal in a rural environment for the benefit of EIS readers. Additionally, a review of the similar portions of the Draft EIS as it pertains to Anniston Army Depot (page S-17 S.4.1), Pueblo Chemical Depot (page S-43, S.6.1) and Blue Grass Army Depot (page S-54, S.7.1) indicates a more accurate description of adjacent population areas.

Lines 6 through 10 on page S-31, Draft EIS, are not fully descriptive. For example:

Pine Bluff Arsenal is located in Jefferson County, Arkansas approximately 6 miles north and slightly east of Pine Bluff, the fifth largest city in the state with a population of 55,085.

The U.S. Food and Drug Administration National Center for Toxicological Research, which employs 670 workers, occupies an area in the northern portion of Pine Bluff Arsenal that is approximately 500 acres in size. **4-1**

PBA performs a variety of conventional munitions production and maintenance operations in addition to chemical weapons storage. A chemical weapons incinerator is under construction and 49 percent complete with an anticipated operational date of June 2003.

Lines 23 through 29 on page S-31 neglect to provide the reader with a comprehensive view of the land area surrounding Pine Bluff Arsenal. For example:

The northern boundary of PBA borders privately owned agricultural lands and timberlands with scattered residences. The town Redfield, with a population 1,157, is 5 miles northwest of the PBA boundary. The National Center for Toxicological Research, which employs 670 workers, adjourns the northeastern portion of Pine Bluff Arsenal.

he southern boundary borders undeveloped industrial property and an industrial park with 21 industries employing over 4,000 people. The University of Arkansas at Pine Bluff, with 515 faculty and staff and 3,100 students, is located 2 miles southeast of Pine Bluff Arsenal.

The east boundary of PBA is the Arkansas River, while the western boundary adjoins the town of White Hall with 5,225 residents, 5 schools, banks, shopping, motels and a large nursing home under construction.

Land use near PBA to the east, north and northwest is primarily rural, in an area known for agricultural crops and timber. Agricultural land is interspersed with residential areas except to the west and south which are built-up bedroom communities and a major urban area. **4-1**

Lines 1 through 6 on page S-34 are deceptive as worded, distances should included.

The town Redfield, with a population 1,157, is 5 miles northwest of the PBA boundary. The National Center for Toxicological Research, which employs 670 workers, adjourns the northeastern portion of Pine Bluff Arsenal.

The western boundary adjoins the town of White Hall with 5,225 residents. Even if only the residential properties situated between the Union-Pacific Railroad right-of-way (adjuring most of the western arsenal boundary) and highway 365, "sparse" is not an accurate description of the continuous residences situated on multi-acre tracts. This is strip of land which widens significantly as it progresses from the northern boundary to the southern boundary of the arsenal.

The southern boundary borders undeveloped industrial property and an industrial park with 21 industries employing over 4,000 people.

Lastly, on line 6 the "gently rolling hills" of Pine Bluff Arsenal have never been evident to this author. While some may exist in hidden interior sections, I have been over most of Pine Bluff Arsenal and my observation is the place is essentially flat.

Additionally, there is no mention in the Draft EIS of public opposition to delaying disposal of the chemical weapons stockpile by considering alternative methods of destruction. That fact was made quite evident at the public hearing.

There are other disturbing oversights, such as use of outdated data and material, when current data was readily available at the time the Draft EIS was published. For example, 2000 Census results. **4-2**

Respectfully submitted:

Stuart D. Soffer
1901 Triple E Road
White Hall, Arkansas 71602
soffer@seark.net
(870) 247-1177

00005

From: Joanne Grunwald [grunwaldjoanne@hotmail.com]
Sent: Sunday, May 27, 2001 7:04 PM
To: acwacomment@anl.gov

We want the chemical weapons stockpiles eliminated the fastest, reasonably safe way possible. If the army wants to build an incinerator, although expensive, let them do it. All this haggling over the methods of destruction are keeping us in worse danger than what any of the destruction processes could produce. **5-1**

00006

From: Action22 Inc [cgarcia51@prodigy.net]
Sent: Monday, May 28, 2001 12:11 PM
To: gregory.mahall@pmcd.apgea.army.mil; acwacomment@anl.gov
Subject: CHEMICAL WEAPONS

As the former President and member of the Pueblo City Council, I had the opportunity to personally tour the incineration plant in Toole, Utah.

Incineration for the Pueblo Depot is the best alternative as it is an alternative that has been tested, is in operation and has had no problems that I am aware of, neither environmentally nor with major accidents. I personally would not be comfortable "piloting" other alternatives as it would be just that -- "pilot testing". Incineration has been tested and has been working for a number of years. I'd much rather go with a system that has been tested and is currently being used. **6-1**

Cathy Garcia
Former Pueblo City Council Member
cgarcia51@prodigy.net

00007

From: jody fontaine [serenegardner@email.com]
Sent: Thursday, June 07, 2001 12:50 PM
To: ACWACOMMENT@ANL.GOV
Subject: ACWA-PUEBLO CHEMICAL DEPOT

AFTER ATTENDING THE PUBLIC MEETING IN PUEBLO REGARDING THE PROPOSED ALTERNATIVES FOR DISPOSING OF THE CHEMICAL WEAPONS I WOULD LIKE TO MAKE THE FOLLOWING COMMENTS.

THE INCINERATION PROCESS IS NOT DESIRED BY OUR COMMUNITY. THIS IS ANTIQUATED TECHNOLOGY. 7-1

THE AQUA TECHNOLOGIES WOULD SEEM TO BE A OPTION IF WE HAVE MORE INFORMATION. THERE IS INSUFFICIENT DATA SUPPLIED RELATED TO POSSIBLE AIR QUALITY AND GROUND WATER CONTAMINATION. THERE IS NO INFORMATION PROVIDED FOR POSSIBLE IMPACT TO OUR FARMING COMMUNITY AND THIS AREA IS HEAVILY RANCHING AND FARMING. WHEN THIS QUESTION WAS POSED AT THE PUBLIC FORUM THE RESPONSE FROM THE REPRESENTATIVE WAS THAT THERE COULD BE PRE-OPERATIONS TESTING ON PLANTS IN THE AREA AND THEN POST TESTING. WE DO NOT WANT TO GO INTO THIS BLINDLY. THE FARMING/RANCHING COMMUNITY NEEDS TO BE INFORMED OF POSSIBLE RISKS PRIOR TO THE ACTUAL DISTRUCTION OF THE WEAPONS. ONE PERSON AT THE FORUM COMMENTED THAT HIS GROUP PURCHASES FROM OUR FARMING COMMUNITY AND THAT MIGHT HAVE TO BE RE-EVALUATED. I MYSELF, AS MANY OF MY NEIGHBORS ENJOY GROWING A GARDEN AND PURCHASING FROM THE NEIGHBORING FARMERS. 7-2 7-3

THANK YOU FOR YOUR CONSIDERATION IN THIS MATTER.

SINCERELY,

JOAN L FONTAINE
2244 GALE RD
PUEBLO, CO 81006
719-583-9359
--

00008

ASSEMBLED CHEMICAL WEAPONS ASSESSMENT

Draft Environmental Impact Statement Public Meeting
Blue Grass Army Depot
Richmond, Kentucky
May 31, 2001

Comments:

Using up a large amount of money, the emergency staff for Madison County chemical weapons potential accident, citizens are advised to duct tape windows and doors and prepare for orderly evacuation of the area. All this is to be done within 7 minutes.

There was a scoping meeting held in January, 2001. The Army hosted the meeting; and around 350 concerned citizens attended. Those who spoke numbered 9 to 1 in favor of Neutralization. The report, prepared by (ACWA) Assembled Chemical Weapons Assessment, outlined in detail the input, process, and residues for the successful Neutralization processes. A similar report was repeatedly requested from the Army, with no reply.

On August 31, 2001, ACWA presented ~~publicly~~ to the public, its Environmental Impact study. To my knowledge, the Army has made no such study for incineration. The mind-set for burning up everything is strong and difficult to re-direct to better ways. 8-1 8-2

(over)

Being a liberal arts person, I do not always understand the chemical, technical, political, and economic details involved in the safe destruction of chemical weapons. I do realize the humaine considerations. The occupants of this globe must decide if we are interested in continuing the human species. If we do, we need to turn to the least destruktive means of governin our lives. I strongly support the better way of Neutralization. I appreciate the work done by ACWA; and I trust those scientisic mind who can guide the process of Neutralization. If we can send a man to the moon, surely we can Neutralize the Chemical weapons. 8-2

Please mail comments to:

Mr. Jon Ware/ACWA EIS
9700 South Cass Avenue/PO Box 8369
Argonne, Illinois, 60439-4871

via ACWA website:
http://www.pmacwa.org

e-mail to:
acwacomment@anl.gov

At the Public Meetings:
Give to ACWA Staff Member today

All written comments must be post marked or e-mail date stamped not later than June 25, 2001 in order to be considered in the ACWA Final Environmental Impact Statement.

Name and address (optional):

Evangeline Z Goss
192 Glades Rd #20
Berea Ky 40403

00009

203 Southview Boulevard, South St. Paul, Minnesota 55075
651.457.5738

13 June 2001

Mr. Jon Ware/ACWA EIS
9700 South Cass Avenue
PO Box 8369
Argonne, IL 60439-4871

Dear Mr. Ware,

I attended the 31 May 2001 Public Meeting regarding the Blue Grass Army Depot EIS in Richmond, Kentucky. I was visiting friends. I am attentive to the problem of the disarming and disposal the chemical weapons.

Everyday neighborhood relations have a global quality. Within in few blocks there are people with immediate interests in the Middle East, Serbia, Chiapas and Laos. I would not have to knock on many doors to come upon connections to Anniston, Pine Bluff, Pueblo, Hermiston and Tooele.

My comments follow.

- The word "complexity" was frequently used. During conversation with the four engineers present they observed that the meaning may vary significantly from one specialist to another. M. Mitchell Waldrop, author of *Complexity: The Emerging Science at the Edge of Order and Chaos* put it this way, "...*complexity*: A class of behaviors in which the components of the system never quite lock into place, yet never quite dissolve into turbulence..." In both public and internal meetings the word might be avoided in favor of specifics in ordinary language toward a firmer grip on the lack of locking and the potential for turbulence. 9-1
- Presenters often referred to "lessons learned." I had the opportunity to look through a report of an incident at the Utah incinerator. It was about an inch thick and detailed events minute by minute through a couple of days with resultant data, observations and recommendations. I described this to my wife who is a quality assurance manager for software systems—systems frequently disrupted by incidents. I asked if the document itself was what "lessons learned" meant. Teresa rolled her eyes and smiled broadly. At best, documentation implies possible learning.
- At Blue Grass it is estimated that the alternative processes would employ 720 people. I suppose the work force for incineration is similar. **The organization of the work force is not neutral.** In private and public corporate organizations there is ordinarily a commitment to a vertical command structure with the mediocre results overlooked. Specifically about the Army in Korea: "...members of the platoon comprised a group with a potential for collective action independent of orders given by the designated leaders of the chain of command." (Morris Janowitz, [ed.], *The New Military*) 9-2

The Utah incident report portrays people working twelve hour shifts. It is evident that a shift was ordinarily routine, even stultifyingly so, complete with common false alarms. Attentiveness does not survive exhaustion. It is doubtful that either monetary compensation or danger would result in the desired engagement with the task. Surprises occur and the communication between groups is dreadful, the confusion palpable.

The greater the "complexity," in Waldrop's sense of the word, the greater the need for effective horizontal systems based on engaged, comprehending, and mutually attentive people meeting each other face to face. "Increased oversight" is too frequently the proposed solution. It is essential to inquire into what members of the work force understand about the process, what that means for their work together and community safety. An aside: I'm confident that there are various approaches to the organization of instrument panels—some more open to adequate perception than others. 9-2

Sincerely,

Richard Voorhees

00010

THE BOONE-AVONDALE CITIZEN'S ALLIANCE
46000 Olson Road Avondale, Colorado 81022
719-947-0491

June 10, 2001

Mr. Raymond J. Fatz
Deputy Assistant Secretary of the Army
(Environmental, Safety and Occupational Health) OASA (I&E)
110 Army Pentagon
Washington D.C. 20310-0110

Dear Mr. Fatz,

We are contacting you to alert you to a major problem with the two Draft Environmental Impact Statements that were issued by Program Manager for Chemical Demilitarization and Program Manager for Assembled Chemical Weapons Assessment on May 11, 2001 for the disposal of the mustard munitions at Pueblo Chemical Depot. This letter is not to serve as the Boone-Avondale Citizen's Alliance official response to the DEISs, but rather to draw your attention to the fact that impact on agriculture has been nearly totally omitted from each study. **10-1**

This is astonishing. The DEIS's suggest that the land around PCD is undeveloped ranching and grazing land. The reality is that the Avondale and Boone area is the oldest commercial agriculture settlement in Colorado. It has been actively farmed for 148 years. We produce high quality vegetables, seeds, livestock products, hay and small grains here. It is literally some of the finest land and growing conditions in the state. We also enjoy a unique marketing opportunity that is uncommon to many farming areas: we are located near major urban areas and transportation routes. While farming is in decline across the country, Pueblo County agriculture has every opportunity to remain viable. **10-2**

However, incineration of the blister agents would likely cause severe short and long term damage to our agricultural enterprises. It also appears that this damage could be prevented by employing one of the neutralization technologies. Buyers of our products have already indicated that they are concerned about the possibility of incineration and others have stated they will cease buying our products. **10-3**

BACA and the Rocky Mountain Farmer's Union have made repeated requests to PCD to provide site specific and/or anecdotal information as to the impacts of a disposal facility on agriculture. To date, nothing has been produced and we have no way to meaningfully evaluate the technology choices being presented. The only recourse we have at present is to attempt to mitigate damages to our enterprises by supporting the neutralization technologies as it appears they will minimize impact. **10-4**

Sincerely,

Daniel G. Hobbs

Doug Wiley, Larga Vista Ranch

Governor Bill Owens
Senator Ben Nighthorse Campbell
Senator Wayne Allard
Congressman Scott McGinnis
Mr. James Bacon, Program Manager for Chemical Demilitarization
Ms. Ruth Flanders, Program Manager Assembled Chemical Weapons Assessment
Ms. Felicity Hannay, Natural Resources Section, Colorado Attorney General
Mr. John Klomp, Pueblo County Commission
Mr. David Kruetzer, Assistant Attorney General
Mr. Phil Lower, Program Manager for Chemical Demilitarization
Lt. Colonel John Megnia, Pueblo Chemical Depot
Mr. Michael Parker, Program Manager Assembled Chemical Weapons Assessment
Ms. Joan Sowinski, Hazardous Materials Division, Colorado Department of Public Health and Environment
Mr. John Thatcher, Citizen's Advisory Commission
Ms. Roberta Wallace, Pueblo County , Rocky Mountain Farmer's Union

00011

My comments concern ***choices***. ***Choices*** necessary to deal with dangerous chemical weapons stored at the Pueblo Army Depot. The choice **must belong to the citizens of Pueblo and surrounding communities. We** will have to **live with the process** for an estimated ten to fifteen years. Our ***choices*** for handling the disposal of the mustard gas agent are either incineration or neutralization (ACWA). I have listened to presentations, read and studied EIS documents and compared these *options*. I have participated in discussions with groups of friends, family and concerned citizens. We have all arrived at the *same* conclusion ..... **Neutralization (ACWA)** is the *only* sensible, logical and comprehensive ***choice***. The ***only option*** as a solution for ensuring our health and welfare. The decisive and ***only answer*** to the problem of effectively and safely destroying this toxic menace. 11-1 11-2

I find it very disturbing, when all is said and done here, that the Army will have the *ultimate choice*. They *could blatantly disregard* the will and consensus of *our impacted communities* and exercise or *impose their will upon us*. This is disturbing indeed, and **this is not an option**. We are here to bear witness, to voice our common concerns and **choices**. Our government and our army should respect and honor the wishes of the very citizens they serve. This community will not tolerate suppression of our overwhelming decision endorsing neutralization (ACWA). If there is a group *without a choice* it is, more assuredly, *the Army*. I am hopeful this opportunity for public comment will reflect majority rule and uphold the constitutional ethic of freedom of choice. 11-3

Melanie Quintana
3061 O'Neal
Pueblo, CO 81005
(719) 561-3170

00012

I would like to address the impacts regarding the use of an incinerator at the Pueblo Chemical Depot, specifically the impacts to the environment and to livestock if there were an accidental emission of the mustard gas. The surrounding communities of Boone and Avondale are primarily an agricultural/ranching economy. The impacts would be devastating if there were an accidental emission. Boone and Avondale would be the first communities affected and the ones that could least afford an economic impact of this nature. An impact that could last weeks, months or even a year. 12-1

The next issue I would like to address is the unknown impact in using an incinerator at the Pueblo Chemical Depot on groundwater. Terrace alluvial aquifer most likely of the two aquifers at PCD to be impact by any withdrawal of water or potential contamination from the chemical demilitarization. This could greatly impact the Chico and Boone creek. The town of Boone is incorporated. Their water supply is virtually their sole source of income. If something were to happen to Boone's water supply it would ruin their economic base and for the residents greatly lower their property values. 12-2

Mitzie Martinez
P.O. Box 31
Boone, Colorado 81025

00013

ASSEMBLED CHEMICAL WEAPONS ASSESSMENT

Draft Environmental Impact Statement Public Meeting
Pueblo Chemical Depot
Pueblo, Colorado
June 6 and 7, 2001

Comments: I prefer one of the chemical neutralization methods 13-1

Jim Colson
2200 Fallview Dr
Pueblo CO 81006

00014

ASSEMBLED CHEMICAL WEAPONS ASSESSMENT

Draft Environmental Impact Statement Public Meeting
Pueblo Chemical Depot
Pueblo, Colorado
June 6 and 7, 2001

Comments:

THE CONTENTS OF ACWA'S DEIS MAY SATISFY THE NEPA REQUIREMENTS AND CRITERIA, BUT DO NOT SATISFY THOSE OF US WHO ARE USING THIS INFORMATION TO REVIEW, COMPARE AND CONTRAST THE ALTERNATIVE TECHNOLOGIES FOR CHEMICAL WEAPONS DISPOSAL WITH THE BASELINE AND MODIFIED INCINERATION TECHNOLOGIES. I HOPE THE FINAL DOCUMENT IS MORE THOROUGH. **14-1**

MINOR POINT - ONE PHRASE IN THE ACWA EIS DESCRIBES THE CITY OF PUEBLO AS BEING TO THE EAST OF THE DEPOT - IT IS TO THE WEST. PLEASE CORRECT THIS STATEMENT. **14-2**

Please mail comments to:

Mr. Jon Ware/ACWA EIS
9700 South Cass Avenue/PO Box 8369
Argonne, Illinois, 60439-4871

via ACWA website:
http://www.pmacwa.org

e-mail to:
acwacomment@anl.gov

At the Public Meetings:
Give to ACWA Staff Member today

All written comments must be post marked or e-mail date stamped not later than June 25, 2001 in order to be considered in the ACWA Final Environmental Impact Statement.

Name and address (optional):

MICHÈLE BOBYN
101 W. B ST. APT. #260
PUEBLO, COLORADO 81003-4413

00015

June 6, 2001
Alison Hobbs
46000 Olson Rd.
Avondale, CO 81022

To PMACWA and PMCD:

My name is Alison Hobbs and I live with my husband and our two young children five miles from the proposed PCD disposal facility. I am here as a mother in support of neutralization. Any parent who takes the time to look at the choices would choose neutralization over incineration for their children. It is a great misfortune to find ourselves living so close to this chemical depot, but I am grateful for the fact that we have information, the long term perspective from similar situations, and that we have choices. 15-1

I was on the phone on Sunday with my friend Pat who is nursing her 33 year old sister who is dying of an aggressive form of breast cancer, after recently nursing her father until he prematurely died of cancer. She has just found out that the neighborhood she grew up in New Brighton, Minnesota next to an Army Depot has just been officially declared toxic and unlivable. The whole neighborhood has been boarded up after years and years of legal battles first initiated by mothers dying of an aggressive form of breast cancer in the 1970's. The army had assured the people of this town over and over and over that everything was just fine. Now thirty years down the line, the army finally admits that well, no it wasn't fine, and the children who grew up there are now dying. 15-2

Sound familiar? All too familiar for all of us. (Last summer we listened to the Army repeatedly tell us that the Avondale water was safe to drink.) Each one of us know of someone who in retrospect realize that their lives have been dramtically effected by the decisions made by individuals in distant places who do not take into consideration the long term consequences to the health of people living in rural communities. As a layperson and a mother this study is meaningless. Besides the fact that it is uncomprehensible and inconsistent, information from models has very little significance in the face of the countless stories of people's lives.

What I have that my friend didn't have is a choice. How could I sit here and choose such a volatile, unstable process such as incineration that releases dioxins, one of the most toxic elements known, when there is an option for the much safer neutralization method? How comfortable would you be sending your children to an elementary school located in the shadow of an incinerator stack spewing unknown quantities of toxic emissions? For 15-3

me to not make this choice is to make pointless what has happened to my friend Pat and her family, and many others. Their lives have shown that the best people to make decisions about the future of a community are the people who live and raise their kids in it.

I am heartened to know that our local officials are endorsing neutralization on behalf of the citizenry and that our federal representatives have indicated that they will implement the will of the local community.

The choices we make now create the world that we pass on to our children. The choice for Neutralization, albeit not perfect, without a doubt will create a safer environment for all of us.

Sincerely,

Alison Hobbs
Citizen of Avondale

00016

Ruth Mahaney
2105 E Ranch Av.
Pueblo, Co. 81004

June 16, 2001

My name is Ruth Mahaney and I live in Pueblo, Colo. I am employed at the Pueblo Community College in Pueblo.

I am writing to demand that the Mustard gas be removed in a responsible manner. Incineration is not acceptable. I would prefer a safer manner of neutralization. But I request these methods not to harm, land, water or air or health of the residents. I know there seem to be some questions about the Carbon filter.

We live here. We come before the military, corporate power, and industrial promotion, etc.

How does this affect peoples health here, our property, our livelihood, etc.

I want to get rid of the mustard gas. Be responsible!

R. Mahaney

16-1

16-2

16-3

16-4

Robert Mahaney
7105 E. Routt
Pueblo Co 81004

00017

June 16, 2001

I am writing this brief letter to state my opposition to the building/operating a chemical weapons incinerator @ the Pueblo Chemical Depot. 17-1

There is a regional environmental context created by numerous power plants, an aging steel factory, a number of cement factories (that may someday double as incinerators) that the operation of such a facility unacceptable. 17-2

One more such facility is too many, it would take away the Region's physical and economic health.

I have a serious question in regard to the

interaction of the pollutants that would be released with others released by other regional polluters. There is no such information available and it doesnot appear to a consideration. 17-3

Thank You,

Robert Maharey

00018

To Mr. Jim Hare and the Army Program Manager for Chemical Demilitarization —

Please listen to the residents of this area, who must live with the consequences of your decision. We want the neutralization biodegradation process to be used here because it offers less risk to the health of the people and the environment of this area than incineration does. Please do not force an inferior process (incineration) on us! 18-1

Thank you!

Margaret M. Barker
David L. Barker

00019

1022 1/2 Santa Fe Ave
Pueblo, CO 81004
June 20, 2001

Jon Ware
ACWA EIS
9700 S. Cass Avenue
P.O. Box 8369
Argonne, IL 60439-4871

Dear Sirs:

I live in Pueblo, Colorado where 2600 tons of mustard gas are being stored in the Pueblo Chemical Depot. I moved to Pueblo to take care of my elderly parents. With the rising cost of housing, I cannot now afford to move my family on my teacher's salary. Many of Pueblo's citizens are in the same situation due to the closing of Pueblo's steel mill and other major employers. We are good, hard-working people like yourself and we live in fear that the decision will be made to incinerate all of those tons of mustard gas. This would release heavy metals and, worse, dioxins, one of the most toxic substances known to humankind, into our air. Tell me please how one justifies all of us being given this death sentence. 19-1

Incineration would not only prove destructive to the health of all who live here but would further cripple our economy, as well. The chemical agent disposal facility using the incineration method in 19-2

PAGE TWO

ANNISTON, ALABAMA HAS HAD A DIFFICULT TIME RECRUITING BUSINESSES AND SELLING REAL ESTATE DUE TO THEIR INCINERATOR. IN ADDITION, INCINERATION WOULD KILL OUR LOCAL RANCHING AND FARMING BUSINESSES ~ THE OLDEST IN COLORADO. 19-2

ALL OF THIS IS EVEN MORE TRAGIC IN LIGHT OF THE FACT THAT THERE ARE VIABLE OPTIONS TO INCINERATION: NEUTRALIZATION FOLLOWED BY BIOTREATMENT AND NEUTRALIZATION FOLLOWED BY SUPERCRITICAL WATER OXIDATION. NEITHER PROCESS EMITS HEAVY METALS AND BOTH MAY BE ABLE TO COMPLETELY ELIMINATE THE RELEASE OF DIOXINS.

THE CORPORAL AT THE PUEBLO CHEMICAL DEPOT TOLD ME THAT THE GOVERNMENT CARES ABOUT ITS ORDINARY CITIZENS BUT TALK IS CHEAP. A DECISION TO UTILIZE A NEUTRALIZATION METHOD TO DISPOSE OF THE MUSTARD GAS STORED AT THE PUEBLO CHEMICAL DEPOT WOULD PROVE THAT THE GOVERNMENT DOES, INDEED, CARE ABOUT THE LIVES OF PRIVATE CITIZENS.

THANK YOU FOR YOUR CONSIDERATION.

SINCERELY,

Lisa Shafer, MS

(LISA SHAFER, MS)

00020

June 18, 2001

Mr. John Ware
ACWA EIS
9700 South Cass Avenue
PO Box 8369
Argonne, Illinois 60439-4871

Dear Mr. Ware,

The undersigned members of the community have grave concerns regarding the concerns regarding the construction and operation of an Assembled Chemical Weapons facility. It is our belief that none of the proposed technologies are mature enough to warrant conducting testing in Anniston, Alabama. The National Research Council, who on more than one occasion, has stated that these technologies have not been proven and are not capable of destroying the chemical stockpile at the Anniston Army Depot backs this up. It is a frightening thought that consideration is being given to conducting "experiments" in the back yard of Anniston, AL where over 70,000 people live. Do not test any of these technologies in Anniston. 20-1

We the undersigned believe that the chemical weapons stored at the Anniston Army Depot cannot continue to be stored and must be destroyed in the quickest, most safe manner. 20-2 The Army has just completed construction of a facility that has been proven capable of safe destruction of chemical weapons at other places. We should not be focusing our attention on alternatives but rather focusing our support of this facility. 20-3 Furthermore, there should not be any efforts to delay the destruction of these weapons. Delays will only continue to exacerbate the problem. 20-4

Please ensure that this is entered into the comments being submitted for the ACWA final Environmental Impact Statement. Thank you for your consideration.

Sincerely,

The Undersigned Citizens

CF:
Senator Richard Shelby
Senator Jeff Sessions
Congressman Bob Riley
Governor Don Siegelman

To – A.C.W.A.

From – Tracy Mosley

00021

This is a small amount of the material I have accumulated in 7 years, since 1995, on the destruction of chemical weapons programs. I have 5 chester drawers full of the stuff.

When you add all that together with my knowledge of the use of chemical weapons in warfare, and the fact that we are dealing with people involved in deceit, fraud, corruption, collusion & bribery, it comes down to one very dangerous & dismal fact. You don't know who to trust! 21-1

So, proceeding along that line I will tell you this. I don't trust the lot of you.

The answer to your question is No. I do not want you pilot testing any neutralization technologies at this Arsenal. 21-2 That is ridiculous, absurd and shows the heigth of arrogance acquired through years of power struggle between individual, corporations & certain department of D.O.D.

Now for those of you that know how hard I have fought against incineration, don't drop your eye teeth. Even incineration is better, at this time, than chemical neutraliza 21-3 It is a tested technology so at least we know what we are dealing with. I will leave it there at this time except for 1 item.

I believe the lot of you & the Army in general has lost it's common sense when it comes to the security of these arsenals and 21-4 the safety of its employees & the surrounding community.

Respectfully,
Tracy Mosley

DRAFT EIS 00022

1.	Page 4-12 Will there be an ecological study performed to see how the small releases of chemical agents will affect the surrounding wildlife?	22-1
2.	Page 4-13 The storage of weapons should decrease as the incinerator operates. Why does the Impacts of No Action not reflect this?	22-2
3.	Table 4.3-1 This table indicates that the ACWA facilities electricity usage range from 50% to almost 200% that of the 2000 usage. Will this not cause a negative impact on the surrounding areas even though this document says it will be independent of ANAD?	22-3
4.	Page 4-25 Line 13 – 14 Are the assumptions used to estimate the amount of waste discussed anywhere in this document? Without being a full scale plant are there any safety factors being applied? Are these assumptions made to indicate a conservative estimate?	22-4a
5.	Page 4-27 What if the salt waste is determined to contain agent?	22-4b
6.	Page 4-29 Why would Neut/Bio be considered at Anniston? If this technology only treats mustard what would be used for the other 60% of the stockpile? This does not appear to be an efficient use of taxpayers money.	22-5
7.	Page 4-29 Can a TSCA permit be obtained for this type of unit to treat PCBs? What would you do with brines or wastes that contained high levels of PCBs?	22-6
8.	Table 4.4-3 What are the units on this table? It appears to be a lot of waste being generated. If this is per year how many years will it take?	22-7
9.	Table 4.4-4 How many years will these operate? Can you tell how much waste will be made during the operation of these facilities?	22-8
10.	Page 4-32 "Metal parts treater" is this the same as the metal parts furnace at the Anniston incinerator site? Will this treater have emissions?	22-9
11.	Page 4-32 It keeps being stated that the amount of hazardous waste could increase by a factor of 2.5. Is this expected? Will another plant or facility really be constructed to treat the waste from destroying the rockets? Will this new facility also produce a waste stream that has to be disposed of?	22-10
12.	Page 4-33 It talks about how liquid wastes will be disposed of, but how about solid waste? If carbon is only treated how can you tell that it has been decontaminated. How will you get rid of carbon that you cannot determine is agent free?	22-11
13.	Page 4-34 How are energetics treated? Do the emissions given in this report account for the energetics that must be disposed of?	22-12

14. Page 4-34 How is the "heated oven" heated in the GPCR TRBP. What temperature does this oven reach. 22-13

15. Page 4-35 What is a detonation chamber? Are there any emissions from these detonation chambers? Are the energetics fed directly to the metal parts treater? 22-14

16. Page 4-37 How does the projected waste generated from the early EIS compare with the waste generated from the operational facilities at JACADs and TOCDF? 22-15

17. Page 4-44 This table does not reflect the current permitted sources at ANAD. 22-16

18. Page 4-49 What about the Dugger Mountain Wilderness area? Was it considered? 22-17

19. Page 4-50 Does the Neutralization/SCWO facility have a laboratory or has it been left out? 22-18

20. Page 4-51 What are the emission rates of the criteria pollutants from the process stacks at these facilities? These tables do not list any emissions from the process while the text says there are some. 22-19

21. Page 4-55 The process gas burner sounds like an afterburner. Does it perform the same function as an afterburner? 22-20

22. Page 4-63. It is stated that the CO and PM concentrations are near their levels. Does this consider that the baseline technology is in place? 22-21

23. Page 4-63 This states that agent will be coming out the stack. At what levels is this expected to happen? Are the health impacts of these agent releases being addressed? 22-22

24. Page 4-64 The impact of no action does not discuss incineration in place like Section 4.4.31. 22-23

25. Page 4-65 What are the total emissions from the plant? The concentrations from the generators are compared to emissions from the plant. The generators will not operate as long as the plant. There may be more net emissions from the plant. Has this been addressed? 22-24

26. Tables 4-6-* These tables indicate that Chlorinated Dioxins and Furans are coming out of the stack. Has the health impact of these compounds been addressed? 22-25

27. Are these systems capable of producing fluorinated dioxin and furans? How can you say that the emissions have been adequately characterized to say that there will not be a health impact? 22-26

28. Page 4-71 Footnote e states that PCB destruction was assumed to be 99.9999%. Is there any data to make one expect these processes to destroy PCBs? **22-27**

29. Has the health effects from PCBs been considered? **22-28**

30. Page 4-82 How can the MDB be the only potential source for agent emissions? Has this system proven that there will never be an upset? **22-29a**

31. Table 4.6-6 indicates that chemical agent will be emitted from the stacks. Has the health effects from these levels been addressed? Will a health risk assessment be conducted to determine the risk to the community from these plants? **22-29b**

32. These technologies appear to very complicated hazardous waste facilities. It took approximately 7 years to get a permit for the existing incineration facility. How long do you anticipate it will be before you can get the appropriate permit permits for each of these technologies? Is there a requirement for a Clean Air Act Permit? Is there a requirement for modeling for Prevention of Significant Deterioration? Is there a requirement for complying with the National Emissions Standards for Hazardous Air Pollutants? Is a Resource Conservation and Recovery Act permit required? Is a Toxic Substance Control Act Permit required? Is a National Pollution Discharge Elimination System Permit Required? Please discuss in detail for each proposed technology. **22-30**

33. It would appear that the locations of all the proposed site locations violate Army quantity distance safety regulations for a facility involved with explosive materials. Would you please discuss justification of the proposed sites relative to these safety concerns? **22-31**

34. All throughout the Environmental Impact Statement document you refer to the proposed facility as a demonstration facility. From this it means that the proposed technologies are not proven. Why would you even want to consider building a "test facility" using an unproven technology in Anniston Alabama where 70,000 people are located? This appears to be a cavalier attitude. Please do not use the excuse that the Congress of the United States mandated that you study and demonstrate other technologies. **22-32**

35. Page 4-12 paragraph 4.2.4.1- This paragraph states that the "Proposed testing activities at ANAD would be conducted within the CLA". The sites proposed are not located in the CLA. This needs to be clarified. Are these facilities going to forego the Army security requirements? **22-33**

36. Page 4-12 paragraph 4.2.4.1- This paragraph as well as other places in the document indicated that there will be release of "chemical agents or other chemical compounds as a result of occasional fluctuations in routine operations". Is it fair to assume that "routine operations" will result in the release of chemical **22-34**

agents? What "other chemical compounds" are expected to be released? What is the effect on human health from the release of chemical agents and other chemical compounds from all of these technologies? 22-34

37. Section 4.3- Can the existing Anniston Army Depot Sewage Treatment Plant handle the additional discharges from these technologies and the facility? 22-35

38. Page 4-19 paragraph 4.3.3.2- This section states that "No process water or hazardous materials would be discharged to the ANAD sewage treatment plant." Where will the process water be discharged? How will it be disposed? Is a permit required? 22-36

39. Section 4.3.4- There is no information provided on the Current communications system. Please provide that information. 22-37

40. Section 4.4- This section states that "While in storage, the ACWs are not generally considered wastes ...." Are the M-55 rockets not considered a hazardous waste currently? 22-38

41. Section 4.4.2- This section and in other areas of the document states that "If stabilization of the solid salt waste was required, either a waste management facility for stabilizing the waste would need to bed constructed at ANAD, or, alternatively, the waste would need to be shipped off site to an appropriately permitted waste facility." This statement implies that the technologies and the proposed facility are not "closed loop" as advertised. Please comment. Do you intend to build an additional facility to handle the waste byproducts produced by these technologies? 22-39

42. Several places in the document make the statement that "An ACWA pilot test facility would also generate a number of nonprocess wastes (e.g., office trash, PPE, decontamination solution, spent carbon filters). The document does not discuss how these wastes will be disposed. Can the technologies being considered destroy these nonprocess wastes? Are any of these wastes contaminated with chemical agent? Is this the entire list of nonprocess wastes? How will you detect and analyze for the potential of agent on these nonprocess wastes? Please be specific. 22-40

43. Page 4-29 Section title "Hazardous Wastes"- This section states "In addition, the treatment process could generate brine wastes containing more than 50 ppm of PCBs or unacceptable amounts of toxic PCB intermediate by-products, such as dioxins or furans. PCB concentration in wastes generated during the pilot-scale testing of ACWA technologies will need to be evaluated." This statement says that is unknown as to the technologies capabilities for destroying PCB's. Is this true? The statement also implies that there will be dangerous PCB byproducts produced by the proposed technologies. Is this true? This statement also indicated that none of the proposed technologies are tried and proven and that 22-41

again the proposed technologies are not closed loop. Is this true? What are toxic intermediate byproducts referred to? Please list these byproducts in the document and provide there impact on the community, the workforce, and health. What about impacts on the environment? 22-41

44. Page 4-33 Section titled "Neutralization/GPCR/TW-SCWO"- This section refers to this technology operates at supercritical conditions. This implies a very scary situation. Please elaborate on supercritical conditions. Is there a potential for an explosion? Has this been evaluated? What are the impacts to the workforce and community of such an explosion? 22-42

45. Page 4-34 Section titled "Neutralization/GPCR/TW-SCWO"- This section states that "The GPCR unit consists of a thermal reduction batch processor (TRBP) and the reactor (GPCR) itself. In the TRBP, contaminated materials, such as dunnage and metal parts contaminated with agent and energetics, would be place in a heated oven." Is this not an incinerator by another name? It appears so since "the gaseous effluent would pass through a caustic scrubber that would generated brine salts from the acid gases." The ACWA technologies are supposed are supposed to be different than the baseline technology incineration. This does not appear to be true in this case. Please explain. 22-43

46. This document is terribly inadequate leaving out key information. Is this by design to further the pursuit of ACWA technologies? 22-44

47. Page 4-34 Section titled "Neutralization/GPCR/TW-SCWO"- This section states that "The resulting volatile organics would be swept by heated hydrogen gas into the reactor, where thy would be reduced to simple hydrocarbons (HCs) an acid gases. What are the simple hydrocarbons? Please list and provide impact on human health and the environment. Is hydrogen gas not very explosive? Why are you using heated hydrogen gas? Is this not dangerous? 22-45

48. Page 4-35 Section titled "Electrochemcial Oxidation"- This section states that "The operation of this technology would involve several sources of wastes." What are these wastes? Are these wastes considered hazardous wastes? Is this technology a closed loop process? Do any of these wastes have the potential to contain chemical agent or other hazardous substance? 22-46

49. Page 4-35 Section title "Electrochemical Oxidation"- This technology uses Nitric Acid. Is this not a very corrosive material? What is the impact on the environment by using this material? What is the impact on the equipment using this material? What if there was a release of Nitric Acid? Would there not be a plume? 22-47

50. Page 4-35 Section title "Electrochemical Oxidation"- This section states that "Metal parts from detonation chambers, munitions hardware, dunnage, and other solid wastes would be thermally decontaminated to a 5X condition in the MPT, an 22-48

inductively heated vessel with a superheated steam reactive environment? Is this not incineration by another name? 22-48

51. Page 4-39 Section 4.4.3.2- This section does not consider that continued storage of chemical weapons at ANAD would result in continued risk of storage. Is this not a true statement? 22-49

52. Page 4-50 Section 4.5.2.2 "Emissions from Operations" – This section indicates that all of the proposed technologies have several stacks each and that each stack has emissions. This is not consistent with a closed loop system. Is this a true statement? Please explain and justify. Has there been a health study regarding the emissions from these stacks? How do you know that these emissions will not be harmful to the community and the workforce? How can you be 100% sure that chemical agent will not be emitted from these stacks? 22-50

53. Section 4.5.3.3- This section is titled "Impacts of Fluctuating Operations". Is this not another way of stating that a process is out of control? Does this facility have the potential to emit organic compounds? Does this facility have the potential to emit chemical agent? 22-51

54. Tables 4.6-2,4.6-3, 4.6-4, and 4.6-5- All of these tables indicate that there will be a variety of chemical emitted from the technologies. Is it true that these chemicals include dioxins, furans, PCB's, chemical agent, and other chemicals as well? Does this not indicate that these technologies are not closed loop? What is the impact of releasing these chemicals? Has a health risk assessment been performed for these technologies? What is the impact on the community? 22-52

55. Page 4-80 Section 4.6.3.2- This section states that "PCBs were not tested as part of the ACWA demonstration project, since doing so would have triggered regulatory requirements under TSCA that would have added considerably to the cost and difficulty of the demonstration." This indicates that none of the technologies have been proven to be capable of destroying PCBs. Is this true? Is it the policy of the ACWA program to routinely forgo regulatory requirements such as TSCA just to save time and money? 22-53

56. Page 4-95 Section "Other On- Post Workers"- This section states that as "technology designs near completion and as estimates of process efficiencies become more reliable" health risk assessments and emissions estimates will be revised. This indicates that none of the technologies have been proven to be able to destroy chemical agent in a plant environment or on any scale larger than a laboratory? Is this not being inconsiderate of the community in trying to test something in Anniston that has not been proven? The above statement says that the proposed technologies are not reliable yet. 22-54

57. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" 22-55

General Finding 1 states that " One of the crucial issues is the identity and disposition of byproducts." Has this been accomplished? How will these byproducts be disposed? What is their impact on human health and environment? 22-55

58. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 2 states that the alternative "technology base for the hydrolysis of energetics is not as mature as it is for chemical agents. Chemical methods of destroying energetics have only been considered recently. Therefore, there has been little experience with the alkaline decomposition of ACWA-specific energetic materials." Therefore is it reasonable to assume that these technologies are not only immature relative to destroying agent on a full scale but are not even capable of destroying the energetics in the chemical agent munitions? Is this not dangerous? Why do you want to test an unproven process that is dangerous in Anniston? 22-56

59. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 3 states that the "conditions under which aromatic nitro compounds, such as trinitrotoluene (TNT) or picric acid will emulsify in the aqueous phase are not well understood. Therefore, this type of material could be present in the output stream from an energetic hydrolysis step." Are these chemical explosives? This states that the technology cannot destroy these chemicals. What will happen to them? Is this not potentially dangerous? Again does this not indicate that the technology cannot destroy the weapons especially at a full scale? 22-57

60. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 5 states that "The primary chemical decomposition process in all of the technology packages produce environmentally unacceptable reaction products. Therefore, all of the packages are complicated process that include subsequent treatment step(s) to modify these product." What are these reaction products? Are they potentially harmful to human health and the environment? Do this not indicate that the technologies are not mature enough to be able to destroy the chemical munitions? Does the complicated process induce danger to the community? Can you be 100% sure that these technologies can destroy chemical weapons and not harm anyone? Can this be done in time to meet the current Treaty requirements? 22-58

61. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 6 states that "The waste streams of all of the ACWA technology packages could contain very small amounts of hazardous substances (besides any residual chemical agent). These substances were not fully characterized at the time of this report; therefore, all waste streams must be characterized to ensure 22-59

that human health and the environment are protected." Does this not indicate that these technologies are not mature enough to be able to destroy entire chemical munitions? Have these hazardous substances been fully characterized? Has a health risk assessment been performed to determine impact on human health? Is it not dangerous to be attempting to build a pilot facility in the middle of 70,000 with something that is not proven on a small scale much less a full scale? Have any of the unit operations ever been integrated into a full scale production process? **22-59**

62. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 10 states that "Testing, verification, and integration beyond the 1999 demonstration phase will be necessary because the scale-up process can present many unexpected challenges, and the ACWA demonstrations were limited in nature." Does this not indicate that the ACWA technologies are not proven yet? Why do you want to continue testing ACWA technologies in the backyard of 70,000 of Anniston? Please do not use the excuse that you are mandated by Congress to do so. Do it somewhere else. Is not true that the proposed technologies have never been proven to be able to destroy chemical weapons in a pilot scale much less at fully integrated plant scale? **22-60**

63. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 11 states that "Although a comprehensive quantitative risk assessment (QRA), health risk assessment (HRA), and ecological risk assessment (similar to assessments performed for the baseline process) cannot be completed at this stage of process development, these assessments will have to be performed and refined as process development continues." Have any of these assessment been performed to address the full impact of these technologies? These statements imply that the technologies are not mature enough to even consider performing these critical systems. Is this not true? **22-61**

64. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Recommendation 1 states "If a decision is made to move forward with any of the ACWA technology packages, substantial additional testing, verification, and integration should be performed prior to full-scale implementation." This indicates that the technologies are not mature. Is this true? Why would you want to test technologies in the backyard of Anniston where 70,000 people live? Please do not use Congress as an excuse. I do not want to test unproven technologies in Anniston for destroying these dangerous chemical weapons. What is your response to this? **22-62**

65. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 8 in the "Summary, Findings, and Recommendations" section **22-63**

states that "None of the proposed technology packages complies with the hold-test-release concept for all gaseous effluents (both process and ventilation effluents)." Is this a true statement? This is a large contention with those who oppose baseline technology. Have the been mislead by the ACWA dialogue? 22-63

66. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 10 in the "Summary, Findings, and Recommendations" section states that "The ACWA demonstrations tested only the unit operations that DOD believed were most critical or least proven for that technology packages. Second, the accelerated ACWA schedule required that the demonstrations be relatively short." Therefore, is it fair to say that these technologies have not been fully tested for all operations? Is it fair to say that these technologies have only had limited testing? What was the reason for this "relatively short" testing? Do not use the Congress and funding as an excuse. Those are not good excuses when considering the safety of the community. 22-64

67. How does ACWA intend to ensure "Maximum Protection" for the community? 22-65

68. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 10 in the "Summary, Findings, and Recommendations" section states that "...the demonstrations did not include interfacing the unit operations into a complete system when unexpected problems arise." This indicates that the ACWA technologies have not been integrated into a complete process? Is this a true statement? What is the danger from building a test facility given that the above is true? Why would you want to test these unproven technologies in the backyard of Anniston where 70,000 people live? 22-66

69. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 10 in the "Summary, Findings, and Recommendations" states that "... impurities that are not detected in small-scale tests may be evident in larger scale tests. Because of the limited quantities used in the small-scale and demonstration-phase tests, trace impurities in the waste streams may not be detectable." Is this not indicative of an immature process? What are these impurities? What is the impact of these impurities on human health and the environment? 22-67

70. In the National Research Council Report titled "Review and Evaluation of Alternative Technologies for Demilitarization of Assembled Chemical Weapons" General Finding 14 in the "Summary, Findings, and Recommendations" states that "It is unlikely that any of the technology packages could meet this deadline" meaning the current deadline. Do you agree with statement? Can ACWA meet the treaty deadline given that the technologies are so immature? Please do not use 22-68

that it is mandated by Congress? According to the National Research Council it isn't possible. How do you dispute this? **22-68**

71. In the National Research Council Report titled "Evaluation of Demonstration Test Results of Alternative Technologies for Demilitarization of Assemble Chemical Weapons-A Supplemental Review" Recommendation GA-4 states that "The efficacy and safety of the additional step to remove aluminum hydroxide from the hydrolysate produced from rocket propellants should be evaluated prior to construction of a full-scale supercritical water oxidation system." This statements indicates that this technology is not proven. Has this recommendation been pursued? What were the results? Does this not indicate that the NRC is concerned this process may not be safe? **22-69**

72. In the National Research Council Report titled "Evaluation of Demonstration Test Results of Alternative Technologies for Demilitarization of Assemble Chemical Weapons-A Supplemental Review" in the "Supplemental General Findings" section General Finding 1 states that "none of the three technology packages is ready for integrated pilot programming..." Is this true? Why do want to test an immature technology in the backyard of Anniston where 70,000 people live? This implies that these technologies are not even ready for placing in a pilot facility. Please explain. **22-70**

73. In the National Research Council Report titled "Evaluation of Demonstration Test Results of Alternative Technologies for Demilitarization of Assemble Chemical Weapons-A Supplemental Review" in the "Supplemental General Findings" section General Finding 2 states that "The demonstration tests were not operated long enough to demonstrate reliability and long-term operation." This statement indicates that these technologies are not mature. Is this true? Is this the goal of putting a ACWA in Anniston to prove out an immature technology? Why would you want to prove out a technology in the backyard of Anniston where 70,000 people live? **22-71**

74. The ACWA program has prided itself on its supposed dialogue. It appears that the ACWA program has not been totally up front with the public regarding the efficacy and maturity of the ACWA technologies. Is this by design? When do intend to make the public fully aware of all the shortcomings of the ACWA technologies? **22-72**

75. It appears that the ACWA technologies are at least 10 years away from being potentially viable and consideration can be given to building a full scale facility. Why should the Anniston community be forced to potentially wait on an ACWA technology and continue with the risk of storing of the chemical weapons when there is a viable, proven process exists that being the baseline incineration process? Does the ACWA program believe that the primary risk to the community is the storage of the chemical weapons? **22-73**

76. Why would ACWA not build a test facility somewhere in the desert instead of in Anniston; Alabama? Why is ACWA not being held to the same standards as the baseline incineration process by requiring the construction of a full scale plant somewhere outside the continental United States to prove the technology? 22-74

77. The EIS document does not reveal all of the information on the proposed technologies. A lot of the information is incomplete since the technologies are immature. How do plan on addressing this? 22-75

Bill Wanamaker
2875 Morrisville Rd
Anniston, AL 36201

Juno e-mail printed Mon, 25 Jun 2001 16:12:12 , page 1 of 2

00023

This was returned, it did not make it to the destination. Is the address wrong?
Thanks,
Doug Gibbs
— Original Message —
From: Doug Gibbs
To: gregory.mahall@pcmd.aphea.army.mil
Sent: Saturday, June 23, 2001 12:56 PM
Subject: Pueblo Chemical Depot chem wepons disposal response

SAFELY DESTROYING MUSTARD MUNITIONS STORED AT THE PUEBLO CHEMICAL DEPOT, IN THE TIMELIEST MANER, WITH A CLOSE WATCH ON COST. 23-1

DESTRUCTION TECHNOLOGIES

1. NEUTRALIZATION / SUPERCRITICAL WATER OXIDATION:

   Clean, control of munitions, mustard, air, water, and the end materials.

   Cryrofacture of shell casings should solve residue problems.

2. NEUTRALIZATION / BIOTREATMENT: It would take longer to do the job. I am not clear on the end of operation, air emissions. TRD vol. 3 PBA 3.2.2.3.6 the words "for the most part" leave me quite uneasy. 23-2

3. BASE LINE INCINERATION: Disappointing operation now, new and improved really nothing they couldn't have done at Umatilla if it would have worked. (See next page) 23-3

THE ENVIRONMENTAL IMPACT STATEMENTS ARE NOT WELL PUT TOGETHER. 23-4

jmsg:junomsg

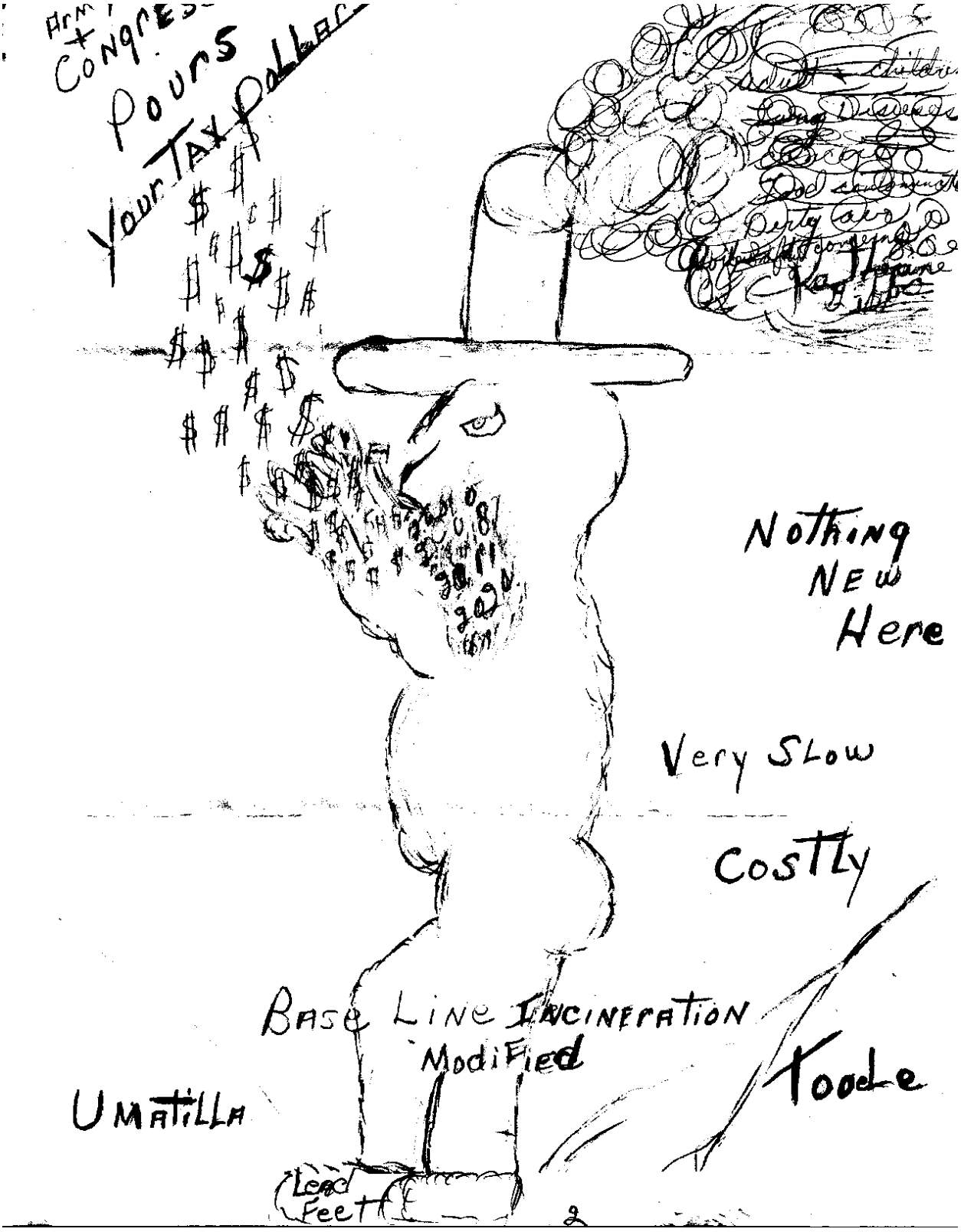
LARGE AMOUNTS OF INFORMATION ON AIR EMISSIONS ARE MISSING. 23-5

PLEASE ESTABLISH A STANDARD FOR ALL EIS SUBMITTALS TO USE THE SAME NUMBER SYSTEM. 23-6

Donald and Katherine Gibbs, 2 Dante Court-Belmont, 81001-1715

(719) 542-6046 e-mail hdutygib1@juno.com

jmsg:junomsg


Congress
Pours
Your Tax Dollars
Nothing
New
Here
Very Slow
Costly
Base Line Incineration
Modified
Umatilla
Toode
Lead
Feet

00024

----- Original Message -----
From: kjones
To: acwacomment@anl.gov
Cc: gregory.mahall@pmcd.apgea.army.mil
Sent: Monday, June 25, 2001 11:21 PM
Subject: no incinerator

After examining the environmental issues, we are firmly convinced that the safety of our neighborhood and our community are at great risk from the deadly toxins the incinerator will create. We are opposed to building the incinerator at the Pueblo Depot. We are in favor of either one of the neutralizatons methods and see advantages and disadvantages in both of these systems. However, either one of these systems are acceptable to us. But the incinerator is definitely unacceptable to us. 24-1

We live near the deport at 31200 Daniel Rd. Our children attend District No. 70 schools and we find the incinerator dangerous to children, to the enviromment and to all living things. We are fearful that the loophole created by Congress will give our politicians the means to reuse the incinerator and that is one major reason we are convinced this incinerator is deadly to the health of our environment. It will be reused to burn other toxic waste and we will never be done burning. 24-2

We are on vacation so I am writing this from Fairview, Oregon. It is 11:30 p.m. Pacific Daylight Time on June 25, 2001. We hope this e-mail can be counted as being received within the dealine for public comment. Although we had to take precious moments from our vacation, we felt that it was important to reiterate comments made at the June meeting in Avondale. Again, we ask that the neutralization be used instead of the incineration for the health of our community and our environment. 24-3

We are sending a second copy to you because we did not include our names with the first e-mail. This e-mail is being sent to Jon Ware and to the US Army Program Manager for Chemical Demilitarization from Gary and Helen Lyons, 31200 Daniel Rd. Pueblo, CO 81006. This e-mail is not from kjones.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service 00025

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724

June 22, 2001

Ms. Kimberly Collins
Horne Engineering Services, Inc.
2014 Tollgate Road, Suite 208
Bel Air, MD 21015

Dear Ms. Collins:

The Centers for Disease Control and Prevention (CDC) appreciates the opportunity to review and comment upon the Draft Environmental Impact Statement (DEIS) for the"Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites". In keeping with our mandate for oversight of the chemical demilitarization program and our mission as an agency of the U.S. Public Health Service, we have focused our attention on issues of potential concern for the protection of public and worker health and safety. This response is provided on behalf of the Department of Health and Human Services. We are offering the enclosed comments for your consideration for preparing the final Environmental Impact Statement for this project. We will start our comments with general observations about the DEIS and conclude with several specific remarks for your consideration.

In general we found the DEIS to provide a reasonable discussion of the alternatives under consideration and we believe the appropriate criteria have been identified to apply to each alternative. We are aware that in many EIS's for proposed Federal actions, a preferred alternative is identified. It is our understanding this is not the case for this project since a final decision regarding which pilot technologies might be implemented has not been made and further that this EIS may be a part of that decision-making process. This office is also concurrently reviewing a parallel effort DEIS prepared by the Program Manager for Chemical Demilitarization that addresses baseline destruction technology, modified destruction technology, neutralization with biotreatment technology, and neutralization with SCWO technology. In our reviews of both of these DEIS's, we have attempted to remain impartial to any technology combination, and focus only on human health and safety aspects of the various alternatives. Also, we anticipate that once technology selections are made, we will have additional opportunity to review specific human health safeguards and provisions, including process monitoring, in greater detail than outlined in the DEIS's. This will be done in accord with our normal oversight responsiblities for chemical weapon demilitarization activities.

This DEIS provides an equitable treatment of evaluation of factors for the construction phase for all alternatives; however, for the operations phase this DEIS is somewhat vague in its treatment of potential health and safety impacts and mitigating measures envisioned for those impacts. 25-1

Page 2 - Ms. Kimberly Collins

This is somewhat understandable since the technologies under consideration have yet to be demonstrated on a pilot scale basis, complete with all system safeguards in place. Where appropriate this DEIS does describe common generic safety systems, such as the cascade ventilation system that would be used regardless of the technology chosen. Nevertheless, we are somewhat unsure of how the decision-makers will equitably consider all health and safety risks associated with each of the alternatives during actual operations. For example, are the traffic concerns for all destruction alternatives equal? That is, would secondary wastes being trucked off-site, or supplies trucked on-site be essentially the same, and therefore pose similar road safety or community spill risks? We did note that Volumes 2-5 of the Technology Resource Documents for the ACWA EIS does look at some transportation impacts associated with the various technologies at the sites being considered. However, it is unclear what variations in operations, particularly for truck traffic will be associated with each alternative. We have no way of assessing the carcinogenicity risk associated with the diesel emissions from the trucks. Is such risk insignificant for any alternative selected? (Note: It was suggested at a recent NIEHS/EPA technical seminar that a significant part of the airborne carcinogenicity risk in the U.S. comes from diesel emissions.) 25-2

Similarly, are the risks associated with handling and storage of process reagents, brines, etc., comparable? Is there enough known about the processes to compare these risks? What are the relative risks to workers from various failure scenarios for each of the alternatives? The issue of worker risk is lightly and generically touched upon. Are there no technology-specific risk scenarios worth considering, e.g. rupture of a high pressure fitting? What are the implications, if any, of maturation of technology for a demilitarization application on industrial accident risk level? 25-3

Specific Comments:

1. Page xlvi - add ...and Prevention, to Centers for Disease Control 25-4

2. Page S-24, table S.4-1, item Air quality - toxic air pollutants, operations, No Action alternative ... It is debatable that "any vapor" from a spill "would likely be contained in the igloo". Highly volatile agent, such as GB, would probably not be completely contained unless the igloo is outfitted with positive engineering containment provisions. Also, why doesn't this evaluation acknowledge possible catastrophic events involving continued storage (no action)? It is CDC's understanding that the greatest potential community risk to agent exposure is associated with continued agent storage. 25-5

3. Page S-26, table S.4-1, item Groundwater, operations, the first two technology alternatives seem to have omitted the potable water needs as shown on page S-21 on water supply and use. 25-6

4. Page S-33, Waste Management, doesn't PBA have an existing hazardous waste incinerator? It is our understanding that this RCRA incinerator will become a general solid waste incinerator. 25-7

Page 3 - Ms. Kimberly Collins

5. Page S-60, Air quality-toxic air pollutants, under all four technologies, it is suggested that during fluctuating operations, agent concentrations would be less than 1.2% of the allowable concentration for general population exposure. Although this would be a low level, we wonder why fluctuating operations would have any measurable potential exposure outside the processing building. Shouldn't the cascade air/carbon filtration, and the process ventilation controls be more than adequate to handle fluctuating operations? The discussion on page 7-78, does a good job of discussing the filtration system and monitoring. Perhaps the table on page S-60 should note that the 1.2% figure assumes total filter system failure, which is extremely unlikely. **25-8** **25-9**

6. Page S-79, Human Health and Safety, routine operations, the discussion on increased carcinogenicity risk to off-site populations between ACWA technologies and ACWA technologies plus incineration indicates that the incineration operation provides most of the 62% of the risk level "generally considered negligible" (excess cancer rate of less than1 in a million exposed individuals?). Although these numbers are below what would normally be a level of concern, it is difficult to see how the routine incineration operations would contribute the level of risk implied here. The human health risk assessments for the baseline (incineration) facilities were quite low for cancer risk, even without the Pollution Abatement System carbon polishing filtration system being installed on the new baseline facilities. During routine operations at BGAD, we would not anticipate any discernable carcinogenicity risk to the general public from either ACWA or baseline operations. (See comment 8 below for general observation regarding carcinogenicity risk discussion.) **25-10** **25-11**

7. Pages 3-15 through 3-31, contains discussion of some of the generic uncertainties associated with the ACWA processes and suggests how they might be resolved or addressed. Site-specific uncertainties associated with the ACWA technologies are also appropriately noted throughout the DEIS. Some of the information that would be developed and addressed for the resolutions of these uncertainties have safety and health implications. What mechanism would be used to weigh or compare relative risks for these technologies before a final implementation strategy is chosen? The CDC will want to see the analyses of health and safety considerations associated with the further pursuit of any ACWA technologies as they become available. **25-12**

8. Human health potential risk is examined for the various ACWA technologies in several places in this DEIS (e.g. p. 7-89, C-16, C17). Although it is clearly mentioned that risk levels under one in a million increased cancer risk is generally considered negligible, actual calculated values well under this level are presented. These numbers could imply a false sense of precision for risk comparison that is not justified or useful. For example, the MEI's off-post would seem to have 3 to 4 times the cancer risk when compared with the MEI's on post from the various ACWA technologies (C-16, C-17). Similarly, mustard processing would seem to be inherently safer than nerve agent processing from a carcinogenicity perspective. Perhaps it would be useful to caution the reader against trying to draw any risk comparison inferences when the carcinogenicity risk is found to be less than $1x10^{-6}$. **25-13**

Page 4 - Ms. Kimberly Collins

Again, we appreciate the opportunity to review this DEIS. Please feel free to contact us if you have questions or need clarification for any of our comments. Also, please forward us a copy of the final ACWA EIS when it is available.

Sincerely,

Harvey W. Rogers

Harvey W. Rogers
Environmental Engineer
Chemical Demilitarization Branch
National Center for Environmental Health
Centers for Disease Control and Prevention

cc: Ken Holt

00026

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Professional Consulting Services
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Colorado Springs, Colorado 80909
719/591-5157 (ph) 719/591-1305 (fax)
ikornelly@pcisys.net

June 18, 2001

Ms. Kimberly Collins
Assembled Chemical Weapons Assessment
Draft Environmental Impact Statement Coordinator
Horne Engineering Services
2014 Tollgate Road, Suite 208
Bel Air, MD 21015

Mr. Gregory Mahall
Program Manager for Chemical Demilitarization
Public Outreach and Information Office
Building E-4585
Aberdeen Proving Ground, MD 21010-4005

Re: Comments on Draft Environmental Impact Statement

Dear Ms. Collins and Mr. Mahall:

Please accept the following comments on the Destruction of Chemical Munitions at the Pueblo Chemical Depot Draft Environmental Impact Statement May 2001 hereafter referred to as the site-specific DEIS and the Draft Environmental Impact Statement for the Design, Construction and Operation of One or More Pilot Facilities for Assembled Chemical Weapons Destruction Technologies hereafter referred to as the ACWA DEIS. I made many of these comments to the Colorado Citizens' Advisory Commission on Monday, June 4, 2001 and in order to have them included as part of the NEPA record, I am forwarding them to you at this time.

ISSUES THAT APPLY TO BOTH DEIS DOCUMENTS

Several overall issues in the documents are important to the Army as well as to the public in looking at the DEIS. The phrase "exceeds a standard" can to the layperson have a double meaning. When a child in school "exceeds the standard" this is a good thing. He or she has done better than expected and everyone is happy about this progress. In the environmental sense when an air pollutant "exceeds a standard" this is most likely a bad thing. It means that there are more parts per million of this pollutant in the air or water than there should be. How the term "exceeds the standard" is used in the DEIS should be explained in order to avoid confusion. 26-1

Secondly, why does the site-specific DEIS provide all numbers in metric and the ACWA DEIS provide all numbers in the standard American system. This makes it very difficult 26-2

for anyone to prepare a side-by-side comparison and adds to the general confusion for the public.

Throughout both DEIS documents the Army indicates that no significant impact will result from the construction or operations of a facility based on the fact that the emissions from the proposed plant will not be above the limits established by the State of Colorado. However, this statement leaves a false impression that emissions limits are indicative of health risk limits. This is not always the case. Adverse impacts can and do occur even when emission levels fall within the established guidelines. 26-3

The DEIS documents state that figures will be updated in the Final Environmental Impact Statements (FEIS) to reflect the 2000 census. I would encourage that this be done. 26-4

Colorado is a unique state for water issues. Colorado water is distributed based on ownership rights to a certain amount of water. Water rights that were purchased earlier are, "senior" to those purchased later, "junior." The rights that the Army owns at the Depot are "junior" water rights within the Arkansas River Basin. Thus, these rights may not allow for the withdrawal of sufficient water during drought years. Likewise, although the Army has plans to purchase additional water, this water may not even be available during drought years. It could happen that the Depot would not be allowed to withdraw water from their wells in drought years for the chemical weapons demilitarization processes. 26-5

Colorado is also a peculiar state when it comes to water terms. Water that is "consumed" does not return to the water basin to be used by someone else. It is gone for all intents and purposes. Water that is "used" could indeed return into the supply for use or consumption by a downstream user. Both documents need to clearly reflect the difference between used and consumed water. 26-6

The DEIS documents are unclear as to whether the recycling of water is taken into consideration in determining the amount of process water needed for the non-incineration technologies. Some statement concerning water recycling and an approximate percentage of recycling anticipated for these technologies would be most helpful in determining the total amount of process water to be consumed and/or used. 26-7

The ACWA DEIS indicates that the Pueblo Chemical Depot was first established in 1942, while the site-specific DEIS indicates that the historical date is 1943. The date that the Depot was established is a matter of historical record and both documents should be in agreement on this matter. 26-8

The DEIS documents make the assumption that the electrical sub-station will be of use to the future redevelopment of the base, once the base is closed following demilitarization. This will only be true if the sub-station is built on to a 13.2Kv standard and if the sub-station serves the entire base and not just the demilitarization area. This is also true of the communications system that will be enhanced for demilitarization and the gas line that will be put in for the destruction of the weapons. These infrastructure enhancements are only useful for redevelopment if they are accessible for redevelopment. 26-9

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The management of sanitary wastes during operations foresees the expansion of or the construction of new evaporative lagoons. If the lagoons are merely expanded there is no discussion about the current condition of the lagoons and whether they currently meet the local and state requirements for evaporative lagoons. In addition, in the site-specific DEIS there is no discussion of pre-treatment of the sanitary wastes prior to being put into the lagoons. **26-10**

Both documents refer to impacts to wetlands as a result of the removal of water from the aquifers. These impacts could be more significant than realized. There appears to be a great deal of confusion concerning the recharging of the aquifers. The Pueblo area is a semi-arid part of the country and recharging of the aquifers in this part of the country is very slow due to high evaporation and minimal precipitation. There is no determination of how much water would have to be recharged into the aquifers in order to keep the wetlands and streams at their current level. While it is acknowledged that well levels, both on and off-site could also fall during the operation of a facility, no mention is made as to how the public that is dependent upon well water for personal and agricultural use would be compensated for their loss of water. **26-11**

The ACWA DEIS and site-specific DEIS indicate that five counties were included to determine agricultural impacts. However, the five counties were not named. Also, only minimal information was provided concerning these agricultural impacts. **26-12**

The State of Colorado has two laws in place that could impact the economic issues outlined in the socioeconomic section of the DEIS – the Taxpayers Bill of Rights (TABOR) and the Gallagher amendment. TABOR is a constitutional amendment adopted in 1992 and places a limit on how much new revenue from all sources a taxing entity (city or county) may collect from year to year. Unless a vote of the people is taken, any dollars collected beyond the percent allowed must be returned to the taxpayers. This limits the amount of new money that can be spent on infrastructure projects. The Gallagher amendment places the burden of school finance on the business community and the property tax paid by businesses. However, the Army does not pay sales or property taxes, but presumably the contractors would pay both of these taxes. **26-13**

The Institute for Defense Analysis recently visited the Pueblo area and informed elected officials that only about 10% of the overall project costs will be spent in Pueblo. If this is an accurate statement, the socioeconomic impacts in the DEIS documents do not reflect this number and leave the impression that a significantly higher amount will be spent in the area. **26-14**

The housing issues outlined in the DEIS lack an understanding of current housing and rental costs in the community. Most of the housing available for purchase is at the high price range and rental costs are almost equal to mortgage costs. There are about 900 families waiting for low-income housing in the community. The housing market in Pueblo will not respond to the short-term need for housing by merely building additional accommodations. The existing market will be called upon to absorb this need, and those individuals at the bottom of the economic scale will be squeezed out of the housing market. These individuals have the strong potential to become homeless, placing increased needs on the county's social services. In addition, the Pueblo housing market **26-15**

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is already absorbing some housing need from the Colorado Springs community that has experienced a shortage of housing over the past few years.

The DEIS documents are very unclear concerning the employment of workers, in-migration numbers and the use of transient workers. The more local people hired at the facility for both construction and operation, the less the in-migration and the fewer the impacts to the community. In addition, there is a greater chance that the dollars earned by these individuals will stay in the community. 26-16

In-migration should be divided between those who will bring their families to the community and stay for the duration of the project and transient workers who will be in the community for a short time and leave their families at a permanent residence, possible in another state. Those individuals who will be in Pueblo for the duration of the project will have a greater impact, both positive and negative, on the community than transient workers. Transient workers tend to live in mobile homes or apartments, buy very little besides food (not taxed in Colorado) and send the majority of their paycheck to their family that lives elsewhere. In addition, do the in-migration numbers include entire families or just workers? 26-17

The numbers used to reflect indirect jobs as a result of direct employment appear to be inflated. A 7% multiplier factor is a very high factor to use. A 3-4% factor would be more reasonable. If the number of people employed at the Depot consists mostly of local hires, the indirect employment will be lower, since presumably, these individuals are already employed and thus creating indirect employment. 26-18

Why is the estimate of employment during construction so much higher for the neutralization technologies than in the site-specific DEIS? 26-19

The documents fail to recognize the impacts of the Davis/Bacon wage on the worker and the median income and also fail to look at the cumulative impacts of increased costs of construction off-post. 26-20

Concerning Environmental Justice, it is unclear why the ACWA DEIS used national census figures and the site-specific DEIS used Colorado census figures. In addition do the guidelines for determining Environmental Justice issues require that an eleven county area be used, rather than just Pueblo County? 26-21

In looking at the "bounding accident", the ACWA DEIS focuses on an accident that could occur during operations and includes an accident scenario for "no action." The site-specific DEIS focuses on the "no action" accident and dismisses any scenario that could happen during operations with the exception of minor spills that could be easily contained. If we are to accept the fact that the "bounding accident" is one in which an aircraft would crash into an igloo and have a resulting fire, is it not just as likely that an aircraft could crash into the demilitarization building or the unpack area with a resulting fire? This would provide a "bounding accident" during the operations of a facility far greater than the described minor spills. It would appear that the Army has returned to the traditional mantra that many in Pueblo have heard for years that it is more dangerous to store the weapons than to destroy the weapons. Likewise the site-specific DEIS computer modeling for fatalities appears to be significantly different than the ACWA DEIS 26-22

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modeling for fatalities. Since the accidents described are virtually the same – are the ACWA technologies that much safer? In addition the impact of these numbers on CSEPP is enormous. Extensive CSEPP work would have to be done beyond the Pueblo community if these site-specific numbers are accurate. However, the Army has stated for several years that a mustard plume would not travel very far beyond the Depot boundaries, let alone beyond the county limits. The public has a right to know which of these statements is correct and the Army has an obligation to clarify this issue.

In discussing the accident scenarios does the greater risk come from the crash and the spread of the agent or from the resulting fire? 26-23

In discussing the various different stacks that will result from any of the technologies, it is not made clear that the diesel-powered generators are used as a back-up system. 26-24

The Pueblo Depot Activity Development Authority also signed the programmatic agreement concerning historic structures at the Depot. 26-25

SITE SPECIFIC DEIS ISSUES

The site-specific DEIS does not refer to a pilot facility for the modified incineration technology, but indicates that a full-scale facility will be built. This appears to be in conflict with the Notice of Intent (NOI) that specifically states that a pilot facility will be built for all technologies with the exception of the baseline incineration technology.

Air emissions for the neutralization processes must be included in the site-specific DEIS. Failure to do so leaves the impression that there are either no emissions or that the ACWA program has not done testing for emissions. Both of these situations are false. Secondly, if the public must look for the emissions in the ACWA DEIS it presumes that the public has a copy of that DEIS, can find the appropriate table in the document and then can bring this information forward to the site-specific DEIS. This further enhances public confusion and leaves the impression that the authors of the site-specific DEIS have something to hide. In addition comments are made concerning the different technologies and the air emissions that are difficult to verify, since the documentation is not present.

Statements are made in the site-specific DEIS that all air emissions would be within the established air quality standards. Since many of the tests that were done prior to the approval and enforcement of the new EPA Maximum Achievable Control Technologies (MACT) rules for air quality, it is unclear whether this statement applies to this new MACT rule.

No discussion of the need for additional communications facilities is included in the site-specific DEIS. The existing on-site service is already stretched to the maximum and service outages are not unusual at the Depot. Some new communications lines and equipment will certainly be needed.

The issue of mercury vapor as a result of incineration is glossed over as unimportant or solvable in the site-specific DEIS. The only definite answer to this problem that is provided in the document is to slow down the destruction process. There are several

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problems with this solution. When will the Army determine that the mercury emissions are no longer in compliance with the state laws? Will the public be informed of this situation should it occur? Will the Army wait to slow down destruction until tests reveal too much mercury vapor emissions, thereby conceding that some mercury vapor above the established emission levels has already been released or will all destruction be slowed down? Slowing down destruction rates does not avoid the release of mercury vapor, it just releases it at a slower rate that keeps the plant in compliance. The emissions still go into the air. It would appear that this the old shell game attempted in the 1970s of "pollution dilution vs. removal of the pollution." In addition, if the destruction is slowed, all of the calculations concerning plant operations of approximately 27 months are wrong.

No reference is made in the site-specific DEIS to the "hold-test and release" system that exists in the neutralization technologies. This system allows for testing of all emissions for agent prior to any release into the atmosphere, thus providing assurance to the public that no agent is released into the air. While many within the Army consider this system to be a "feel good" system for the public, it is a very important citizen concern.

The number of workers potentially injured during the operation of a neutralization facility is much higher in the site-specific DEIS than in the ACWA DEIS. No reason is given for this number that is almost 100% greater.

The EPA has established nighttime noise limits for all construction sites. Rumors from PMCD indicate that one way that PMCD could still make the April 2007 deadline is to construct the facility on a 24-hour basis. Based on these determined noise levels for construction at the site, this would not be possible.

The permitting section of the site-specific DEIS does not consider the need for a Certificate of Designation (CD) if an incineration technology is chosen. This CD must be issued by the Pueblo Board of County Commissioners (BOCC) in conjunction with the RCRA permit issued by the State of Colorado. The requirements of the CD are not the same as the RCRA permit and additional studies may be required prior to the issuance of such a permit.

The Pueblo Mental Health Institute should not be included as a hospital that serves the Pueblo community for purposes of health needs. The Pueblo Mental Health Institute is a state operated facility that deals only with mental health patients and has not been included in any preparations to handle accidents at the Depot.

The site-specific DEIS under impacts to wetlands indicates that the air emissions from incineration could impact the wetlands at the Depot. The extent to which the wetlands would be impacted is unclear. This statement also begs the question that if wetlands are impacted by incineration emissions, why wouldn't other lands that are used for agricultural purposes also be negatively impacted by incineration emissions?

The site-specific DEIS did not include any numbers concerning the economic impact of the accident scenario. However, these numbers were included in the ACWA DEIS. Please include the economic impacts of an accident in the final EIS. In addition no

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mention is made in either document as to how the public and businesses would be compensated for these losses.

Page 2-1, line 20 indicates that the Arkansas River is one mile south of the Depot. This is in conflict with Page 4-1, line 17 that indicates that the Arkansas River is two miles from the Depot. Please correct accordingly.

Page 3-6, Section 3.1.3.3: This section ndicates that approximately four miles of the existing road from the entrance gate to the facility site would be improved. The road needs improvement from the boundary line of the Depot to the site and not just from the entrance gate. In addition discussions have been on-going concerning the upgrading of the truck-gate which would require that other roadways on the Depot also be improved.

Page 3-9, Section 3.2.2: This section indicates that the weapons would be transported from the igloos to the destruction facility via on-site containers (ONCs), while the previous sections on incineration indicate that the munitions would be moved via modified ammunition vans (MAVs). Since the weapons being moved are the same for all technologies, consistency is called for. Either the munitions need to be moved for all technologies via ONCs or MAVs.

Page 3-13, Section 3.3.3.1: Line 7 indicates that the Donovan Chamber is being considered for the destruction of contaminated energetics. Has the Donovan Chamber been demonstrated effective for the destruction of contaminated energetics?

Pages 4-23 to 4-25: The discussion of brine salts in the incineration technologies does not indicate the presence of heavy metals in the brine while there is an indication of heavy metals in the brine salts for the neutralization technologies. Is this an oversight or are the heavy metals in incineration a part of a different effluent?

Page 4-112, Section 4.16: In the discussion on Aquatic Habitats and Fish, there is no mention of Boone and Haynes Creeks. Are there no aquatic species in these creeks. If that is the case then mention needs to be made of this fact.

Page 4-139, Section 4.20.1: Currently, the Pueblo Sheriff does not serve the Depot and the DEIS should make this clear.

Page 4-144, Line 32: Where does the number for the additional revenues to Pueblo County come from? This is a very high number in light of the information provided by the Institute for Defense Analysis. This is a reasonably number if most of the project dollars are spent in Pueblo.

Page 4-120, Section 4.20.4.1: The sections on Population and Employment appear to be saying different things. The population section indicates a number of 508 for in-migration, while the employment section indicates that most of the 983 jobs created would be filled by local hires.

Page 4-148, Section 4.20.4.1: The figures given in the section on public finances does not agree with the figures on page 4-144.

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Page 4-151, Line 34: I believe the number "18.5%" is erroneous and should read 81.5%.

Page 4-157, Lines 8-10: This phrase is not a complete sentence.

Page 4-171, Section 4.24.1: Some comment should be made in this section concerning the potential destruction of non-stockpile materiel in the demilitarization facility.

Page D-13: The first sentence on the page does not make sense.

Page D-30: Do the utilities requirements numbers reflect the potential for destruction of the explosives on-site?

ACWA DEIS ISSUES

Page 6-8 & 6-12: The Transportation Technology Center (TTC) is sited on land owned by the State of Colorado and leased to the Federal Railroad Administration on a long-term lease (150 years of which 30 years has passed). The Transportation Technology Center, Inc., a for- profit corporation that is a subsidiary of the Association of American Railroads (AAR). Operates the TTC. The AAR is a not-for profit organization. 26-26

Page 6-121: No discussion is provided on Haynes and Boone Creeks in this section 26-27

Page 6-186: The assumption is made that an accident would not create additional impacts on the housing values, since the housing values in the area already reflect the presence of the chemical materiel at the Depot. This is not a good assumption to make unless the assumption can be backed-up by information from the housing market in the area. It is more logical to assume that although the housing market reflects current market conditions, including the presence of agent at the Depot that any accident that would impact off-post land would further lower the area's housing market, due to the perception that the land is contaminated. This stigma could last for many years. 26-28

Page 6-218: The cumulative impacts of construction and operation of a chemical destruction facility should include the massive amount of construction that is scheduled to take place along I-25 over the next tens years. This construction could limit worker availability and material availability. In addition, cumulative impacts should include increased costs for construction of off-post facilities, particularly housing. 26-29

Page 6-223 Section 6.23.3: This discussion appears to be in conflict with other sections of this document. In particular, the statement concerning on and off-post restrictions to land use do not correspond to other sections within the ACWA DEIS. 26-30

Page 6-224 Section 6.24.1: Where are the adequate facilities for the handling of hazardous and non-hazardous wastes. 26-31

If you have any questions concerning the above comments, please do not hesitate to contact me at the above listed address and phone number.

Sincerely,

9

Irene L. Kornelly
President
Kornelly & Associates

Cc: Mr. John Klomp, Chair, Colorado CAC
Mr. Charles Finley, Executive Director, PDADA

9

DRAFT ENVIRONMENTAL IMPACT STATEMENT

PUBLIC MEETING

June 6, 2001

11:30 a.m.

Pueblo Convention Center
320 Central Main
Pueblo, Colorado

Welcome/Introduction/Briefing

And, Jean, just a reminder, this is not so much for you as everyone else, we are working with a four-minute time limit, and there are plenty of options if you have additional comments beyond that four minutes, so welcome.

MS. JEAN WILLIAMS: Thank you. I don't think I'm following your protocol in the first place, because I'm going to be addressing several things. My name is Jean Williams. I'm here representing myself and the two cats with whom I live.

I do not believe in looking at the overall national program that the pilot plant should be built here. The pilot plant should go where there are multiple chemicals stored in projectiles. We only have nitrogen mustard or mustard. This is a little different from serum, I would think, when it comes to handling it. One would be a gas that can disperse out easily; the other being a molasses-type thing. That's just a comment. 27-1

By the way, I do not, nor do I have any plans, to read those two big EIS things. I have other ways of getting to sleep in the evening that are much more pleasant, quite frankly.

I think, too, that I need to speak and say I come to a lot of these meetings. I believe that I represent a fair amount of the population, but we are not organized. We are trusting the scientists and the professionals to make the correct decisions when it comes to all this. We do not see a place for semi-hysterical tirades and carrying on, so, therefore, I think, I just hope, that there's going to be some sanity all up and down the whole range, front range, that is.

I do not think socioeconomically there's going to be a huge influx of construction workers, more than we have right now. Yes, there will be more, but I think they will come in staggered amounts. I don't see needs for additional big roads. I don't see the things that are being addressed by some of the people. 27-2

What I might see, and this is something that's national and I don't think the government can solve it, and that is we have a shortage of qualified teachers. So I would discourage any worker who's in a good school system from coming here. We're going downhill on our quality of education. 27-3

Those are just -- I don't think

1 either that Davis Bacon is going to bankrupt the
2 community. Many the better contractors are already 27-4
3 paying Davis Bacon. So let's not get carried
4 away.
5 I guess I'm asking for sanity on all
6 sides. I sincerely hope you people can move more
7 rapidly than you have, where you have more or less 27-5
8 resembled a pregnant turtle, about the slowest
9 thing I can imagine. Thank you.
10 MR. SCOTT: Thank you very much. Our
11 next speaker is Michael Wenzl. And Michael will be
12 followed by Larry Howe-Kerr.
13 MR. MICHAEL WENZL: Thank you. 00028
14 Several years ago I heard there was a water
15 developed in Turkey. It's referred to a couple
16 different ways. One is superionized water, and
17 I've also heard it referred to as perfect science
18 water.
19 This water cleared up a bay outside 28-1
20 of Istanbul called Isnet Bay, in several days.
21 It's a very polluted bay. And my understanding is
22 that it remains polluted because the pollution
23 keeps getting poured into this bay.
24 It's my understanding this water
25 also cleared up -- there was like methane gas

1 burning in garbage dumps somewhere in Turkey as
2 well, and that they used -- conventional methods
3 wouldn't extinguish these fires, although this
4 superionized water did extinguish these fires.
5 Also from my understanding the only
6 difference between the superionized water and water
7 that we drink is that it has two or three extra
8 electrons in its molecule.
9 My question is: Are you aware of
10 this water, and if you are, is this the technology
11 that's being used in the development or what you're
12 proposing for the neutralization, the water
13 neutralization of the chemical plant?
14 MR. SCOTT: Can someone answer Mr.
15 Wenzl's question? And raise your hand, and he will
16 seek you out here in a moment and such.
17 Jon, would you get together with Mr.
18 Wenzl?
19 Our next speaker is Larry
20 Howe-Kerr. And just a reminder, if you do want to
21 speak, if you check with someone in the back, we'll
22 get you on the list. Mr. Howe-Kerr.
23 MR. LARRY HOWE-KERR: Thank you.
24 After having gone through these, as much of the two
25 documents as I can, and that's still not all of it,

28-1

00029

it's still a very confusing document. So I got some general comments and then some specific ones.

It's very complex. Sometimes the data you use, particularly in emissions and waste management, are not very clear, what they mean, when we're trying to compare it with the other EIS, the data. It's hard to compare. It's very hard to compare. There are apparent contradictions. Your document has in Error Omissions has a different SO2 amount than the document that PMCD has put out. It would be nice to have those kind of things clarified. 29-1

One of the things -- I notice that the document here is better than the other one in trying to talk about impacts and not just standards. My understanding of the law is that you're supposed to talk about impacts and not -- I notice in the documents, and forgive me for talking about two documents. I'm going to try to focus on yours more, but this is about one decision for the community and yet we have two documents. That's very problematic for us in the community to try to figure out how to comment on these things.

One of the things is that I'll a lot of times read, this will meet the standards, the 29-2

1 regulatory standards, therefore, there will be no
2 impact. There's reference to, under normal
3 conditions will meet the standards, therefore, no
4 impact. Well, I understand the need, but it's not 29-2
5 about standards, but it's about impacts. And
6 anything less than standards may still have
7 impacts, particularly accumulative impacts, on the
8 community. I was real surprised at how poorly that
9 was dealt with, as I said more in the others than
10 in yours.
11 One of the big issues is when we
12 were reading about water, there's this term,
13 processed water. We don't exactly know what
14 processed water is. Excuse me, but there's several 29-3
15 of us trying to look at this. Does that mean total
16 consumptive use of water?
17 My understanding was that in the
18 neutralization processes that you have some degree
19 of recycling. We want to know where does that
20 water go? How is it used? If it's recycled does
21 that diminish the processed water? Because in the 29-4
22 other Draft EIS they're comparing water usage, and
23 it looks like a whole lot more water is being used
24 by the neutralization methods. Is that true? When
25 you use the neutralization method are you reusing

the water and in essence saving water or not? 29-4

One of the things, I understand that in your EIS you dealt with a pilot phase. It's very unclear to me. I've been very confused trying to understand. Seems like you get to the point of testing that it works but then don't go through the life of the process. I'm real confused if this EIS is dealing with impacts only up to getting the thing working and saying, yes, this works. It's very confusing, because I have been told if you build a test facility you will build it, you will 29-5 get it running, and once it's working, I'm told that it will go then to PMCD to run. I don't know that's true or not.

MR. SCOTT: One minute.

MR. LARRY HOWE-KERR: And so NEPA says, what's the impact of the whole process, the decision. So I don't know if you've got all the impacts or you've just got impacts up until you've tested it and it works.

The heavy metals in the salts. In the document you say that if they cannot be stabilized, a facility will have to be -- either a 29-6 facility will have to be built in order to stabilize those salts or they'll have to be shipped

1 off site. There's no mention of what facility,
2 what kind of facility, what would be the impact of
3 that kind of thing. It just leaves it there. 29-6
4 So are you going to have to build a
5 facility or are you not? Thank you.
6 MR. SCOTT: Mr. Howard --
7 MR. HOWE-KERR: Howe-Kerr.
8 MR. SCOTT: I'm sorry about that. I
9 don't have any other names up here, and so I'm
10 going to take a little facilitative license, and
11 since there's no one else's name on the list, if
12 you need a couple more minutes, would that be
13 helpful to you or are you finished?
14 MR. HOWE-KERR: A couple minutes,
15 maybe. I might come back later this afternoon.
16 The impact on agriculture seems to
17 be missing in both the draft environmental impact
18 statements. We have a number of sustainable
19 agriculture, farmers and ranchers, so they have a
20 particular interest in what might happen. So in 29-7
21 either document, we don't see any dealing with the
22 impact on agriculture, both economically,
23 health-wise, and on those particular families. I
24 think that's enough on that.
25 The only other comment I will say is 29-8

that in general in my estimation of reading both of these, it appears that the impacts in terms of waste product and construction and the building of the facility in most ways are not that different from the technologies except when it comes to air emissions. And air emissions seems to be the big, huge difference because an incinerator has air emissions that are of a magnitude much greater. 29-8

So from that standpoint right now it appears to me that this -- that the neutralization method would be far preferable than an incineration method.

And I'll mention this at this one, I will probably mention it at the other one, that my understanding was that Congress passed a law that you got to look at alternatives, and in that law was a pretty high standards and criteria that had to be met. And my understanding is that ACWA has gone through and found technologies that meet those standards. 29-9

In the other EIS we have modified baseline incineration, which is a new method. Apparently it has not been subjected to the same standards or anywhere near it, much like incineration has, baseline incineration. So I'm

1 wondering within that law, if base, modified
2 baseline should be, it seems it should be, should
3 meet that same criteria and there's no indication
4 in any of the documents that it has met that
5 criteria.
6 So for the best of Pueblo, I think
7 one of your technologies is the way to go. Thank
8 you.
9 MR. SCOTT: Thank you. I'm going to
10 step away from our guidelines for a moment, because
11 we don't have anyone signed up to speak. I know
12 our last two speakers have raised a couple of
13 questions, and so I'm going to step out of
14 guidelines and see if we have some responses to
15 those questions.
16 I do want to make clear that the
17 primary purpose of this public meeting is to
18 receive your comments, and if you have comments, we
19 need you to sign up for that.
20 But until we have those names, I'm
21 going to open the floor to some of our experts here
22 and see if we have any responses to some of the
23 questions you may have had.
24 MR. PEHLIVANIAN: With respect to the
25 first question, Jon Ware, who is our environmental

team leader is going to answer that. But before he does, I want to thank all of the comments that we've gotten so far. I hope to get more. There were a lot of things that the last gentleman cited that we certainly, in looking at the two documents, noticed there were some things missing and maybe not located in the right place. And I think we have some good answers for you that we can get with you, one on one if you prefer, that take some time to get into those details, but certainly we would be willing to do that. So, Jon.

MR. WARE: I think one of the things that we have to keep in mind when we say ACWA technologies is these technologies were gathered, originated by a request for a proposal that we put out some three, three and a half years ago. And it was a process that we'd accept technologies by the commercial community.

We asked for -- we had certain criteria and that criteria was developed by the Army, Department of Defense, and the public. I'm sure you may be aware of our nationwide dialogue process where we developed the criteria, a technical criteria of acceptance, a public acceptance criteria, an environmental, a safety

1 acceptance criteria.
2 So that when we got a return for
3 technology proposals, we looked at those and we
4 went through a go/no go stage.
5 And then second stage was a stage to
6 actually develop demonstrations that they could
7 actually demonstrate what they said they could do.
8 And then the stage that we're
9 actually go through now, implementation.
10 So looking at superionized water,
11 it's not to say that process wouldn't accomplish
12 our goals, but it just didn't go through. We
13 didn't get any response for that particular
14 technology. So that's why in this EIS we cannot
15 consider that, because an ACWA technology is one
16 that's gone through that process.
17 Do you have any questions?
18 MR. MICHAEL WENZL: I just don't know
19 that much about the ACWA process that you're
20 referring to, but just that -- I get what you're
21 saying is that there's a difference between the two
22 water technologies or difference in the chemical
23 makeups of these two waters?
24 MR. PEHLIVANIAN: I think the real
25 crux of the issue is surrounding timing and whether

1 a technology could have been included. Congress
2 when they stood up the program gave $40 million to
3 go the identification and demonstration. That 40
4 million was R and D money. It's two years, money
5 that lasts two years. We can spend it within a
6 two-year time frame.
7 To that end, after that wall was
8 published, Mike Parker, myself, and talking with
9 the folks that brought that law to bear, they
10 wanted a certain level of maturity of technology,
11 because they understand that around the corner
12 there's always a new technology.
13 So we had a window by which we had
14 to go out, and we really canvassed the globe. We
15 went to Europe with the announcements, bring us the
16 technologies. I'm sure that there's other
17 technologies just right around the corner tomorrow
18 that could be applied, but the maturity level that
19 we had to go after to satisfy Congress was
20 contained in those 13 proposals, as far as we
21 know. That's why that particular, you know,
22 technology application you're describing is not
23 included in this process.
24 MR. MICHAEL WENZL: Just as to 28-2a
25 clarify, what I get what you're saying is that even

1 if there may be a better process, because of the
2 timing, though, you're going to go with the current
3 process that you're proposing; is that what you're
4 saying?
5 MR. PEHLIVANIAN: That's what the
6 design of the law was to do, to identify and
7 demonstrate alternatives, and we had that two-year
8 time frame to do it. We included the public to
9 watch us do it every step of the way. We got folks
10 in the audience that were a part of that dialogue
11 process that I think could sit down and talk to you
12 and let you know that everything that was
13 applicable to destroy a weapon at that point was
14 brought forward.
15 You know, I can't say that someone
16 didn't miss the announcement and maybe it got by
17 them. And that's just -- Congress knows that we
18 could go through an ACWA like program almost every
19 year because technology continues to develop, and
20 we had to put a defining end point on where we're
21 going to take what alternatives we have identified
22 and then demonstrate them up to a pilot scenario.
23 And those six technologies were deemed a mature
24 enough technology to go through that process.
25 MR. MICHAEL WENZL: I see. So what

28-2a

you are saying is there's no opportunity for what we're talking about here for anything new to come in?

MR. PEHLIVANIAN: No. It would have to go back through the original criteria that was established in ACWA, and the process that it went through took several years. We began in '97. Here it is 2001. We've got 4 out of the 13 that after applying that criteria through the professional technical folks we've had on the program deemed viable for pilot, and no other technologies will be considered other than those.

MR. MICHAEL WENZL: You answered my question. Thank you.

MR. SCOTT: I don't have any names right now. I feel like it's Sunday and I am the minister and everybody's sitting on the back pew. If anyone has some comments they would like to present at this time, and I'll even forgo the rule that you have to sign in. Just you can raise your hand and step to the mike.

We have a couple folks here. I would ask you to give your name, please.

00030

MR. ROBERT CAIN: My name is Robert Cain, and I have a very short comment to make. I

30-1

1 don't know how long it took to assemble all this
2 information that we've been presented with to
3 digest and comment on, but we've been reduced, as I
4 understand it, 45 days. 45 days -- was it 90?
5 Well, it's extended to 90, that's great.
6 But the main reason you have this
7 problem is that we haven't had time to read all
8 this stuff yet. We aren't an Army. We aren't a
9 big organization. We don't have lawyers and spin 30-1
10 doctors and all the rest of it. We frankly have
11 not had time enough to read it all.
12 A lot of it also, I must say, is
13 indigestible and sometimes hardly believable. I've
14 never seen so many, quote, "no significant impact"
15 statements in my life. We're trying to get the
16 meat out of this stuff, and believe me, it has not
17 been easy. So you'll just have to be patient with
18 us, and we'll do the best we can. Thank you.
19 MR. SCOTT: Thank you. I saw another
20 gentleman back here. If you'd give us your name,
21 please.
22 MR. ROSS VINCENT: Yeah, my name is
23 Ross Vincent. I'm one of the folks that's having
24 trouble wading through all this stuff. And I
25 probably have more flexibility in my schedule than

00031

most people do, and it's still a huge task wading through these documents. So I think Mr. Cain was correct that one of the reasons you don't see more people here ready to speak today is they're still trying to figure out what these documents say.

I'd like to make a suggestion on format for the meeting for tonight and through tomorrow, and that is, please have a podium or some sort of table for people to put notes on. Most people who have taken the time to read details in these documents are going to be fumbling with notes trying to figure out what it is they want to say, and it's very difficult if you have to stand in front of a microphone with no place to put your notes. So I would encourage you to either find a podium or table where people can sit down at the microphone so that they can do that comfortably. Thanks.

MR. SCOTT: Thank you, and I think that's probably very, very workable.

Who else do we have that would like to make some comments at this time?

Yes, sir. If you'd come to the microphone, please, for the record and share your name, please.

33

00032

MR. DOUG GALE: My name is Doug Gale. I'm with the Green Party and the Constance Center for Peace and Nonviolence, and we oppose incineration because of the possible spreading of it. We oppose transportation, not to put it in somebody else's backyard. We would support one of the hydrolysis methods of disposal of these chemical agents. 32-1

And, certainly, we, on the positive side, we'd like to protect the environment given that the cost in human life is -- well, we figure the cost in human life would be -- well, I shouldn't say -- perhaps I can say it right. The cost in human suffering or from disease or whatever it might be and the cost to the environment is much more than the cost of disposing of these chemical agents. Some people say, well, the cost is astronomical. No more than the cost of human life can be. Thank you. 32-2

MR. SCOTT: Thank you, very much. Another speaker. Yes, ma'am. Your name, please.

00033

MS. ANNE CAIN: My name is Anne Cain. As I understand it, with an extension from 45 days to 90 days, all comments need to be in by approximately August 9. And as has already been 33-1

1 pointed out, these documents are extremely complex
2 and not always clear. Is it likely, and I want to
3 thank you for having these meetings here, is there
4 any possibility that there will be other meetings 33-1
5 or another session for public input closer to the
6 August 9 period when people will have had a far
7 better chance to review the documents?
8 MR. PEHLIVANIAN: That's a very good
9 question. Certainly I anticipated that. At this
10 time I can't say definitively if we're going to
11 have another meeting, because the decision to
12 extend an additional 45 days is being made as we
13 speak. The piece of paper making that official,
14 like I said, should be coming out shortly. That
15 does not preclude anyone from calling anyone at
16 ACWA for information, answering questions, in that
17 time frame, anyone from PMCD and certainly bring
18 this up at the later meeting.
19 An actual meeting, I honesty will
20 have to say we're going to have to go back and talk
21 with OSD and the Army, because management of ACWA
22 is OSD; management of PMCD is at the Army.
23 Bringing those folks together to make a decision
24 that we're going to come back out and have another
25 meeting like this closer to the end date, the 45

1 day extension, I'll have to get back to you. I
2 can't say.
3 MS. ANNE CAIN: I would like to
4 suggest that if in fact there is another meeting
5 that it be perhaps a single meeting in the evening
6 when people who work during the day could attend
7 and that both PMCD and ACWA be present for --
8 simultaneously. Thank you.
9 MR. PEHLIVANIAN: And that's also a
10 good comment. We try to accommodate that scenario
11 here slightly differently. We had representation
12 from PMCD also. You are able to make comments on
13 that document, if you expected to come here to do
14 so even though it's an ACWA three-hour meeting.
15 We're having actually four meetings. This evening
16 will be PMCD, and then we are switching it up and
17 going out to Avondale to do it. So by doing that
18 we try to accommodate everyone that could or
19 couldn't access the meeting today or at night and
20 have an opportunity to go to either meeting.
21 But we'll certainly take that
22 comment into consideration if additional meetings
23 are prescribed after the 45-day time.
24 MR. SCOTT: Who's next? Don't be
25 shy. I see some faces. People look like they have

00029

1 something to say.
2 Mike's open, sir. Give your name
3 again, please.
4 MR. LARRY HOWE-KERR: Larry
5 Howe-Kerr. The question is, I notice that with
6 incineration you're left with a brine solution and
7 with the ACWA technologies you're left with salts.
8 In both of the documents there's discussion about
9 these might have to be shipped off site or they
10 might have to be processed in some way on site.
11 What I'm trying to get a handle on, 29-11
12 and I don't have it yet and I'm not a chemist and
13 I'm trying to study it myself, is what's the
14 relative difference between the brine under
15 incineration, that leftover product, and the salts
16 under neutralization in terms of the difficulties
17 to deal with? Can they be dealt -- relative ease
18 of dealing with on site, or if one can't be dealt
19 with on site, will it have to be shipped off?
20 We're trying to see near the end of
21 this process what's likely to happen with the
22 various technologies with those two things. What
23 are the most dangerous? What are the most likely 29-12
24 to deal with? Which ones could be dealt with
25 locally, and which ones have to be shipped off?

29-12

I hope that makes sense, because you hear a layman talk. Which one's more risky?

MR. WARE: Well, at the stage we are now, we're still developing waste management items, especially at the effluent stage or solid waste. What's going to happen about brine, I'll speak for ACWA, it will most likely be hazardous waste due to heavy metals. We haven't experienced all the testing that we're going to run through yet, but that's a pretty sure bet. And we'll ship that off site to some treatment or storage facility. That's a pretty regular item. In the management of hazardous waste the regulations are pretty tight in that area.

Now, somebody from PMCD can come up and talk about the brine with you, but from my point of view, looking at shipping off a brine, which is essentially the same composition in hazardous metals as the ACWA salts, it's just going to have less water content. And that's pretty much going to be the difference.

As far as handling is concerned, you may have a larger volume to ship off site if they decide to ship a liquid brine off, but that's pretty much it. There's not a whole lot of

difference and shouldn't be a whole lot of difference in toxicity, but toxicity values have to be measured at that time. But you're not looking at much of a big difference in the actual management of the waste other than you may have a larger volume with the liquid brine.

MR. PEHLIVANIAN: Let me just add to that, because that's a question that's focused at both ACWA and PMCD. Jon mentioned that he was just speaking for the ACWA side of that question. There are some folks from PMCD. I ask that you get with Jon or an individual from PMCD and we could probably get you a more complete answer on that, and your comment certainly went for the record and will be included in our answer to that comment.

MR. OM HANDA: My name is Om Handa. I'm from the Office of the Program Manager for Chemical Deneutralization.

At the other sites we have included the brine reduction area. Regardless of which technology you're going to have, you're going to have salt solutions in the end. You can either evaporate the water from the solution and end up with salt or you're going to have the brine as it was generated in the process.

We have incorporated a brine reduction area at the Tooele facility; however, based on the experience and analysis of cost effectiveness, we have figured that it is equally -- it's even more cost effective to ship the brines off site. And we do a thorough analysis to make sure there is no agent present in the brines before they are shipped. That's basically with respect to PMCD.

MR. SCOTT: Okay. It's been noted we have some new folks in the room. We've asked people who wish to provide comments to sign up outside. We've stepped away from that guideline a little bit, trying to get some folks up here to speak and make it a little bit easier for you.

We are working with a four-minute time limit on your comments.

And we also want to note that there are a number of ways for you to provide your comments besides stepping up to the microphone. In your packets you received some comment sheets which staff around the room will receive at the back of the room. You can also dictate your comments individually to the court reporters who are outside this arena to your right or I think it's east.

And we aren't having problems with people signing up for additional time at this point, so we were anticipating a longer line at the microphone, and we are taking questions because we do have the time for that.

I want to open the floor again and invite people to the microphone who have comments they would like to share, to please step forward.

Okay. This is kind of like an auction. Going once, going twice, going three times. We're going to adjourn this public meeting. We should receive comments.

We'll come back together at 1:30. Staff will be available for the poster sessions. You may feel more comfortable asking questions with folks around to the back of the room to get some information which may help you bring some comments forward.

And I see someone coming forward -- oh, this is a person to speak. Thank you. Bill McKnight. Welcome.

MR. BILL McKNIGHT: Thank you very much for letting me speak. Very short statement. I'm very concerned about the plans for the incineration of mustard gas. I represent Pueblo

1 Foods and Harvest Sharing. We are corporations
2 that supply food to working families and food
3 assistance programs throughout the United States.
4 This last year we shipped out over two million
5 pounds of food to food assistance programs.
6 We have made a serious commitment to
7 buy from the local farmers. They came to me and
8 presented their opportunity to buy locally, and we
9 have been taking a look at this. And we've made
10 the commitment to these local farmers. And we've
11 been advertising this in terms of having an
12 opportunity to supply the freshest food possible to
13 working families not only in Colorado but in New
14 Mexico and other parts of the country. I am very
15 concerned that we're not looking at alternative 34-1
16 ways of destroying this mustard gas. I am very
17 concerned about any possible air pollution or even
18 the perceived possibility of an air pollution or
19 water pollution. We see this as serious in terms
20 of the products that we're going to buy. It may
21 cause us to have to rethink our purchases and we
22 would like to see an alternative source, because I,
23 again, we -- I'm not an expert in this area nor do
24 I know anything really about the incineration
25 process, except the perception that it may have on

1 the air quality and the water quality.
2 And I just wanted my statement to be 34-1
3 on record that I'm concerned for your proceedings
4 here. Thank you.
5 MR. SCOTT: Thank you, very much. We
6 have someone else who would like to speak before we
7 take a break. Thank you.
8 MS. DIANE HART: I'm Diane Hart. And 00035
9 once again about the waste, is this a for-sure 35-1
10 thing that no matter what technology that they
11 would both be shipped off site, the brine or the
12 salts? And another thing on the ACWA program, it's
13 a 12-hour a day, six-day operation. Because it's a 35-2
14 pilot program would that be increased once the
15 pilot phase is over with?
16 MR. SCOTT: Thank you. Bill, do you
17 want to respond to those or --
18 MR. PEHLIVANIAN: I don't think so.
19 We can answer those at the poster session.
20 MR. SCOTT: Okay. I think we're
21 going to take a break. I'm priming a pump, and I'm
22 not getting a whole lot of water.
23 We'll come back together at 1:30 and
24 continue receiving comments.
25 And I want to make one thing clear,

that this afternoon's session is regarding the Assembled Chemical Weapons Assessment. This evening session will be regarding the Program Management for Chemical Demilitarization.

So that is where we're at. We'll come back together at 1:30. We invite you to visit with the folks in the poster session and bring your questions to those folks. We'll hopefully see some of you back here at 1:30. Thank you very much.

(Public hearing concluded at 12:33 p.m.)

STATE OF COLORADO)
) ss REPORTER'S CERTIFICATE
COUNTY OF EL PASO)

I, Pamela Druelinger, do hereby certify that I am a Certified Shorthand Reporter and Notary Public within the State of Colorado.

I further certify that this hearing was taken in shorthand by me at the time and place herein set forth and was thereafter reduced to typewritten form, and that the foregoing constitutes a true and correct transcript.

I further certify that I am not related to, employed by, nor of counsel for any of the parties or attorneys herein, nor otherwise interested in the result of the within action.

In witness whereof, I have affixed my signature and seal this 18 day of June, 2001.

PAMELA DRUELINGER NOTARY PUBLIC STATE OF COLORADO

Pamela Druelinger, RPR, CSR

My commission expires April 16, 2002.

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DRAFT ENVIRONMENTAL IMPACT STATEMENT.

PUBLIC MEETING

June 6, 2001
1:52 p.m.

Pueblo Convention Center
Pueblo, Colorado

Welcome/Introduction/Briefing

So the 45-day extension is in all probability going to be granted. I just can't say that I have it officially yet but look for that to happen shortly. So that date, 25 June, will be pushed out respective to the 45 additional days.

And with that, that's all I have as far as the formal presentation. I'll give it back to Stan and open it up for comment.

STAN SCOTT: Thank you. Just a couple of reminders that if you do have written comments in your folder, there's some sheets there or a sheet at least to put your written comments on.

The other thing is is there's some pretty good -- as you come in, you'll note the entire environmental impact statement on the table outside. I recognize that there's a lot of information. There's some pretty darn good condensed information in your information packet that we would encourage you to take a look at.

We're going to shift to the public comment stage here this afternoon. The first speaker is Velma Campbell.

Velma, I'd invite you to the microphone. If you would, state your name and I'll let you know when your four minutes are up.

00036

DR. VELMA CAMPBELL: Thank you. My name is Velma Campbell. I'm a medical doctor here in Pueblo

specializing in occupational and environmental medicine. And I have a particular interest in individual and public health impacts of air pollution. And it's particularly with that in mind that I make these comments.

I do appreciate that there probably will be an extension of the public comment period. Frankly, the initial information that the comment period for both documents would be only 45 days was so discouraging and intimidating that it almost constituted a negation of the opportunity for public comment at all because both for myself and others I've spoken to the idea of trying to do those documents right in the course of 45 days was discouraging enough to almost make us consider not to write at all.

And so I think even longer than 45 days. If you would have asked me, I would have said let's go to 90 days on down, because there are a lot of people out there who are working on comments who will still need additional time. I myself am still working on the document so these comments are preliminary. **36-1**

My tendency is as a professional in the field from the standpoint of public health and workers' safety towards the non-incineration neutralization processes, particularly the neutralization by a treatment. **36-2**

So far in the brief review of the EIS that I have

been able to conduct, I am concerned that CO 2 and PM 2.5 need more in-depth modeling and projections, especially with detailed attention to micro climate wind analysis in the site specific area.

The macro climate water scale wind projections can really be inaccurate for this particular foothills/plains combination that we have out here and can result in some very -- and a closer analysis can result in some significant differences from what prevailing -- notions of prevailing winds might lead one to project. Bearing in mind that the PMCD EIS doesn't appear to mention PM 2.5 at all and at least the ACWA does mention it. 36-3

But I think better modeling and more recent information on that subject needs to be brought into the EIS.

Second data on the consequences of emissions and the consequences to affected communities locally is based on older information. And newer information is available through EPA, both regional and national, as well as in the general literature that needs to be brought in. 36-4

I'm concerned that the data on the impacts of dioxins, which may be of more concern with the incineration technologies than the ACWA technologies but nevertheless need to be addressed, may be drawing on limited aspects of EPA analysis and ignoring other aspects of that analysis. 36-5

That's an issue that's of preliminary concern to me. I don't have specifics yet. I'm still reviewing that aspect.

Finally, the health impacts do not appear to adequately address either the newer literature on air pollution and health or the site-specific issues of public health concerns. For instance, in this area prevalences of chronic obstructive pulminary disease, coronary artery disease and young vulnerable populations with fairly high incidences of allergies and asthma. Also the potential for disproportionate impacts on populations in this area who are vulnerable to increased burden from health impacts raise these issues of environmental justice that I believe, based on my preliminary analysis, need to be more completely addressed in the final EIS. Thank you. 36-6 36-7

STAN SCOTT: Thank you, Dr. Campbell. Our next speaker is Larry Howe-Kerr.

00029

MR. LARRY HOWE-KERR: Yes. I know that you've got most of my comments FROM earlier. I'm Larry Howe-Kerr with the Catholic Diocese of Pueblo.

There was just two additional things that I wanted to bring up and some of this came from conversations earlier.

On the question of emissions, one of the key areas for our analysis in the community on what is the best

technology for the community of Pueblo, probably the key area that we focus on a lot of times is air emissions because this will have an affect on agriculture; it will have an affect on health care; it will have an affect on numerous things. We'll have some farmers talking to you a little later on too.

In the documents there's emissions of criteria pollutants and volatile organic compounds. Now, I understand that there are a lot more things that come out. I understand that that chart is being or is being expanded as we speak from someone I've spoke to today, just a little while ago, that you're revising those charts and those figures to have more information about emissions. **29-13**

So my request, I don't know if this is supposed to be a comment or a question, is that as that's done, could that be provided to us? Because it's a critical piece. So that we can get more information.

I also understand that the 1999 EPA had done some sort of analysis, complex analysis of what comes out of an incinerator. And I didn't know if that kind of analysis or information will be available too. I'll bring that one up tonight. But I'm interested inasmuch as the emissions that occur in both of the neutralization methods. **29-14**

The other would be if there's time, like we had **29-15**

1 earlier some response to the whole question, there is a
2 perception in the community that I've heard a number of
3 times that why would we want ACWA technology in here
4 because it's an unproven technology. And so why should **29-15**
5 we have something that's unproven, untested here when we
6 have a proven technology with incineration?
7 Now, that is not my perception. I mean, that
8 is not my comment or my perception of the issue but
9 people do have that perception. It would be good at a
10 public meeting like this to at least address that from
11 your standpoint, from ACWA's standpoint.
12 Thank you.
13 STAN SCOTT: Thank you. Would you like to
14 respond to the possibility of additional information, the
15 question he raised? Bill?
16 MR. PEHLIVANIAN: I believe that I was present
17 during that conversation, and I think that we're going to
18 try and get you that information. Obviously, we don't have
19 it today. But your request certainly is a reasonable one to
20 get it to you. When we make that -- make that available,
21 we'll get it to you.
22 Your second point with regard to the perception,
23 I can only deal in a factual process by which ACWA went
24 about doing its business.
25 The application of the technology is

different. The neutralization followed by the biotreatment followed has been around for quite sometime and in fact is being employed at the bulk sites. The unique characteristic of the ACWA program is the application has changed and that now we're looking at the same technology not only to deal with aging, but energetics dealing with the treatment of metal parts and the peripheral material.

So to that end from a unit process operation, the engineering of the new application I think factually would be more new than an existing incineration technology. But as far as the technology, that's something that's been around for awhile.

So as we treat the engineering design studies that I mentioned before, that's the process of putting the technology in a line in a process by which we would destroy all aspects of a weapon that contains chemical weapons. Where up to this point it's just been a ton container dealing with the aging.

STAN SCOTT: I don't have any more names that have been submitted to make comments. I would open the floor and recognize anyone who has comments this afternoon on the Assembled Chemical Weapons Assessment.

Any folks that we haven't heard from yet? Are you interested in speaking? And if you'd share your name,

1 please.

2 MS. MICHELE LATKA: Michele Latka. And again,
3 like Velma Campbell was saying, I really don't have my
4 statement prepared. But as long as I'm here, I might as
5 well say something.
6 I've been trying to read through both of these
7 EISs and went to all of the meetings and just checking out
8
9 all of the information that I can. So right now I'm
10 definitely completely in favor of the ACWA technologies.
11 And it's the year 2001. I mean, incinerators are
12 prehistoric, you know. Let's get with the new century
13 here. I mean, everything that I've seen has shown that
14 they're less poluting, less hazardous and more
15 controllable. 37-1
16 So, you know, everybody that I am here to
17 represent, all my friends and relatives, you know, we will
18 not accept anything else but the best. And we think that
19 the best is the neutralization method.
20 And I want to go on the record to say we won't
21 settle for less than the best, and we don't care how much it
22 costs. That's what we want. Thanks.
23 STAN SCOTT: Thank you. Next speaker. Again if
24 you'd share your name.

25 DIANE HART: Diane Hart. I know that the

1 decision for what technology will happen in Pueblo is based
2 on the cost, schedule and safety but I think you've left out
3 something which is what the community wants.
4 And from what I see lately, it seems like the
5 local elected officials, the legislative people in the state
6 and the community, almost everyone I've talked to is totally
7 in favor of alternative technology here, not incineration. **38-1**
8 So I just wondered how much this is going to
9 waiver on this. I mean, what this community wants is what
10 counts. And I can't see if everybody is in favor of this
11 ACWA technology from the Governor on down to the local
12 elected officials and the community, that we would ever have
13 to be able to accept the incineration.
14 STAN SCOTT: Looks like we have another
15 speaker.
16 If you'd share your name, please. 00039
17 ROBERTA WALLACE: Thank you. My name is
18 Roberta Wallace. I am here on behalf of the Rocky Mountain
19 Farmers Union and as a concerned Pueblo County residence.
20 I am the president of Pueblo County Rocky
21 Mountain Farmers Union. RMFU is a grassroots general farm
22 organization representing over 22,000 producers and
23 consumers in Colorado, New Mexico and Wyoming.
24 In support of the agricultural community and
25 citizens of the Avendale/Boone area and pursuant to a motion

1 advanced by RMFU Board of Directors on April 5th, 2001, I am
2 here to voice our opposition to the proposed burning of
3 blistered agents at the Pueblo Chemical Depot. I have
4 available a copy of the Rocky Mountain Farmers Union **39-1**
5 position on incineration at the Pueblo Weapons Depot for the
6 record and for individual review.
7 I would like to know why there has been no
8 information available with regards to an agricultural **39-2**
9 assessment and why agriculture has been totally omitted from
10 the draft environmental impact statements?
11 I have made several attempts to obtain
12 information about the agricultural assessment that has been
13 referred to by the CSU extension office from the Chemical
14 Depot Community Outreach office. I feel I have been totally
15 disregarded by that office. The Farmers Union can only
16 assume that little consideration has been given to this
17 issue and no materials exist.
18 Whatever the case, the Army must consider the
19 physical and economic impact of both of the disposal
20 technologies on the agricultural community in Pueblo and **39-3**
21 neighboring counties. It must do everything possible to
22 protect and ensure the quality of area agricultural
23 products.
24 With regard to the CSU extension office, I would
25 like to know why the CSU extension in its news letter can

make their statement. Based on meetings with Army environmental contractors, it appears that the method of choice would be incineration. Who are these contractors and how would they imply the method of disposal has been made if the Army has not made that choice? **39-4**

I would like to know why citizens in agriculture and agricultural groups have not been invited to participate in these meetings? Although I have a high regard for the CSU extension office in Pueblo County, I do not feel it is appropriate for them alone to decide the content of and how an agricultural assessment should be done. Input from the agriculture community in this matter is essential.

I therefore request that any information with regard to Army environmental contractors and all information and minutes from the past meetings with regard to an agricultural assessment be made available to the public. **39-5**

I also request that the public and agriculture groups be invited to all future meetings with regard to an agricultural assessment and the minutes from those meetings be made public.

Although the Pueblo Chemical Depo is located in Pueblo County, the agricultural impact from chemical disposal could have far reaching effects geographically. I therefore request that information on incineration **39-6**

alternative methods of disposal and an agricultural assessment be made available to elected officials and the public in the counties to the north, east and south of the depo.

Of particular concern to Rocky Mountain Farmers Union is the impact incineration can have on agricultural communities in Crowley, Otero and El Paso counties. I feel that it's the Army's and Pueblo city and county elected officials' duty to inform these communities of potential effects to their communities of decisions to be made in the near future with regard to the chemical disposals. These counties should be made aware of and have an opportunity to participate in the agricultural assessment and voice their opinion with regards to the method of choice for disposal. **39-6**

As an individual citizen of Pueblo County, I would like the Army and Pueblo County elected officials to consider the economics of Pueblo in making their decisions on the method used for chemical disposal. **39-7**

In addition to trying to run a profitable farm and ranch, I'm a certified public accountant. When I decided to move back to Pueblo a few years ago, after having been gone for 20-plus years, I assumed that there would be professional jobs available in Pueblo and Pueblo County. I am surprised to find that there are relatively few compared to the rest of Colorado's Front Range communities. **39-8**

I have described Pueblo's economy as a barter system with the U.S. currency as a medium of exchange. I buy from you and you buy from me, and we just keep exchanging money. This works to sustain the economy, but it certainly does not provide growth or opportunities. **39-8**

This was confirmed by a consultant hired by Pueblo recently who states Pueblo's economy is based on the recycled money. Basically recycled money, in his statement, is the same as the recycled scenario that I described as a barter system.

It is essential that the method of chemical disposal chosen be the cleanest and safest method available. The Farmers Union and I personally believe the clear choice is either of the alternative technologies of disposal, which are the cleanest and safest methods available. If anything less is chosen, the possibility of Pueblo attracting new business to provide professional jobs for its citizens will be gone. So will opportunity for Pueblo citizens and the reputation of our agricultural community and its products will be destroyed. **39-9**

Should you feel that the agricultural community has not turned out in great numbers to attend these meetings and other recent meetings, please consider that this is the time of year when farmers and ranchers are in the fields planting, irrigating and calving as I should be.

Agriculture is how we make our living or our jobs if you will. This is the time of year when we can least afford to take the time off to attend meetings. We value our chosen field and hope you will consider our value to the community when determining the method of chemical disposal.

I appreciate your consideration of my statements and answers to my questions. Thank you.

STAN SCOTT: Thank you. I would just like to invite the ACWA folks if they have any response to or concerns around agricultural assessment and the environmental impact statement. Jon?

MR. JON WARE: Thank you. I do believe that we have addressed some impacts that's in the EIS statement. But to a level actually analyzing the crops, that doesn't appear in the EIS as such. But the ecologic definition, we did go over it.

We've elected to go over a greater study for our permit system, and we're doing modeling through organizations in the Army. And, actually, we're deriving a model to do sampling at the time we actually build -- a pre and post sampling -- that we will actually analyze crops and the development impact.

So at this point we're actually doing three things for agricultural assessment. And I'll get with you after this and show you what we're doing. And that's being

approved through the county. And your organization actually should be a part of that. And if you're not a part of that, we can actually bring that up and look at that approval to see if we can satisfy your concerns that way.

STAN SCOTT: Thank you. Again, I'd like to invite anyone who would like to speak to the Assembled Chemical Weapons Assessment to come to the microphone and share your comments. I don't have any names that have signed up at this point. Your name. Thank you. 00028

MICHAEL WENZL: My name is Michael Wenzl. And what I learned during the break is regardless of what process is used, what feels the best for me is what I'm hearing, the neutralization of the water and the biotreatment of the process. 28-2b

But the result of what I've learned is that there's no opportunity of any recycling of these elements and chemicals once they're reduced back to their natural state. And it's a term of total consumption. And all of this gets put into containers that somebody has to deal with. And even when this is in a natural state, it has to be taken somewhere else or stored on-site. 28-3

What I want is an opportunity for these elements to be recycled locally. I mean, even the building, the structure that this entire facility is built on is meant to be disassembled once all of this is completed. And it's my

1 understanding or it feels like this may eventually all get
2 turned back to the county and these are things that can be 28-3
3 utilized. I mean, why stop with the pallets or any of the
4 bunkers that hold the bottoms? I mean, the bunkers are
5 going to stay. That's my comment.
6 STAN SCOTT: Thank you. Other comments? Yes,
7 sir.
00031
8 ROSS VINCENT: My name is Ross Vincent. I'd like
9 to follow up briefly on the comment from the Rocky Mountain
10 Farmers Union and Jon Ware's response.
11 We have had several discussions, including the
12 meeting on Monday night, about precisely the kinds of issues
13 that are being raised here. I believe, I've been told, that
14 there is under preparation a protocol for doing an
15 agricultural assessment to determine agricultural impacts 31-1
16 associated with at least some portion of the chemical depot
17 process. I'm not sure whether that's a PMCD exercise or an
18 ACWA exercise or a joint exercise, but there is apparently
19 something in preparation.
20 And in Colorado, a working integrated process
21 team had a team meeting a couple of months ago. Several of
22 them asked for copies of the protocol, an at-risk assessment
23 be provided to the CAC and to the community in advance of 31-2
24 its final approval. And I want to reiterate that request
25 here and make that request on the record.

It would be a serious mistake for the Army DOD or anyone else to proceed with an assessment of that nature without first discussing the protocol, particularly with the farmers in the community and others who may be a long distance away that even the extension service might miss.

The other thing is that I would just point out that there was an assessment of sorts, at least to the draft stage, several years ago that sounded very much like the kind of thing Jon was talking about. Going out prior to the operation of a facility, picking up plants and testing them and then coming back later to see if anything's changed.

What I think most people in this community want is some advanced sensitivity to the implications for the agricultural community about the choice of technologies that's about to be made. And that has as much to do with the perceptions in the community in the grocery stores and the buyers in between, the viability of growing and selling and using produce and animals that are grown in the shadow of a highly emiting facility. **31-2**

So you can't do that by waiting until after the facility is in place to start sampling to find out if anything went wrong. That's after the fact; it's too late.

And so Ms. Wallace may want to follow up on this. And I certainly can't speak for the Rocky Mountain Farmers Union, and I'm not a farmer myself. But I think what people

want to know is what's going to have happen to their markets based on the choice that the Army and PAD make and what's going to be used in Pueblo. 31-3

00030

STAN SCOTT: Thank you. Who would like to speak next? And if you'd share your name, please. Thank you.

ROBERT CAIN: Robert Cain. I would like to request that the Army or some governmental agency, some responsible agency, publish at the earliest possible date a comparison of the air emissions of all systems, and all air emissions. I've seen comparisons of this and that, but I haven't seen one that includes everything. 30-2

And along with that, some estimate of the damage to human health to keep one of these emissions may cause. 30-3

STAN SCOTT: Thank you. Next speaker? This is going to be sort of like the auction or final call. Going once. Twice. At this stage this morning I had one come up.

Okay. I think we're going to adjourn to the poster section. They'll be staff experts available to answer your questions at the various posters around the back of the room.

If you have comments that you have not given in this setting that you would like to give as you hear more, you can do that in writing. And there's also -- there will

also be a court reporter available east or right as you go out these doors.

The Assembled Chemical Weapons Assessment, we'll have another series of meetings like we've had this morning and early this afternoon. Beginning tomorrow evening at 5:30, we'll be out at the Avendale school for that.

This evening's information and comments regarding the program management for chemical demilitarization, we'll hear this evening beginning at 5:30. And you're all invited to attend those as well. Nancy?

NANCY: Stan, I think that we should note that with the court reporters that are down the hall, that there's a court reporter for both options. So if you'd have comments that were not appropriate to make at this point regarding ACWA, and you can't be here this evening, you can make those comments, and they'll go on record regarding incineration down at the court reporter's desk.

STAN SCOTT: Thank you. We're adjourned.

(The meeting was adjourned at approximately 2:33 p.m.)

REPORTER'S CERTIFICATE

I, Karen Voepel, Court Reporter and Notary Public for the State of Colorado, do hereby certify that I reported the foregoing proceedings in stenographic shorthand at the time and place aforementioned; that, therefore, I reduced said notes to computer-aided transcription form, and that the foregoing transcript is an accurate transcription of said shorthand notes and the proceedings held, to the best of my knowledge and belief.

Dated at Lamar, Colorado, this 19th day of June, 2001.

Karen S. Voepel, RPR, CSR

DRAFT ENVIRONMENTAL IMPACT STATEMENT

PUBLIC MEETING

June 7, 2001

6:10 p.m.

Avondale School
Highway 50 East
Avondale, Colorado

who wants to speak the first time through, we'll open it up a bit further.

Please state your name when you get to the speaker. 00040

MS. MARGARET BARBER: Is this on? Yeah. I'm Margaret Barber, President of Citizens for Clean Air, which is a grass-roots organization centered in Pueblo County, but that also extends to all of southern Colorado.

I would like to comment that I've studied both documents as much as I had time for. I started with the envoy document, so I got pretty far through it and focused on the sections I thought were most important.

I think I've given both documents a pretty good reading, although I hope to spend more time on both of them before I present my written comments.

It appears to me that the ACWA document is, frankly, much better than its counterpart. It's obviously a serious, good-faith effort to evaluate impact. 40-1

The chances of that group producing a fully-adequate final environmental impact statement I think are much greater, considering where they

are at this point.

The other document, the site-specific one, has so many problems, one of which is the rush in which it apparently was done. Time pressure was apparently placed on writers.

I grade research papers for a living, basically, and I'm used to reading them. I read hundreds every year. And when I do that, I have to analyze the problems that students have in doing the writing.

I can smell a document, an essay, written quickly -- too quickly -- miles and miles away. Research is something that cannot be rushed and writing about research cannot be rushed. **40-1**

I don't know who placed pressure on the writers -- perhaps the pressure was equal on both groups, I do not know -- but whoever placed time pressure on the writers of the PMCD document really did a disservice to this group, because they were not able, for some reason -- maybe time is it, I don't know -- to produce as detailed a document as ACWA produced.

Another problem that I saw was that the design for modified baseline incineration, that process is not yet as advanced as the other **40-2**

process, so it's not really ready to be studied at the level that both the ACWA processes were. 40-2

I think that probably explains the difference in the level of detail in those documents. My feeling is that -- I mean, my initial judgment is that either of the ACWA processes, if chosen, will not be likely to face the kind of opposition that incineration will if it's chosen. 40-3

The lack of sulfur dioxide, for example, to be emitted by either of the ACWA processes will help either of those processes fly through the permitting process much more quickly and be questioned a lot less by the public.

I don't think they'll be as nervous about that as the one releasing dioxins being emitted and sulfuric acids possibly resulting from SO2 emissions. I don't like sucking up sulfuric acid or having anything turn into that when it lands in my lungs. 40-4

I appreciate very much receiving the set of technical-research documents. I just got it today from ACWA, so I haven't had a chance to really look into them, but I look forward to studying those.

I am requesting, at this point, a comparable set of documents for site-specific technology.

MS. NANCY BANMAN: One minute.

MS. MARGARET BARBER: Okay. If I only have one more minute, I'm going to save my next comment until I can speak again.

MS. NANCY BANMAN: Thank you. David Barber. And he will be followed by Michele Bobyn.

00041

MR. DAVID BARBER: My name is David Barber. I am a member of but not a spokesman for Citizens for Clean Air in Pueblo.

Just a few points. For reasons that I explained last night -- and I don't think I need to go into them again today -- I have not had a chance to read the ACWA document, but I will, now that we have more time.

But I have followed this whole process pretty closely. I've been working off and on with the group that's helped to bring this about for about 10 years now, so I am familiar with the processes.

And even in the site-specific DEIS, in my mind there's no question about the safety of the neutralization processes as compared to the 41-1

so-called modified baseline.

So I'm basically here to say, in the strongest of terms, that the vast majority of people in Pueblo want the advanced technology -- one of the advanced technologies, and they do not want incineration. 41-1

Incineration is an outmoded form of disposal. People like to say well, this is the only tried-and-true technology. Based on what I've read about Johnson Island, which is limited, and about Tooele, it's not very tried and it's not very true. 41-2

The Army spends more time denying problems and trying to cover up problems than they do getting the actual job of getting rid of the agent.

I don't know the man's name, but they actually fired the safety engineer or the safety inspector of civilian safety because he refused to falsify documents. And he was forced to go to court to get his job back; and he did, after almost being destroyed by the Army. 41-3

To me, that's not good faith. And if that's what incineration is all about, we don't want to have anything to do with it.

1 Another point about the advanced
2 technology. I notice that it's being tried next to
3 Washington, D.C. -- I guess Aberdeen is close to
4 Washington, D.C. -- and that's where the people
5 that are making all these decisions live, and they
6 don't want to be around incineration.
7 Of course, there's a lot more people back
8 there, it's a much more densely-populated area. So
9 they don't want incineration.
10 But just because we're not as densely
11 populated here in Pueblo and just because we don't
12 have the brass that they have in Washington, that
13 doesn't mean that we're not any more important and 41-4
14 we don't deserve to have a better technology than
15 incineration.
16 Incineration is a technology whose time
17 has come and gone. And the Army is trying to prop
18 it up -- or whoever is responsible for this
19 modified baseline.
20 The modified baseline is a sham by
21 somebody. It hasn't even been designed yet. And I
22 would like to propose that that's the reason for
23 the inadequacy of the Draft Environmental Impact
24 Statement of the site-specific, when they talk
25 about the modified baseline.

They're either trying to cover up its inadequacies or the inadequacies are so severe that they can't write a better document. I don't know, but either way it's not right.

To the best of my knowledge, the modified baseline has not even been designed yet, the Army or whoever is responsible for it -- and I was told last night not to say it's the Army -- but whoever is responsible for it, my feeling is that they're sort of faking it as they go along, just sort of making things up -- 41-4

MS. NANCY BANMAN: One minute.

MR. DAVID BARBER: One minute? Okay. So that's the way I feel. And I think -- although I don't know all of the intricacies of the NEPA process -- I think that's a violation of the NEPA process, because they haven't even tested.

So maybe if they want modified baseline, they need to go back to the drawing board, design the darn thing, and then they can go through the testing phases, just like this gentleman explained to us that all of these advanced technologies had to go through. Today, I don't believe that's happened. Thank you very much. 41-5

MS. NANCY BANMAN: Michele Bobyn is our

1 next speaker. And I just remind the audience the
2 comments taken at tonight's session are related to
3 the ACWA Program, the Assembled Chemical Weapons
4 Assessment, EIS. Thank you.
5 MS. MICHELE BOBYN: Hi. My name is
6 Michelle Bobyn. I'm a relative newcomer to the
7 city.
8 I also appreciate the detail in the ACWA
9 document. It's much bigger than the site-specific
10 DEIS. Nevertheless, I think there are still some
11 details missing from it.
12 I'm a very picky person, and I can't see
13 the big picture, so I'm just going to ask questions
14 and make comments about picky things.
15 I really appreciate the summary chart in
16 Chapter 2 of the ACWA DEIS. The information in the
17 tables is very good, very interesting and very
18 informative to me.
19 But the information in the tables is
20 vastly different from site to site. Obviously, 42-1
21 they were written by different people, but I would
22 really like to see some consistency in the
23 information presented so that I can make really
24 meaningful comparisons among the different sites.
25 And perhaps another chart could be included that

would actually compare the different sites for each technology.

The chart that I'm referring to in Chapter 2 looks at different criteria within each site but does not compare each site on one chart. And for me, that would just be easier so I don't have to keep flipping from chart to chart in order to compare them. 42-1

Obviously, the designs have to be different from site to site because of the weapons stored at each site, but discrepancies in the numbers for a similar facility built at each site are confusing to me.. And that's the point I'd like to make.

One comment, Page 3-10, at the bottom, the proposed design -- and this is referring to the alternative technology, the SCWO process.

The proposed design includes reactor vessels with a platinum liner employed to minimize corrosion. I've heard some reports about warping of that platinum liner. And I haven't heard enough -- either from what I've read in this document or anything else that I've heard -- about the seriousness of those design problems or those practical problems, and I would hope that the final 42-2

1 DEIS would address the steps that have been taken
2 to remediate those problems. 42-2
3 I have a question about Page 3-15, where
4 it describes the disassembly process used for the
5 neutralization technologies. Apparently, both
6 neutralization technologies will use modifications
7 of the baseline reverse-assembly process.
8 Again, I feel that these modifications
9 were not treated in enough detail for me to be able 42-3
10 to understand the modifications, and especially
11 with regards to presentations that we've seen from
12 representatives from JCADS about the problems that
13 the baseline process phased from the
14 reverse-assembly process.
15 And this is, again, it's just my
16 interpretation. I don't even know if I'm talking
17 about the same process for each of these
18 technologies, but I would have appreciated a little
19 more detail about that.
20 But maybe as I read further into this
21 document I will find more of that, and also from
22 the technical-resource documents which I haven't
23 delved into yet. Those are my comments. Thank
24 you.
25 MS. NANCY BANMAN: We don't have the

1 names of any other speakers who have signed up this
2 evening, so I'd ask if there's someone in the
3 audience who would yet like to make comments who's
4 not yet spoken.
5 If not, Margaret Barber, I believe you
6 wanted to complete your comments.
7 MS. MARGARET BARBER: Thank you. I
8 didn't mention this last night in regard to the
9 PMCD document, but this comment really applies to
10 both documents.
11 I think both groups need to add comments
12 on the cost of their technologies. The costs, when
13 the Army figured them, seemed to apply only to the 40-5
14 construction and the operation phases of these
15 projects.
16 I think you also need to figure in the
17 cost to area farmers and ranchers. When the
18 public -- I mean if, in case, for example, within
19 consideration if the public found out that dioxins
20 were being emitted nearby and getting into the food
21 chain. 40-6
22 The cost of lost business, the cost of
23 people moving away from town because they don't
24 want to live in an area where an incinerator is. I
25 certainly wouldn't want to. And I would move at

00040

1 least 20 miles from that, and more. 40-6
2 I think both -- everybody needs to figure
3 in the increased medical costs for area residents.
4 I know these are hard to predict. It's hard to
5 prove cause and effect between any specific
6 pollutant and a particular population, but there's
7 enough scientific evidence out there to indicate
8 that various forms of pollution that will be
9 emitted in various degrees by these processes do at
10 least aggravate illnesses and cause others in
11 certain quantities. 40-7
12 No one can really predict what quantity
13 any individual will absorb of any of these
14 pollutants, but it's a fairly safe assumption that
15 somebody and some bodies will be absorbing some of
16 them.
17 So, you know, I think you need to do your
18 best to figure out in the worst-case condition if a
19 person happened to absorb a reasonable amount of
20 any of these pollutants what the effect would be.
21 Many of the people in this area -- and I
22 mean Pueblo County -- are what we call the working
23 poor. They're not on Medicaid because they have 40-8
24 jobs, minimum-wage jobs and other jobs that don't
25 pay really well, but they can't afford medical

1 insurance, either.
2 I personally know dozens of people like
3 this. My students at USC are among them. It's a
4 chronic problem for students there to run into any
5 kind of medical problem and, you know, not have
6 access to medical care.
7 I have a woman who helps me with various
8 projects who has been unable to walk or to move
9 around very easily for a couple of years now
10 because her knee is swollen and she can't afford to
11 go to the doctor. She had one MRI and she can't
12 pay for another one. I mean, this is just so
13 common here.
14 There are a lot of people suffering from
15 cancer here and from respiratory problems. The
16 incidences of heart disease, cancer and respiratory
17 disease in this community are 150 percent, or close
18 to that, for each category of the rest of the
19 states incidence of those illnesses.
20 Anything that would cause aggravation of
21 respiratory problems, such as increased SO2 levels
22 in the air, could create medical emergencies for
23 some people who have no insurance.
24 It costs money to go to an allergy
25 doctor. It costs money to buy antihistamines and

40-8

1 decongestants and to have these respiratory
2 conditions treated. And those are chronic
3 conditions, so the expense continues.
4 Medical insurers have been pulling out of
5 this area because it's too expensive for them to
6 insure the people here. They lose money here.
7 One of the reasons they lose money here
8 is air pollution. The air pollution laws have not
9 been enforced, in regard to the steel mill. We
10 have a coal fire power plant that's one of the
11 biggest sources of pollution in the state.
12 I personally have good insurance, but
13 even with good insurance, because my HMO, 40-8
14 PacifiCare, pulled out of the state last year
15 because they couldn't make money in Pueblo, my cost
16 for premium and prescriptions are going up a total
17 of $4000 next year.
18 Now, I can suck it up because I have a
19 good job. You know, I make, what, $35,000 a year.
20 Around here, that is a good job. And I can absorb
21 that. But it will hurt. It means that all of the
22 only good raise that I will get in my career of
23 $4000 will be entirely eaten up by medical costs.
24 There are many people who can't manage
25 that kind of blow. I hardly can. So, you know, I

hope you consider the fact that any addition to air pollution here could aggravate people's illnesses.

The costs for that will not come from their insurance because they don't have it. It will come out of their pockets. And that's a very real cost. We will be more aware of that than the cost of building the cleanest facility that is humanly possible. 40-8

I'm a tax payer. Even if I didn't live here, I would be glad to pay for a clean process, even if it costs more. So, you know, when you figure the cost, don't just look at operations in construction, there's a whole lot more to the situation.

I have one other comment. Do you want me to make it now?

MS. NANCY BANMAN: We have one speaker who has not yet spoken, so -- say your name, please.

00043

DAN HOBBS: My name is Dan Hobbs. I'm a resident of Avondale, a vegetable grower, and a member of the Boone/Avondale Citizens Alliance. These are the comments I also prepared for the PMCD meeting earlier today, so I'll repeat these and enter them into the record, as well.

It's astonishing to me that agriculture has been nearly totally emitted from the two Draft Environmental Impact Statements.

I was also surprised in that despite repeated requests of Pueblo Chemical Depot, we've yet to receive any agricultural information, either specific to PCD or anecdotal.

How many years has the Depot been located here in our backyard? 60 some. The Boone/Avondale area was the first commercial agricultural settlement in the state of Colorado.

Farming has been active here for 148 years. We produce high-quality vegetables, seeds, small grains, hay and livestock products. This is literally some of the finest agricultural land and growing conditions in the state. 43-1

We also enjoy a unique marketing opportunity that is uncommon to many farming areas. We're located close to major urban areas and established transportation routes.

While farms are in decline throughout the United States, Pueblo-County agriculture has every opportunity to remain viable. However, the possible incineration of the blister agents presents the likelihood of severe short- and

long-term damages to our agricultural enterprises.

It also appears that this damage could be prevented through the employment of one of the neutralization technologies. 43-1

Our primary concerns are as follow: Incineration could well have a severe physical impact on the food chain and our primary agricultural resources of soil and water. 43-2

Incineration would also negatively impact the marketability of our products due to the public perception that area agricultural products are unsafe.

And a number of us have already had comments from consumers that they will cease buying our products should incineration be employed here at the PCD. And I will have that material documented and submitted both to ACWA and PMCD here within the comment period. 43-3

Without adequate pertinent information on impacts of the disposal processes to agriculture in eastern Pueblo County, we have no recourse but to demand the information is developed and/or provided as soon as possible. 43-4

In an effort to mitigate the damages to our community, we register our support for the ACWA 43-5

1 technologies, as it appears that their use will
2 minimize the above-stated impacts to our 43-5
3 communities, and we also strongly oppose any form
4 of incineration.
5 That's it for the comments. I would just
6 also like to add a brief story of a friend of mine,
7 a lifelong resident here in Avondale. He's 40
8 years old.
9 I recently expressed to him my concern
10 about the possibility of the incineration happening
11 here, and his response was, "Well, you have family
12 in New Mexico. Why not just go down there that
13 weekend when they're burning the mustard?" I told
14 him that to my knowledge it was going to take more
15 than 10 years.
16 I mention that just to point out that
17 there's -- the communication is very poor, in terms
18 of reaching even this community that lives at the
19 foot of this terrace where the Depot is located.
20 Thank you.
21 MS. NANCY BANMAN: Are there any other
22 persons who have not yet spoken who wish to make
23 comments? Yes. Would you say your name at the
24 podium, please, and then proceed. And we'll give
25 you five minutes initially.

MS. JoANN SOLANO: Yes. My name is JoAnn Solano and I'm a resident here in Avondale. I was born here in Avondale. In 1984, I was diagnosed with lupus. I'm told lupus is hereditary. No one in my family has lupus.

As the lady mentioned earlier, PacifiCare has pulled out. That was my insurance. I've tried with several different insurance companies, and I've gotten denials from all of them. And they say they will not give me no insurance coverage because of my lupus.

At this point, I cannot get medical insurance. I have had medical insurance all my life with my husband, because my husband was employed at the CF&I. 44-1

I've tried different companies and they're all -- I'm getting denials from everybody. So what do I do if the water situation or the pollution from the incinerator causes me to have more allergy problems?

And at this point, they tell us the water has nothing to do with it. How do we know that it wasn't the water or this air pollution that's going to make it worse? Where am I going to be five years from now, or even two years down the road?

If I have a serious illness, I can't get no insurance. Nobody wants to insure me now. They just -- I start to reevaluate our homes, because we can't -- we set a price on our homes. Nobody wants to buy our homes for the price we want to sell them because of the water situation. So where does this leave us? Where is it going to leave us with the incineration problem?

I mean, I was born here. I was raised here, and I'm not going anywhere. And Avondale, we have gotten a lot of new people, a lot of young people, young families that are here.

So, you know, we have a very big concern about the incineration problem. And we just feel that we don't need any more problems than we've already gotten, if it's going to cause us health problems to where I'm at now. 44-1

And I was paying $349 up until the month of April out-of-pocket money for my insurance because my husband's insurance would not cover me no more. They told me we will cover you, but you're going to have to pay it on your own. Now nobody wants to give me insurance.

Where do I go from here; on an indigent program? I'm too proud to do that if I don't have

to. I'm willing to pay for my insurance, but nobody wants to give me insurance. So where do I go from here? What do we do? And it's not only going to happen to me, but it's going to happen to several other people in this community. Thank you. 44-1

MS. NANCY BANMAN: Is there anyone else who's not yet spoken this evening who would like to make comments for the record on the ACWA Program? If you'll say your name, please.

00045

MS. KATHLEEN WILSON: My name is Kathleen Wilson. I'm a resident of Pueblo. Actually, they're comments and more-so questions that maybe later on, if we end up doing what we did last night, there can be some dialogue.

Water is obviously a problem, and for any of the technologies a lot of water is going to be used. That is a major concern, because water is a lifeline. Where will it all come from?

And the Depot's water rights are not primary, but secondary, and are probably inadequate. None of this is adequately discussed in any of the EIS reports. 45-1

I think a comment was made at the most recent CAC meeting that no one's really in tune

with Colorado water rights and Colorado water laws.

So I'm asking that this be given further discussion, research in the revisions of the EIS in future printouts, et cetera. 45-1

What was also brought up at that recent CAC meeting, which was Monday of this week, is it is unclear whether either of the documents accounts for recycling of water in the non-incineration technologies. This has to be addressed. And it is completely inadequately -- if at all -- mentioned in what I've been able to review so far in the EIS reports, both of them. 45-2

So I cannot stress enough that water's right up there with human safety and everything else; that I would appreciate more research, more discussion, more specifics, more facts on the water issues. Thank you. 45-3

MS. NANCY BANMAN: Anyone else who would like to make public comments on the ACWA Program at this point who's not yet spoken? Then I'd ask Miss Barber to complete her comments. Thank you.

00040

MS. MARGARET BARBER: I feel a little bit like the filling of a sandwich. Mrs. Solano is an example of the sensitive population, people with

1 MS, with lupus, with asthma, respiratory problems,
2 who should be included in the charts on the health
3 effects of all the technologies.
4 I'm sorry, I don't remember specifically
5 whether the people between childhood and age 65
6 were included in the ACWA chart. I can only
7 visualize the site-specific chart right now.
8 So if sensitive populations between the 40-9
9 ages of childhood and age 65 are not included in
10 the considerations in the ACWA document, please
11 include those.
12 As you know, we haven't had a chance to
13 study all of this thoroughly yet. I mentioned
14 earlier that I think the level of detail that we're
15 provided in the ACWA DEIS is better, but I do see
16 one general problem with it -- or at least one --
17 and this is a fairly major problem.
18 It's not really about what is provided in
19 the document we have, but with where it stops. The
20 chances are if we're realistic about this, that at
21 the end of the pilot phase, should an ACWA 40-10
22 technology be used, the plant will go into
23 full-scale operation.
24 NEPA requires full disclosure analysis
25 and discussion of the cumulative impacts of an

1 operation. The ACWA document right now considers
2 only the pilot-testing phase. It doesn't consider
3 the impact of full-scale operation.
4 As I see it, all the reasonable outcomes
5 of the decision to construct must be evaluated.
6 This is a legal requirement. And as I interpret
7 that requirement, therefore, ACWA must not fail to
8 consider the impact of continued operation.
9 This shouldn't be hard to do. Continued
10 impact is highly predictable. But the document
11 needs to include an analysis of the impact of 40-10
12 full-scale operation, in addition to the pilot
13 phase.
14 I know that ACWA's responsibility for the
15 equipment ends at the end of the pilot phase, but
16 the Army's responsibility does not end at that
17 phase.
18 And so the Army has the responsibility to
19 insist that in the ACWA document the impacts of
20 everything during that phase, full-scale operation
21 phase, are also considered. Thank you.
22 MS. NANCY BANMAN: Thank you. I'd again
23 ask if there is anyone who's not yet spoken who
24 would like to make a comment at this particular
25 point. We will have another comment session after

a poster session here.

But is there anyone who's not yet spoken who would like to make a comment at this point? This is your chance and you'll have another one in another -- within the next hour.

Is there someone who has spoken who I didn't check back with that needs yet to complete their comments? Then we're going to take a, what, 30-minute poster session? Is that okay? We'll take a 30-minute poster session.

I'd encourage -- who had the water questions? Check with Bill here up front and he'll address those. And if we need to have some more time for -- if it doesn't get covered there, we can come back to it.

And you'll have the opportunity to again make public comments at about 7:30. We'll rejoin then.

MS. KATHLEEN WILSON: Will we have an opportunity to ask questions at the end of the comments?

MS. NANCY BANMAN: Bill, what's your call on that?

MS. WILSON: The reason I'm asking is there's some questions that -- and this occurred

1 last night -- someone asked a question that I would
2 be very much interested, myself, in hearing the
3 answer, and the setup of the poster session doesn't
4 exactly allow that.
5 MR. BILL PEKLIVANIAN: Well, what I would
6 intend to do is give everybody an opportunity to
7 talk one-on-one with the folks around the posters.
8 We'll come back, take more comments, if warranted,
9 and then those questions that we can speak to at
10 this time, we can open that up for some discussion
11 like we did yesterday evening.
12 I don't know how many we can get to.
13 Some may have to go back and do more work to get
14 the adequate answer.
15 MS. NANCY BANMAN: Again, just to
16 clarify, the comment period is the official comment
17 period that goes in the record, and one of the
18 reasons we're having the poster session is we know
19 there's a need for some question-answer time.
20 So we might be able to do kind of a
21 larger-group poster session, if need be, if your
22 questions don't get answered in the specific poster
23 session and we have time after the comment period,
24 which is part of the official record.
25 So there's that official-record time and

1 then there's the question-answer time, which we put
2 into the poster sessions. So we'll meet back here
3 at 7:30.
4 (The proceedings ended at 7:00 p.m.)
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DRAFT ENVIRONMENTAL IMPACT STATEMENT

PUBLIC MEETING

June 7, 2001

7:30 p.m.

Avondale School
Highway 50 East
Avondale, Colorado

And you can always mail in comments or give them via E-mail at a later date prior to the final deadline, which at this point is June 25th, but may be extended.

Okay. So we have the first speaker this evening will be Doug Gale. Doug, would you come to the podium and give your name, please?

MR. DOUG GALE: I'm at the end of the list.

MS. NANCY BANMAN: Well, you're the first one on my list.

00046

MR. DOUG GALE: Okay. My name is Doug Gale. I'm from Pueblo, and we are being sponsored by the Ghandi Center for Peace & Justice and the Green Party and the Peace Flotilla.

We are, along with, I think, CCAPP and -- all these acronyms kill me -- but the other environmental groups and the Sierra Club in favor of the alternative-order process, I think the microorganism bugs eating up the chemical agents. **46-1**

And we're against transportation of any of these materials. They should be taken care of, I think, right at the Base. And that's what we think. **46-2**

We are having a walk on June 16th, and to

announce our coming. I have fliers, and anyone who would be interested in walking, anyone may walk, and we'll meet here at Avondale School at 7:30, June 16th -- a.m., that is a.m., and -- well, I can't say anymore, except we have fliers that will explain it further. Thank you.

MS. NANCY BANMAN: Thank you. I don't have any more names that have been given to me as people who would like to speak at this point. Are there others in the audience who would like to make public comments on the ACWA process at this point?

Yes, sir. Would you state your name, please?

00047

MR. ROBERT MAHANEY: My name is Robert Mahaney. I'm a resident of Pueblo. I'm pretty new to the area, pretty new to this issue. I've been really kind of struggling to read up on the different issues involved.

If I would have known that incineration was being considered for the area, in the context of the other environmental and economic issues that are happening in southern Colorado right now, I never would have moved here. **47-1**

Incineration would almost be the nail in the coffin for the area. It would not have much of

a future.

It's good to see that we have a constructive option, the one being proposed by the ACWA group. I think that most people in Pueblo would be in support of this option. **47-1**

As it applies elsewhere, we're a little tired of being the dumping ground for much of the state and much of the nation.

And what incineration, in particular, looks like, there seems to be an argument being made that it would cost less and, therefore, it's the best option. And that just really looks like a transference of cost.

The community and individuals in that community would bear more of the cost than maybe the nation at large. This is an issue for the entire country. **47-2**

And in terms of health insurance, property values and other things, we would bear that cost. And we didn't process the chemical munitions, we didn't site it here, and we should have a voice in how it's disposed of. Thank you.

MS. NANCY BANMAN: Thank you. Is there anyone else who would like to make a comment at this point? Yes, ma'am. Please state your name.

MS. RUTH MAHANEY: My name is Ruth Mahaney, and I'm from Pueblo. I'm also a Pueblo Green Party member, and I just would -- I'm speaking for myself personally, because we believe in democracy, and we can also speak for ourselves.

And I prefer the newer method over the incineration. I won't accept the other one. You can do what you want. But my son is right. We lived here, I graduated in '67 from Centennial, I moved away, and I came back, and I wonder why we did. And you're talking about growth. **48-1**

I just -- I know I'm supposed to be talking about what you wrote, but I need to catch up. I already know what I feel, because I know people and I read what goes on around here, but I need to read your study to really comment on it.

But politicians, military people, experts and corporations are responsible to us, the people, so we should make the decision because we will pay the price. Thank you.

MS. NANCY BANMAN: Thank you. The next speaker is Doug Wiley. Welcome, Doug.

MR. DOUG WILEY: I need to get a drink first.

MS. NANCY BANMAN: Is there anyone else

that would like to speak this evening after Doug makes his comments?

MS. MICHELE BOBYN: (Holds up her hand.)

MS. NANCY BANMAN: Okay, Michelle Bobyn will be next.

MR. DOUG WILEY: She can go in front of me.

MS. NANCY BANMAN: I was just going to ask if you'd mind if she went ahead. Michelle, why don't you go for your five minutes and then we'll let Doug catch his breath and put him in next?

And we'll stay, at this point, with the five-minute rule until we get all of the initial speakers through.

00049

MS. MICHELE BOBYN: My name is Michelle Bobyn. I just have three general comments for the record.

First of all, I object to having to read two documents. The documents are vastly different and, in some areas, come to vastly-different conclusions and are supposedly based on more or less the same data. **49-1**

Second of all, 45 days is much too short for me to review these two documents. **49-2**

And third, I'm a newcomer to the area.

I'd like to echo some of the feelings that we just heard.

I don't know if economic impacts are dealt with adequately in either EIS that I've read parts of, but they're -- I think there should be some discussion, or at least -- even if not in the documents, at least out among us all today about the public perception about incineration and any kind of disposal facility that will be built here. **49-3**

Again, as a newcomer, if I had known about the incinerator that was being proposed here, and if I'd known about all the other things happening in Pueblo, if I had actually done some homework before coming here, I might have chosen not to.

I have a very good job here. I want to put down roots here, but I haven't had time to put down those roots. And I guess what I'm trying to say is that I favor the neutralization technologies, and if an incinerator is built here, I'm one of those people who are likely to leave, just because I don't want to be here if an incinerator is here. And because I don't have enough roots here yet, I'm free to leave. **49-4**

If Pueblo wants to attract more money,

more people who want to stay here and build this community into something that's thriving and rich, that should be considered. Thank you.

MS. NANCY BANMAN: Thank you. Doug, you're up. We're following similar guidelines to last night. We'll give you five minutes for your initial statement, and then if there aren't others to speak, you'll have additional time.

And if you'd state your name when you get to the podium, please.

MR. DOUG WILEY: My name is Doug Wiley. I'm a farm boy from down the road here, and it rained so I thought I'd come in and raise a little more hell.

But you're right, except instead of thinking of something while I slept, I thought of something while I was riding the tractor today.

I've got some questions. That's what I've got today. You heard my impassioned speech last night.

I remember reading some stuff in here on -- I assume I can talk about incineration, too?

MS. MARGARET BARBER: Yes. That's what we were promised on Monday.

MR. DOUG WILEY: I don't know which

meeting I'm supposed to say what.

RUTH FLANDERS: I'll point out legally this meeting is for ACWA. In fact, most of the PMCD folks aren't here.

MS. MARGARET BARBER: On Monday, we were told if people --

MR. OM HANDA: We're here.

RUTH FLANDERS: I'm sorry. You were hiding.

MR. DOUG WILEY: I've got one question --

RUTH FLANDERS: Well, I mean, the problem is that this particular court reporter is addressing comments for ACWA. It will not get in the PMCD response form.

MS. MARGARET BARBER: We were told on Monday that we --

RUTH FLANDERS: That is why we have a court reporter in the corner, to address PMCD comments during this session.

MS. MARGARET BARBER: We were told we could comment on both groups of technologies at any meeting, because some people cannot come to two meetings.

RUTH FLANDERS: And we have provided that by providing a separate court reporter for the

incineration comments -- or let me rephrase it. With a site-specific document at this meeting.

MS. MARGARET BARBER: So he can talk on anything he wants to?

RUTH FLANDERS: But it's only going to be responded to in the ACWA document. If he wants an actual response in the document, it needs to be before the court reporter --

MR. BILL PEKLIVANIAN: Doug, why don't you go ahead and give us your comment and we'll square this up later? We'll make sure, if you want it as a matter of record, to go ahead and we'll get that addressed.

MR. DOUG WILEY: This is kind of typical of what is upsetting about this whole deal.

MS. NANCY BANMAN: You have a full five minutes. 00050

MR. DOUG WILEY: I have a question about incineration. That's what I'll start with. I was reading that EIS, and it said some stuff about problems that as you feed product in the incinerator, if you have problems feeding it in, it changes the emissions, actually increases the emissions quite a bit. Can someone explain that to me? I can't go in there and find exactly where it

is.

MS. NANCY BANMAN: Okay. So Om, did you catch that question? And what we'll do is have that answered for you at the end of the comment period, okay?

MR. DOUG WILEY: That's fine.

MS. NANCY BANMAN: So PMCD folks caught that question, and we'll address that at the end.

MR. DOUG WILEY: And it's specifically stated they anticipate those kind of problems.

MS. NANCY BANMAN: Thank you. Did you have other comments or questions?

MR. DOUG WILEY: Yes, ma'am.

MS. NANCY BANMAN: Go ahead.

MR. DOUG WILEY: I've got questions about the ACWA, the bio -- the neutral bio and the emissions. Someone told me today that it actually emits more dioxins. And if that is correct, how much more? **50-2**

MS. NANCY BANMAN: And again, we'll take your comments and questions and we'll address those after you're finished.

MR. DOUG WILEY: Okay. I was reading this during lunch about some of the emergency things, if there was a bad accident, the effects on **50-3**

agriculture, which I was pleased to see it did consider some things there.

But it stated something about if they used half the value of products sold, agricultural products, sold in Pueblo County.

I think they need to be a little more in-depth in that, specifically if, say, a heard of cows were contaminated, you know.

Mother cows aren't sold every year, so that's not included in the figures for products that are sold from Pueblo County annually. **50-3**

And problems may not show up until they calf the following year, so I think some more thought -- maybe some input from ag people needs to be put into that, so we can get a more accurate picture of what damages would actually happen out here if there were an accident.

Another question I have is if an accident occurs and there are contaminations to ag products, farmland, are we just going to go bankrupt or is there provisions for reimbursement, partial reimbursement? **50-4**

Drop in land values. Are we just going to have to take it in the shorts or is the government going to help us out? I know it's a **50-5**

worst-case scenario kind of thing, but possibilities are it could happen with any of it, right? **50-5**

It seems to me that one of the dangerous points is from transferring to the igloos to the facility. How is that going to be accomplished, you know? **50-6**

Then I've got to wait for answers, right? Do I have to wait for answers to all these questions?

MS. NANCY BANMAN: You do. And we'll get to that. At this point, we need to get them recorded, so continue your list or other comments.

MR. DOUG WILEY: Okay. In addition to some of the comments I made last night about weather problems, are there contingency plans for extreme weather?

What happens if they have to shut down during the -- you know, I've been through a blizzard, unpredicted blizzard, of two day, three foot, basically everything was paralyzed. If these things have to shut down, what's the consequence? **50-7**

What is the incineration? Is there more emissions? Maybe that stuff is in here, but like I said, I couldn't go through that whole thing in

time for this meeting.

MS. NANCY BANMAN: You have one more minute.

MR. DOUG WILEY: What else do I have? Well, I was reading some of the other -- the data on some of the other sites around the country.

I noticed -- I don't know if it was Pine Bluff -- one of them they listed all of the agricultural products grown in the area. I was curious why they didn't do that for Pueblo. And I would expect them to include that in the final draft. **50-8**

Give us a more accurate picture of what exactly we have out here. The diversity of agriculture in this area, even though it's a small area, it's quite diverse. I guess that's all for now.

MS. NANCY BANMAN: Thank you. Are there other individuals who would like to make comments on the ACWA Program this evening?

I'm sorry. I couldn't see you through the podium. Yes, ma'am, it's your turn. Would you state your name, please?

00051

MS. JUDITH JOHANSSON: My name is Judith Johansson, and I just want to make a comment. The **51-1**

Army speaks to me, whether it be from a chess standpoint, the pawns, Army expendables, collateral damage. That's where I feel we're being put in Pueblo.

We're expendable. We're collateral damage. It just kind of is factored in. And I just want to say shortly I'm totally against incineration and 100 percent for alternative technology, particularly after all the questions as Mr. Wiley has indicated have been answered. And that's all. **51-1**

MS. NANCY BANMAN: Thank you. Are there others who want yet to make comments for the public record on the ACWA Program this evening? Okay.

00040

MS. MARGARET BARBER: I just have a request of actually both writers of both documents that has arisen from some things I've learned tonight.

Last night I made some comments on dioxins, which I object to being produced in any amount. But it was pointed out to me by some of the ACWA writers that there are some dioxins emitted by that process or those processes too, as Mr. Wiley mentioned. **40-11**

I think it's therefore all the more

important that we have a chart or charts that list all the kinds of dioxins put out by both operations. **40-11**

I believe there is one like that in the technical document, technical-resource document, that I haven't had a chance to read yet, that I just got today from ACWA.

But I haven't seen anything like that from PMCD. And even in the ACWA document, the figures are given still in formulate fashion. We need to know in fractions of an ounce or whatever, grams, fractions of a gram, per year for each of the technologies what kinds and how many of each kind of dioxins will be emitted. **40-12**

Only when we have that information can we make an informed judgment about which technology is better in regard to dioxins. So if we could have that information before the end of the written-comment period, I think that's something very important for us to be able to consider. Thank you.

MS. NANCY BANMAN: So I think David Barber -- is that correct -- had a comment yet. Are there others who have not yet spoken who have comments they want to make this evening?

MR. DAVID BARBER: I just have a question that I think has been asked a number of different ways, but I'm not sure it's been emphasized.

Both of the EIS statements talk about the worst-case scenario, which probably will never happen. 41-6

But one thing I haven't seen or really heard anybody comment on is what about the cumulative effect of what these processes are going to put out, even if they work the way they say they'll work; we're talking about incineration and the neutralization.

And my question is what about the long-term cumulative effects? We talk about a serious accident, but what about the problems that will accrue years from now with the proper functioning of the -- I can't read my own writing, the methods of destroying this very dangerous substance? 41-7

I understand that we've got it and we've got to get rid of it. I want to emphasize that we want the least-damaging way. And most people in Pueblo's opinion, that's the neutralization. 41-8

But I haven't seen anybody accumulate to discuss the long-term effects. I'm talking about 41-9

the people that are going to get lupus 10 years from now or the people that are going to get cancer or asthma or birth defects or problems conceiving or all of the myriad of problems that we're really beginning to come to grips with very slowly now; something that we will have to as a society come to grips with more and more.

I don't think anybody has dealt with that. We were talking about the cost of the plant and the cost of this and that and the other thing, but what about the long-term effects five, 10, 20, 30 years from now when people start getting sick? **41-9**

And Pueblo, as we've already pointed out -- I hate to say it's a sick community, but we do have some pretty shocking health statistics. And I, for one, think it's because of our -- significantly because of our air pollution.

And it seems to me that incineration will contribute to that air pollution much more than neutralization.

But to the best of my knowledge, neither document has dealt with that issue. You know, what about five, 10, 15, 20, 30 years down the road? Thank you.

MS. NANCY BANMAN: Again, as we come to

the close of the public comment period on the ACWA EIS, I'd ask if there's anyone who's not yet spoken who wants to make a comment in this public setting.

And after we end the public comments, this public part of the meeting, we will still have a court reporter where you can make your comments if you'd like to during the poster session.

But is there anyone who'd like to stand and formally make their comment here? Yes, ma'am. And please state your name. 00052

MS. LOUISA QUINTANA: My name is Louisa Quintana. I am against the incineration. I do have a question. Why is the government constantly dumping in this area? There are many minorities in this area. And as I look around today, I see there's very few people from the Avondale area. 52-1 52-2

Is it because the people seem to want to give up because there's no justice? I'm just asking that question. I don't know how many were here earlier today or yesterday, but I see maybe four people from the Avondale area. It's just a question I needed to address.

There are so many issues in the Pueblo area that are being talked about now, and Pueblo is 52-3

a dumping ground, and I feel that the minority people are being dumped on.

How do you feel about this? Do you all sleep at night? Do you live in the area? Do you live in the Denver area, Springs, or do you live in the Pueblo area where this is going to affect you five to 10 years from now? **52-3**

I happen to know and am familiar with the people in this area, and I constantly receive comments from them, and they're already tired and fed up, and those are the reasons they don't show. I just want to make that comment to you all. Do you sleep at night? Thank you.

MS. NANCY BANMAN: Are there others who'd like to make comments yet this evening in this public setting?

MR. DOUG WILEY: I do.

MS. NANCY BANMAN: Okay. And would you state your name again, Mr. Wiley? 00050

MR. DOUG WILEY: I can do that. Doug Wiley. I just wanted to make a positive comment. I had a conversation with a gal today that's involved in the ag-impact deal they're working on which made me think, you know, after I put my fist down, I realize nobody in this room is to blame for

1 the mess that's up there at the Depot.
2 All I ask -- and I asked this 10 years
3 ago when I stood in these buildings -- let's clean
4 it up safely. We've got to get rid of that blasted
5 mustard. We've got to do it safely. **50-9**
6 I know you people are working on that,
7 and everybody has got kids and family, and we just
8 want honesty and to be up front. If there's
9 problems, we can work through it.
10 We can't afford to spend excessive
11 amounts, but we can't afford to destroy this
12 community. Many people in this community, their
13 ancestors came here in the 1860s. I live just a
14 stone's throw from the original settlement.
15 The spirituality of this area is
16 powerful. It's just this is a wonderful
17 community. My family settled here because of the
18 beautiful good climate, excellent soils. They
19 helped build this community. So we've just got to
20 take care of it. Thank you. That's all.
21 MS. NANCY BANMAN: Thank you. Are there
22 others yet this evening, before we end this
23 public-comment session, who would like to make an
24 additional comment?
25 Yes, ma'am. And would you please state

your name once again?

MS. JoANN SOLANO: I'm JoAnn Solano, and I'm a resident of Avondale. And as Louisa said before, yes, there is very few people here from Avondale, from the community.

And it's true, people are just -- the people from Avondale and this area say hey, we go to all these meetings and we give our input and when we go back to another meeting you ask a question and they say we'll let this one answer this one, I'm not sure. You go to another meeting and another one says I'm not sure.

They say we're not getting no definite answers. We're not getting no honesty. They're not telling us the truth. And that is the way -- that is what the majority of people here in Avondale feel at this point. **44-2**

I know that we need to keep coming to these meetings. And we don't want to be trashed on all the time. We've had enough problems here in Avondale with the water situation, now the incinerator problem.

I mean, it's always -- if it's not one thing we're fighting for, it's something else. And the people say hey, we're not getting anywhere,

because we're speaking and nobody is listening.

So what we want is for people to open their ears and hear us. Hear us and help us. Help us to get these problems straightened up and quit prolonging all these problems. Help us so that we're not having any more people getting sick in Avondale.

We have so many people with cancer, with lupus, with kidney failure, and if you'd come into our community and you talk to these people, you'd find out for yourself. **44-3**

Come and not only say this is JoAnn Solano, she's a resident in Avondale, come and say I want to talk to you JoAnn. You are a person in this community and a very important person and we want to know how you feel. We want to know how many people from your family, how many members from your family, have actually gotten sick out here. What have they gotten sick from?

How long has it been? I'm sorry, but the 20 and 30 years are past us already. We're already at that point. Where are we going to be in five or 10 more years from now with this incinerator problem?

We need help, and it's from you that we

need to get it from. We need you people to listen to us so that we can have more people from the community get involved; so that we can have more people here so that they can fight so we can better our community and make it healthy and make it a nice community so that we can have more people come in and make a better growth in our community.

But we can't do it when we're having all of these problems. People are afraid to move here. So please don't just call us to these meetings and say we heard you. Listen to what we're saying and help us get the right answers. Thank you.

MS. NANCY BANMAN: Are there others yet this evening who want to make a public comment? Stan had ended sessions in the past in auction style saying going once, going twice, going a third time.

So we'll now close the public-comment session. You're still welcome to make public comments over with these two court reporters on either ESI document -- EIS, I'm sorry, document. And I think Mike was going to answer some questions here.

MR. BILL PEKLIVANIAN: Bill.

MS. NANCY BANMAN: I'm sorry, Bill. It's late. Excuse me.

MR. STAN SCOTT: So we're shifting to a poster session in large group.

(The proceedings ended at 8:20 p.m.)

1 REPORTER'S CERTIFICATE

2

3 STATE OF COLORADO)
) ss:
4 COUNTY OF EL PASO)

5 I, Annette R. Trefz, a Registered Professional Reporter and Notary Public within and
6 for the State of Colorado, do hereby certify that said ACWA Program proceedings were taken in
7 shorthand by me at the time and place heretofore set forth, and was reduced to typewritten form
8 under my supervision;

9 That the foregoing is a true transcript of the proceedings had;
10

11 That I am neither attorney nor counsel, nor in any way connected with any attorney or
12 counsel for any of the parties to said action, nor otherwise interested in the outcome of this
13 matter.

14 IN WITNESS HEREOF, I have hereunto set my hand this 15th day of June, 2001.

15

16 Annette R. Trefz, RPR
17 and Notary Public.
My Commission Expires: 1-23-2002

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PROGRAM COMMENTS

taken

June 6, 2001

Pueblo Convention Center
320 Central Main
Pueblo, Colorado

and

June 7, 2001

Avondale Elementary School
Highway 50 East
Avondale, Colorado

SPEAKERS:

1 - RUTH MAHANEY

2 - KATHY A. REITH

(The Program Comment was had as follows:)

MS. RUTH MAHANEY: Okay, Ruth Mahaney, resident of Pueblo.

I'm affiliated with the Pueblo Green Party, and I prefer the newer methods and I do not accept the other one. I mean, personally. I am not speaking for the Green Party, because they speak for themselves. **48-2**

And I've -- I feel that the military politicians, the corporations involved, and all others are responsible to us because we have to live with the results. **48-3**

That's it.

(The comment was concluded.)

* * * * *

KATHY A. REITH,

(Made the Program comment as follows:)

I just wanted to comment and put my two cents' worth in for neutralization. I was at a meeting last month and they explained all the processes; two neutralization and one incineration process. They explained them all very well. 53-1

I understand that the neutralization processes are not fully tested yet, but I would be in favor of a neutralization process.

SAMANTHA E.NOBLE NOBLE & ASSOCIATES

DRAFT ENVIRONMENTAL IMPACT STATEMENT

PUBLIC MEETING

ANNISTON, ALABAMA

* * * * * * * *

Taken before SAMANTHA E. NOBLE, a Court Reporter and Commissioner for Alabama at Large, at Anniston City Meeting Center, Noble Street, Anniston, Alabama, on the 14th day of June, 2001, commencing at approximately 11:00 a.m., first session, and 6:00 p.m., second session.

P.O. BOX 544 OHATCHEE, AL 36271 (256)892-0591

go to wherever the (inaudible) -- the other websites?

MR. BILL PEHLIVANIAN: Right. Any other comments or questions? Yes? 00054

MS. SHIRLEY HOWLAND: Was the neutralization approved for Anniston weapons? Is it in the works? What's the status? 54-1

MR. BILL PEHLIVANIAN: Well, if I understand your question correctly, in the program, the ACWA Program, we look at destroying assembled chemical weapons. Through a dialogue process, we established that those in fact could apply to any place that had assembled chemical weapons. So, the process, although focused for the City of Pueblo, and Kentucky, are included in our document, we're looking at those possible sites that would have stockpiles that we could do a pilot scenario at those locations.

So, the technology would apply for all assembled chemical weapons, no matter what the stockpile.

MS. SHIRLEY HOWLAND: So, it is viable for Anniston? 54-2

MS. BILL PEHLIVANIAN: It is viable for Anniston to have a pilot. That is a possibility. And that's what we're looking at through this document.

MS. SHIRLEY HOWLAND: Well, good. Well, a couple of months ago I sent a letter to Secretary Rumsfeld and I asked him to give your organization cart blanc to examine the possibility of that here, due to the fact that many of these drums have aged and become jelled, and it wasn't viable to destroy them under the incineration method. I wanted to have a plan be in place before, you know, we go into it and then what next. You know, a second opinion, so --

MR. BILL PEHLIVANIAN: Well --

MS. SHIRLEY HOWLAND: So, I was happy to see you here.

MR. BILL PEHLIVANIAN: Well, the document is going to take that, all that information into account. And the decision on where to pilot and what to pilot is going to be forthcoming early in 2002, after we go through a public comment period on this draft, take these

comments, finalize it, and then the Under Secretary will make a decision on where to place a pilot and what technology to place where.

MS. SHIRLEY HOWLAND: Great. We appreciate you.

MR. BILL PEHLIVANIAN: Any other comments or questions? Yes, sir? If you could step up to the microphone, please, and state your name.

MR. SAM CANE: Sam Cane. What is the deciding factor --

MR. BILL PEHLIVANIAN: Could you turn that on, please.

COURT REPORTER: What was your name again?

00055

MR. SAM CANE: What is the deciding factor for where they build the pilot and what is the major criteria for it? 55-1

MR. BILL PEHLIVANIAN: Did you get his name? Could you state your name, please.

MR. SAM CANE: Sam Cane.

MR. BILL PEHLIVANIAN: And your question was: What's the criteria for placing --

MR. SAM CANE: The pilot program? What is going to be the major deciding factors? **55-2**

MR. BILL PEHLIVANIAN: All the factors that we're considering are -- if you could go back to that slide.

These are the areas of assessment. This document just looks at the environmental impact of placing a pilot at those four sites that I described. That, in addition to other decisions that are on this poster over here, are what is going to contribute to the ultimate decision on what and where to place it.

So, consider these areas for this document, which is the Environmental Impact Statement. And then if you look at this poster over here, the one with the oval in it, that will show you other deciding -- decision factors.

Any other comments or questions? If not, I'm going to just encourage everybody to go take a look at the posters. We've got a poster on the ACWA Program. Can answer any specific technical questions you may have. We'll also answer NEPA-related questions.

And depending on how many folks we get in over the course of the next couple of hours, we'll come up, give another presentation, and take public comment. And then, of course, this evening, we're going to have another meeting.

So, thank you very much.

(WHEREUPON, the first session ended at 12:00 p.m.)

(WHEREUPON, the second session commenced at 6:00 p.m.)

MS. DIANE BULLIS: Good evening, folks. Can you all hear me? I don't usually use the microphone, because usually I have a voice loud enough, but I'm hoping to gather up anybody that might be out in the lobby here so that we can begin.

I want to welcome you all and thank you very much for coming out this evening. My name is Diane Bullis and I work for the Soldier Biological Chemical Command, SBC Com at Aberdeen Proving Grounds in Maryland.

The purpose, I hope you all realize, of this evening's meeting is to collect comments from you all on the Draft Environmental Impact Statement that the ACWA Program has

published. ACWA, meaning, A-C-W-A, the Assembled Chemical Weapons Assessment Program. So, the purpose here is for us to gather public comments, either, if you would come up to the microphone, or we have somebody in the back there to take written comments, if you would rather give comments that way.

Plus, we still have other means of accepting comments. Tonight's not your only means of giving us comments, but it's one opportunity for you to.

We have posters on the side here. After we give like a brief introduction here and explain what's going on, you're more than welcome to visit the posters. We have our technical folks here, will be by the posters to answer your questions.

Also, you all, when you came in, hopefully, you signed up at the front desk and received a packet. Let me explain some of the things that are in the packet for you. It might help in following the presentation today. Following me, Mr. Bill Pehlivanian, the Deputy

Program Manager for ACWA, will be giving a brief presentation. And you have his nine slides in your packet.

You have an agenda, along with it's a stapled piece that's in there, and it's all the copies of the posters over here. So, you already have that information in your packet, also.

We have, on some colored sheets, fact sheets about the four sites that are being investigated in the EIS; a one-page diagram, trying to explain how the Environmental Impact Statement is put together; and lastly, you have a couple of yellow pages for which you can give us written comments.

Now, what we would like to do this evening, if you are interested in coming up to give public comment at the microphone, if you could, please, let ladies at the front desk know. I have four names already that I know folks that will be coming up to the microphone.

If there is anybody else interested, again, please, let the people at the registration desk know. And once Bill has done his

presentation, I'll be asking, inviting people to come up to the microphone. Okay? With that --

MR. BILL PEHLIVANIAN: Thank you. Good evening, again. Appreciate the time you're taking out of your day to come help us with this document and the Environmental Impact Statement, Draft Environmental Impact Statement, at this point.

Diane covered most of what's on this slide. I'll just move right into the brief presentation and we'll get to your comments, which is the most important part of this evening.

Next slide. This program is driven by Congress, Congressionally mandated back in 1997. Required to identify and demonstrate alternatives to the baseline incineration process required of the separate program manager. To that end, my boss, Mike Parker, was chosen, and began to execute the requirements of the program that Congress mandated.

You see other laws have followed. As we identified and then demonstrated alternatives, additional funding were coming and

more direction from Congress to turn this from an R&D program to a possible implementation program, which brings us full circle to why we're here today, possibly to implement a pilot scenario with alternative technology.

Next slide. A little history of the program. Back in '97, Mr. Parker wanted to create a transparent and open process. To that end, we sought the services of an independent, neutral third party facilitator, Keystone Center, that went out to all the stockpile communities, brought together a diverse group of folks to help Mr. Parker keep critical decision points.

With that, once we got everybody together, we built criteria by which we're going to identify and demonstrate those alternatives. Once we completed that criteria building step, we went out to private industry with a proposal, asking -- or request for proposal, asking for them to bring their alternatives to us. We got thirteen original proposals, which we applied the criteria against, and culled that down to six, the six technologies that we thought were viable to go to pilot.

Unfortunately, at the time, we only had the funds to complete three. But further down the road, more funds were forthcoming and we executed all six.

Just a status of all those six demonstrations. Completed the first three in September of '99, delivered a report to Congress that considered two of the three technologies that we demonstrated were viable to go to yet the next step, which would be a pilot scenario. Those technologies are listed here on the slide, included in the document, and as Diane pointed out, a part of the posters here on the side.

After that, we immediately took those two and started engineering design studies, which I'll get into in a moment, covering what that was to accomplish.

Once additional funds were forthcoming from Congress, we began to execute and subsequently completed demo two, which was the additional three technologies. We're going to submit a report to Congress here this month, which we'll identify two of the three in demo two that

were viable to go to the next step, which would be a possible pilot scenario. And immediately put those two technologies into engineering design studies.

The engineering design studies were executed to accomplish several things, first, one of the subsequent laws to the original law required that if we were going to go to place a pilot out in the field, the Under Secretary of Defense, who is responsible for this program, Under Secretary of Defense for Acquisition and Technology, he had to certify that alternatives were the same cost, could be done in the same schedule, and were as safe as incineration.

That determination is being made as we speak through a Defense Acquisition Executive Review, which is being done between the Army, PMCD, and OSD PM ACWA, and that decision that the Under Secretary of Defense will make, should be in about early time frame of 2002.

Also, the data from those design studies helped support the building of this NEPA document, along with the demonstration data that we

1 got. And lastly, to help formulate a design
2 package that industry could come and bid on and
3 subsequently construct a pilot facility, if in fact
4 the Under Secretary makes that decision. Again, as
5 I mentioned, early 2002.
6 Basic breakdown of the Draft
7 Environmental Impact Statement. The purpose is to
8 determine where to pilot a facility and what
9 technology that facility should be.
10 The need is driven by Congress.
11 It's the law. Congress told us to do it.
12 Therefore, the need is covered by that mandate.
13 The description of the alternatives
14 is the same as on my other slides, four
15 technologies. And we've got those listed over here
16 on posters in the document.
17 However, there is a fifth
18 requirement or alternative, that's the no-action
19 alternative, which is required by the NEPA law.
20 Four sites that we're looking at,
21 including Anniston here; Pine Bluff, Arkansas;
22 Pueblo, Colorado; and Blue Glass, Kentucky. Both
23 Blue Grass and Pueblo were a part of the original

law, that those sites were put on hold, pending the completion of this program. So, those stockpiles have been put on hold and stay intact. Nothing has been constructed there, so there will be obviously a stockpile to do piloting with.

As far as Pine Bluff and Anniston, it was determined that the schedule given for those sites, the possibility of a slip could allow for some piloting if in fact a schedule slip occurred and a pilot facility would have some weapons to pilot. That determination was made in conjunction with the Army and OSD.

And then the rest of the document considers the comparison of accidents, cumulative, environmental impacts, and closure and decommissioning. Break that down even further, these are the areas of environmental impact that are included in that document and detailed within the document.

Next slide. The slides this evening and the comment period that we're going to get to here in a moment, where you'll be able to give your comments for record. We have reporters

here taking that information down and it will become a matter of record and included in the document.

But in addition, we have a website, which you can access to look at the document and provide comment. E-mail address, which is there, can access and get us comments that way. Our fax number, we'll accept them certainly that way, also. And the comment forms that Diane described that are in your package, or you can pick up in the front, that you could submit your comments in writing.

Up until recently, the due date for submitting your written comments was 25 June. That was based on a forty-five day comment period, which is required in NEPA law.

However, the Army and DoD have been requested by the EPA and other entities to extend that comment period and have in fact extended it by forty-five days. So, it will be a total of ninety days for your comment period. And the new date for -- the end date for comment will be August 10th.

So, with that, I'm going to turn it

back over to Diane and we'll get to your comments, which is the real reason why we're here tonight.

MS. DIANE BULLIS: Folks, with the slide that is up on the screen right now, with the exception of the fax number, in your handout, the one stapled form with the agenda on the front, that information is in here. I think it's on the fourth slide in your handout. However, the fax number isn't. So, I'm going to leave the number up here.

If indeed that you're interested in taking one of those yellow comment cards that you have, writing some comments and wanting to fax it in, please, gather the phone number up there. I wanted to let you know that.

The way the agenda is set up tonight, we actually intend on doing the presentation that Bill just did twice tonight. So, the idea, if you look at the agenda here, is to have the introduction, what Bill just presented, have a public comment period now, open for the next hour, and then we'll do the presentation again for any folks that might come in a little bit later this evening, I think at 8:00. Yes. And we still

have that open comment period from 8:30 to 9:30. So, we have a couple of open comment periods for you, hopefully, so, we'll get everybody in.

Let's see, I would like to ask for right now that we try to limit each person to around five minutes. We have the extra time. I want to make sure everybody gets in this particular period. If somebody needs more than five minutes, I might rotate you back in, if that's okay. But I want to make sure that everybody has the opportunity to get up to the mike that are here right now.

So, with that, the first person that I have is Bill Wannamaker. I think, if you could come up here with me where you can use the microphone.

00056

MR. BILL WANNAMAKER: Okay, the first question that I have is the neutralization, biological, that you guys were considering here at Anniston. According to the documents -- and I did some looking up on the internet -- according to the documents, it said that it was effective against HD, but against the nerve agents or with respect to

56-1

the nerve agents, it was showing that it was -- just wasn't effective.

My question is: Why is that being considered as an alternative for a pilot facility, if the test results are clearly showing that it can't destroy the agent? A good 50 percent of our stockpile is VX and GB. **56-1**

MR. SCOTT SUSMAN: Is that your only comment?

MR. BILL WANNAMAKER: Oh, no, I've got a whole bunch of questions. I'll have to -- I've got a few of them here.

MS. DIANE BULLIS: Well --

MR. BILL PEHLIVANIAN: Why don't you --

MR. BILL WANNAMAKER: Do I just go ahead and ask them?

MS. DIANE BULLIS: Okay.

MR. BILL WANNAMAKER: I'm sorry.

MR. BILL PEHLIVANIAN: It's a matter of record.

MR. BILL WANNAMAKER: Okay. Table 4.6-6 indicates the chemical agents will be emitted **56-2**

from the stacks. And what I want to find out is if, you know -- the idea of chemical agent coming out of the stacks, that kind of bothered me a little bit, so, I was wondering if the health effects of this has been addressed and, you know, risk assessments, etcetera, what has been done to give me a feeling about -- that this is in fact safe, if it is. 56-2

Actually, that type of comment with the agents -- and that occurred in quite a few places, and I won't list all of them, but it happened quite a bit.

Another thing that bothered me is when I read through the document, looked through it, you're always referring to demonstration facility or test facility. It didn't sound like -- it didn't sound like you really -- it was something that was developed and you understood what you were doing and that you were going to build something that we understood. 56-3

It almost seemed like you've done some research, maybe you've proven some concepts in a laboratory, and now all of a sudden you want to

1 build this big facility, and I just didn't feel
2 comfortable about that. **56-3**
3 There was a comment on page 4-19
4 about -- stating that no processed water or
5 hazardous materials would be discharged to the ANAD
6 sewage treatment plant. And I was curious where **56-4**
7 these processed waters are going to be discharged.
8 How are you going to treat them and take care of
9 them?
10 On page 4-29, it says -- and I'll
11 quote "In addition, the treatment process could
12 generate brine wastes containing more than fifty
13 parts per million of PCBs or unacceptable amounts
14 of toxic PCB, intermediate by-product, such as
15 dioxins and furans. PCB concentration in wastes
16 generated during the pilot-scale testing of ACWA
17 technologies will still need to be evaluated." **56-5**
18 So, with all of the stuff in
19 Anniston, we're sensitized to the issue of PCBs.
20 And dioxins and furans, I don't exactly understand
21 what they are, but they don't sound very nice. So,
22 I'd be curious to understand a little bit more
23 about that.

1 It also kind of gave me the
2 feeling, when I was thinking about it, that again,
3 you're proposing to put in a technology or a
4 demonstration of a technology that is supposed --
5 I'm -- as a citizen, and I live right on the
6 outskirts of the Depot, that you've got some 56-6
7 confidence in, that you understand what the effects
8 of it are going to be, what it's going to do. And
9 a lot of the statements and explanations -- and
10 I'll read a few more of them -- didn't give me that
11 feeling.
12 On page 4-33, you talk about this
13 neutralization/GPCR/TW-SCWO -- SC -- supercritical
14 water oxidation. And when I was reading some other
15 documents, it said that the supercritical water 56-7
16 oxidation, the supercritical conditions are like
17 hundreds of atmospheres, very high temperature. It
18 sounded like a very explosive -- it sounded like an
19 explosion could occur pretty easily.
20 In some of the alternative
21 technology assessment reports, they had talked in
22 there about energetic materials being propagated 56-8
23 through the system. And so there was some concern

on my part about how all of that interacts and what is the -- one, the chance of an explosion? And two, if there was an explosion, where would it occur and how would it propagate and affect, you know, me, as a resident, again, living right on the outskirts? I live probably less than about three-quarters of a mile from the post. **56-8**

Again, another question I had, it seems like whenever I hear people talk about ACWA, they talk about these non-incineration technologies. But when I was reading through chapter three of the report, on all of those processes, it talked -- it seemed like it talked about the process, neutralization, biotreatments, supercritical whatever. **56-9**

Then every time it had a statement -- and I wrote down the statement -- it would say something along the lines of, to ensure that the statement that thermal treatment is required, in order to ensure that all agents and energetics were removed.

And I just had a little bit of concern; if you're writing your EIS, you're saying

that you need to use incineration in order to ensure that these alternative technologies remove all of the by-products of whatever the process is, you know, my question is, is why are you proposing these alternative technologies, if you ultimately end up using, you know, in some type of incineration? **56-9**

Tell me when I'm getting close. Maybe I could do one or two extra minutes here, because I've got to leave early.

MS. DIANE BULLIS: No, that's okay.

MR. BILL WANNAMAKER: Another question I had was, it seems to me when I listened about this ACWA processes, people always talk about it being a closed-loop process, but when I was looking through the EIS and reading some of the other documents, it didn't seem like a close-looped process. I keep reading about stacks, stack emissions, thermal treatment, following each of the processes, certainly for all the -- three neutralization ones for sure it said thermal treatment was required at the end. **56-10**

And then the fourth one, I can't **56-11**

remember whether that one required it, but the bottom line is, it didn't seem like a -- you know, this nice, you know, like a tank that's sealed and you stir it up and it's all gone and you don't have to worry about it. So, you know, I have a concern about that and was curious about what you mean when you talk about a closed-loop process. **56-11**

On the electrochemical, I think they called it silver two or something, electrochemical oxidation, they were talking about using nitric acid. I mean, nitric acid seems to me sounds like a very corrosive material, again, because of the, you know, electricity and stuff going through it. And I'm wondering, is this thing going to blow up? What happens if there is a spill, if there is an explosion, if there is a -- what happens if something goes awry with this nitric acid? You know, how much of it is used in the process? What are the by-products of this nitric acid, you know, once you mix it? And what happens with that stuff? **56-12**

On page 4-35, it talks about metal parts from detonation chambers, munitions hardware, **56-13**

1 dunnage, and other solid wastes would be thermally
2 decontaminated to a 5X condition in MPT, an
3 inductively heated vessel, with a superheated steam
4 reactive environment.
5 And again, if the question was
6 along the lines -- it sounds like an incinerator is **56-13**
7 what it sounds like. And I'm just wondering, you
8 know, is incineration actually a part of this ACWA
9 process, which is not what I really hear much
10 about?
11 And I already mentioned this.
12 4-50, that the technology seemed to all have
13 multiple stacks.
14 There was, on 4.5.3.3, the section
15 was entitled, impacts of fluctuating operations.
16 It seems to me that -- and I did put the quote down
17 here, but there was a statement in there that there
18 may be agent releases as a result of fluctuating
19 operations or fluctuating operating conditions. **56-14**
20 And I think I got a note of it down here later and
21 I'll look for that. But that was one issue.
22 The second issue is, is it -- in my
23 mind, if you have a process and the process -- and

you've got control of that process, you understand it, you wouldn't think it would be fluctuating a lot. Maybe that's standard. I'm not a chemical engineer, so I don't know.

But it seems to me that if you have a process that's fluctuating -- you know, I am an electronic engineer, and I know that we make things fluctuate, but we always control the fluctuations. And maybe that's the case, but it seemed like there was several places in there talking about fluctuating operations. And that gives me some concern, as well, not only because they're fluctuating, but because it seems that these processes -- and I'll get to the assessment reports in a second -- don't seem like they're very well understood. **56-14**

Okay, tables 4.6-2, 6-3, 6-4, and 6-5, all of these tables indicated that there will be a variety of chemicals emitted. And it mentions in there dioxins, furans, PCBs, chemical agent, and other different types of chemicals that I'm not entirely familiar with. **56-15**

Again, what is the impact of those

chemicals on me as a citizen? You know, how do they affect my kids, my children? How much of those chemicals are coming out? What are you trying to do to prevent those things from coming out, etcetera? **56-15**

On 4-80, in section 4.6.3.2, it said that PCBs were not tested as part of the ACWA demonstration project, since doing so would have triggered regulatory requirements under TSCA that would have added considerably to the cost and difficulty of the demonstration.

Am I to infer from that that none of these technologies that you're proposing to build have actually been tested and have -- and you have demonstrated that they are capable of handling PCBs? And if they're not, then what are you planning to do about it? What -- what has happened, maybe since this report was written or what is going to happen, to show that you're aware of that and you're going to take care of it? **56-16**

Page 4-95 talks about the technology design. As technology designs near completion and estimates of process efficiencies **56-17**

1 become more reliable -- it was just the language.
2 Again, it didn't give me confidence that you
3 guys -- that you had technologies that you fully
4 had studied, tested, understood, and okay, let's
5 build them, because we know what's going to happen. **56-17**
6 You know, you're talking about technology designs
7 nearing completion and estimates of process
8 efficiencies. It just didn't come across very well
9 to me.
10 I have just got about ten or
11 fifteen more little ones here.
12 The National Research Council
13 Report, entitled Review and Evaluation of
14 Alternative Technologies for Demilitarization of
15 Assembled Chemical Weapons. And I won't read that
16 title every time, but the next five or eight
17 questions will be with respect to that.
18 It says the technology base for the
19 hydrolysis of energetics is not as mature as it is
20 for chemical agents. Chemical methods of **56-18**
21 destroying energetics have only been considered
22 recently. Therefore, there has been little
23 experience with the alkaline decomposition of

1 ACWA-specific energetic materials.
2 Because such a large part of what
3 is at ANCDF has to deal with different types of
4 energetic materials, one is how are you going to **56-18**
5 deal with it, because it is a new technology? And
6 two -- or maybe not new, but it hasn't -- it's not
7 as well understood.
8 And two, because it's new, does the
9 possibility exist for explosive-type situations,
10 you know, because you don't understand it that
11 well? And what do you have planned, you know, **56-19**
12 to -- I mean, are you guys planning to do more
13 studies in this area before you build this pilot
14 plant or are you just going to go out and build it?
15 General finding three stated that
16 the condition quote -- "Conditions under which
17 aromatic nitro compound, such as trinitrotoluene,
18 TNT, or picric acid will emulsify in the aqueous
19 phase are not well understood. Therefore, this **56-20**
20 type of material could be present in the output
21 stream from an energetic hydrolysis step".
22 I think what that says is that when
23 you guys go to neutralize, not all of it's going to

be neutralized. Some of that energetic material may pass through the system.

That's just my interpretation. That's what it sounds like, but again, if I could get some clarification on that.

And I hope you understand that, you know, my perception is, is this is not just like a tube full of energy -- you know, we're talking about, you know, hundreds of thousands of pounds of this stuff going through mass. And the accumulations, you know, could result in a very serious situation. **56-20**

General finding five. The primary -- I'll quote -- "The primary chemical decomposition process in all of the technology packages, produce environmentally unacceptable reaction products. Therefore, all of the packages are complicated processes that include subsequent treatment steps to modify." **56-21**

It was something that I observed, too, in reading, besides this, that, you know, like with neutralization, then it was biotreatment, then it was thermal, it didn't seem like these were

1 nice, clean technologies that you would just do.
2 It seemed like there was a whole series of things **56-21**
3 that you had to do.
4 In my questions, it seems like the
5 process is getting -- it's not a simpler process,
6 it's just -- it's getting more complicated, trying
7 to interact and integrate all of these different **56-22**
8 types of technologies and getting them to work
9 together, especially, since they're not all well
10 understood. My opinion, based on what I've read.
11 General finding six, the waste
12 streams of all the ACWA technology packages could
13 contain very small amounts of hazardous substances,
14 not to mention residual chemical agent. These
15 substances, as I'd mentioned earlier in the table
16 that was talking about the agent coming out of the
17 stack -- these substances were not fully **56-23**
18 characterized at the time of this report;
19 therefore, all waste streams must be characterized
20 to ensure that human health and environment are
21 protected.
22 And basically, my question is, is
23 have you guys -- you know, you're proposing to do

1 that. Have you done that? You know, where has it
2 been documented? Has it been, you know, reviewed
3 by other organizations besides you, like the NRC, 56-23
4 which is where I got a lot of these comments?
5 General finding ten, testing
6 verification and integration beyond the 1999
7 demonstration phase will be necessary because the
8 scale-up process could present many unexpected
9 challenges, and the ACWA demonstrations were
10 limited in nature.
11 Again, that is a concern to me,
12 because again, it tells me that the process is not
13 developed. What research and review has been done? 56-24
14 I mean, we're not talking about, you know, the NRC
15 going in and doing a detailed review of these
16 technologies, long-term, you know, low-scale
17 operations, to verify their safety and what's
18 happening, when people understand it.
19 As a matter of fact, in the
20 assessment reports I read, they specifically stated
21 in there that due to time problems, that they had
22 to cut many of their studies short.
23 General finding eleven, although a 56-25

comprehensive, quantitative -- or QRA, HRA and ecological risk assessment cannot be completed at this stage of process development, these assessments will have to be performed and refined as process development continues.

You know, to me, from my perspective, you know, that's like the most important part, because those are supposed to, you know, define the impacts to me as an individual. You know, why haven't the -- maybe they have been done. And if they have, where are they documented, where can I get that information, and etcetera, etcetera? 56-25

And then general recommendation one states, if a decision is made to move forward with any of the ACWA technology packages, substantial, additional testing, verification, and integration, should be performed prior to full-scale implementation. 56-26

And basically my question is, is have you done that, and who has done it, and again, who has looked over it, independently, verified it, so that I can see that for myself? Not that I

1 don't trust you or anything. 56-26

2 General finding eight was stated

3 that none of the proposed technology packages

4 complies with the hold-test-release concept for all

5 gaseous effluents. I'm not exactly familiar with

6 hold-test-release concept is, but if it was

7 important enough for them to state it in the 56-27

8 documents, it probably is pretty important. So, my

9 question is, is has this been done, has it been

10 tested, you know, and if it hasn't, what are you

11 planning to do about it, and if you don't, what are

12 the impacts to me as an individual?

13 General finding ten, the ACWA

14 demonstrations tested only the unit operations that

15 DoD -- that DoD believed were most critical or

16 least proven for technology packages. And I guess

17 you answered this, because you said that you did

18 all six of them there, so I'll skip that. 56-28

19 General finding ten stated, the

20 demonstrations did not include interfacing the unit

21 operations into a complete system when unexpected

22 problems may arise.

23 Again, it's just another

statement -- and I found them again and again and again -- saying that we haven't put this thing together, we're not really sure what's going to happen, because we've never done it before. **56-28**

Another comment in general finding ten, impurities that are not detected in small-scale tests -- and this was a crit- -- this bothered me a lot. Impurities that are not detected in small-scale tests may be evident in larger scale tests. Because of the limited quantities used in the small-scale and demonstration-phase test, trace impurities in the waste streams may not be detectable. **56-29**

What -- what impurities? And, you know, what are the other -- what are the things that I haven't been able to see in these reports that might come out that could be potentially -- and what studies have been done to determine those things?

General finding fourteen, as you had stated up here earlier, I think it was 105-261 that you have to comply with, cost schedule, in other words, if any of these technologies -- you **56-30**

1 know, I am somewhat familiar with the process of,
2 you know, setting out RFPs and things like that and
3 building a plant. And I don't see that that
4 process could possibly get a plant put together in
5 less than probably four to five years. Maybe there **56-30**
6 is some things that you've got up the sleeve or
7 you've already started, but I'm wondering, why are
8 we even considering something that, you know, that
9 probably won't happen?
10 Okay, last page, three more
11 comments. Recommendations G -- wait, I changed
12 this. Evaluation of the National Research Council
13 Report, entitled, Evaluation of Demonstration Test
14 Results, Alternative Technologies for
15 Demilitarization of Assembled Chemical Weapons, a
16 Supplemental Review. Recommendation GA-4 states
17 that the efficacy and safety of the additional step
18 to remove aluminum hydroxide from the hydrolysate
19 produced from rocket propellants should be **56-31**
20 evaluated prior to construction of a full-scale
21 supercritical water oxidation system.
22 Based on the reading, it appeared
23 that that aluminum was -- would plug up -- there

1 was some problems with corrosion and plugging of
2 the nozzles. That increases the risk, maybe not to
3 me, personally, but I also have a concern about the
4 people that are actually working on the plant. If
5 you've got to have people in there constantly
6 trying to fix things because they're not working **56-31**
7 properly, you know, while I may not be affected
8 directly, it does affect the people that work in
9 the plants. And that -- you know, that's,
10 important, too. And, you know, I'd just be curious
11 to see where you're at on that.
12 In that same report, general
13 finding one states that none of the three
14 technology packages are ready for integrated pilot
15 programming. I think only two of them, that PWC, I
16 guess, isn't considered as one of these, correct, **56-32**
17 so -- but the other two, it did state the
18 neutralization with biodegradation and the
19 neutralization with the supercritical water
20 oxidation, you know, it just said they weren't
21 ready. So, why?
22 And last question is, general **56-33**
23 finding two, the demonstration tests were not

1 operated long enough to demonstrate reliability and 56-33
2 long-term operation. I think I've probably already
3 mentioned that earlier.
4 So, those are just a summary of my
5 concerns and I've submitted the rest of the
6 questions for them.
7 MS. DIANE BULLIS: So, you have
8 submitted them --
9 MR. BILL WANNAMAKER: Yeah, they're
10 in there so they can --
11 MR. BILL PEHLIVANIAN: Well, those
12 were excellent concerns, comments, and questions,
13 and because you stated them for the record, our
14 requirement is to answer them. We're going to get
15 you those detailed answers. Not going to be able
16 to supply them all this evening. I want to make
17 some comment in general --
18 MR. BILL WANNAMAKER: Sure.
19 MR. BILL PEHLIVANIAN: -- to a lot
20 of your concerns. And then I'm going to call on
21 some folks to add to them.
22 With regard to the NRC's comments
23 that you were commenting about, please, realize

that those comments are somewhat dated, and in fact the engineering design studies that we have performed were answering a lot of those concerns. Because we certainly worked hand in hand with the NRC. That's not to say that they're all completed, but we'll certainly detail those out for you.

Your point about the schedule, where if we would go out with an RFP, in your opinion, take about four or five years, whatever that may be, it may be four or five years, it may be less, but the study of that is being done under the Defense Acquisition Executive Review. And if in fact we can't meet schedule -- in other words, an alternative is not equal to the schedule that the incineration process can accomplish, then by law, we won't be able to execute that alternative. So, that's a decision, as I mentioned, that will be forthcoming in early '02.

MR. BILL WANNAMAKER: Could I just ask: When will that report be available? You said the subsequent reports have been developed by the NRC. **56-34**

MR. BILL PEHLIVANIAN: Not

subsequent reports by the NRC, but our engineering design studies --

MR. BILL WANNAMAKER: Okay.

MR. BILL PEHLIVANIAN: -- have been ongoing to answer and address a lot of those concerns --

MR. BILL WANNAMAKER: I see.

MR. BILL PEHLIVANIAN: -- that you brought up from that NRC report.

MR. BILL WANNAMAKER: But they're not available for public review, at this point?

MR. BILL PEHLIVANIAN: Not yet, but all of this will be, at some point, minus proprietary information --

MR. BILL WANNAMAKER: Sure.

MR. BILL PEHLIVANIAN: -- such as cost, be particular to technology.

MR. BILL WANNAMAKER: And they'll all be made available prior to the decision to actually implement a technology at Anniston so that we'll be able to comment on that? **56-35**

MR. BILL PEHLIVANIAN: If in fact the technology would be implemented at Anniston,

1 that would be a decision that the Defense
2 Acquisition and Technical Review would put a record
3 of decision against. And then that information, on
4 the record of decision, would be made available --
5 MR. BILL WANNAMAKER: Okay.
6 MR. BILL PEHLIVANIAN: -- for
7 public consumption through the EE/CA process.
8 MR. BILL WANNAMAKER: Okay.
9 MR. BILL PEHLIVANIAN: The thermal
10 issue that you brought up -- and I'm going to ask
11 Scott Susman, who is on our tech team, to maybe
12 talk about this a little bit more. But I believe
13 that's a 5X condition that is a requirement of the
14 metal parts before we can ship outside the confines
15 of the government. And the difference between the
16 approaches taken in the alternative vice the actual
17 definition of incineration, is what I think I'll
18 have Scott talk a little bit about.
19 And then dioxins and furans is
20 certainly a concern that we've heard previous. And
21 Jon Ware, who is our environmental team leader, can
22 speak to that.
23 The unit operations, your

confidence level in being able to assume that we'll be able to execute a pilot and be successful, the Army is executing these technologies as we speak on agent only on the bulk sites in Indiana and Maryland. This is the same technology, when it comes to new bio and SCWO, just a different application, as far as how to handle the energetics and explosives, metal parts, associated material.

To that end, we didn't do every piece of the proposed design because we had a lot of data on agent. We just pulled out those unit operations that we needed more data to feel confident we could go to the next level, because we're trying to scale up these technologies to equal that of a destruction methodology that would equal the throughput of incineration.

At any step, it could fail. Up to this point, there's been success against the criteria that these technologies and these unit-process operations have met that criteria.

Now, as we scale it up and go to pilot, we're going to build, if in fact it is decided to build a pilot facility, a full-scale

facility, and then scale it up slowly, just like the approach they're using at New Port and Maryland, that the Army's currently executing.

So, again, this is just some feedback for you tonight. We're going to get you detailed answers to every question you asked.

Scott, did you want to add to that?

MR. SCOTT SUSMAN: I'm Scott Susman, also with the ACWA Program.

Before I address the specifics on the thermal treatment, the 5X treatment, a lot of good comments, a lot of good questions. I would encourage you to come over and we'll go through the process and answer a lot of those as we go through the process.

But to address the specific one on incineration versus non-incineration thermal processing, there is definitely thermal processing in all these technologies that we're -- it's -- are being proposed for piloting. The differences are -- and again, they're a little bit different, even between the technologies that we're talking about.

1 And again, we can go through those,
2 but the main difference is the incineration is a
3 fuel-fired furnace in the presence of air. These
4 processes, again, they are high heat in order to
5 get the decontamination of the metal parts that
6 will be fed to the process. But they're done in
7 inert atmospheres, and in most cases, electrically
8 heated. So, it's still a thermal process, it's
9 just not an incineration process.
10 And again, it's there to
11 decontaminate the metal parts that are completely
12 clean of agent and energetics. But in order to
13 release those metal parts from the Army and
14 hopefully have them be recycled, they do have to go
15 through this thermal treatment to properly clean
16 them.
17 MR. BILL WANNAMAKER: So, that
18 means it doesn't have any emissions or anything **56-36**
19 like that?
20 MR. SCOTT SUSMAN: No, there are --
21 certainly, there are emissions associated with it,
22 there are stacks associated with all these systems,
23 as you mentioned about closed-loop systems. These

are -- none of these are closed-loop systems, they are stacks one way or the other on these things.

And again, as we go through, you know, if -- whoever wants to come over and take a look at any of the processes, we can talk about where those emissions would be.

MR. JON WARE: My name is Jon Ware. I'm the environmental team leader for ACWA. You mentioned you had some concerns about impurities throughout the process, the systemization. One thing our EIS studies is doing is that we're looking at -- we're putting those units together, we're adding another step up in the systemization.

Keep in mind that, as you're going through our Resource Conservation and Recovery Act permit, you have a time which usually lasts about eighteen months of systemization of your plant and a compliance schedule that the regulator will give us. And that's looking at your waste feed, whatever your waste feed comes from. You're never exactly sure what every molecule in that waste feeds -- you're never sure where all of your waste goes, so that's -- we'll have an eighteen-month

schedule, approximately, whatever the regulators give us, just like incineration, just like any RCRA facility that's built to look for those things. And that's part -- and also keep in mind that we're not building a destruction facility, we're building a pilot plant. So, a lot of your concerns are going to be flushed out at that stage.

We have to make sure that that's the last step in our systemization of the plant. And along with our compliance schedule (inaudible), we will look at those things and make sure we don't have any of those releases.

The TSCA permit is what we're going to be -- we're doing work on that now, that's the Toxic Substance Control Act permit. And what that does is concerning PCBs, to make sure we can actually destroy them. And actually, it's not a permit, as such, given by our EPA region, it's an approval of our process. And that we'll get before we go to a pilot.

MR. BILL WANNAMAKER: Wouldn't it be better to figure all that stuff out before you built the pilot plant so you understand it when

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56-37

you're building the plant?

MR. JON WARE: That we will --

MR. BILL PEHLIVANIAN: Before we get a permit, we would have to do that.

MS. DIANE BULLIS: Wait, wait, get the question. People did not hear his question. Can you repeat it?

MR. BILL PEHLIVANIAN: Just repeat his question?

MS. DIANE BULLIS: Yes. People did not hear it.

MR. JON WARE: I'm sorry, your question on the TSCA?

MR. DIANE BULLIS: The question he just had right now.

MR. BILL PEHLIVANIAN: Wouldn't it be better to have all of this --

MR. JON WARE: Yes, wouldn't it be better to have all this beforehand --

MR. BILL WANNAMAKER: Beforehand, so technically it's correct. And then go and build it rather than --

MR. JON WARE: I think what we're

1 doing in our systemization, I think, in our
2 systemization is we're doing all that's possible.
3 We've done scans for actually all of our units.
4 And as we put those units together, we've looked at
5 just about everything that's regulated and actually
6 other things that aren't regulated that nationwide
7 dialogue has had concerns with.
8 But however, even if you built a
9 plant a hundred times or a thousand times, we still
10 have to go through this process of once you put
11 everything together, we have to go through that
12 compliance schedule. 00057
13 MR. SONNY SMITH: You call it a
14 systemization, but yet you said you don't know what
15 your output is going to be. Is that not research 57-1
16 and development?
17 MR. JON WARE: No, we know what our
18 output's going to be, given our waste -- our waste
19 feed. It's just that the amounts that you build in
20 your plant, you have to make sure that you meet the
21 performance specs that are given to you by your
22 permit. Given this data that we have, given our
23 design, we're going to get with the regulators and

they will look at it and say, these are your performance factors, these are your standards that you have to meet for all the chemicals and waste codes that we have. However, like I said before, even if you've built a plant a million times, you still have to go through this step, such that you make sure, after the plant is put together, that you're meeting that criteria.

MR. SONNY SMITH: So, are you not in research and development then?

MR. JON WARE: No. That's the stage of pilot. Well, actually, the pilot completes our R&D efforts.

MR. SONNY SMITH: Thank you.

COURT REPORTER: I need his name.

MS. DIANE BULLIS: Folks, what we need to do is to kind of follow the rules here. If you have a comment or want to come up to the microphone, please, let the ladies in the back at the registration desk know, because I'm going to go ahead and go through the order that I have, the names that have already signed up. Okay?

MS. SHIRLEY WILLIAMS: When you say

a comment, what about a question? Do we need to let them know we need to ask a question, also?

MS. DIANE BULLIS: Yes. Thank you.

COURT REPORTER: Could I get your name, please, sir?

MR. SONNY SMITH: It's in the back. Yeah, Sonny Smith.

COURT REPORTER: I don't know it, I'm sorry. I don't have a list, I'm sorry.

MS. DIANE BULLIS: I'm sorry, your name is?

MR. SONNY SMITH: Sonny Smith.

COURT REPORTER: Thank you.

MS. DIANE BULLIS: And that's the other reason, I should point out, you know, we have a reporter here who is capturing all of your comments, so everything, your comments, questions, concerns, are all getting documented. And as Bill mentioned here, we will get back with you to answer all these. So, that's another problem, as you raise your hand and just ask, I don't know who to come back to direct it to. So, I apologize.

MR. SONNY SMITH: Let me ask a

question, though. Administratively, it's okay to ask questions for clarification then?

MS. DIANE BULLIS: Yes.

MR. SONNY SMITH: Okay. Just wanted to make sure.

MS. DIANE BULLIS: Yes. Like I said, I want to go ahead and follow through with the list that I have, all right, if that's all right.

Thank you very much for your comments. The amount of homework that you did was obvious. And you were so well organized, there was no way that I was going to say, excuse me. So, thank you very much. I appreciate that. Thank you.

The next name that I have on the list is Millard Hanbury. Yes, Mr. Hanbury. 00058

MR. MILLARD HANBURY: (Inaudible).

MS. DIANE BULLIS: Is your mike not on?

MR. MILLARD HANBURY: Yes, it is. Previous (inaudible) alternative technology processes have concluded the construction --

COURT REPORTER: I'm sorry, I can't understand you.

MS. DIANE BULLIS: Could I ask you to come up here, because not only is she listening, she's also watching, and it's amazing how that helps. And I want to be able to catch your comments accurately. Thank you.

COURT REPORTER: Thank you. I'm sorry.

MR. MILLARD HANBURY: The U.S. Army and numerous private engineering companies have previously analyzed many alternative processes that included pilot demonstrations that would dispose of chemical agents. Nothing has been found that better rids the nation of this problem than the high-tech-incineration process currently used.

Where alternative methods may change the state of the agent, the result and quantities of extremely hazardous chemical waste still must be dealt with as a by-product. A review of the ACWA fact sheet that you've provided for the proposed pilot test facility lays out the monumental effort that has already been performed

58-1

by the government, as I mentioned, and at the cost of probably hundreds of millions of dollars. **58-1**

At a time -- by the time this envisioned test program would be operational, the Anniston disposal facility would be complete and in the closure process. There is absolutely no benefit to the concerned citizens of Calhoun County for this project as an alternative to incineration. **58-2**

As an engineer and a citizen of Calhoun County, I strongly recommend that all financial and technical resources available for the chem demil program be directed to the safe and complete incineration of the stockpile of chemical weapons. **58-3**

And by the way, thermal treatment by any other name is incineration, you're just using a different fuel source. Thank you. **58-4**

MS. DIANE BULLIS: Thank you very much. The next name I have, Mr. Frank Sweet. If I could have you, again, come up here -- I think we're doing better -- so that we can record more accurately.

MR. FRANK SWEET: Sure.

00059

MS. DIANE BULLIS: Thank you.

MR. FRANK SWEET: I have first an easy question, I think maybe you can answer it. Why -- first of all, who decided to put a pilot plant here or who proposed the idea and why did they propose it? 59-1

That should be fairly obvious to you folks. Could I get an answer to that?

MS. DIANE BULLIS: Introduce yourself, Ruth.

MS. RUTH FLANDERS: My name is Ruth Flanders. I'm an attorney for the Soldier Biological Chemical Command, and I do know the answer to this question. There were quite a few people who only wanted us to look at Pine Bluff -- excuse me, Blue Grass and Pueblo because they have no facility being constructed there. The problem is, is that under the National Environmental Policy Act, we are required to look at all reasonable alternatives.

MR. FRANK SWEET: That was a '97 act?

MS. RUTH FLANDERS: Actually, the

National Environmental Policy Act was passed in 1969 and requires us to look at -- for all major federal actions, to look at the environmental impact before the government makes a decision.

MR. FRANK SWEET: Okay.

MS. RUTH FLANDERS: NEPA, National Environmental Policy Act is why we write these big long documents. It's the law that requires those documents.

One of the things is that we have to look at all reasonable alternatives. The fact is, if the incineration -- the schedule for the process for Anniston were to slip some period of time, there could be assembled chemical munitions still located at Anniston by the time a facility could be built. So, because the possibility exists, that makes it a reasonable alternative, at this point in time.

The government has not made the decision to put a pilot facility here, yet. What we're saying is: Based on the current incineration schedule, if you assume some amount of slip, just because we know that there have been slips in all

the steps --

MR. FRANK SWEET: But this is a pilot plant, not a production plant?

MS. RUTH FLANDERS: That is correct, it is a pilot.

MR. FRANK SWEET: So, why couldn't a pilot plant be put in a remote area or why couldn't just one pilot plant for R&D be developed at one site? **59-2**

MS. RUTH FLANDERS: That's what this document is trying to decide. The decision is, do we build one, at all, and if so, where.

You have to realize, what we're trying to look at in this pilot is how to destroy assembled chemical weapons. So, we have to go to some place that has assembled chemical weapons. There are only --

MR. FRANK SWEET: I'm not buying it, because you said that the reason you're putting it -- you want to plan it here is because the schedule might slip. That is not a reason to build a plant here. **59-3**

If you have -- what you're trying

to do is R&D. You're trying to prove a process. You can do that anywhere. Once you prove the process, then you can look at the schedule for these other sites and say, that's where we're going to go next. **59-3**

MS. RUTH FLANDERS: But the problem is, in order to prove the process, we have to have assembled chemical weapons. There are only so many sites with assembled chemical weapons in the United States. There is a law that prevents us from moving chemical weap- -- assembled weap- -- or any of our stockpile from site to site.

MR. FRANK SWEET: But Congress passed a law that said you would -- you would do this R&D, you would do this pilot plant, they could pass a law to move those chemical weapons to a place like Dugway Proving Ground, and you could do your testing there, which was the Deseret for Dugway Proving Ground in the first place. **59-4**

MS. RUTH FLANDERS: Based on the way the attorneys looked at this issue, the current law has been in there for a significant period of time. The greatest risk is in the movement of

chemical weapons and the decision -- without a change in that law, no other site is a reasonable alternative, other than the ones that already have assembled chemical weapons.

The sites at Umatilla and Deseret Chemical Depot were both excluded, because even with significant slips in schedules, they still would no longer have assembled chemical weapons by the time a facility could get built. And therefore, the remaining sites that -- with assembled chemical weapons were considered reasonable.

MR. FRANK SWEET: Does Anniston have weapons that do not exist at the other sites? **59-5**

MS. RUTH FLANDERS: Yes.

MR. FRANK SWEET: Which ones? **59-6**

MS. RUTH FLANDERS: I would have to get the complete list. But Anniston has more varieties of weapons than any of the other three sites. I'd have to --

MR. FRANK SWEET: You sure about that?

MS. RUTH FLANDERS: Yeah.

MR. HARRY FLANDERS: Yeah. I've read the report that said what they had.

MS. RUTH FLANDERS: But the short answer is: The lawyers decided that we had to include Anniston in this review. That's basically the short answer.

And I will have to admit, I was one of the attorneys in that meeting and I happen to agree with them. In order to protect the Army from litigation after the fact, we had to include Anniston as one of the sites.

MR. FRANK SWEET: I think we should look at protecting the citizens and then protect the Army secondly.

I'll keep it under five minutes.

MS. DIANE BULLIS: Okay, fine.

MR. FRANK SWEET: Our government spent really billions of dollars in the last twenty-five years testing a variety of approaches. Every time they did it, baseline incineration proved to be the safest, most environmentally sound, and the quickest method. 59-7

Anniston has a one billion dollar

1 plant built and ready for operation. 99 percent of
2 that risk can be gone in two years. **59-7**
3 Now, to appease activists, feeding
4 at the government troth, we're told that billions
5 more have to be spent, in effect, throwing down the
6 drain much of that money that has already been
7 invested.
8 I understand that nobody here is
9 responsible for that. It's our leadership in
10 Congress who came up with this plan. So, there's
11 certainly nothing personal about this.
12 But a proven system to destroy
13 these agents exists now. Incinerators have
14 destroyed agents in Utah since 1979. The entire
15 Rocky Mountain Arsenal of -- stockpile of mustard, **59-8**
16 nerve gas, was destroyed during the '70s, I
17 believe, right in the middle of a major
18 metropolitan center.
19 Johnston Island destroyed chemical
20 through incineration for ten years. There were no
21 fatalities, no acute or chronic health effects. **59-9**
22 Johnston Island is a thriving wildlife refuge.
23 You know, it's as if the government

came to us and said, we're going to -- don't worry, we're going to take care of everything, we're going to -- we're going to invent that polio vaccine. It's already been done, you know. Congress needs to wake up. It's already been done.

There is numerous questions regarding the safety and efficiency and effectiveness of these alternative technologies. None of these technologies have been proven on even a small scale. And now you want to spend billions of dollars on a huge plant, six hundred people to a thousand people.

You know, the least you could do is to at least start off kind of small and be a little bit more sure of what you're going to do before you spend that kind of tax payer money. **59-10**

You know, you say you know exactly what's going to be -- what the by-products are, what's exactly coming out of these processes. Do you really stand by that? You're shaking your head no, now.

MR. JON WARE: Didn't say that.

MR. FRANK SWEET: I thought I heard

you say that.

MR. JON WARE: In our testing and systemization, we've done as much as -- a complete scan as we can, to know at this stage. But like I said, we have to go through a compliance stage to check it again. And every plant, including incineration, has to go through that stage, every time you build a new plant. So, we're always looking for new items coming out of a process, especially as you scale up or any new process.

MR. FRANK SWEET: And you think it's a good idea to do that in a major metropolitan area? Well, I don't know if you would call Anniston a major metropolitan area, but there is a lot of people around here. **59-11**

I mean, it ought to be done in a remote area, you know -- well, we've already fought that battle.

It's my understanding that one of the supercritical water oxidation plants or one of the small pilot facilities already blew up. Is there any truth to that? Did something blow up or is that just a rumor? **59-12**

MS. DIANE BULLIS: Mr. Sweet, I tell you, if you can go through your questions, I'll have again Bill come back up afterwards --

MR. FRANK SWEET: Oh, okay.

MS. DIANE BULLIS: -- and answer all of these.

MR. FRANK SWEET: I'll do that.

MS. DIANE BULLIS: So that we can have them recorded.

MR. FRANK SWEET: I'll do that.

MS. DIANE BULLIS: Thank you.

MR. FRANK SWEET: We're going to need a large amount of new toxic materials coming in the community, nitric acid, hydrogen gas.

I see visions of the Hindenburg, you know. I don't know that we really want all these things coming into our community.

59-13

If you have these things in a closed vessel, you have nerve agent, you have explosives, you have heat, I mean that's a recipe for a bomb to me. There's no turning back. One mistake and you've got a huge mistake.

With incineration, it's my

1 understanding, there is a lot of redundant systems,
2 there is a lot of fail-safe systems, there is a lot
3 of monitoring.
4 How are you going to monitor inside **59-13**
5 a closed vessel and twenty atmospheres and twenty
6 thousand degrees? I mean, that's a pretty big
7 challenge.
8 That other gentleman already talked
9 about fluctuations in the process, so I'll just
10 skip over that.
11 The thing that you really don't
12 have in this alternative technology is experience.
13 We've got twenty-five years of experience, of
14 lessons learned in the incineration program. **59-14**
15 It's going to take you at least
16 twenty-five years to get that. By then, all these
17 chemical weapons are going to be gone or they ought
18 to be gone through incineration.
19 We already talked about the closed
20 system and the smoke stacks. I mean, when I first
21 saw alternative technologies, I thought, okay, all **59-15**
22 of this is an alternative. But when you read the
23 fine print, it's all -- it's incineration as an

1 alternative to incineration. I mean, there is
2 really no real difference, except for some of the 59-15
3 intermediate steps.
4 So, I don't know, I just feel like
5 Congress is pandering to the special interests with
6 this program. They're pandering to a few people
7 who have been very loud, very vocal, and who just
8 really don't care about the tax payers. And I
9 don't know what their motivation is, but I
10 certainly don't agree with it.
11 My children and I just live a few
12 miles from here, and we're going to do everything
13 we can to make sure that this pilot plant doesn't
14 come here. I'm not against R&D. I'm not against
15 looking for ways to do things better.
16 But to build something of this
17 scale, with this great amount of uncertainty in
18 this population center, simply is not a good idea.
19 Thank you for the opportunity to
20 make some comments. And I have some questions
21 that -- just give it to the lady in the back?
22 MS. DIANE BULLIS: Yes, for your
23 written comments and your questions, yes.

MS. DIANE BULLIS: Thank you very much. Thank you for your homework

MS. DIANE BULLIS: The next person on the list I have is Keith Howland; is that right? I don't know if I butchered your name.

COURT REPORTER: Before we start, I need to ask your name, please.

MR. HARRY FLANDERS: Harry Flanders.

00060

MR. KEITH HOWLAND: I'm Keith Howland of ACE, Alabamians for a Clean Environment. I speak from a, rather than an engineer's perspective, from a salesman's perspective. And I'm trying to think of the positive ways that this program could solve problems for our community.

And I think I hear the comments that have come through so far in negative about these programs. And it seems to me that we didn't need to know the cost of incineration up front before we built an incinerator. The estimated cost of it was four hundred million dollars and it's turned into a billion dollars.

We modified the system thousands of times to its current state of completion. And it was a process of refinement and development for years of that construction process. And it turned out to be -- what I believe to be the best incinerator a billion dollars can buy.

However, these methods of neutralization, should they be used, I need to know -- your comparisons to this as another form of incineration, I would like to know proportionately how many pounds of emissions are going to come out of the smoke stack of an incinerator versus a neutralization method? **60-1**

I think that would be an interesting comparison. I don't see any indication of the volume of emissions compared to incineration. Seems like a simply answered question.

Is this -- this pilot plant that's proposed, would it have also destruction capability? If we build this plant, it works, would it be able to then start to carry the load of eliminating some of these weapons, possibly if the **60-2**

1 incinerator does begin the destruction of them and
2 demil on schedule, about a year from now, and it
3 reduces in a two year period of time 98 percent of
4 the highest risk ordnances at the Depot, then would
5 this -- at that time, would the neutralization
6 plant be able to kick in and shorten the length of
7 time necessary for our community to be held in
8 hostage by these weapons?
9 We're talking about a twelve-year **60-2**
10 program now. If we had two facilities here, would
11 it be a six-year program. If it takes another
12 billion dollars or five billion dollars to shorten
13 the project by six years, I vote in favor of it.
14 What is the feasibility of reducing
15 the time line and using neutralization as a
16 supplement to incineration?
17 I commend the leadership of our
18 politicians to order a study that is as
19 controversial as this in the name of
20 environmentalism. Environmentalism is not a
21 popular subject and it takes guts and the threat of
22 not being reelected to stand up and order something
23 like this and examine and spend the public's money

to determine its feasibility. And I'm proud that we have politicians that have the guts to do that.

I think that it may be a proper method to choose the most proven of these systems and analyze the feasibility of supplementing the incineration. If we're going to have to build the pilot neutralization facility somewhere, let it be here, with the intent of shortening the time line of the total disposal time line. Let the incinerator be supplemented by these alternate methods and get it done and over with in a quicker period of time. 60-3

MS. DIANE BULLIS: Thank you. Thank you for your comments.

The next I have on the list is Mr. Sonny Smith.

00057

MR. SONNY SMITH: Thank you, Diane. I'll be offering written comments a little bit later. I'll just kind of get to the bottom line of how I feel about the -- where we are.

First of all, I'm here as a private citizen and a professional engineer. I was born and raised in this area. I graduated from high

1 school in the Anniston here. I graduated with an
2 Engineering Degree from Auburn University. I have
3 a PE in The State of Alabama, as a Professional
4 Engineer. I got an MBA from Jacksonville State
5 University.
6 I have over twenty years of
7 experience in the safety field as a safety engineer
8 and a safety manager. I served in the role, for
9 three years, as the explosive safety manager for
10 the Pacific Theater out of Hawaii. So, I feel like
11 I'm fairly qualified to talk about safety of toxic
12 chemical munitions.
13 Also, I served on oversight roles
14 of JES (phonetic) out at Tooele during the start-up
15 operational verification testing and during
16 pre-operational surveys at Tooele.
17 I do not claim to be an
18 environmental expert, but I can tell you based --
19 as a Professional Engineer in the State of Alabama,
20 based on what I have seen of the technologies that
21 you've put forth, I consider these technologies as
22 immature, unsafe, unproven, and not integrated in a 57-2
23 way to demonstrate the safe destruction of chemical

1 munitions.

2 Now, as a local citizen, I urge you

3 not to conduct a science fair project in our 57-2

4 backyard. You know, I urge you to pursue the

5 no-action alternative for Anniston.

6 MS. DIANE BULLIS: Ms. Williams,

7 Shirley Williams. And thank you for waiting. I

8 know you had a question earlier. Thank you very

9 much. 00061

10 MS. SHIRLEY WILLIAMS: Well, I'm

11 not an engineer, I'm just a little old person

12 that's been a nurse for quite awhile and I live in

13 the community over in West Anniston. I am

14 associated with Community Against Pollution. We

15 call ourselves CAP.

16 My main question is, the lady over

17 here -- at first, you know, I'm trying to figure

18 out what alternative means. I thought that that

19 meant something in place of something else, but I 61-1

20 may be wrong, I'm not sure.

21 But she said that they were going

22 to build -- they had to look at it because -- just

23 in case the incineration failed. So, I'm asking

this question: Are we going to have both these facilities here? That's -- 61-1

MS. DIANE BULLIS: Is --

MS. SHIRLEY WILLIAMS: Is that not what you said?

MS. RUTH FLANDERS: No.

MS. SHIRLEY WILLIAMS: Well, what did you say? Did you not say that --

MR. BILL PEHLIVANIAN: Could I just --

MS. SHIRLEY WILLIAMS: That's what I thought she said, that if -- you know, if in case something happened with the incineration, then they would be there.

MR. BILL PEHLIVANIAN: And I think that maybe we mis-communicated or maybe even misunderstood one other. The fact, by law, that any of the alternatives being executed cannot stop any incineration process under operation or construction.

The alternatives -- the definition of alternative here is a legal definition in law, alternative to baseline incineration. So, we were

1 tasked, this program management office, to identify
2 and demonstrate other types of technologies other
3 than incineration. So, that in our request to
4 industry, when we went out and asked them for their
5 alternatives, anything that was an
6 incineration-type process could not be considered
7 under this study, the ACWA program. So, we're not
8 looking to replace a technology, we're just looking
9 at other than the existing incineration process.
10 And I think the third part of your
11 question is: Would we have both facilities here.
12 Theoretically, that is possible. However, this
13 Environmental Impact Statement is considering just
14 what it says, the environmental impact.
15 There is a poster over there that
16 has all the other parameters that are present
17 during the decision process that I mentioned in the
18 Defense Acquisition Executive Review. And that
19 person who is going to make that decision -- who is
20 the Under Secretary of Defense -- will not only
21 consider this document as a tool, a decision tool,
22 but consider other things. For instance, the
23 funding required to execute an additional facility,

knowing that there is one under construction or completed here. So, all of that's going to be considered in that decision process.

MS. SHIRLEY WILLIAMS: Okay. So, I heard a lot about demonstrations and pilot projects and all of this kind of stuff. So, has any of this already been done and is in place and operating and safe, as far as the community is concerned? **61-2**

Because one of my questions is: Even with the incinerator, we are, I think, by Congress, guaranteed to have so much percent maximum protection. How could we be maximally protected from this technology? **61-3**

How long would it take this alternative measures to get rid of all the munitions and whatever it is out there that we've got to get rid of? How long would it take you all -- you guys to do that? **61-4**

And, you know, and in case -- how -- and I know that -- how would -- how could you assure the community that with this alternative measures, that the environment would not be affected? That, you know, we would not have any **61-5**

health effects from whatever the emissions or anything that came from the stacks, you know, would put out into the environment? How could we be assured that that would be, you know, safe, we would -- those emissions would be safe? 61-5

And how long would it actually take you guys to pilot this program -- this project? How long would it take you to do that? 61-6

We already have leakers out there now that -- you know, I know the incineration, it's probably more safe than we're ever going to find anything else, but all we want to do as community people are to be assured that we're protected, even if the incinerator has an accident. So, how could you all assure us that we would have that same protection with your technology? 61-7

MS. DIANE BULLIS: Let's see, the next name I have is Mr. Crawford Welch.

00062

MR. CRAWFORD WELCH: I'm Crawford Welch. War Eagle to Sonny Smith. I graduated from Auburn a couple of times. It wasn't in engineering. I'm not a chemist, I'm not an engineer. I'm probably closer to a dirt farmer and

1 don't like my college being called a cow college,
2 but that's okay, too.
3 I am here and standing here to
4 speak in opposition to a pilot program here in
5 Anniston or anywhere else, as far as I'm concerned.
6 And I'm speaking for myself, Crawford Welch, as a
7 member of this community. I am a member of the
8 C-A-Z (phonetic). I have been to Tooele, Utah four
9 or five times, been through that facility and had
10 the fortunate -- good fortune to go to
11 Johnston Atoll and see that facility. And they
12 both are marvelous facilities, just like the one
13 here, which I think will be better than the ones
14 out there. 62-1
15 But -- and I'm not here to speak
16 for incineration, but it is a proven technology and
17 it's the only proven technology. And I think I
18 learned a good bit about why this is taking
19 place -- I knew a lot of it, in my opinion -- an
20 earlier speaker talked about the activists and the
21 anti-environmentalists, whatever you want to call
22 them.
23 And, you know, environmentalists

have been good for this country in a lot of ways, because we need protection from some things. And it's unfortunate that way back yonder when Monsanto was doing bad things -- and I think they did some bad things here -- we didn't think about those kinds of things, and we do now, and that's some good that's come from it.

But it's gone way beyond that and way overboard, in my opinion. And I'm sure many of you have seen eco-terrorism business. I don't have much use for that, you know. And this could come to that, as far as I know. And those people ought to get put in jail real quick, like handcuffed, you know. And they get on TV and brag about burning down a planned biology lab in Washington State at Washington University. I don't have any sympathy for that.

But there is several questions -- and I've attended a couple of meetings of the ACWA Program and learned a little bit. Still got a lot to learn, but I think a lot of other people got a lot to learn, too.

And I strongly disagree with my 62-2

friend, Mr. Howland, talking about supplementing a billion dollar facility, or whatever it cost, with more waste or additional waste -- I won't call it more waste -- because we've got a proven technology here. Why put something else here that we don't know about? 62-2

Look at the environmentalist, I heard two or three different answers from you, I thought. And I've never been able to get an answer about how much waste comes from a pound of nerve agent that's done away with. Everything I've been able to learn from a little research is fifty times, at least, amount of waste for a pound that's done away with. Can you answer that? 62-3

MR. JON WARE: (Nods head.)

MR. CRAWFORD WELCH: I would like to know that answer. The last meeting that this group had here, at another locality, I asked the question, the issue was totally skirted and we talked about the emissions from the stack.

What about the emissions of the waste? You know, there's going to be a lot of it. What are we going to do with it? Are we going to 62-4

put it in Mr. Howland's backyard? I don't think he wants that. I don't think it's a good thing, at all. 62-4

Another part of the problem, all due respect to the attorney lady, you know, attorneys kind of mess things up a lot of times, make things a lot more complicated. And I think that may be the case here. Talk about litigation and concerned about litigation and they talk about all the many varied weapons we've got here. That's the reason not to do alternative technology here, as far as I'm concerned. 62-5

All I ever heard is it's mainly save (phonetic) it for something like ton (phonetic) containers, they -- that might can be better.

In the other two locations, I think that if those people want it -- and they've indicated they do -- y'all ought to get on there and get on with it, because I think you ought to help them out.

I also asked a question before about permitting. And I asked ADEM and they 62-7

1 answered the question. How long will it take the
2 permit? Is this going to be the same scrutiny that
3 I personally witnessed here in this room and other
4 rooms, mostly in this room, about permitting an
5 incinerator that took about five years?
6 And they say it's going to be the 62-7
7 same, and it will take four to five years. You
8 willing to sit here for four to five years before
9 you even start developing technology, is what it
10 amounts to, and certainly to prove the technology.
11 Of course, I don't think it can be done.
12 And the antis for the incineration
13 and the poor old ACWA folks failed to point out and
14 acknowledge and admit that alternative technology
15 was the Army's first choice of doing away with
16 chemical weapons. But it didn't work, folks.
17 And how many years ago has that
18 been? About ten, you know. And we still not any
19 further along with this than we were ten years ago.
20 And I don't think we will be ten years from now.
21 And we've got a lot of smart people in this country
22 that are smart enough to figure those things out.
23 But the activists that's against

this, the handful -- and I mentioned my friend, Mr. Howland, and he is one of the more reserved ones, and the fellow sitting in the back of the room is not quite as reserved -- but they talk about what's best for this community. And I mentioned this at a meeting the other night, and the question hadn't been raised, it's all this anti business and all this incineration on the front page because of activists, more than any other reason.

What does that do to this community for economic development? It's not good, folks. It's not good.

I don't think you ought to be here. We don't need anything else to do. We've got enough publicity as it is.

And the politicians, commend the politicians? I don't commend the politicians. I think they made a grave error in judgment, personally. And I think it's about dollars. It's not about being anything but getting dollars, that's what I believe. And some of those people are very good friends of mine, all of them are,

1 really, but I think it's wrong.

2 Again, the only proven technology **62-10**

3 is incineration. We got the man that ran the

4 Johnston Atoll plant for ten years -- eight years,

5 I believe. And if you hadn't been there -- and

6 again, everybody can't go -- nobody can go now and

7 see it now. But I had the good fortune of seeing

8 it. And nobody has ever been able to dispute the

9 fact that there are hundreds of thousands of birds

10 out there that's flourishing and they're having

11 little ones all the time, because they keep coming

12 and they get more.

13 The tropical fish that you can see

14 in -- it looks like a clear glass of water. The

15 same way, if it's so toxic and these emissions are

16 so terrible, Mr. Howland, why are they flourishing?

17 You know, why aren't they dead?

18 Birds would die before anything

19 else. That's the biggest proof I've ever seen in

20 everything I've ever done about the incineration to

21 prove that it is a suit -- proven technology.

22 The population was mentioned here. **62-11**

23 Anniston is the largest metropolitan area of any

incinerator that's either built or being considered to be built. So, that's another minus reason for not putting such a technology here. **62-11**

And the main reason is, is it's a waste of dollars. We've already got a plant here that's proven to do away with weapons, and that's what we need to do. Thank you. **62-12**

MS. DIANE BULLIS: Thank you very much. Folks, I would like to ask you all, as anybody else comes up to comment, that you refrain from making personal comments against folks in the audience.

We're here to gather comments on the EIS. You can certainly come back at us, anybody up here in the front, and make your comments, but I respect, and I ask everybody else in the audience to, please, respect each other's opinions. I'm not looking so much for personal picking on each other. That's not the kind of debate that I want to get in here this evening.

Okay, having said that, please, the next name I have on the list is Mr. Rufus Kinney, if you would like to come up. And, Mr. Kinney, if

you would like to come up -- and, Mr. Kinney, if you could come up to the front, it's just for the recorder, it's easier for us to record comments. Thank you.

00063

MR. RUFUS KINNEY: Thank you. My name is Rufus Kinney, and I'm a long-time resident of Jacksonville and a life-time Alabamian.

I didn't come here to speak tonight. In fact, I didn't even know that people were going to be making comments, so, I have no prepared comments, at all.

I came to listen. And I thought that there would be -- well, I'll go check these things out when I can. I didn't know that this was the format, so -- and I'm not prepared to talk about the Environmental Impact Statement, which I do intend fully to read in the next week or two and I will send written comments on it.

MS. DIANE BULLIS: Thank you.

MR. RUFUS KINNEY: Yes. And therefore, why am I up here? Well, I wasn't going to be, but it seems that this is a forum for people to attack alternatives or support incineration or

vice versa. And since I've been here, the last twenty minutes, I've heard -- the only comments I've heard have been against the alternatives program. And I do feel qualified to speak about that in general terms, as to whether or not we should have a pilot plant here in this particular city. I can't comment on that tonight.

Everybody knows that the incinerator just had its ribbon cutting the other day, so we have a large facility here.

What I do want to say is that I fully support the alternatives program, the ACWA program. And all of you who are working for the ACWA Program, I don't know if you've received a warm welcome. I've certainly heard a lot of negativity about the alternatives in the few minutes I've been here, so, let me issue you a warm welcome and a friendly welcome. You who are working with ACWA, I fully support what you're doing.

The lady back here said that she didn't think that there could be anything safer than incineration, I would suggest that maybe you

haven't looked at alternatives, at all. I'm a little --

MS. SHIRLEY WILLIAMS: I'm saying are people in the community going to be safe, that's my point.

MS. DIANE BULLIS: Okay.

MR. RUFUS KINNEY: Right.

MS. DIANE BULLIS: Folks, we're not in here to get into bantering with the --

MR. RUFUS KINNEY: Okay, no more bantering.

MS. DIANE BULLIS: Thank you.

MR. FRANK SWEET: I have a question. Isn't this forum supposed to be for taking comments on the Environmental Impact Statement and not to pontificate about your personal opinions, otherwise?

MS. DIANE BULLIS: I --

MR. RUFUS KINNEY: You can decide for yourself whether I'm pontificating or not after I finish. I heard you speak, and I haven't characterized what you said as pontification.

MR. FRANK SWEET: Well, other

people took the time to read this statement and come down here and ask some questions. So --

MR. RUFUS KINNEY: I apologize to you, ma'am. I didn't mean to say anything personal.

But you, you let me speak. You've had your chance. I'm not speaking to you or any individual.

MR. FRANK SWEET: I'm appealing to our hosts.

MS. DIANE BULLIS: The purpose of the meeting, folks, is to take public comment and to facilitate your review or time to take any comments here. Is that right, Jon?

MR. JON WARE: It's to facilitate your review of the documents, so you can ask questions, you can give statements, literally, you can say anything you want, but the exchange back and forth is hard to get on the record, so, we would like to get --

MR. RUFUS KINNEY: Right.

MR. JON WARE: -- whoever's comments -- whoever is up front, without an

exchange. But basically, by the regulation, is to facilitate your review of the document so that we can get comments and (inaudible) when we actually print our final document.

MS. DIANE BULLIS: And, folks --

MR. FRANK SWEET: And what I think is that you're in charge of this, you can focus it on the statement.

MS. DIANE BULLIS: And, folks, we are -- I mean, we're here, you know, for several hours this evening, for as long as you all want to stay here to make comments. So, I will continue to keep taking comments. But I ask that we allow the person in the front to continue on. Again, as we're recording things, it makes it much easier here that we get all the comments recorded.

And one more time, I caution about personal attacks in the audience. I'm asking that you keep your comments more in general terms instead of pointing fingers here within the audience. Thank you.

MR. RUFUS KINNEY: I apologize to you, ma'am. I did not mean to -- I hope you didn't

take that as a personal attack in any way. We know each other.

MS. DIANE BULLIS: That doesn't make it right.

MR. RUFUS KINNEY: Right. It wasn't meant to be a personal criticism.

MS. DIANE BULLIS: Thank you. I appreciate it.

MR. RUFUS KINNEY: And for whatever it's worth -- and that's the only other thing I want to say about this -- I do not work for the incinerator, I do not receive any income one way or another with regard to this issue, and I never have received one cent of income regarding this issue, on either side of it. Please, note that.

I've spent a lot of my personal money on this issue over the years, because I care about what's best for this community. And that's the only reason that I'm here tonight and have spent the last nine years working on this issue, because I care about what's best for this community and the safety of my children and my wife and myself and my house and property value and my job

1 security and a clean environment, with clean air,
2 and clean water, and clean food, that's the only
3 reason I'm here.
4 Now, regarding comments about -- as
5 I said -- and I'll say it one more time -- I have
6 not read the Environmental Impact Statement.
7 That's why I did not intend to speak. And I only
8 came up because other people were speaking against
9 the ACWA Program, clearly and obviously. And this
10 is not personal towards them, because that is
11 unfair.
12 But I'm for the ACWA Program, 100 **63-1**
13 percent. What you are doing has been a mandated by
14 stockpile sites that have utterly rejected
15 incineration and did so a long time ago. And so
16 people who are down on this program say we don't
17 need alternatives, you go tell the people of
18 Kentucky that. You go tell the people of Colorado
19 that. You tell the people of Maryland, Indiana,
20 and they'll run you out of town in a rail in five
21 minutes.
22 And in case anybody doesn't realize
23 this, I'll say it: When this program to destroy

these chemical weapons came about some years ago, with the eight sites, four east of the Mississippi, four west of the Mississippi, let's remember this everybody, all three of the other sites east of the Mississippi groundly (phonetic) and totally rejected incineration as a technology, that they did not want and would not accept. And they passed state environmental laws to see to it that they didn't have an incinerator forced in upon them.

And I've said this before and I'm going to say it again: Who do you trust? The collective judgment of Maryland, Kentucky, and Indiana, or that of Alabama, with the worst environmental record in the fifty United States, and an environmental management agency called ADEM that is a national disgrace. Think about that for a minute, if you're going to attack alternatives.

There will be alternatives in Kentucky and Colorado, because their U. S. senators demanded it and they're going to have it. Whether we have the plant here or somewhere else, there will be a plant. And the aging chemical weapons stockpiles will be destroyed by alternatives in

these other locations.

Thank God for what you're doing. I also want to say that in April there was a U. S. Senate hearing called by Senator Richard Shelby. And at that hearing, it was revealed that the chemical weapons stockpile should be stable for four more decades. That's forty years. And yet we hear regularly, in everybody's favorite newspaper every day now, that we can't stand another day of stockpile storage. And yet it was said by an Army official that the stockpile should be stable for four more decades.

We have much more than enough time to finish researching an alternative technology and putting it in place for those sites that will have an alternative.

I would also say to you that the idea that incineration is safe has been called greatly into question. And the idea that we should begin to incinerate before we have maximum protection in place for all the citizens is absolutely crazy. We've got to have maximum protection.

Let me just put it this way: Senator Richard Shelby, Senator Jeff Sessions, Congressman Bob Riley, Governor Siegelman, Don Siegelman, and the Mayor of Anniston all -- did not one of them attended that ribbon cutting the other day, not one of them. What does that tell you about the confidence of our elected officials in the incineration program? What does that tell you?

A bankrupt corporation had a ribbon cutting for an obsolete technology in a private ceremony. Only in Alabama would something like this happen.

And let me say one more thing. This business about the incinerator is so efficient and so on, why does it have multi-million dollar systems that have already been abandoned and the thing's never been operational, yet? A multi-million dollar brine reduction area sitting out there brand new, never going to be used. They knew they wasn't going to use it before they laid the first brick. Multi-million dollar dunnage incinerator sitting out there, never going to be

used. Knew they weren't going to use it before they laid the first brick. You call that efficiency? That is a monumental waste of tax payers' money.

And Mike Parker of the ACWA Program said at Senator Shelby's hearing that the operation should be completed in Blue Grass by 2008 or 2009, several years faster than if they built an incinerator there. So, these comments need to be made in the face of the other comments I heard when I came into this room.

I didn't come in here to get into an argument with anybody, but somebody needs to say these things. Thank you for what you're doing. I support alternatives and I'll send my comments in later.

MS. DIANE BULLIS: Thank you for your comments. Thank you.

MR. BILL PEHLIVANIAN: I don't know if we have more comments, but I want to take a moment to address a few things.

MS. DIANE BULLIS: That was the last name I had.

ORIGINAL

PUBLIC MEETING

ON THE DRAFT ENVIRONMENTAL
IMPACT STATEMENT

ASSEMBLED CHEMICAL WEAPONS ASSESSMENT

BLUE GRASS ARMY DEPOT
RICHMOND, KENTUCKY

HELD IN RICHMOND, KENTUCKY

THURSDAY, MAY 31, 2001

FIRST SESSION

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THE FIRST SESSION OF THE PUBLIC MEETING ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, ASSEMBLED CHEMICAL WEAPONS ASSESSMENT was held on Thursday, May 31, 2001, beginning at the hour of 11:47 o'clock a.m., in the Perkins Building, Eastern Kentucky University, Richmond, Madison County, Kentucky, pursuant to notice, and before Wanda H. Rowe, Certified Verbatim Reporter and Notary Public in and for the Commonwealth of Kentucky.

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more privacy, if you don't want to make a public comment.

When you came in, we asked you if you wanted to make a comment to the public here with everybody in the room, and one person signed up, and that was Jack Kiefer. Jack, if you'd like, the microphone is yours. 00064

MR. JACK KIEFER: I think I've gotten the answers to a couple of my questions. There was -- this was -- one of them was regarding the different ways of de-assembling or getting the explosives and the agents out, a high-pressure fluid jet and a high-pressure wash to remove the agent.

One thing that struck me, these would possibly increase the amount of separations you have to go through in that. But the -- I just heard recently that some of the agent that was thought to be liquid is now gelatinous, so that I can see a reason, possibly, for some of these other options. Does anybody want to -- 64-1

MR. JOSEPH MASHINSKI: Yes, actually. My name is Joseph Mashinski, and we're doing some tests this summer in Utah, and it's to address that issue you just spoke of. We've decided to conduct some tests with mustard-filled mortars, the four-

duced mortars, and they're going to be HD and HT filled separately.

What we're concerned about is trying to drain the mustard, gravity drain or suction drain. We don't know if that's going to remove any of the suspected heel that might be in those mustard-filled projectiles, mortars in this case. So that's why we're going to conduct some tests this summer so that we'll have a better idea of what exactly is in those 50-some-year-old munitions and how best can we remove that.

And we'll be using 10,000 PSI water to remove that. And I don't know, you can feel free to ask additional questions if I haven't answered that sufficiently.

MR. JIM RICHMOND: We do have data from earlier studies on bulk containers that had mustard heel in them at Edgewood where we did high-pressure hot water and showed that we could solubilize that heel and move it on to a neutralization process, and it could go through neutralization. So we know we can remove and clean out using high-pressure water from ton containers. Now we're taking it and seeing if it will apply to the type of projectiles that Joe talked about.

MR. JOSEPH MASHINSKI: Right. The reason we selected the four-duce mortar was because there's a vane in there, v/a/n/e. It's a perforated metal plate that runs right up the middle of the projectile. And what happens is, we think that (1) because of the very small orifice left by these mustard-filled munitions that we think water washout would be the best way to do that for our technologies.

And as Jim Richmond indicated that we've had success washing out ton containers in the past, and my only concern is how much water are we going to have to use, and that's what I'll be looking at. I expect success on that.

MR. JACK KIEFER: That was my thought, too, or concern, because you're getting a lot more material you got to deal with --

MR. JIM RICHMOND: Oh.

MR. JACK KIEFER: -- when you --

MR. JIM RICHMOND: Right.

MR. JACK KIEFER: The more gallons of water you have to wash out, you have --

MR. JIM RICHMOND: Right. But we're fortunate that we are using water to hydrolyze the mustard, and that goes hand-in-hand.

64-2

MR. JACK KIEFER: Yeah.

MR. JIM RICHMOND: It's one of those fortuitous events that it works for us. You know how you look at some tradeoffs where, if you have an automobile, as an example, you want it to go very quickly, be extremely safe, yet be lightweight, and to be energy efficient. And you have to look at some of the tradeoffs. You might have to negate one of them. But in this case, everything is working for us. We're very fortunate. And we're using the technology, the hydrolysis technology, as they would be using it at Edgewood, or as everyone knows it's the Aberdeen Chemical Disposal facility there, so.

MR. JACK KIEFER: That was -- the thought struck me, you're getting a number of salts, the sodium salts, and I was just wondering if there are industries that might be able to use those as raw materials in their process. 64-3

MR. JIM RICHMOND: The problem with using anything from a demilitarization process comes with the process being derived from a chemical agent weapon, and the usefulness or the ability to get the appropriate permits and all to recycle a lot of this material becomes limited because of that.

There are a lot of state regulations

and federal government regulations relative to products derived from the destruction of any chemical munition, as well as there are treaty issues that also have to be address with that. So we are somewhat limited.

Although, in some of the processes, for example, the Silver Tube, you do try to reclaim and reuse things like silver. But when you get down to the salts and things like that, they end up going to your landfills, hazardous waste, if it's required and such, just because they're derived from a chemical agent. And in fact, Kentucky does have laws relative to that in the permit process.

MR. JACK KIEFER: So it's more of a legal situation rather than --

MR. JIM RICHMOND: Well, it's a regulatory situation.

MR. JACK KIEFER: So that there might be a possibility of de-listing if you worked through the --

64-4

MR. JIM RICHMOND: Yes, de-listing is one of the options that you can work. We have, in fact, done that in the state of Maryland for the mustard hydrolysate, get it de-listed once that we validate that the mustard has been fully destroyed,

we get rid of whatever the code associated with that derived from is. And it is a possibility, but again, it depends on what state you're in and what your process is, what you have to do to meet the requirements for that de-listing permit.

MR. JACK KIEFER: Right. A question I had, but I think was answered. After I went through much of it, I was wondering if there's going to be a baseline incinerator at each of the sites where the units -- where these various processes are going to be. And I think that was correct, it's not going to be, as I understand it. Is that -- 64-5a

MR. BILL PEHLIVANIAN: Let me answer that. If I understand your question correctly, it would be because we're looking at sites for possible pilot that have ongoing construction of a baseline facility, is it possible that that site could have both a pilot and a baseline facility at the same time? Is that your question?

MR. JACK KIEFER: Well, more, I was wondering if -- if you build -- if you built some -- one of the neutralization processes, and would that require that a baseline incinerator be on the site also for comparison? 64-4b

MR. BILL PEHLIVANIAN: No.

MR. JACK KIEFER: Okay.

MR. BILL PEHLIVANIAN: No.

MR. JACK KIEFER: This is information for a decision. Who will be making the decision as to where a given test unit or pilot plan is going to be done? How is that decision going to be made or what? 64-6a

MR. BILL PEHLIVANIAN: The decision within the EIS process will be made by the Under Secretary of the Army. The process that we're going to go through is the draft product that we've got out. We're taking public comment we're going to make final, and then a record of decision will be made.

Within the EIS process, that decision is made at the Secretary of the Army level. Because of the unique aspect of this being a congressionally-mandated program, and that the Under Secretary of Defense for Acquisition Technology, he has a responsibility, that decision is going to be made by both of those individuals, but the actual legal signatory to the ROD and the decision-maker, because the Army has legal authority of that facility, will be the Secretary of the Army. If you want to add.

MR. PAT WAKEFIELD: The only thing

I would add to that is what Bill pointed out is in the Environmental Impact Statement the specific question you asked was where is it going to be sited, as for instance, on that installation. Contained within the Environmental Impact Statement is, in fact, the location where it will be sited. In addition to that, --

MR. JACK KIEFER: No, I was aware of what the location is.

MR. PAT WAKEFIELD: Okay.

MR. JACK KIEFER: But I was wondering which -- who's going to decide what sites like Blue Grass or Anniston or, you know, who's going to decide where it's going to be? 64-6b

MR. PAT WAKEFIELD: The specific decision on the Environmental Impact Statement in this case, as Bill pointed out, is going to be made by my boss's boss, which is, in this case, Pete Aldridge, Mr. Pete Aldridge. He is the Under Secretary of Defense for Acquisition Technology and Logistics, and he was just recently confirmed about two weeks ago.

To that end, he's going to have the information presented before him, and we will present that information to him under what's called the

Defense Acquisition Executive Review, and he is the Defense Acquisition Executive. With that information, he will look at that, and make a technology choice. In this case, Blue Grass, as well as Pueblo, and determine in those Environmental Impact Statements, when they are finally concluded, what the ultimate choices could be.

At that time, also because of the situation, as Bill pointed out, we have the Deputy Assistant Secretary of the Army for Environment Safety and Occupational Health, the very same official that signed out the Notice of Availability and Notice of Intent, will also be the same official that will sign these documents, as well.

MR. JACK KIEFER: You're presenting him with the information to help him make the decision.

MR. PAT WAKEFIELD: That would be correct. That would be correct.

MR. JACK KIEFER: Yeah.

MEMBER OF AUDIENCE: Can we request the Panel stand. Since the mic's on, the volume goes up when you stand.

MR. DAVE EASTER: Okay.

MEMBER OF AUDIENCE: Appreciate it.

MR. DAVE EASTER: Thank you, Jack. There was no one else on that signed up to comment. John, you want to -- well, since the microphone's not working, why don't you just stand where you are and -- 00065

MR. JOHN CAPILLO: I'd like to follow up on Jack's question. The first one about, as he so eloquently put it, gelatinous residue in the munitions. As I understand, there are three alternatives to be discussed for Blue Grass, two neutralization and one the ADA, whatever you call it.

MR. JIM RICHMOND: John, there are actually four that are considered in this EIS.

MR. JOHN CAPILLO: All right.

MR. JIM RICHMOND: There are three neutralization because you have a biodegradation, neutralization biodegradation process, that is applicable to the mustard munitions at the Blue Grass site. And since you have those here, a potential could be piloted here for that, as well. So there are four alternative technologies included in this one. 65-1

MR. JOHN CAPILLO: Fine and dandy. So of the four technologies, three are neutralization at the first step, and the fourth is a different

process.

MR. JIM RICHMOND: Correct.

MR. JOHN CAPILLO: In terms of the jelled agent, does the AEA process require a washout of the munitions? 65-1

MR. DARREN DALTON: For the AEA process, they're adopting, based on the lessons learned that we've -- some of the other tech providers have gone through over the last couple years, they're also adopting the washout system that Joe had spoke about that we're going to be testing this summer. So they're going to base their design for that up front, washing out the munitions based on the data that we receive over the summer.

Across the board, most of the technology providers are using that data that we obtained from this test to base their full-scale design on.

MR. JOHN CAPILLO: Just the --

MR. DAVE EASTER: Go ahead.

MR. JOHN CAPILLO: I understand that this is an ACWA EIS, and at some point there's going to be another EIS, and I'm still -- I'm in an ongoing concern about the comparison between all these four ACWA technologies and incineration. And I 65-2

1 am hoping that there is a level playing field, so
2 that the kinds of data that have been required of the
3 -- within the ACWA process for each of the
4 technologies, that that data also will be generated 65-2
5 by the incinerator technologists so that there is an
6 even -- a good comparison between the two processes.
7 That's a statement rather than a question.
8 MR. DAVE EASTER: Anyone else?
9 Okay. At this point, we have a number of poster
10 stations around the room that have some
11 representation of the different processes, and there
12 are going to be people in the vicinity of those that
13 will be willing to answer individual questions. And
14 I suspect 1:00 o'clock?
15 MR. BILL PEHLIVANIAN: Yeah, we'll
16 start about 1:00 o'clock. But before we break, Pat
17 Wakefield wanted to address the issue of the 45-day
18 comment period.
19 MR. PAT WAKEFIELD: Let me just add
20 a couple things. If you go back on Bill's chart,
21 I'll just point to it here. Yeah, his last chart, in
22 fact, it's the one right there. It points out all
23 comments must be received by the 25th of June, 2001.
24 That's because the 45-day comment period is required
25 under the Environmental Impact Statement process.

We are aware at this point, because the program manager for Chemical Demilitarization and the program manager for Assembled Chemical Weapons Assessment, specifically, Bill, has advised us that the Environmental Protection Agency, EPA regents have come in with a formal extension and a request of that period of time.

That is not the only place to ask for that period of time, but also, advocacy groups and citizens, as well. To that end, we are aware of those requirements. And what we're doing now is looking at those and looking at those in a very favorable way, to determine the extension that we will add to that at this point.

The likelihood, while it is not official at this point, is that we will likely add an additional 45 days, based on the request of the Environmental Protection Agency. While it's not official at this point, it's like any process, it takes time to get it through, but that will be the likely outcome. We wanted to let you know that in advance because of the process that's taking place at this time, but we are aware of them as being told by the Environmental Protection Agency and program manager.

MR. DAVE EASTER: Okay. We'll begin again at 1:00 o'clock and go through the presentation for those folks that show up between now and that time.

THEREUPON, THE HEARING CONCLUDED AT THE HOUR OF 12:18 O'CLOCK P.M.

ORIGINAL

PUBLIC MEETING

ON THE DRAFT ENVIRONMENTAL
IMPACT STATEMENT

ASSEMBLED CHEMICAL WEAPONS ASSESSMENT

HELD IN RICHMOND, KENTUCKY

THURSDAY, MAY 31, 2001

SECOND SESSION

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THE SECOND SESSION OF THE PUBLIC MEETING ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT ASSEMBLED CHEMICAL WEAPONS ASSESSMENT was held on Thursday, May 31, 2001, beginning at the hour of 6:23 o'clock p.m., in the Perkins Building, Eastern Kentucky University, Richmond, Madison County, Kentucky, pursuant to notice, and before Wanda H. Rowe, Certified Verbatim Reporter and Notary Public in and for the Commonwealth of Kentucky.

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1 microphone, you have that option. Open that up right
2 now. Okay.
3 So we also have, as we mentioned
4 earlier, we've got several poster stations around the
5 room. These four over here address the different
6 technologies and have some diagrams to give you a
7 better feel for how the process works. And over
8 there, these relate to the EIS itself and the NEPA
9 process, and have some more information on how to
10 address your concerns and comments to this EIS.
11 Doug, please. 00076
12 MR. DOUG HINDMAN: The Draft EIS
13 essentially proposes that as any pilot plant should
14 be constructed using an unknown, unspecified 76-1
15 technology, an unspecified location. How are those
16 designs been getting made? I mean, somewhere on
17 something is the proposal of the whole --
18 MR. BILL PEHLIVANIAN: I think your
19 question speaks to what's going on in the Defense
20 Acquisition Executive Review. The Under Secretary of
21 Defense had requested a review of the whole Chem Demo
22 program to look at a life cycle cost, ability to meet
23 treaty, schedules, things like that. And inclusive
24 to that was a path forward for Kentucky and Pueblo.
25 The requirement, certification requiring for safety

1 schedule and cost is being looked at for the
2 technologies viable with Pueblo and here at Blue
3 Grass are being compared to incineration in that
4 Defense Acquisition Executive Review. And the
5 ultimate decision authority is the Under Secretary of
6 Defense for Acquisition and Technology.
7 So there's a lot of different options
8 and technologies and locations being compared to
9 incineration in this review. And to that end, there
10 are sub-groups for cost and schedule, sub-groups for
11 safety, and a sub-group for programmatic issues. And
12 that's all being worked as we speak. And in fact,
13 there will be a public meeting here in the near
14 future in Blue Grass here in Richmond to explain that
15 process. But that's the process that those now
16 unknown technology in an unknown location will be
17 determined. And I'll ask Pat Wakefield to add to
18 that.
19 MR. PAT WAKEFIELD: That,
20 generally, is what Bill had said is throughout the
21 process, as all the information comes together and it
22 will be coalesced really at the OSD level, Office of
23 the Secretary of Defense level. Once it's gone
24 through the Army, their portion of it, then the
25 choice for which technology shall be selected and

ultimately implemented first, obviously, at Pueblo, and then because of the timing issue, Blue Grass suddenly thereafter.

As part of the overall process, I'm sure you're aware of the memo that was signed approximately in July last year indicating that the whole of the program will be evaluated through a Defense Acquisition Review. This is not an admiralty process, but rather, a normal process to look at a very large high-dollar programs, which this is.

MR. DOUG HINDMAN: I would say, from the public point of view, that means now we're looking at an ACWA EIS, ENC DEIS, and the DAE review.

MR. PAT WAKEFIELD: That would -- that would --

MR. DOUG HINDMAN: From the average public citizen's point of view, that's difficult to sort that out.

MR. BILL PEHLIVANIAN: I clearly understand. I agree with you. It is. It's an awful lot to take in one sitting. Absolutely. But in a way to try and streamline that, both NEPA actions, PMCD and ACWAs, are a part of that DAE review, so that's a consideration, among other things, as a part of the process in the DAE.

MR. PAT WAKEFIELD: Perhaps maybe you've ever heard of the term, you know, *Don't try to, you know, take a bite out of the whole -- you know, eat the whole elephant at one time, but take bites of it at a time.* And so, part of this process will probably take the DAE review, because if we tried to actually conduct, let us say, in one setting, the whole review, it would -- it is rather daunting, even for those that have to deal with it in one setting who are in the know. So we will probably have a need to break that down to deal with the discreet parts of it, and ultimately, end up with all of it.

MR. DOUG HINDMAN: I guess I've ingested it. As you well know, I kind of knew that, but I do get comments from other folks who say this ACWA EIS doesn't look like it says anything. And then I have to explain how it fits into all these other pieces, and the average citizen, if you spend ten hours a week working on this, it's all very confusing. 76-2

And then, it looks like it's slowing down the process. It looks like it's slowing down the process, which I don't think it's true, but I think there is that perception.

MR. DAVE EASTER: Amanda, any questions?

MS. AMANDA STAFFORD: Pardon, please?

MR. DAVE EASTER: I just wondered if you had any questions. You seemed deep in thought there. 00066

MS. AMANDA STAFFORD: Yes. I have an elementary question. I just read this. Will the EIS addressed the dunnage or the medals and the solids after the process is over?

MR. BILL PEHLIVANIAN: The mandate of an ACWA technology was to deploy or assess a total system solution. So to that end, yes, we will be looking at destroying and taking care of the metal parts, what you term the dunnage, as part of that total system solution. 00067 **66-1**

MR. DAVE EASTER: Any questions from that side of the house?

MR. RICHARD FUTRELL: Yeah. I have just one question. I'm not sure I can articulate that clearly. It has to do with workforce. And when I look at things, reports about baseline technology, especially when there's been an incident of some kind, and there's a report of what was done in response to that incident, I can get an image in my **67-1**

head of what the workforce is like, how many people are doing dials and trying to respond quickly and so on and so forth, like the complexity the workforce has to deal with. And I'm wondering about each of these technologies. There seems to be a sizeable workforce for each of the technologies. Can you give me some feel for -- I don't know if you want to do any comparisons between incineration and technologies and so on, because that's -- in the past, that's not been a thing we're doing here. I'm not sure.

MR. BILL PEHLIVANIAN: Yeah. I think we can give you that number. I think it's estimated in the EIS. 67-1

MR. RICHARD FUTRELL: Yeah. My question is not so much about the -- about the size of the workforce, as it is about how complex are the tasks in relationship to the tasks as compared to the -- when I look at baseline, it seems like there are a lot of -- there are intricate kinds of tasks that rely upon people acting quickly in case of an incident, people reacting quickly and accurately on the spot. And if they don't, then, the incident begins to run amuck quickly. And I'm wondering about these technologies and the kind of the task. I guess I'm asking more than the actual number of people. If

1 people -- can people react more slowly, more
2 accurately here, and if they don't, what are the
3 consequences? Are the consequences the same or worse
4 in incineration. I don't know if that --
5 MR. BILL PEHLIVANIAN: Well, and I'll 67-1
6 certainly open it up to anyone else on this panel to
7 try and address, because that's a broad-range type of
8 question.
9 MR. RICHARD FUTRELL: Right.
10 MR. BILL PEHLIVANIAN: But these
11 technologies as one of the criteria that was
12 developed early on in conjunction with the Dialog was
13 it had to be a whole test release scenario or a batch
14 process.
15 MR. RICHARD FUTRELL: Yeah.
16 MR. BILL PEHLIVANIAN: So to that end,
17 you know, the process of demil or destruction takes
18 place, whatever that may be determined by the
19 technology. And then it's contained and tested. If
20 it's within the environmental limits and it's deemed
21 safe, it's released. If not, it's sent back through
22 the process again. So each one of those, by virtue
23 of the criteria we established, had to have that
24 ability. So I guess what you're saying, in a
25 reactionary mode, if something were to occur, I think

the containment would be there to hold and test, and then release if necessary, or send it back to the front end. And I'd open up to Jim.

MR. JIM RICHMOND: Well, I guess the other comment I want to make along that line is, you know, one of the most hazardous areas to do any procedure in the destruction of chemical weapons is just the accessing end of it, which you're going to have to regardless of what technology you use to do the ultimate destruction. And I mean, that's one of the places that you got a lot of potential for things to happen. And any time you work with an agent or explosives, regardless of what technology you're applying it to, there's a certain level of hazard and a certain amount of expertise that's required to maintain safety parameters, and those go into the risk assessments and everything else here.

It's hard to do -- we're not doing a direct comparison right now between the alternative technologies and the incineration-type process. What we're doing is looking at the ability to apply these technologies into an engineering design for a pilot facility. And that's where you're going to prove out a lot of your ability to react to upset situations. And I think that's what you're talking about here,

upset situations that are outside the normal reaction parameters that we look for.

And of course, there's a lot of assessment that's been done and a lot more that will be done as these four technologies progress further through the engineering design stages. And there will be other documents and other review that will address that. But of course, that's part of the rational for having to pilot these. And I don't know if that helps the answer, but it's certainly part of it.

MR. RICHARD FUTRELL: Yeah. Yeah. I think I kind of understand all of that in a real loose way, kind of a way. And I think the answers are -- are understandable, what you're saying is understandable.

MR. PAT WAKEFIELD: Let me add one thing to it that Jim was saying.

MR. RICHARD FUTRELL: Okay.

MR. PAT WAKEFIELD: That, while these are different technologies, there are also very common parts amongst them. As Jim was pointing out, the accessing of the munitions, accessing of the agent, these are very common processes that, in fact, many of these -- in fact, these providers have taken

from the existing engineering designs that they already have. So that particular process is already part of what they've included in their evaluation and assessment of those particular technologies. So a key part of it that Jim was referring to is already an element of what they intend to use or propose, if that were the case.

MR. RICHARD FUTRELL: Yeah. I think as a lay person, more or less, without engineering and all those things, and having been near for the whole number of years that this has been going on, over time, what I've seen people, citizens here in Madison County come to is, yeah, this stuff is here, it's not going away, we've got to deal with it, and there's a level of risk.

And one of the levels of risk is storage, and another level is like you're saying is moving it from wherever it is, to putting it into whichever technology we come up with. And that's -- that process of moving is a real-high -- is a relatively high-risk part of the whole thing. And no matter what technology you have, you can't do away with that. 67-2

The other part, I guess, where my attention has become most focused over the years is

not just complexity, but you've got numbers of systems that are all tied together, and each of those systems is complex. And with some technologies --

Well, first, when you've got a number of complex systems, there are things that happen that you can never predict. There are always going to be those things. Something goes wrong here, something goes wrong there, something goes wrong here, simultaneously, and it's a whole new ball game, if you've ever seen that before. And that's -- that is less of an issue, in my understanding, with these technologies, than it is with baseline. 67-3

A part of that issue is it has to do with the workforce, rather than the technology itself. The workforce, the training that the workforce has to undergo, all the different tasks that the workforce has to do, that workers have to do and so on. But those tasks themselves can be very, very complex and things can go -- human error, things can go wrong with those, as we've seen in Tooele, Utah, as we've seen there because of new employees and so on and so forth, and somebody's not at the site, et cetera. So all those things can happen. 67-4

The consequences for baseline of those kinds of things are much more risky, in my opinion.

I guess this isn't really a question, really. But it seems to me that the consequences of those kinds of human mistakes or somebody doesn't hear what someone else says, and things begin to happen, and they can happen much more rapidly, with greater consequences with the baseline than they can with any of these technologies, I think. That's the question. 67-4

MR. BILL PEHLIVANIAN: And certainly, you know, if that's your belief, that's a comment that we would certainly take. However, we've got to be careful not to mislead anyone that, you know, the basic footprint of an alternative is very similar to that of an incineration footprint in a lot of instances, if not in all. It's a swap of the actual incinerators for neutralization or biotreatment, which are, you know, enclosed tanks, different than that technology.

Workforces, which aren't included, I think, in the EIS, will be compared in the DAE process, are similar, and I think complexity is different, but not vastly different in meeting the expertise. I mean, certainly, these are tough things to destroy no matter what technology you're going to use, and a certain level of expertise is require, no matter what. I don't think we can make a one-up-one

match on which would be less complex to manage in an industrial sense than in another.

But, you know, as we go through the DAE process and as we work toward a final impact statement, you know, these answers will be coming forward.

MR. DAVE EASTER: Okay. Anybody else? Okay, then, I invite you to come to the poster stations and talk to the individuals that will be there to give you more details and explain what the posters are all about. And our schedule has us starting again at 8:00 p.m.

THEREUPON, THE HEARING CONCLUDED AT THE HOUR OF 6:50 O'CLOCK P.M.

PUBLIC MEETING

DRAFT ENVIRONMENTAL IMPACT STATEMENT

MAY 31, 2001

CITIZENS COMMENTS

HELD IN RICHMOND, KENTUCKY

LINDA S. PRATHER
P. O. BOX 651
RICHMOND, KY 40476-0651
(859) 626-0126

00068

CITIZEN'S COMMENT: I really have a question. Maybe there's a statement in connection with it. The DEIS has just been published and I actually spent some time, it has language in the both summary and later material about this site which seems clearly to say that it would be possible to build an incinerator and a test pilot, a pilot project at the same time. So, I came to ask whether that's legally and theoretically possible and the answer is yes. Then we talked some about whether it's probable, and as I understand it, it would make no sense to do that, but there's been so much of this, in this whole project that never made sense, that's not very reassuring. So, I'd like to record my fervent hope we would not do those together and the decision for an alternative pilot would come forth and be implemented. At the very least, one of the alternative before any incineration concept construction gets underway. And I should think that that would make sense even in spite of the beautiful employment and spending attractions that I think the

68-1

Department of Defense really prefers. That's all I can think of at the moment. I'm Robert G. Menefee, Madison County, Kentucky. **68-1**

00069

From: Mountain Park Environmental Center [mpec@fone.net]
Sent: Thursday, July 12, 2001 3:31 PM
To: acwacomment@anl.gov
Subject: Pueblo Chemical Depot

To John Ware,

As a resident of Pueblo County, Colorado, I am expressing my strong encouragement to those who are making the decision about the incineration of chemical weapons to choose one of the Neutralization methods for eliminating these weapons. I am strongly against any form of Incineration. The burning of these chemicals will have many negative environmental and economic consequences. **69-1**

Please keep in mind the ecological health of the entire region, as well as the short and long term effects on the health of the region's people and economy, when making your decision. When such considerations are looked at honestly, Incineration is a significantly less desirable option than Neutralization. **69-2**

Thank you,

Dave Van Manen
8929 Apache Dr
Beulah, CO 81023

****
Mountain Park Environmental Center
719-485-4444
www.hikeandlearn.org
A nonprofit educational facility dedicated
to the promotion of ecological literacy!
****
"The earth has music for those who listen."
- William Shakespeare

00070

From: soffer [soffer@seark.net]
Sent: Tuesday, May 22, 2001 3:48 PM
To: acwacomment@anl.gov
Cc: PBA Barbara. Slifer PAO; Outreach Office; The
Subject: Draft Environmental Impact Statement, May 2001

This email is in response to the Assembled Chemical Weapons Assessment (ACWA) draft environmental impact statement (EIS) summary of May 2001 for Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites. The following comments are provided for inclusion in the ACWA Program Final Environmental Impact Statement:

Honorable James "Jitters" Morgan, Mayor of White Hall, Arkansas, asked me to express his concern that the descriptions of areas adjacent to Pine Bluff Arsenal on pages S-31 and S-34 of the Draft EIS do not accurately describe the areas and downplay the population data. The Mayor asks that this be corrected in the final document. **70-1**

My comments are:

The description of Pine Bluff Arsenal in S.5.1 on page S-31 (Affected Environment) is carelessly deceptive and lacking in pertinent demographics and other readily available data discernible even to the most casual observer. The comments on page S-34 (Visual Resources), while reasonably expected to address what/who will view the end product, is nonetheless deceiving.

It appears the writer's intent was to situate Pine Bluff Arsenal in a rural environment for the benefit of EIS readers. Additionally, a review of the similar portions of the Draft EIS as it pertains to Anniston Army Depot (page S-17 S.4.1), Pueblo Chemical Depot (page S-43, S.6.1) and Blue Grass Army Depot (page S-54, S.7.1) indicates a more accurate description of adjacent population areas.

Lines 6 through 10 on page S-31, Draft EIS, are not fully descriptive. For example:

Pine Bluff Arsenal is located in Jefferson County, Arkansas approximately 6 miles north and slightly east of Pine Bluff, the fifth largest city in the state with a population of 55,085.

The U.S. Food and Drug Administration National Center for Toxicological Research, which employs 670 workers, occupies an area in the northern portion of Pine Bluff Arsenal that is approximately 500 acres in size.

PBA performs a variety of conventional munitions production and maintenance operations in addition to chemical weapons storage. A chemical weapons incinerator is under construction and 49 percent complete with an anticipated operational date of June 2003.

Lines 23 through 29 on page S-31 neglect to provide the reader with a comprehensive view of the land area surrounding Pine Bluff Arsenal. For example:

The northern boundary of PBA borders privately owned agricultural lands and timberlands with scattered residences. The town Redfield, with a population 1,157, is 5 miles northwest of the PBA boundary. The National Center for Toxicological Research, which employs 670 workers, adjourns the northeastern portion of Pine Bluff Arsenal.

00071

◆ *Life Coach* ◆ *Personal & Professional Goals*

Retreats ◆ *Success Groups*

I am writing, as a Pueblo County resident to not incinerate chemical weapons stockpile at the Pueblo Chemical Depot in Pueblo, Colorado. Please use a less polluting technology.

VR gent!

Aeline Van Meuren
Beulah Co 81023

Call for [illegible] seminar [illegible]

FM
JUL 2001

To

Jon Ware
ACWA EIS
9700 S Cass Ave
PO Box 8369
Argonne, Il 60439-4871

1-1

71-1

00072

MATT PEULEN
DISTRICT 3
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DISTRICT 1

MARK A. CARMEL
COUNTY ADMINISTRATOR

TERRY A. HART
COUNTY ATTORNEY

AIMEE TIHONOVICH
DIRECTOR, OFFICE OF BUDGET

BOARD OF PUEBLO COUNTY COMMISSIONERS

June 28, 2001

Ms. Kimberly Collins
Assembled Chemical Weapons Assessment
Draft Environmental Impact Statement Coordinator
Home Engineering Services
2014 Tollgate Road, Suite 208
Bel Air, MD 21015

Mr. Gregory Mahall
Program Manager for Chemical Demilitarization
Public Outreach and Information Office
Building E-4585
Aberdeen Proving Ground, MD 21010-4005

Re: Comments on Draft Environmental Impact Statement

Dear Ms. Collins and Mr. Mahall:

The Pueblo Board of County Commissioners (BOCC) have reviewed the Draft Environmental Impact Statements (DEIS) entitled Destruction of Chemical Munitions at the Pueblo Chemical Depot and the Design, Construction and Operation of One or More Pilot Facilities for Assembled Chemical Weapons Destruction Technologies. As a result of our review, we would like to submit the following comments for the record.

The BOCC continues to be opposed to the transportation of any energetics from the Depot for off-site disposal as proposed for the incineration technologies in the site-specific DEIS. It is our position that it is safer for the community to destroy all energetics at the Depot as a part of the total destruction of the chemical weapons. 72-1

The BOCC is concerned about the use of evaporative lagoons for sanitary waste disposal. We would prefer that a sewage treatment facility be built to properly handle these wastes or that the Army hook up to a municipally operated facility. 72-2

The BOCC is particularly concerned with the lack of information in the documents concerning the impact of the emissions from the destruction facilities on the agricultural community. A large number of citizens in Pueblo County derive their income from agriculture and any negative impact, either real or perceived, could have significant economic consequences to the county and its 72-3

PUEBLO COUNTY COURTHOUSE
215 W. 10TH ST., PUEBLO, CO 81003-2992
(719) 583-6000
FAX: (719) 583-6549

Printed on Recycled Paper

Ms. Kimberly Collins
Mr. Gregory Mahall
June 28, 2001
Page 2

inhabitants. While we are aware that an agricultural risk assessment will be done, we would request that information concerning agricultural impacts be included in any final environmental document. 72-3

The information included in the DEIS documents provides minimal information concerning the traffic that will travel in an out of the Depot on a daily basis. We are concerned that the infrastructure in the area is insufficient to handle the peak loads for both truck and passenger traffic. 72-4

Lastly, the BOCC has stated publicly that it supports the construction of a facility that will utilize one of the alternative neutralization technologies as described in the documents. We belive that the use of one of these technologies best represents the interests of the community as a whole, including the agricultural interests and the environmentalists. We believe that neutralization technologies will have the fewest environmental impacts and have the greatest perception for success in Pueblo. However, as government representatives, we will support decisions made by the Department of Defense that will lead to the destruction of these weapons as long as any system that is deployed at the Depot maintains the highest standards to ensure the safety of the workers and the community and the environmental integrity of the area. 72-5

The BOCC encourages the Department of Defense to proceed as expeditiously as possible in destroying the weapons stored at the Pueblo Chemical Depot. Speedy action is in the best interests of all citizens. 72-6

Sincerely,
The Pueblo Board of County Commissioners

Matt J. Peulen
Chairman

Loretta Kennedy

John L. Klomp

cc: U.S. Senator Wayne Allard
U.S. Senator Ben Nighthorse Campbell
U.S. Representative Scott McInnis
U.S. Representative Diana L. DeGette
U.S. Representative Robert W. "Bob" Schaffer
U.S. Representative Mark E. Udall
U.S. Representative Thomas G. "Tom" Tancredo
U.S. Representative Joel Hefley
Senator Bill Thiebaut
Senator Lewis Entz
Representative Lola Spradley
Representative Abel Tapia
Representative Jim Snook
Representative Joyce Lawrence
Ross Vincent

00073

Comments can also be sent via email to **acwacomment@anl.gov** or by fax to **630-252-4611**. All comments need to be postmarked by August 9, 2001 in order for them to be considered and addressed in the final EIS.

I would like to see "Chemical neutralization" followed by whichever process is safest and most economical

I am a citizen living in Berea about seven miles from the depot. I have followed the progress of planning different ways of disposal for about ten years –

Thank you
Bernice C. Robertson

73-1

00074

[redacted]
Ellen E. Turnbull
323 Center St
Berea, KY 40403-1734

July 23, 2001

Mr. John Ware, ACWA EIS
9700 S. Cass Ave.
P.O. Box 8369
Argonne, IL 60439

Dear Mr. Ware:

I am very glad that I was able to attend the Environmental Impact Statement Workshop at Richmond, KY last Tuesday evening. I have been wanting to know what other options besides Incineration might be used to get rid of the assembled chemical weapons stored at the BGAD. The meeting was refreshing in presenting real alternatives. I have been studying the summary of the draft impact statement with its accompanying Input OIutput summary tables.

Three technologies seem promising: A. General Atomics, B. Eco Logic and Foster Wheeler, and C. AEA Technology. I am very glad to know that, according to the EIS, air polluants would be within applicable standards. Also that Routine Operations would not produce adverse cumulative impacts to the health of the off-post public. So far so good. 74-1

Now I am considering which of the three methods uses the least material and puts out the least effluent total. Here technology C., the AEA one is the best. It puts out some sodium hydroxide, which could be corrosive or toxic, but no more of it than B. and less than A. It uses more silver nitrate and some nitric acid, dangerous chemicals if spilled on workers. 74-2

It seems that the choice should be made based on the least danger to the workersin handling the materials during routine operations.

What if there are accidents? Is there any way to judge which technology might be most liable to accident? That terribly hot water under terrific pressure in the General Atomics (A) process sounds scary. That is also a factor in the Eco Logic/Foster Wheeler (B) method. And the hydrogen gas used in it very flammable - could cause a tremendous explosion. But in the AEA (C) process, they are dealing with nitric acid, which is one of the effluents. People who know a lot more than I do will need to make the judgement as to which technology will be the safest to use. 74-3

Any way one handles the destrucion of these chemical weapons will be difficult and has hazards for the workers. And the possibility of serious accident puts the outside community at some risk. Those weapons were made to kill people. Maybe we just have to face it that getting rid of them may serilously injure or kill some of our own people. 74-4

I would ask the Department of Defense to consider the final end of every weapon they consider. How can it be safely decommissioned and destroyed later? Incorporate that into your planning, please. 74-5

Ellen Turnbull

Copy to KEF

00075

Mr. Don Ware –

Just a note, to say, in my opinion (which is certainly not an expert one) common sense tells you, poison fumes would come out a smoke stack (like a chimney) – you can't burn anything without the fumes being in the smoke. That would spread it to a greater distance also, with the wind. If spread, that way, more lands and air would be poisoned. If to neutralize it would be safer, I think, if could keep it from draining into our water. Utah and Richmond are not in the same situation at all with their 22 miles into the desert and it in our face. I still think if the U.S. cared for it's people it would prepare it and move it with police escort to the desert & protect everyone. They could force it, Flossie Stite

75-1

75-2

75-3

75-4

P. 1

I am a shut-in and also very bad allergy that bad air makes very difficult. We live, air distance, not over five miles and expect it to kill me if not my husband and if burned, a person could perhaps boil their water if needed to but nothing can be done with poisoned air. 75-5

I blame the army and our government for not moving it years ago. I called and wrote senators and representatives who all agreed it needing destroying and doing nothing about it (as you know) I agree with Craig Williams to try one of the other methods than burning. He is very educated and dedicated to it for years and with much study thinks it safer and better. Talk with him of Berea, Kentucky 75-6 75-7

00077

COMMENTS ON "DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR DESIGN, CONSTRUCTION AND OPERATION OF ONE OR MORE PILOT TEST FACILITIES FOR ASSEMBLED CHEMICAL WEAPONS DESTRUCTION TECHNOLOGIES AT ONE OR MORE SITES"

James G Reavis

GENERAL COMMENTS

The title of this document is inaccurate and misleading. An appropriate title would be "Draft Environmental Impact Statement for Construction and Operation of Facilities for Chemical Weapons Destruction at One or More Sites". In no sense could the proposed full-size processing plants (DEIS Sec. 1.3, p. 1-4, l. 14) be considered pilot plants. A pilot plant might scale up from bench tests by a factor of 100; the proposed scale-up is from a few bench scale operations experiments on a few hundred pounds of agent to processing 18,500,000 pounds of agents (a scale-up of about 20,000) in integrated plants using 10-20 unit operations each. The risks of cost and time overruns and total plant inoperability are enormous. The term "pilot test facility" also indicates future intent to scale up for a production plant. Such a plant will never be needed after the weapons are destroyed. 77-1

Referencing in this document is totally inadequate. For instance, reference to the status of the supercritical water oxidation process is given as "Kimmel et al. (2001)." The reader is then faced with looking up the Kimmel reference at the end of this document and then searching through five volumes totalling about 625 pages to find the specific information. This reference should be given as Kimmel et al. (2001), ANL/EAD/TM-101, Vol. 4, p. 14 or, even abbreviated to Kimmel, TRD, Vol. 4, p. 14 or TRD, Vol. 4, Sec. 4.2.1.2.2 since Kimmel et al. (2001) is tied to "Technology Resource Document---" in the reference list at the end of this primary document. All references should include identification of pertinent sections or pages. 77-2

Kimmel's "Technology Resource Document for the Assembled Chemical Weapons Assessment Environmental Impact Statement" (TRD), Volumes 1-5 (Doc. ANL/EAD/TM-101) should be made an integral part of the EIS. Extensive rewrite would be required to reduce redundancy and result in a document of manageable size, but such a document could be used with greater facility. 77-3

The following specific comments are but a few of the comments which can be made pertaining to deficiencies in this document. Because the DEIS is almost meaningless without the "Technology Resource Document---" comments are made about that document also. A complete review of the DEIS as presented here would require study of such documents as "Mitretek Corp. (2000 a,b)" and dozens of other documents, but document and time availability make such a review impossible for the average reviewer. Summaries of all data from these sources pertaining to reliability, safety and emissions should be incorporated into one EIS. 77-4

SPECIFIC COMMENTS

DEIS, Sec. 1.3, p. 1-3. The first statement in paragraph two contradicts the first statement in paragraph four on page 1-4. A "facility for pilot testing" is not a "full-sized" production facility. 77-5

DEIS, Sec. 1.3, p. 1-3. The statement is made that "---technologies considered in this EIS are limited (to) Neut/Bio and Neut/SCWO"; yet in many sections of the DEIS 77-6

and TRD electrochemical oxidation is treated equally. Is electrochemical oxidation in or out? 77-6

DEIS, Sec. 2, Table 2.7-3, p. 2-27. Under "Air quality-criteria pollutants" and "---toxic air pollutants" there are claims of "negligible impact". This is not supported by data quoted in the DEIS or the TRD. 77-7

DEIS, Sec. 3.3.6, p. 3-19. In the discussion of SCWO it is stated "---potential for long-term operability---has not been demonstrated" and "issues associated with salt plugging and corrosion---have not been addressed" and "---reactor technology issues---remain to be resolved". This is a description of a process in its infancy. It is not possible to write a safety evaluation for such a plant for processing hazardous materials at 705 deg. F and 3400 psia when all these safety-related issues remain unresolved. 77-8

DEIS, Sec. 3.3.9, p. 3-20. Conditional grammatical constructions "---would constitute---", "---would be designed---", "---could be used---" and "---would be considered---if they leached---" are used almost througout this document instead of definite statements such as, "---will constitute---", "---has been designed---", etc. This grammatical construction implies doubt, uncertainty and lack of information about the proposed processes. If process information is this limited, a meaningful EIS cannot be written at this time. 77-9

DEIS, Sec. 6.6.2, Tables 6.6-1 and -2, pp. 6-60 to 6-64. These emissions values appear to be assumptions fabricated from thin air just to show that the processes can operate within EPA and CDPHE emission limits. Where are actual results from bench-scale experiments? Have the experiments even been monitored for hazardous emissions? How? No results of actual measurements are given in DEIS App. B or the TRD. Where are break-through data for assumed 95% efficient carbon filters? One can trap almost any gas on activated carbon filters, but if one must remove hazardous material from ten tons of carbon to destroy one ton of agent the process is not practical. How quickly are the CATOX units plugged or poisoned? Where are operating data for CATOX units? 77-10

DEIS, Sec. 6.21.2.4, p. 6-170. This section should also address internal accidents such as rupture of the SCWO unit operating at 705 deg. F and 3400 psia during neutralization of energetics (TRD Vol. 4, p. 13: "Neutralization of energetics is not a mature technology.") 77-11

DEIS, App. X. Appendices summarizing operating experience and effluents from agents and energetics destruction are missing. Compositions of effluent gases from each of the processes must be emphasized. 77-12

TRD, Vol. 4, Sec. 4.2.1.3.6, p. 21. "Significant deviations from the planned demonstration testing included---" is just another indication of immature technology and unpredictable processes for which a production plant EIS cannot be written. 77-13

TRD, Vol 4, Sec. 4.2.1.5, p. 28 and Sec. 4.2.2.5, p. 49. The effluents of the incinerators used in these processes (variously referred to as metal parts furnaces, heated discharge conveyors, CATOX furnace, etc.)should be compared to effluents of the baseline incineration process. 77-14

TRD, Vol 4, Sec. 4.2.1.5, p. 31. The explosion hazard of hydrogen from neutralization should be treated more completely. There may be an explosion hazard from hydrogen adsorbed on charcoal. **77-15**

TRD, Vol 4, Sec. 4.2.2.3.4, p. 40. "---the ICB requires several weeks to acclimate, and validation testing requires approximately 40 days" indicates treatment of a batch of agent may take several weeks. Are these apparently fragile microorganisms poisoned by chemicals encountered in the treatment and will the plant be shut down for weeks at a time for acclimation, etc.? What are the safety and schedule consequences? Has any thought been given to mutation of these microorganisms under these harsh conditions to create a biological warfare agent by destroying chemical warfare agents? **77-16**

TRD, Vol 4, Sec. 4.2.2.4, p. 44. With this long list of Engineering Design Studies yet to be completed, how can an EIS be written at this time? **77-17**

TRD, Vol 4, Sec. 4.2.2.4.5, p. 47. A better description of the catalytic oxidation unit is needed. What happens if the catalyst becomes poisoned during operation? Are toxic gases emitted through the stacks? Have these gases from biotreatment been characterized? **77-18**

TRD, Vol. 4, Sec. 4.3.2.3.4, p. 68 et seq. The estimated emissions in Tables 4.21, 4.22, 4.46, 4.47 and 4.48 appear to be derived from taking allowable emissions and calculating backward rather then from emissions observed in actual experiments. Have these values been demonstrated as being achievable under processing conditions? Where are the operating data? **77-19**

SUMMARY

This EIS is meaningless without additional data on emissions and on systems reliability. **77-20**

00078-00079

1 PUBLIC MEETING
2 ON THE
3 ASSEMBLED CHEMICAL WEAPONS ASSESSMENT
4 DRAFT ENVIRONMENTAL IMPACT STATEMENT
5 JUNE 12, 2001 AT 1530
6 AT PINE BLUFF ARSENAL
7 + + + + + + + +
8 COMMENT WILL BE HEARD IN THIS ORDER
9 PAGE

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24 Taken before IRIS L. BROOKS
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present time. We are going to go to seven o'clock or however long it takes to take comment. I'll ask that you try and keep your comments to five minutes up front, and then I'll open it up as time permits. So, with that I'll open it up for any comments, if anybody would like to make any. Yes, sir?

WESLEY STITES: I'll start this off.

BILL PELIVANIAN: Yes, just so that the reporter can hear you. 00078

WESLEY STITES: I'll try it without the mic here, if everyone can hear me. My name is Wesley Stites. I'm a member of the dialogue and assembled chemical weapon assessment. I'm also a member of the Pine Bluff citizen advisory commission. I have several comments I'd like to make. I will submit these in written form later as well, but I'd like to mention them here, at least in brief.

My comments fall into two areas. First of all, those specific to Pine Bluff, and then, secondarily, the general program. First, I'm going to deal with Pine Bluff. First of all, as we've already heard by the deputy program manager, there is soon to be under construction here at Pine Bluff and it's likely that it will be few, if any, weapons still at Pine Bluff Arsenal by the time the pilot plan could be constructed and put into operation. And that has a couple of implications. 78-1

First of all, if you decide to build a pilot plant here and you perhaps might have to reserve back some

weapons, that obviously would be, I think, in my opinion, a bad thing in an environmental impact statement because of the potential impact on human health in the event of an accident. That the weapon could be destroyed in an incinerator assuming construction were held merely to demonstrate technology here at Pine Bluff. **78-1**

Second point to make is that if a another facility were built here, essentially it would be redundant, which is, I guess, obvious in what I had earlier said. But there is another point here, again, in the context of an environmental impact statement, that means a second facility for which there's relevant need to be built and that construction, would it have an environmental impact that to require -- would the trees bloom on the site, et cetera. All the things which really, again, in my opinion are not particularly necessary. So, those are again my comments specific to Pine Bluff. **78-2**

In terms of the general program, again, a couple of comments, we would like to make. Not only is this program essentially an alternative at Pine Bluff, it's an alternative at all sites. It's really a question of what kind of technology you're going to use at any site. One thing that this environmental impact statement does not do at any point is compare the environmental impact of these technologies to incineration. And I feel that that is a major mistake, and I **78-3**

1 know the program manger has taken a position that it's a legal
2 requirement that you cannot do that. I feel, again, that this
3 is incorrect for the following reason: This program is, as I
4 said, in essence, an alternative consideration at whatever site
5 you're talking about -- Pueblo, Kentucky or perhaps Pine Bluff.
6 As such, I think it's important to compare the environmental
7 impact of this installation as early as possible and as **78-3**
8 frequently as possible for 1a couple of reasons. I know that
9 there are site-specific comparisons being done, but, again, the
10 general comparison should be done early and frequently. And one
11 of the many reasons for that is because, and something it does
12 not address in these proposals that's site-specific or
13 otherwise, is the impact of this process, the alternatives
14 possibly being built in these pilot plants of the schedule of
15 destruction. Again, in my mind, one of the potentially largest
16 environmental impacts is the delay possible in putting off
17 destruction. Let me rephrase that. If we wait five more years
18 to destroy things, there's a potential environmental impact of
19 an accident during storage, which would enormous impact on human
20 health and the environment, in general. The failure to address **78-4**
21 specifically the scheduling impact of a pilot plant and scale-up
22 of the ACWA alternatives relative to incineration is a fatal
23 defect in these environmental impact statements. And I think
24 it's absolute critical to the general comparison of the
25 environmental impacts, and in particular, the scheduling

78-4

1 considerations be included in these environmental impact
2 statements, and it has not been done. And that is my principal
3 comment. Again, I will write this up. Okay.
4 BILL PELIVANIAN: Thanks. I'm going to address
5 those issues that Dr. Stites brought up and, again, the answers
6 will be brought back after you submit them by -- for public
7 record on the writing and we'll get more cogent answers than
8 I'll provide here. Bring up some very good points.
9 The comparison of incineration to alternatives,
10 although not explicitly done in this document, is actually a
11 part of that Public Law 105-261. The defense acquisition
12 executive review is in process to do just that. So, look at the
13 schedule to compare what it would be, as far as schedule, to
14 deploy an alternative at this site or other sites; mainly,
15 Pueblo and Blue Grass, because they are of most importance from
16 a schedule stand point now. They're going to look at safety in
17 that comparison.
18 So, although, it's not included in this document,
19 it is going to be done and we're using PMCD and ACWA combined to
20 give the data to independent folks like the National Research
21 Council. We've got ViterTech (phonetic) looking at it. AMSLA
22 (phonetic), which is an acronym of an army agency that does
23 independent evaluations.
24 So, although, you're correct in it's absence in
25 this document, this document's focused more from the impact of

the environment, and all of that's going to be brought together in the defense acquisition executive review. And a decision as per law 104-208 by the undersecretary of defense will be forthcoming.

Your first topic about Pine Bluff and the issue of redundancy, certainly understand that. It's a question that we've talked about when the attorneys decided how we were going to go about executing this document. It was determined that the two sites, this one and Anniston, had a possibility or probability with some slippage that some munitions would be available. That's the only reason that they were considered.

The other sites were not considered for obvious reasons, J-tags being complete, no stockpiles to pilot, the two bulk sites obviously don't -- aren't part of this program in that we're looking at assembled weapons. And it was projected that Duello would be complete by the time we could get a permit and construct. So, that's the reasoning behind that. That's the best I can give you is the legal requirement put forth by both the DOD attorneys and the army.

Any other comments? All right. What I'll do then is just offer that we break out, and if you would like to come up and look at the posters, ask the ACWA staff who will be around the posters any questions. I'm available and we're going to probably wait and see how many more folks show up. We're scheduled to go to seven o'clock, and I think we're going to

target around five o'clock that it will be a good time to start again with the presentation and open up for comment. We're play it by ear depending on how many folks come to attend this ACWA work. So, with that, please stay behind and look at the posters and ask any questions you want, one-on-one. Thank you.

SESSION 2

LIEUTENANT HAGAR: If everybody will take their seats, we'll go ahead and get started with the second introductions. My name is Lieutenant Commander Ben Hagar. I'm the commander for the Pine Bluff chemical activity. Of course, my mission and the role of my organization is the safe storage of the chemical stockpile here -- 7,850 tons. But that's my stockpile by ton-weight is the mustard agent that actually is containers. The program that you've come to talk about this evening and to give your -- to give your thoughts on does not involve any of my agents that's in containers; that is the A15, the assembled chemical weapons assessment -- only as it contains assembled chemical weapons and it does include mines, and we've got rockets, about 110,000, and some of them less than 10,000 VX land mines. So, those are the munitions which would come under the purview of destruction under the program that you're here about this evening, the ACWA program. I'm here to answer any questions if you want, either in the group or off-line about the storage mission. But before we get to hear a little bit about the program, though, and take your questions, let me introduce

Colonel Chapman to welcome you here to the session.

COLONEL CHAPMAN: Thank you. I'd just like to take this opportunity to welcome each of you here for this meeting. This meeting is for one purpose and that's to give you, the community, an opportunity to ask questions about the CIS process and to put forth any comments or views that you may have. We have the expertise here to address any issues that you may have. We'd like for you to take advantage of that; to ask those questions so that you walk away from here feeling comfortable about the process. Because that's what this is all about. As I said, we've got the people to ask the questions -- to answer the questions, and so without any further ado, again, I welcome you and turn the meeting over at this time to the deputy program manager for this process, Mr. Bill Pehlivanian. Bill.

BILL PEHLIVANIAN: That you, Colonel. Good evening to everyone and thank you for taking time out to come to this meeting and attend, give us input on the process. And more importantly help us fill this document with draft environmental impact statements. Colonel Chapman hit, I think, the salient point of this meeting, which is getting your input, your comment, questions. We'll try and provide feedback where appropriate tonight. If not, we'll have to take those questions back. And all of what you're going to relate to us tonight is a matter of public record. We have a court reporter here. And

we'll certainly supply answers for public record as associated with the document.

What I'm going to do is just give a brief overview of the process, the draft document and the program, and then I'm going to open it up for comment and let the real reason why we're all here move forward, and that's to get your input.

Touched on all these points, really, just again it's important that we get your input for public record as we move forward within the requirement of the national Environmental Policy Act, which is a requirement of any federal funds being spent. And this document speaks of the possibility of a pilot at four different sites to include this one.

Just a brief background, it's a congressionally driven program. Congress mandated a separate program manger to take a look at alternatives back in 1997. That action has been completed. You see subsequent laws that were enacted post the '97 time frame redirecting the program slightly from a R and D effort to an implementation-type program, which leads us here today with a possibility of implementing a pilot facility.

History of the program, back in '97, Ray Parker, my boss, was named program manager. He wanted to establish a program that was transparent and involved the public from the very beginning. To that end, developed what we call a dialogue, which is comprised of a diverse membership from all stockpile communities, regulatory folks, tribal representation and

national representation. Work with the Keystone Center, which is a neutral third party, non-profit organization that built that dialogue entity. Went out with a request a proposal after we brought these people together, got our criteria by which we were going to execute the program and received 13 proposals from industry on alternatives to baseline incineration.

From a finite criteria to those 13 proposals, culled the number of thirteen down to six to actually demonstrate within the confines of the program parameters. And unfortunately only had funding to execute three, but subsequent funding was forthcoming and we were able to finish all six.

First three, which we called Demo One, completed in '99, and a report subsequently given to Congress which determined two of three technologies that we demonstrated were viable to go the next step, which is pilot. Those technologies listed there and are also described on these posters and certainly included in the draft environmental impact statement.

Upon delivery of that report to Congress, put those two technologies into engineering design studies, which I'm going to touch on shortly -- next slide, I believe. After completion of the first three, subsequent funding as I mentioned was forthcoming. We set up Demo Two, executed that process in the same fashion we did Demo One, and determined through a report to Congress, which will be delivered this month, that two of three in Demo Two, two of these technologies were viable to

go to pilot phase. Those are listed there, also included in the document and posters available with more detail.

Those two that were determined viable to go to pilot were also put in engineering design studies. The design studies were to accommodate several things. First of all, subsequent law required us to change directions somewhat from an R and D program to an implementation program.

With a possible implementation of an alternative, the undersecretary of defense for acquisition technology and logistics, who is responsible for this program, has to certify that an alternative would be similar in cost, same time and schedule, and be as safe. So, the data that we are accumulating from the demonstration phase and from subsequent testing in engineering design studies will help determine the certification that he has to make. Also, it helps this document, the draft environment impact statement.

All the data, not only for the demonstration, but from these demonstration studies, are applied in making determinations on the impact analysis in the draft environmental impact statement. And lastly, to help facilitate a proposal -- or for request for proposal to industry that a contractor could bid on and build a pilot facility if, in fact, that decision was made.

Just a brief outline of what is in the document: Purpose and need. The purpose is to determine what site to

1 pilot and alternative, and what alternative to pilot out of the
2 possible four that were described within the two reports to
3 Congress as viable to go to pilot. The listed gear in the
4 description of alternative systems to include in a "no-action"
5 alternative, which is a requirement of the NEPA law to look at a
6 "no-action". The four sites listed: Anniston, Alabama; Pine
7 Bluff, here in Arkansas; Pueblo, Colorado; and Blue Grass in
8 Kentucky are possible sites for a pilot facility.
9 Pueblo and Blue Grass mentioned in the founding
10 law, the original law, has put on hold until ACWA could
11 determine if alternatives were viable. So, those stockpile
12 sites have yet to have any construction action associated with
13 them. Pine Bluff, obviously, and Anniston, both, certainly have
14 facilities under construction, and Anniston, as of last Friday,
15 had their ribbon cutting.
16 So, those two were determined viable for pilot
17 because of the nature of the schedule of the destruction of
18 their stockpile. Although, they will be completed, as of now
19 within the schedule that would preclude a pilot from being at
20 the sites because no stockpile would be available to pilot, with
21 some slippage associated with the construction or operation,
22 there might be a possibility of some weapons to pilot. So,
23 legally, we have included them for consideration under this
24 impact statement.
25 And then the summary, the comparison of

accidents, cumulative impacts, closure and decommissioning are all detailed and outlined in the document. More specifically, the impact areas that we assess are listed here and detailed also in the document.

Comment opportunities other than this evening, as I mentioned we have a reporter that's going to take your comments and questions for the official record. We have a web site that you can access to do that. E-mail capability for your comment. Fax, certainly we accept any faxes with written comments. And then comment forms which are a part of your package, you can write your comment now or submit them later.

There's note up there that has a due date of 25 June was in keeping with the original 45-day public comment period. Because of requests from EPA and other entities, the DOD and Army has determined that we're going to extend the comment period another 45 days. I don't have that official document with me, but I understand it's forthcoming any day now, and that would put the comment period out to about, I believe, 10 August. So, your comment period and any written comments or use any of those opportunities is of now 10 August.

So, with that, that's all I have prepared to walk through with you and now I'd like to open it to public comment to get your input so that we can include it into this document. I notice we don't have too many folks this evening. We've run a similar session earlier this afternoon. So, I'm just going to

not limit the discussion or the comment until such time maybe when we're pressing up against the seven o'clock time frame. But now is the time for anyone to make a comment or question if you so desire.

Yes, sir?

TRACY MOSLEY: I've got three questions indirectly before I --

BILL PEHLIVANIAN: Could you move up just a little so that the reporter can hear you. Would that be all right? I have a microphone if you prefer to use that. **00079**

TRACY MOSLEY: My name is Tracy Mosley. I have three questions to ask before we get into this. Number one, who does ACWA report to? What does Major General John Dolesburg have to do with ACWA? **79-1**

BILL PEHLIVANIAN: Okay. The program reports directly to the undersecretary of defense for acquisition, logistics and technology. Through that, there's another office that we look to and Pat Wakefield is here tonight. He is part of that office; works as the point person -- point of contact for that undersecretary. General Dolesburg is the commander of SBC COM, soldier biological chemical command. His deputy, Mike Parker, is dual-hatted, in that Mike Parker is his deputy and also is the program manager for ACWA. To my knowledge, other than information, General Dolesburg has limited, if any, involvement in the program, because Mike Parker is the PM.

TRACY MOSLEY: You said you had one session today.

BILL PEHLIVANIAN: We started at three o'clock as we advertised and we're going to go till seven. However, if you have comments that take us past seven, we're going to stay here until you're finished.

TRACY MOSLEY: What did you tells us whether you put this in here? Is it what people say in these meetings or what the public law says?

BILL PEHLIVANIAN: What things we put in where, sir? **79-2**

TRACY MOSLEY: These testing facilities. What's going to determine whether you put this in here or not? Is it what people say in the meetings? Or what this public law says?

BILL PEHLIVANIAN: The public law that you speak of, is the ACWA?

TRACY MOSLEY: Yes, sir.

BILL PEHLIVANIAN: Well, what's going to determine where a facility goes and when is going to be done by OSDA, defense acquisition executive review, which this process, the NEPA process, is included in that decision-making process.

TRACY MOSLEY: So, this isn't the sole source --

BILL: No.

TRACY MOSLEY: -- just what the people in the community have to say.

BILL PEHLIVANIAN: Right. We're taking this input to add it into the bigger mix of decision-making tool that the undersecretary has.

TRACY MOSLEY: Will there be a report on what the people had to say in this community? **79-3**

BILL PEHLIVANIAN: Yes. It's going to be made a matter of public record for the document. That's why we're taking this down with the court reporter.

TRACY MOSLEY: So, anybody can get that and see that.

BILL PEHLIVANIAN: Yes. It will be a matter of public record after we publish the final document. Now, it's just a draft document.

TRACY MOSLEY: Okay. I have one more question. Are you the same people with the army that disallowed the plasma torch and said it didn't work? **79-4**

BILL PEHLIVANIAN: Yes. However, let me clarify. That in the document where we talked about the plasma arch, it's not that we communicated to Congress that it didn't work. They were unable to complete their testing in the time allotted for all technologies. So, there's -- it's very different. And we did not say to Congress it does not work. They didn't have the opportunity to get to certain testing. Because of the maturation of their technology, they couldn't get it completed within the time frame that every other technology had.

TRACY MOSLEY: And that was the army's decision not to finish the testing with the chemical agent.

BILL PEHLIVANIAN: No. It was the decision of the army based on their inability to get the process -- I've been working --

TRACY MOSLEY: You already made the decision.

BILL PEHLIVANIAN: Yes.

TRACY MOSLEY: All right. Thank you.

BILL PEHLIVANIAN: Are there any other questions or comments?

TRACY MOSLEY: Oh, I have a comment for the -- to put in the record, yes, sir.

BILL PEHLIVANIAN: Please.

TRACY MOSLEY: Unless there's someone else who might want to go ahead first.

BILL PEHLIVANIAN: Anyone else who choose to make comment or ask questions?

TRACY MOSLEY: Nobody has anything to say? I've got something to say. Do I need to use this? Can everybody hear me?

BILL PEHLIVANIAN: I think you're all right.

TRACY MOSLEY: Can I sit down? I get nervous standing up.

BILL PEHLIVANIAN: Feel free.

TRACY MOSLEY: First of all, I do want to thank

you for inviting me here. Second of all, I don't want anybody to take what I say personally. I don't mean it personally. When it comes right down to it, you can take it anyway you want to.

This is a small amount of the material I have accumulated in seven years, since 1995, on the destruction of chemical weapons programs. I have five Chester drawers full of this stuff. When you add it all that together with my knowledge of the use of chemical weapons in warfare and the fact that we are dealing with people involved in deceit, fraud, corruption, collusion and bribery, it comes down to one very dangerous and dismal fact -- you don't know who to trust anymore. So, proceeding along that line, I will tell you this. I don't trust the lot of you.

The answer to your question is, no, I do not want you pilot testing any neutralization technology at this arsenal. That is ridiculous, absurd and shows the height of arrogance acquired through years of power struggle between individuals, corporations and certain departments of the DOD. **79-5**

Now, for those of you who know how hard I have fought against incineration, don't drop your eyeteeth. Even incineration is better at this time than chemical neutralization. It is a tested technology. So, at least we know what we are dealing with. I will leave it there at this time, except for one item. I believe the lot of you and the Army, in

general, has lost its common sense when it comes to the security of these arsenals and the safety of its employees and the surrounding community.

Just like your original environmental draft statement, just like your environmental draft statement back there, again, has serious security breaches in it showing everybody that can get it where the incinerators are, where the stockpiles are, where everything is. That is a dangerous and unsecure attitude to take. You may have that. **79-5**

BILL PEHLIVANIAN: Thank you.

TRACY MOSLEY: Thank you for letting me come today.

BILL PEHLIVANIAN: Any other comments or questions? Okay. If not, I will encourage everyone to stick around and take a look at the posters. We've got folks here from the ACWA program that can answer questions on the posters dealing with NEPA, dealing with the technologies, and certainly if you want to take time to give public comment, you can still do that one-on-one with the reporter. So, with that, I'll adjourn this comment period to the poster sections and thank everyone for their input and comment. Thank you.

(The public meeting concluded at 5:44 p.m. on June 12, 2001.)

00080

From: AlanDT@aol.com
Sent: Thursday, August 02, 2001 3:56
To: acwacomment@anl.gov
Subject: Neutralization

I support neuraliztion technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot. 80-1

Alan D Teck

00081

August 4, 2001

Dear Mr. Ware:

Let's say the mustard at the Pueblo facility is incinerated. That leaves a furnace in this county that could be used as a hazard waste disposal magnet. (Laws do get changed.) We don't want to be a toxic waste incineration center. **81-1**

I support either neutralization process, in addition to the above, because there is less air-borne pollution.

Besides, unlike incineration, the actual process can be stopped mid-process for corrections + that monitoring. **81-2**

Neutralization is better for our health, our agriculture, + our environment.

Carolyn Herzberger 5446 Atmmoor Dr. Pueblo Co. 81005

00082

August 1, 2001

Mr. Joe Ware
Assembled Chemical Weapons Assessment EIS
9700 S. Cass Ave.
P.O. Box 8369
Argonne, Illinois 60439-4871

Dear Sir:

As a citizen and resident of Richmond, Kentucky in Madison County, Kentucky, I wanted to comment on the choice for chemical weapons disposal at Bluegrass Army Depot. After attending the last meeting at Madison County Extension Office and reading the literature of the PMCD and the ACWA EIS, my concern is still very high and in total opposition to incineration.

The data demonstrates that the new biological treatment is not applicable in this situation. Of the other three technologies, the GA or general atomics and the AEA appear to be the most suitable choices for this facility. They appear to be the most acceptable in terms of personal and environmental hazards, safety, expense, waste issues, and disposal. I endorse that these two technologies go forward. 82-1

Sincerely,

Elaine Waters

117 Buckwood Dr.
Richmond, KY 40475

00083

July 27, 2001.

Dear Mr. Ware,

I am a retired physical therapist; and although I cannot pretend to understand all the technical and chemical involvement in the safe disposal of chemical weapons, I have read written material and attended meetings during the past ten years. In response to the latest ACWA's environmental impact statement, I believe the four neutralization processes offer the least damage to ground and water areas near the necessary residues. The lives of mothers and babies are central to my concerns; and food productive lands are essential to our communities life. In my limited knowledge, I believe electrochemical oxidation will reduce these materials most completely. 83-1

Page 2.

I am grateful for all who have guarded these chemical weapons ~~and~~ and all who are helping solve the enormous solution to the problems and our community's future.
Thank you for your contribution.

Sincerely

Evangeline Z Goss

00084

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

⊗ I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 84-1

NAME: Hillary Phelps

STREET ADDRESS: 111 Creston Dr.

CITY: Pueblo

ZIP CODE: 81004

00085

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:

Incineration is radicalous - Neutralization is the only choice. Pueblo deserves the same technology Maryland has we only have mustard gas and it is proven to work with this agent. 85-1

NAME: Andrea Ayres

STREET ADDRESS: 29685 Hagler Ct

CITY: Pueblo, Co 81006

ZIP CODE: 81006

Modified Baseline has failed tests and is not proven and is totally unacceptable for this Community.

00086

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

☑ I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 86-1

NAME: Vicki Doyle

STREET ADDRESS: 4 Woodbridge

CITY: Pueblo, Co

ZIP CODE: 81001

I Don't Want Any Chemicals that might get into the air ~~to~~ food chain.

00087

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: I live downwind of the facility. Neutralization sounds like the worst and safest method 87-1

NAME: DONA FILLMORE

STREET ADDRESS: 1832 BOONE RD

CITY: BOONE, CO

ZIP CODE: 81025

00088

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: As a life long resident of Pueblo I have endured many environmental changes. Please do the neutralization process. 88-1

NAME: Robert Shullenberger

STREET ADDRESS: 2428 E Orman

CITY: Pueblo CO

ZIP CODE: 81004

00089

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:

Having heard the cost, time, and especially the potential negative consequences of incineration, I oppose incineration, and favor an alternative. 89-1

NAME: Ruth Rose.

STREET ADDRESS: 918 Cedarcrest Dr.

CITY: Pueblo, Co.

ZIP CODE: 81005

00090

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: The water use + recycling concerns me - in all the ways of disposing - + what hazards materials will be put into the environment - even tho I support ~~the~~ not using the incinerator way 90-1

NAME: Bonnie Saybel

STREET ADDRESS: 18 Dartmouth

CITY: Pueblo

ZIP CODE: 81005

00091

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:

Air pollution from incinerators is far too dangerous & not monitored enough. We have air pollution from too many sources now. Use an alternative technology. An incinerator will be used after the weapons are gone! 91-1 91-2

NAME: Donna Murphy

STREET ADDRESS: 241 Glenmoor Rd

CITY: Canon City Co 81212

ZIP CODE: 81212

00092

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:

I AM STILL CONCERND ABOUT THE WATER USAGE AND DISPOSAL IN THE "AQUA" METHODS TO RIDE THE ARMAMENTS GAS AND CHEMICALS – NEED MORE INFORMATION — 92-1

NAME: ED SAJBEL

STREET ADDRESS: 18 DARTMOUTH

CITY: PUEBLO CO.

ZIP CODE: 81005.

00093

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:
MY REVIEW OF THE PMCD & ACWA DEIS INDICATES THAT THE CLEAR CHOICE FOR THE DESTRUCTION OF THE MUSTARD GAS AT THE PUEBLO CHEMICAL DEPOT IS NEUTRALIZATION/BIO-TREATMENT 93-1

NAME: TERRY A. HART

STREET ADDRESS: 29685 HEGLER CT.

CITY: PUEBLO

ZIP CODE: 81006

THIS TECHNOLOGY CAUSES THE LEAST RISK TO THE COMMUNITY AND IS COMPARABLE IN THE COST AND TIME OF DESTRUCTION AREAS. I AM ABSOLUTELY OPPOSED TO EITHER BASELINE OR MODIFIED BASELINE FOR PUEBLO.

00094

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

July 26, 2001

PMACWA
Attn: AMSSB-PM-ACWA (Jon Ware)
5183 Blackhawk Road
Aberdeen Proving Ground MD 21010-5424

Re: Draft EIS for Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites, May 2001-Bluegrass Army Depot, KY. (SERO 2001-39)

Dear Mr. Ware:

The Natural Resources and Environmental Protection Cabinet (NREPC) serves as the state clearinghouse for review of environmental documents generated pursuant to the National Environmental Policy Act (NEPA). Within the Cabinet, the Commissioner's Office in the Department for Environmental Protection coordinates the review for Kentucky State Agencies.

The Kentucky agencies listed on the attached sheet have been provided an opportunity to review the above referenced report. Responses were received from 6 (also marked on attached sheet) of the agencies that were forwarded a copy of the document. Attached are comments from the Kentucky Divisions of Water and Air Quality.

If you should have any questions, please contact me at (502) 564-2150, ext. 112.

Sincerely,

Alex Barber
State Environmental Review officer

Enclosure

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NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
ENVIRONMENTAL REVIEW

Draft EIS for Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites, May 2001-Bluegrass Army Depot, KY

The following agencies were asked to review the above referenced project. Each agency that returned a response will appear below with their comments and the date the project response was returned.

C denotes Comments
NC denotes No Comment
IR denotes Information Request
NR denotes No Response

REVIEWING AGENCIES:

Division of Water	comments
Division of Waste Management	
Division for Air Quality	comments
Department of Health Services	
Economic Development Cabinet	
Division of Forestry	ns
Department of Surface Mining Reclamation & Enforcement	ns
Department of Parks	nc
Department of Agriculture	
Nature Preserves Commission	nc
Kentucky Heritage Council	
Division of Conservation	nc
Department for Natural Resources	ns
Department of Fish & Wildlife Resources	nc
Transportation Cabinet	
Department for Military Affairs	

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

MEMORANDUM

TO: Alex Barber
State Environmental Review Officer
Department for Environmental Protection

FROM: Timothy Kuryla TK
EIS Coordinator
Division of Water

DATE: July 19, 2001

SUBJECT: DEIS, Pilot Test Facility for Chemical Weapons Destruction, BGAD (Madison County), SERO 010509-39

The Division of Water has reviewed the Draft Environmental Impact Statement Supplement (DEIS) prepared by the by U.S. Army Program Manager Assembled Chemical Weapons Assessment regarding a pilot test facility for chemical weapons destruction at the Blue Grass Depot (BGAD, Madison County). The Division's comments address matters the Division desires discussed in the Final EIS.

FLOODPLAIN CONSTRUCTION

7	**BLUE GRASS ARMY DEPOT**	
7.3	**INFRASTRUCTURE**	
7.3.3	**Water**	
7.3.3.3	**Impacts of the Proposed Action**	**Page 7-17 & 7-18**

There is no discussion in the DEIS regarding the impacts on stormwater, floodplains, or flooding. There is no discussion of what actions would be taken to mitigate any such impact. The FEIS needs to address these concerns. **94-1**

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SERO 010509-39
Page 2

WATER SUPPLY

7	**BLUE GRASS ARMY DEPOT**	
7.3	**INFRASTRUCTURE**	
7.3.3	**Water**	
7.3.3.1	**Current Supply & Use**	**Page 7-16**
7.22	**CUMULA TIVE IMPACTS**	
7.22.3	**Infrastructure**	
7.22.3.3	**Water Supply & Sewage Treatment**	**Pages 7-218 & 7-219**

The BGAD has a water treatment and distribution system. Division of Water records show the BGAD water treatment plant has a design capacity of 750,000 and an average daily production of 108,000 gallons per day (14.4 percent of design).

The BGAD is permitted to withdraw 500,000 gallons per day per month. The 2000 Water Withdrawal Reports (WRRs) for Permit 1013 show an average of 107,000 gallons per day per month (21.6 percent of the allowed amounts). 94-2

The BGAD water treatment system should be able to handle the potable water use of the proposed pilot test facility. If necessary, connection can be made to the water treatment and distribution system of the City of Richmond via the Madison County Water District, Kingston Terrill (MCWD-Kt).

WASTEWATER TREATMENT

7	**BLUE GRASS ARMY DEPOT**	
7.3	**INFRASTRUCTURE**	
7.3.3	**Water**	
7.3.3.2	**ACWA Pilot Test Facility Requirements**	**Pages 7-16 & 7-17**
7.22	**CUMULA TIVE IMPACTS**	
7.22.3	**Infrastructure**	
7.22.3.3	**Water Supply & Sewage Treatment**	**Pages 7-218 & 7-219**

There is an existing package sewage treatment plant (KY0020737, 04 035 008) at the BGAD. Division of Records show it has a design capacity of 37,500 gallons per day. The discharge is at approximately unnamed tributary (UNT), River Mile (RM) 1.2. (UNT confluence is Hays Creek, RM 3.9.) The domestic wastewater created by the proposed pilot test facility should pose no problem for the BGAD package sewage treatment plant.

94-3

The Division of Water notes that SAI KY9808030829 is an awarded application by the City of Richmond for Kentucky Infrastructure Authority Fund B (KIA-B) moneys to build a 1,000,000 gallon per day capacity wastewater treatment plant. The plant is located at KY2880 & I-75 with the discharge into Silver Creek at approximately RM 29.15. Eventually, the Silver Creek wastewater treatment plant will serve the domestic wastewater flow of the BGAD and the package sewage treatment plant will be taken out of service.

SERO 010509-39
Page 3

The DEIS states that the BGAD operates a second wastewater treatment plant (KY0004197, 02 023 007). The Division of Water notes that the plant near and discharging to Muddy Creek, RM 22.9, was taken out of service and its flow treated by plant near UNT, RM 1.2. The date of this transfer was June 7, 1989. The FEIS needs provide correct data regarding wastewater treatment plants at the BGAD. 94-4

An Assembled Chemical Weapons Assessment (ACWA) pilot test facility wastewater treatment plant is proposed for BGAD. The plant and discharge site would be Muddy Creek, RM 22.6. The proposed capacity is 12,500 gallons per day (see 7.12.2 paragraph 3, page 7-115).

94-5

Division of Water prior approval for the ACWA plant is required. Upon receipt of a Wastewater Load Allocation (WLA) request, Water Quality Branch biologists would be sent to analyze the receiving stream at the point of discharge. Because Muddy Creek is an exceptional stream, the Kentucky Pollutant Discharge Elimination System (KPDES) permit limits would be very strict.

The Division of Water observes that Muddy Creek is a reference reach stream. This means it is one of the Commonwealth's streams least impacted by pollution. The ACWA wastewater treatment plant will require advance tertiary treatment. 94-6

Although from the DEIS (7.3.3.2 paragraph 3, page 7-17), the Division of Water understands that no process wastewater will be discharged, the Division has concerns about toxic chemicals (dioxins, polychlorinated byphenols [PCBs], etc.), entering a reference reach stream. 94-7

c: John Brumbly, Water Quality Branch
David Leist, KPDES Branch
Ed Neal, Water Resources Branch
Leon Smothers, Water Resources Branch
Tom Van Arsdall, Water Quality Branch

00095

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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8100 Lowry Blvd.
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http://www.cdphe.state.co.us

Colorado Department
of Public Health
and Environment

August 8, 2001

Jon Ware
Assembled Chemical Weapons Assessment (ACWA)
Environmental Team Leader
P.O. Box 8369
Argonne, IL 60439-4871

Mr. Gregory Mahall
Program Manager for Chemical Demilitarization
Public Outreach and Information Office
Building E-4585
Aberdeen Proving Ground, MD 21010-4005

RE: ***Draft Environmental Impact Statement for the Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites*** **and the** ***Draft Environmental Impact Statement for the Destruction of Chemical Munitions at Pueblo Chemical Depot (PCD)***

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the Division) has reviewed the Draft Environmental Impact Statements (DEIS) for the design, construction, and operation of one or more pilot test facilities for assembled chemical weapons destruction technologies and for the design, construction, and operation of a chemical munitions destruction facility at PCD. The Division is providing the following comments:

Comments Pertaining to Both DEIS's (ACWA Programatic and Site-Specific)

1) No substantial analysis of the different waste streams, on an alternative-by-alternative basis, is provided by either DEIS. Each DEIS should address the quantity of wastes that will likely be produced by each alternative, and should also break that waste into solid wastes and types of hazardous wastes by waste code, for each considered alternative. Lack of this information is a significant deficiency.

Each DEIS needs to be updated to include the newly added listed waste codes of K901 (waste chemical weapons and residues resulting from treatment of hazardous wastes with the code P910 for mustard) and K902 (soil, water, debris, or containers contaminated through contact with waste chemical weapons listed as K901 or hazardous waste with code 910 for mustard) both of which were recently added to the Colorado Hazardous Waste Regulations (6 CCR 1007-3). For each alternative, the DEIS's should discuss the generation and management of wastes expected to carry these new listed waste codes. 95-1

2) The reports assume that the Colorado Ambient Air Quality Standards are identical to the federal ones. With the 1997 federal promulgation of new standards for PM10 and Ozone, this is no longer true. The Colorado state standards for PM10 and Ozone are identical to the federal pre-1997 ones. Colorado has stricter standards for sulfur dioxide. Colorado Regulation 8 contains a lead standard that is stricter than the federal one, at 1.5 ug/m3 for a one-month average. (The federal lead standard specifies a quarterly average). 95-2

3) Other hazardous wastes are expected to be generated since chemical warfare agents and chemical warfare munitions are listed hazardous wastes in Colorado. Thus, the munitions bodies, brine liquids, ash, and solid salts would be listed hazardous wastes since they are derived from the treatment of listed hazardous wastes. 95-3

4) The worst-case accident scenario described in the Site-Specific DEIS (p. I-10) involves the crash of an aircraft into one of the storage igloos, followed by an uncontrolled fire. If this event were to occur, the computed maximum downwind no deaths distance would be 50 km (31 miles) for an igloo storing 155mm projectiles. The programmatic DEIS uses the hypothetical bounding accident of an aircraft crash into the container handling building. This scenario lists no deaths from 1 to 12 miles. (6-166) It is not clear why the accident scenarios chosen are different and why there is such a difference in the plume resulting from the two different accident scenarios. A little more explanation and making sure the accident scenarios are consistent would be helpful. 95-4

5) Risk assessments for both DEIS's evaluated only direct inhalation and the site specific DEIS presented a qualitative risk assessment. For permitting purposes a quantitative risk assessment for all potential exposure pathways needs to be done for the technology selected. The evaluation of the potential risks to human health and the environment from the proposed ACWA technologies needs to be discussed in a similar fashion as for incineration. The assumptions used for making estimates need to be clearly stated in the EIS. For comparison purposes, the assumptions that apply to all of the alternatives should be identical. 95-5

6) The area around the Depot is primarily used for agricultural purposes and both DEIS's need to include adequate information for the assessment of agricultural impacts such as, but not limited to sampling soil, water, and agricultural products. The sampling plan should use air-modeling results to determine deposition patterns. Sampling locations can then be determined according to areas of maximum deposition. 95-6

7) The ACWA DEIS (page 6-21) states that the existing lagoons might need to be expanded to handle sanitary wastes, while the site specific DEIS (page 3-23) says that sewage will be treated and sent to evaporative lagoons. The site-specific DEIS (p 4-87) states that the west lagoon was once in operation, but is now closed. Both DEIS's should address the use or addition of lagoons at PCD in a consistent manner. 95-7

8) The assumptions used for making estimates need to be clearly stated in the EIS. For comparison purposes, the assumptions that apply to all of the technologies must be identical. 95-8

9) Both DEIS's need to discuss any agent degradation products of concern. For permitting purposes a sampling, monitoring, and handling plan will need to be developed. 95-9

Site Specific DEIS

1) PCD has water rights to extract 1,000 acre-feet from seven supply wells. The DEIS report projects an up to 46% increase over the quantity of water being currently withdrawn from wells. While the DEIS looks at impacts to the groundwater as a resource, it does not adequately address how this will impact current corrective action treatment systems already in place at PCD. Nor does it break out the possible differences between how different destruction alternatives may affect groundwater that PCD is currently attempting to remediate. The discussion of groundwater contaminants in the Impacts of Constructions Section needs to include the explosives plume in the southwest portion of the facility. We suggest doing a more detailed analysis of the effect that the withdrawal of water will have on the existing treatment systems on an alternative-by-alternative basis.

2) On page 4-85 it is stated that, "...there is no evidence that ground water reaches the Arkansas River Valley aquifer from the alluvial aquifer as ground water." This is incorrect and needs to be updated. The explosives plume in the southwest portion of the facility has been found to extend into the Arkansas River Valley aquifer south of the facility.

3) Page 4-86 States "PCD's current water supply is a mixture from 11 water supply wells..." Line 24 on the same page states, "Current water use is approximately 185,000 m^3/year... from seven water supply wells." Clarify how many water supply wells are in use at the facility.

4) This section states that operation of the "pilot" test of an ACWA technology (if chosen) is assumed to go for three years, which "would translate to complete destruction of the stockpile at PCD." Please be aware that the term "pilot" has a specific meaning in the air regulations. (Section 1.3, Page 1-6.)

5) The section notes, "Both ACWA systems could hold and test ventilation air before releasing it through the pollution control processes." It is not clear whether the pre-release testing is planned for a routine basis (every release) or whether it is an emergency response measure for special situations. Describe how the ventilation air from the ACWA systems will be held for testing prior to release. (Section 3.3.4, Page 3-13)

6) Page 4-35 suggests that a 1995 version of ISCST3 might have been used for air dispersion modeling. The Air Pollution Control Division normally recommends that the most recent version be used. When the permit application is submitted, details will need to be provided concerning model settings and assumptions.

7) It does not appear that the DEIS contains tables with projected emission rates of criteria pollutants for each alternative. While the criteria pollutant emissions rates should be relatively small, it would be helpful if they were provided in a table. For example, Section 4.7.2 on page 4-34 states that the emissions of criteria pollutants are "expected to be very minor." This statement by itself is not sufficient for permitting purposes.

8) In Table 4.19, *US Dept. of Defense Safety Standards for Chemical Agents Exposure*, the time-weighted average for HD is identical to the "technologically feasible real time detection limit." While this monitoring is naturally important for immediately protecting workers' health, it is not clear whether preventive measures, such as ongoing monitoring, are in place to ensure workers are not exposed to HD. (pg. 4-56)

9) Dioxins and Furans - Human risk Section 2.2.1, "Chemical Agents": This section states, "This DEIS considers health effects resulting from inhalation only, since this would be the principle mechanism of exposure during routine handling and destruction activities." This may be true for the mustard agent itself, but other routes of exposure may be more significant for by-products and other chemicals resulting from the destruction of the chemical munitions. For example, in Section 4.9.3.2, it is stated that based on EPA studies, ". . . the principal pathway by which people are exposed to dioxin-like compounds is through the diet, with the consumption of animal products contributing over 90% of the average daily intake. It is hypothesized that the principal mechanism by which dioxin-like compounds enter the terrestrial food chain is via atmospheric transport and deposition." Thus, routes of exposure other than inhalation need to be considered also to adequately assess risk for each alternative.

10) Air Quality Criteria Pollutants (Section 4.25.7, page 4-178)- This section indicates that exceedances of health-based standards for criteria pollutants should not be expected. A sentence indicating that State regulations will also be met (e.g., fugitive dust and vehicle trips per day as part of Regulation No. 1, etc.) should be included as part of this section.

11) Table 3.2, "Summary and Comparison of the Impacts of All Alternatives":

- This table seems to incorrectly state that no construction wastes would be produced during the construction of the Neutralization/SCWO system.
- Under the part of the table titled "Impacts of Operation," for waste management under the "No Action Alternative" it is estimated that "7.5 tons/yr solid and 2.5 tons/yr liquid hazardous wastes [will be] produced and disposed of in TSDF." However, there is

currently no TSDF where these wastes can be disposed of. The table should state that these wastes would have to be stored on-site indefinitely.

- Under the part of the table titled "Impacts of Operation," it seems to incorrectly state that the only emissions resulting from the two ACWA technologies would result from boilers and generators only. Impacts from emissions from the metal parts thermal treatment processes, the catalytic oxidation processes, and from the SCWO processes need to be considered here for each ACWA technology, as applicable.
- For human health risk from the two proposed ACWA technologies, Table 3.2 states "Estimated cancer risk less than 1 in 1 billion; estimated mustard exposure, less than 1% of allowable level." However, for these same two ACWA technologies, Table 4.24 states that the estimated cancer risk is "Less than 1 in 1 million" and the estimated exposure to mustard is "0.1% or less of allowable level." This apparent inconsistency needs to be resolved.

12) Executive Summary, Section ES.2, "Destruction Alternatives"; and Section 3.3.2, Disassembly Process": It should be clarified that the proposed SWCO system does not include a step for draining the mustard agent. Instead, the munitions will be frozen and crushed after the fuzes and bursters have been removed.

13) This section indicates that white lead was used as a lubricant in projectile construction, and may be emitted from the incinerator. Some attempt to quantify these emissions should be made, as Colorado and the federal government both have standards for lead in ambient air. (Section 4.7.5.1, Page 4-43)

14) This section discusses the design of a perimeter air quality monitoring system. Please add CDPHE to the list of groups to be consulted regarding this issue. (Section 4.26.6, Page 4-187)

15) This section indicates that the Colorado Ambient Air Quality Standards are identical to the federal ones. As noted in previous comments, this is not completely accurate. (Section D.1.3.4, Appendix D, Page D-18)

16) The section notes that only HD will be monitored. Monitoring for HT must also be addressed. (Section D.2.12.1, Appendix D, Page D-39)

17) Section 4.8.4.1 mentions that elevated levels of mercury were detected during trial burns of 4.2 inch HD mortar rounds at JACADS. For the incineration options being considered for PCD, describe the "enhanced monitoring, design changes, and operational modifications" that will be employed to control mercury emissions. Please explain in more detail how mercury emissions will be tightly monitored and feed rates modified if mercury concentrations are unacceptable. (pg. 4-63)

18) Aquatic Habitats and Fish - Recently Colorado and other states have been dealing with unacceptable levels of mercury (Hg) in local water bodies. Sources of Hg can be many but often include combustion sources. In such scenarios, fish and other wildlife are often targets of this emitted Hg. In Colorado, unacceptable levels of Hg in water bodies are being reviewed through the Total Maximum Daily Load (TMDL) process. Efforts at PCD will need

to compliment this work and not be in conflict with Hg reduction efforts potentially needed as part of the TMDL process. (pg 4-110)

19) In the section discussing closure of the facility, the report states that decommissioning activities are planned, engineered, and implemented through the use of Engineering Change Proposals. Please be aware that any changes made to the closure plan will need to be reflected in the permit through the appropriate permit modification.

20) Land Use (Section 2.25.2, page 4-174)- This section is not labeled correctly and should read 4.25.2.

21) Incorrect references: Section 4.9.3.4, Line 35 on page 4-65 should reference Table 4.19 rather than Table 4.18. Section 4.15.3.2 line 35 on page 4-107 incorrectly references Section 4.11.3 for a discussion of noise levels.

22) Section 1.4.2.1, "Mailing List": The contact person and agency that maintains the mailing list should be mentioned in case someone wants to be added to it.

23) Section 2.3.3, "Waste Management": The State of Colorado has not been delegated authority to oversee federal water quality at federal facilities; EPA has retained this authority.

Programmatic DEIS (ACWA)

1) This section indicates that, "For all the hypothetical accidents assessed, the no effects plume contour extends into off-post areas (i.e., extending to 30 mi [50 km]). The extent of the no deaths contour varies from 1 to 12 mi [1.6 to 19.3 km], depending on the meteorological conditions assumed." (Section 6.21.1.3, Page 6-166) 95-10

This section fails to mention that the distance to Pueblo is 14 miles. In the event of this rare accident scenario, the entire population of Pueblo would be at potential risk for health effects from mustard exposure, with the city portions actually affected depending on the wind direction.

Lines 12-14 state, "This evaluation did not specifically estimate the numbers of nonfatal injuries that would occur for each accident scenario, because there would be great variation in the number and severity of nonfatal injuries, depending on exposure. While it is not possible to predict the number of injuries, it is possible to calculate the distance downwind to a "no deaths" contour. For several of the scenarios, this distance is given as over 31 miles (Table 6.21-1). Thus, Table 6.21-2 should include an extra column listing the total population living within 31 miles of the PCD, since they are all potentially at risk of injury, depending on wind direction at the time of the accident. This population at potential risk would include the entire city of Pueblo. (Section 6.21.2.4, Page 6-170) 95-11

The site specific DEIS does this calculation and discusses the possibility of 5900 deaths, in the event that a very improbable accident does occur. It mentions a number of other areas, such as the community of Rocky Ford, which are within a thirty-one mile radius of the Pueblo Chemical Depot. The site specific DEIS lists areas of six other counties that could be

affected by a large accidental release (Page 4-151, the site specific DEIS). These other potentially affected areas are not mentioned in the ACWA DEIS. The accident presentation in this DEIS should be revised to be consistent with that in the "Destruction of Chemical Munitions at Pueblo Chemical Depot" DEIS. 95-11

2) This section discusses the closest off-post residence, which has been supplied with suits, gloves, and respirators to use in the event of a mustard gas release. The DEIS states that these precautions should prevent any injuries or deaths at this location. For the nighttime plane crash scenario hypothesized, these residents may not be able to take action quickly enough to prevent death or injury. (Section 6.21.2.4, Human Health and Safety) 95-12

3) This map shows "Air Quality Control Regions" in Colorado. However, the Air Pollution Control Division recognizes 13 Air Quality Control Regions that differ from those shown here. (Figure 6.5-2, Page 6-46) 95-13

4) The table title is: "National Ambient Air Quality Standards, Colorado State Ambient Air Quality Standards, and Highest Background Levels Representative of PCD." The table needs to add the Colorado standards for ozone, sulfur dioxide, PM10, and lead. Also, it would be better if the table title ended with "Highest Background Levels in the Urban Areas Near PCD." Many of the levels listed in this table come from downtown Colorado Springs and do not represent air pollutant concentrations off the immediate borders of PCD. (Table 6.5-3, Page 6-48) 95-14

5) This section states that the "time after functioning" (time needed to stop emissions of mustard after an accident) is one hour. However, Appendix H states that the "time after functioning" for the Pueblo Chemical Depot is nine hours (page H-9). Which is correct? (Section 6.21.1.2, Page 6-165) 95-15

6) Section 6.22.5.1 discusses the potential effects of the ACWA technologies in combination with other air pollution sources in the area, such as the new Rio Grande cement plant. This section should also address the Rocky Mountain Steel Mill, as another source of air pollution. 95-16

7) For hazardous air pollutants (HAPs), the information in the DEIS is not sufficient for the Division to adequately review the modeling methods and assumptions. From a concentration perspective, the estimates may be reasonable, but definite conclusions are not possible as was the case with the criteria pollutants. It did not appear as though any deposition rate modeling had been done. 95-17

8) Page 6-66 suggests that a 1995 version of ISCST3 might have been used in the modeling, but Appendix B states that the most recent version (dated 00101) was used. The Division normally recommends that the most recent version be used. 95-18

9) Since PCD has "true minor permits" for hazardous air pollutants (HAPs) in addition to those for criteria pollutants, information regarding HAPs should be included. Also, actual limits are set within HAP permits and should be cited. Lastly, permit No. 95-PB901 should also be referenced here as the existing PCD air permit. (Section 6.5.1.2, page 6-42) 95-19

10) The draft EIS indicates that PCD does not currently emit any reportable quantities of HAPs..." However this statement is not completely accurate. Not only does PCD report pollutants from the 95-20

Clean Air Act 112 list (regardless of quantity or threshold requirements) but PCD also reports pollutants found on State lists. Indicating otherwise might be misleading. Pollutants that are reported should include, in no particular order: mustard agent, benzene, methylene chloride, chlorine, lead compounds, antimony compounds, manganese compounds, nickel compounds, and hydrogen cyanide. Other pollutants might be reportable based on the most recently revised permit for PCD. This should be verified for a Final EIS release. (Section 6.6.1) 95-20

11) Ecological risk assessment is not being considered for neutralization/biotreatment or neutralization /SCOW. A detailed explanation as to why an ecological risk assessment is not planned should be included in this section of the DEIS. (p 6-122) 95-21

12) Please provide more detail to what the revision of the Chemical Accident/Incident Response and Assistance Plan may look like in regards to accidental releases to the air. 95-22

13) Though mentioned elsewhere in the document, please cite the source for the "one occurrence in 100 million years" frequency in this section. (Section 6.7.1.4, page 6-70) 95-23

14) The Section called Closure and Decommissioning Activities lists the steps involved in closure. Sampling to verify closure requirements was not included in the list and needs to be added. 95-24

15) There is a typo on line 23 (page 6-47) it should be ground level not round level. 95-25

If you have any questions concerning this letter please call Lisa Woodward of my staff at (303) 692-3451.

Sincerely,

Joan Sowinski, Program Manager
Federal Facilities Program
Hazardous Materials and Waste Management Division

cc: James Hindman, CDPHE/HMWMD
Amy Dean, PMCD
Jon Ware, ACWA
Heather Maio, Pueblo County Health Department
David Kreutzer, AGO

00096

PUBLIC COMMENTS

Destruction of Chemical Munitions at Pueblo Chemical Depot, Colorado
Draft Environmental Impact Statement
Program Manager for Chemical Demilitarization
May 2001

and
Design, Construction, and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites
For
Pueblo Chemical Depot, Colorado
Program Manager Assembled Chemical Weapons Assessment
May 2001

submitted by
Citizens for Clean Air & Water in Pueblo & So. Colorado
Diocese of Pueblo
Sierra Club
Pueblo County Rocky Mountain Farmer's Union
Boone-Avondale Citizens' Alliance
& the undersigned individuals in the area Surrounding Pueblo Chemical Depot
August 8, 2001

PUBLIC COMMENTS

About these Comments

These comments have been prepared in a joint effort involving several organizations and a number of concerned citizens. The task of attempting to conduct a reasonably thorough analysis of the more than two thousand pages of relatively complex, often technical sometimes conflicting material has been daunting. All of those involved are volunteers who have had to attempt to conduct this review while balancing the competing demands of job, family and other interests.

The comments below attempt to chronicle some of the questions inconsistencies, inaccuracies and omissions that we have been able to identify. There are many. The task of reviewing these documents was complicated and made more difficult by the fact that two DEISes have been prepared to deal with the single decision about how to destroy the chemical weapons at the PCD.

As a result, there are many more issues that we have not had time to develop into cogent comments and almost certainly many more still that we have not yet identified. **Clearly, insufficient time was allowed for public review and comment.** 96-1

We are submitting these comments to both PMCD and PMACWA. Comments directed at specific sections of one EIS may also apply to the other, so it should not be assumed that directed comments apply only to the draft released by that organization. We reserve the right to revisit and comment on portions of the DEIS and subsequent FEIS that we did not have sufficient time to address.

Additional Comments

We concur in and hereby incorporate into these comments by reference the comments submitted by:

- Kornelly and Associates – June 18, 2001
- Colorado Department of Public Health and Environment – August 8, 2001
- Boone-Avondale Citizens Alliance – [submission date not available]
- Kentucky Environmental Foundation -- [submission date not available]

Misplacement of NEPA Responsibility

Responsibility for the issuance of both draft and final EISes for chemical weapons disposal at the Pueblo Chemical Depot has been misplaced. Thus, **the integrity and the validity of the required NEPA review have been seriously compromised.**

The National Environmental Policy Act (NEPA) requires preparation of draft and final Environmental Impact statements by federal officials responsible for decisions that may have a significant impact on health or the environment. There is only one impact-generating decision to be made with respect to the chemical weapons currently stored at the Pueblo Chemical Depot: 96-2

viz., what kind of facility (or facilities) to construct and operate at that Depot to destroy the weapons there.

The decision to construct generates the impacts subject to NEPA review. Neither the Program Manager for Chemical Demilitarization (PMCD) nor the Program Manager for Assembled Chemical Weapons Assessment (PMACWA) has the authority to make that decision for the Pueblo Chemical Depot. Thus neither has the responsibility or the authority to issue the draft or final Environmental Impact Statement. 96-2

The "Defense Acquisition Executive" will make that decision, we understand. We believe that title and responsibility are currently vested in the Undersecretary of Defense for Acquisition, Technology & Logistics, Mr. Aldridge. It is he, or his successor at the time a final decision is made, who bears the sole responsibility for NEPA compliance and for issuing both the draft and final EIS (singular) for that decision.

The decision to bifurcate the NEPA review for Pueblo and to charge non-decision-makers (PMCD & PMACWA) with the responsibility for issuing the draft EISes was a mistake. That mistake has been compounded many times over in the DEISes issued by PMCD and PMACWA. Those mistakes should be corrected before issuance of a Final EIS (a single Final EIS) for the decision at Pueblo, issued by the responsible decision-maker, not by program managers whose responsibilities are technical support and advice to the decision-making authority. 96-3

Similar circumstances exist at other sites.

Certification of Alternative Systems

By law (PL 105-261), before the Undersecretary of Defense can authorize construction of an alternative technology system for destruction of the chemical weapons at the PCD, he must determine and certify in writing to the Congress that the system selected will be able to complete the task at least as safely, as cost effectively and as quickly as the Army's incineration system, and that it will be able to meet regulatory requirements in the state where it is to be located.

At the time this language was adopted, the "baseline" incineration was the only chemical weapons incineration system under discussion and it was clearly the baseline system to which the Congress referred.

It is extremely important that **all** "alternatives" to the baseline incineration system, including the new "modified" incineration system, be reviewed by the Undersecretary and screened against these legally established criteria, before a decision to proceed is made.

COMMENTS ON EXECUTIVE SUMMARY, PMCD DEIS

ES.1 PROPOSED ACTION

General Comment. This section should clearly identify the proposed action and perhaps the legal framework for its inception and execution. Finding the statement of the proposed action amidst the language of this section is not easy. Most of the language in this section does not belong here and should be deleted or moved to more appropriate sections of the DEIS.

l. 27-28. *"The Program Manager for ACWA is required to bring at least two technologies to the demonstration stage."* Inaccurate & misleading. PMACWA is required by current law to bring at least two systems for destruction of chemical munitions to and through the pilot stage.

ES.2 DESTRUCTION ALTERNATIVES

General Comment. This section fails to identify for each of the system alternatives the treatment and disposal methods envisioned for all of the weapons components and related materials and for the secondary wastes produced by primary waste treatment. It also fails to identify all of the available alternatives, a deficiency that is carried through the rest of the DEIS. Not mentioned or considered are:

1) transportation of the Pueblo stockpile to some other site for treatment and disposal;
2) the silver mediated electrochemical process proposed by AEA Technology and demonstrated by the ACWA program; and
3) the neutralization/GPCR/TW-SCWO process proposed by Foster-Wheeler and others and demonstrated by the ACWA program.

All three of these options are technically illegal for various reasons, but so is the "no action" alternative. It is inconsistent, at best, to include one illegal alternative, while ignoring others. All reasonably available alternatives must be identified and discussed. If they are eliminated from consideration by law, so be it; but they must be discussed and the reasons for not selecting them explained.

ES.3 ENVIRONMENTAL IMPACTS

General Comment. This section describes some of the activities that are likely to result in environmental impacts, but generally avoids describing the impacts themselves. Since the Executive Summary is the only section of the EIS that some people will read, it is imperative that impacts be described in this section. Secondary and cumulative impacts are ignored. They, too, must be identified and discussed.

ES.3.1 LAND USE

This section fails to recognize the additional on-post and off-post land use impacts that will result from providing housing and other services for construction and operating personnel. Also ignored are the significant and potentially permanent changes in land use that could result from conversion of nearby farm and ranch lands to other uses (or to no use) if either of the incineration options is chosen and markets for local agricultural products are adversely affected.

ES.3.2 WATER SUPPLY AND USE

This section makes assumptions about the availability of water for chem. demil. use that may be overly optimistic. It is our understanding that the Army's water rights are junior to others

and that, for that reason, sufficient water may not be available in dry years. The impacts of reduced water availability must be identified and discussed. It also appears that this section fails to distinguish between process water use and process water consumed. Since both of the neutralization-based recycle most of the water they use, it seems likely that actual water demand will be less for these systems than for either incineration system.

ES.3.2 l. 10: Needs to include a comparison of modified incineration to Neut-SCWO also.

ES.3.3 ELECTRICAL POWER SUPPLY

This section seems to focus on the construction of power lines and related equipment, but ignores the production of the power needed by the facility (e.g., the mining, transport and burning of coal) and the use of power made available as a result of the chem. demil. facility, both during and after the weapons destruction process.

ES.3.4 NATURAL GAS SUPPLY

This section seems to focus on the construction of natural gas pipelines and consumption of natural gas, but ignores the production, delivery and combustion of the natural gas needed by the facility.

ES.3.4 l. 27: What about Neut-Bio?

ES.3.5 HAZARDOUS WASTES

This section suggests that important decisions about the processing of secondary wastes have already been made, in violation of the National Environmental Policy Act. Off site shipment of secondary wastes is an option, but in our view an undesirable option. All process wastes, especially hazardous wastes, should be managed fully on site, unless there is some compelling human health or environmental reason why they should not be managed there.

It isn't nice to dump your trash in someone else's yard. Shipping chemical weapons related wastes off site may prove to be politically controversial. More important, however, shifting the burden and the risks associated with waste transport and disposal to other communities would be morally and ethically indefensible. We in Pueblo helped to generate those wastes. This community benefited from their generation. We share with the Army the responsibility for dealing with them here, not elsewhere. Regardless of the methods used, the actual impacts on human health and the environment must be identified and discussed.

ES.3.6 AIR QUALITY

This section exemplifies several serious flaws that are repeated many times throughout this document.

1) It suggests that the chem. demil. facility would operate throughout its active life with "no exceedances (of environmental standards) expected." That suggestion is absurd. All facilities exceed standards from time to time. The EIS must discuss the possible form of those exceedances and the resultant impacts on human health and the environment.

2) It ignores, indeed dismisses, the impacts on human health and the environment that will result from routine, fully compliant operation of this facility. The National Environmental Policy Act requires identification and discussion of impacts, not compliance status. Many current standards are set at levels where health and environmental impacts – including disease and death -- are known to occur, others at levels where such impacts may occur. Those impacts must be discussed and compared.
3) It suggests that our knowledge of the releases likely to occur from these facilities is much better than it actually is. As USEPA studies confirm, our knowledge of the combustion products generated in hazardous waste incinerators is far from complete. Our knowledge of the effects of release of most of these combustion products is incomplete to non-existent. Most of them are not regulated. These circumstances and the impacts – known and potential -- that could result from their release must be discussed.

In addition, this section makes no mention of the fact that these processes manufacture and release gases that are associated with climate change. The relative contributions to global warming and other climate changes and the health and environmental impacts associated with those changes must be identified and discussed.

ES.3.7 HUMAN HEALTH

This section, like others, must discuss the impacts of releases and exposures, whether "*below standards*" or not. Of special concern in this largely agricultural area are the impacts on farmers and ranchers who consume their own crops and livestock and the implications for those who may consume those products distributed in commerce.

ES.3.7 l. 12: When and how will the health risk assessment for incineration be conducted? Will a risk assessment be done for the neutralization technologies also?

ES.3.11 GROUNDWATER

[See comments above on §ES.3.2.] This section and/or §ES.3.10 should discuss the potential impacts on groundwater beneath the likely site(s) of the facility and potentially affected soils of accidental spills and the presence of an evaporation lagoon. Lagoons leak.

ES.3.12 SURFACE WATER

It is clearly insufficient to claim that *"(t)here would be minimal impact to the surface water regime from destruction plant discharges during incident-free operation."* This section must discuss what those impacts will be *"during incident-free operation"* and when incidents occur.

P. xxvii, l. 13: delete the comma after "routine."

ES.3.18 SOCIOECONOMICS

This part of southeastern Colorado has been and remains some of the best farming and ranching land in the state. The potential for damage to the rural/agricultural economy, the

businesses and employment it supports, and the historic culture it has generated must be discussed.

ES.3.19 ENVIRONMENTAL JUSTICE

This section acknowledges the substantial minority and low-income populations that live in the vicinity of the Depot, then goes on to assert that *"under normal operating conditions, the facility would be monitored continuously to ensure that any emissions remain below permitted levels and standards."* Baloney! No amount of monitoring can *"ensure that any emissions remain below permitted levels and standards."* The best monitoring can do is to document the occasions when those levels are exceeded and, depending on how the monitoring is done, it may not even succeed in identifying all of the exceedances.

"Thus, there would be no adverse human health or environmental effects on any of the surrounding communities including those with minority and low income populations." Once again, the assertion that compliance means no impacts is clearly and demonstrably false. If there are releases, there are impacts and those impacts must be discussed.

According to the TRI (www.scorecard.org) in 1990 Pueblo County ranked among the worst 20% of all counties in the U.S. in terms of the numbers of people living in areas where cancer risk from hazardous air pollutants exceeds 1 in 10,000. Furthermore, in 1996, Pueblo County ranked among the worst 20% of all counties in Colorado in terms of emissions of volatile organic compounds. In 1998, Pueblo County ranked in the top 20% of all counties in the state, in terms of air releases of suspected immunotoxicants. Historically, Pueblo County has been a dumping ground for dirty industries the rest of the state doesn't want, including coal-burning power plants. With a minority population that is double that of the rest of the state, and one of the lowest per capita incomes in Colorado, there is clearly already an environmental justice problem here. This is a situation that we are working to alleviate. Bringing in an incinerator, especially when far less polluting alternatives are available, would put the final nail in the coffin of any efforts to foster environmental justice in this community.

Citizens of Pueblo County have an illness rate 150% of the rest of the state in several categories, including cancer, heart disease, and pulmonary illnesses, so bad that insurers don't want to operate here. E.g., Pacificare recently pulled out because they can't make a profit here. The cause and effect relationship between pollutants and health has been convincingly documented, and new studies confirming our worst suspicions are being published all the time . Clearly, incineration poses a much greater risk of air pollution than other methods. There remain too many unanswered questions.

The DEIS must reference Environmental Justice principles and determine if and how those principles apply to communities surrounding the Pueblo Chemical Depot. Executive Order 12898 orders federal agencies to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its program's policies, and activities on minority populations and low-income populations...." Therefore, PMCD and ACWA are required to consider how Environmental Justice principles apply to neighboring low-income people and people of color.

The town of Boone and Avondale, as well as the community of Blende and Eastern and Southern Pueblo qualify as communities which environmental justice principles should apply. In addition, to the east of PCD are the communities in Crowley County. Again, the migrant and

seasonal farmworker community should not be relegated to invisibility because they are not noticed or acknowledged. To give an example, some 500 plus Mexican nationals attended an event in Avondale where the Mexican Consulate in Denver visited them. These communities are already subject to pollution via air, water, and soil from other sources, including Rocky Mountain Steel Mills, evidenced by the current legal suit being brought against them by the State of Colorado and findings by the EPA. The last thing they need is additional air emissions of toxic materials or even of particulates.

ES.3.20 ACCIDENTS

This section appears to limit its discussion to *"a large uncontrolled accident"* and to impacts associated with agent release and exposure. A range of lesser accidents and release of other problematic substances are possible and their impacts must be discussed. This section ignores the potential impacts of accidents on workers. Those impacts must be discussed.

The assertion that a *"storage accident would provide the worst case scenario"* is probably false. It is certainly not the most probable accident scenario. The risk of significant accidents during handling is very real and the risk of significant process accidents will vary considerably based on the technologies used. For example, the risks to workers and the public are likely to be much lower in a low-temperature, low pressure water-based treatment system than in either of the incineration options, both of which begin by converting mustard agent from a viscous liquid to a gas – its most dangerous form. E.g., an incident involving a loss of power (which has occurred in PMCD incinerator facilities) in a facility with a combustion chamber full of largely uncombusted mustard agent could have serious ramifications.

ES.3.21 MITIGATION

This section appears to suggest that the only mitigation measures envisioned will be intended to reduce the risk of major accidents. Is that intended?

ES.3.22 CLOSURE AND DECOMMISSIONING

This section is nearly devoid of any discussion of impacts. The EIS must discuss the impacts:

1) of decommissioning and dismantling the facility with special care to identify any differences that may result from the choice of one system over another;
2) of continued use of the facility.should the Army and the Governor decide not to dismantle it; and
3) of using the facility to destroy non-stockpile chemical weapons materials from sources both on site and off site.

ES.3.22, ll. 31-34: "Based on current feasibility studies, the Army will recommend that the Pueblo stockpile destruction facility be used to destroy a small number of non-stockpile items stored there. The Army currently intends to close and dismantle the PCD facility upon completion of the destruction activities." This statement is contradicted somewhat by the statement on p. 4-172, ll. 33-34: "Nevertheless the Army currently intends to dismantle and close the PCD facility

upon completion of the stockpile destruction activities." Recent public participation in the comment process during Mitretek's Availability Sessions on the Non-Stockpile issue generated vehement opposition to an incinerator, and opposition to the idea that the PCD facility could be used for anything other than the stockpile items, even the few non-stockpile items.

ES.3.22, l. 36: Current PCD reuse plans are not detailed anywhere in the PMCD document, nor is there any useful discussion of the potential impacts of the different technologies on progress with the reuse plan, both during and after destruction operations.

GENERAL COMMENTS ON BOTH DEISes

Modified Baseline Incineration is an untried process. As such there should be, by law and by simple fairness, demonstrated evidence that it is as good as baseline incineration. For example, what is the data on safety hazard analysis? Otherwise, a pilot test facility is called for, not a full-scale plant. Modified Baseline, being new, should meet the same criteria and provide the same information as the ACWA technologies, which are also considered new. Since the ACWA technologies have been through this rigorous process of demonstrating they can meet such high criteria, it seems that the Army is far better prepared to employ the ACWA technology over the Modified Baseline technology. More information is needed on Modified Baseline. In particular, for adequate analysis and comparison, full process data is needed on the air and gases makeup in and out of the afterburner. ACWA identified this data, PMCD has not done this for the Modified Baseline. This is critical and relates to questions and concerns about potential accidents. Modified Baseline is not proven. While claim is made that it was tested successfully at JACADS, the test burns failed RCRA standards with presence of key toxic emissions. These test results should be fully provided in the DEIS. Not only should Modified Baseline, if chosen for PCD, be a pilot facility, it should not even be a pilot facility because it has not been adequately demonstrated as safe and effective, as has the ACWA technologies. 96-4

Why would PMCD prefer or choose Baseline Incineration or Modified Baseline Incineration for Pueblo, which has mustard gas weapons when it determined that Neutralization-Biotreatment was the superior technology for destroying mustard gas stored at the Aberdeen Proving Grounds? If it was the best technology there, why is it not the best for Pueblo. The technology is the same. How does a different application, that is mustard gas in a weapon or projectile, potentially tip the balance of safest and best technology away from the Neutralization-Biotreatment technology? All relevant and accurate data from the EIS analysis for Aberdeen should be considered data and evidence in the DEIS for the Pueblo Chemical Depot.

In general, the Neutralization-Biotreatment process seems to be shown to be the leading candiate for a destruction process at PCC. In contrast, far more data about design and performance of the Modified Baseline Incineration is needed before it could be considered a viable option for PCD.

History of accidents ignored in both documents. PMCD DEIS and ACWA DEIS have inadequately addressed the 'maximum credible event." Identifying an airplane crash into stockpiled weapons avoids the more important disclosure of letting people in the area know what is something that could happen within the process. In particular, and at a minimum, PMCD should 96-5

consider the event of a complete power loss and systems failure that would result in either a shutdown of the burner with already volatilized hazardous material, noting where that material would go or a release of the material into the atmosphere. This cannot be dismissed as a virtual impossibility since this situation has occurred at other sites. These occurrences as well as near occurrences should be documented and brought into any equations of potential for accidents. This and other possible accident scenarios and the impacts associated with them must be discussed. . As far as response in the case of accidents is concerned, what measures and plans exist for safety of farmworkers in the fields? 96-5

We offer the following list of incidents at the TOCDF and ask that they be considered in any determination of effectiveness or reliability of either incineration method and particularly be included in any assessment of Maximum Credible Event: 96-6

Tooele Chemical Weapons Incinerator-Shutdowns /Incidents/Key Developments Since Agent Operations Began August 22, 1996

- August 24, 1996-- Shutdown due to agent detection in the heating, ventilation, and air conditioning filter bank vestibules. Possible agent release into the environment.
- September 9, 1996-- Shutdown due to complete power failure in the plant. Possible agent release into the environment.
- September 18, 1996-- Shutdown due to potentially agent- contaminated decontamination fluid leaking through cracks in the concrete floor into electrical room below.
- September 19, 1996-- Shutdown due to Liquid Incinerator Slag Removal System malfunction during a shakedown trial burn.
- December 19, 1996-- Shutdown due to M-55 rockets jamming in the feed gates to the Deactivation Furnace.
- January 20, 1997-- Toxic spill in the 90-day storage yard improperly cleaned up. Haz-mat team called back to the plant prior to clean-up in "order to continue processing." Toxic material snow- plowed against the boundary fence and left.
- January 26, 1997-- Shutdown due to agent migration inside the observation corridors of the Munitions Disposal Building. Possible agent release to the environment.
- February 6, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- February 14, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- March 13, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- March 20, 1997-- Army Project Manager, Tim Thomas admits in Federal Court to six confirmed nerve agent stack alarms. Nerve agent releases require shutdowns.
- March, 24 1997-- M-55 Rocket campaign halted due to trial burn failure for PCBs under Toxic Substances Control Act Requirements for 99.9999% DRE for PCBs. Public not notified until October 18, 1997.
- April 10, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).

- April 13-14, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- April 18, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- April 20, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- April 21, 1997-- During routine maintenance alarms sound indicating an unusually high agent reading (> 1200TWA) inside TOCDF.
- April 22, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- April 23, 1997-- Shutdown due to "Notice of Insufficient Quality." Army Project Manager issues notice to curtail operations due to failure to follow operating procedures. The plant remains shutdown until June 15 for "routine maintenance."
- April, 25 1997-- Over 4,000 pages of official TOCDF documents arrive at CWWG office showing improper analysis, characterization, manifesting, tracking and disposal of Hazardous Waste leaving TOCDF.
- May 3, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 6, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 7, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date). Second occurrence on same day.
- May 8, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 9, 1997-- Army admits to reporters that it "misled" the public about the cause of the six-week shutdown.
- May 13, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 14, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 15,1997-- Accusations of illegal burning of Lewisite made by CWWG. Army first denies illegal burning then later admits to having burned some containers that previously contained Lewisite. Plaintiffs' evidence indicates Lewisite was burned.
- May 24, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- May 28, 1997-- Citizens from Oregon and Kentucky are escorted through TOCDF into an area with a GB-contaminated bomb casing present. Citizens are not notified until after an anonymous call from TOCDF notifies Utah DEQ and an OR citizen.
- July 6, 1997--Shutdown due to Pollution Abatement System (PAS) blockage. Amount of agent and other toxics emitted unknown.
- August 1, 1997-- Former Chief Safety Officer, Steve Jones is ruled for in his Dept. of Labor "Wrongful Termination Action." Judge awards Jones his job back and $500,000 or no rehiring and $1 million. Judge calls EG&G managers "liars."

- August, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- September 8, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- September 9, 1997-- Former Chief of Hazardous Waste Management, Trina Allen wins on her discrimination part of Dept. of Labor claim against EG&G. Allen is awarded $5,000. A Hearing on the merits of the remainder of her claims is scheduled for December,
- September 12, 1997-- Army admits, in documents sent to Utah DEQ, that it has been burning Lewisite (L) contained in Ton Containers of GB previously contaminated with "L," confirming allegations made by citizen activists that TOCDF has illegally operated.
- September 14, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- September 18, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- September 30, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 1, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 2, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 6, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date). Second and third occurrences on the same day.
- October 11, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 12, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 16, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October 17, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- October/November 1997-- Sources inside TOCDF (who wish to remain anonymous) communicate to CWWG several shutdowns/incidents at TOCDF due to computer malfunctions, slag build-up in the PAS, numerous agent migrations within the facility, and alarm ring-offs in the common stack, MDB and HVAC stack (averaging 2-3 per week).
- November 2, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date). Second occurrence on the same day.

- November 6, 1997-- House Government Reform and Oversight Committee unanimously approves Human Resources Subcommittee Report on Gulf War that concludes exposures to low-level chemical agents (lower than the amount set as "acceptable" at TOCDF) caused or contributed to Gulf War Illness.
- November 18, 1997-- TOCDF is cited for 25 violations by the Utah Department of Environmental Quality. Citations included "numerous instances of noncompliance," but not enough to shut them down, according to a DEQ spokesperson.
- November 26, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- November 27, 1997-- Sources inside TOCDF (who wish to remain anonymous) communicate to CWWG that both Liquid Incinerators (LICs) are "down" due to malfunctions. According to sources, one of the LICs has been down for over a month. Chronic problems with the Brine Reduction Area (BRA) and the Pollution Abatement System (PAS) continue to plague TOCDF.
- November 30, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 1, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 2, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 3, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date). Second and third occurrences on the same day.
- December 5, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 7, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 20, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 21, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- December 26, 1997-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- January 1, 1998-- After almost 20 years of denial, a document surfaces showing that the Army had proof as early as 1970 that the 1968 sheep kill in Skull Valley was a direct result of nerve agent exposure by the Army. Recent depositions in CWWG federal lawsuit disclose that Army officials have come to the conclusion that the sheep were killed as a result of the combined effect of the nerve agent sprayed and pesticides already present.

- January 28, 1998-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- January 31, 1998-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- January 31, 1998-- Department of Labor Administrative Law Judge, Samuel J. Smith orders EG&G to reinstate whistleblower Trina Allen and to "cease and desist" any retaliation against her and other employees for protected activities in the conduct of performance of their duties.
- February 1, 1998-- Site masking alarm and/or stack alarm. Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- February, 1998-- Worker on the hazardous waste crew discloses that vials filled with chemical warfare agent, and having contamination on the outside of the vials, were misplaced for a few days. Later they were found in the toxic maintenance area. Had these vials not been located, they would have been sent off-site as generic waste to be disposed of at a commercial facility.
- February 4, 1998-- Site masking alarm and/or stack alarm Potential case of chemical warfare agent release or release of other related toxic chemicals (unidentified to date).
- February 12, 1998-- According to the *Deseret News*, TOCDF experienced an "all mask" alarm situation while attempting to go back on line after a 30-day "routine maintenance" period. According to Utah DEQ, "They (TOCDF) did confirm that this was not a false alarm."
- March 11, 1998-- Five TOCDF employees fall ill with symptoms of dizziness, headache and nausea. Army officials say industrial materials are suspected.
- March 16, 1998-- Sources inside TOCDF (who wish to remain anonymous) communicate to CWWG that alarms have been sounding regularly in the Unpack Area during the recently initiated MC-1 bomb campaign. These sources also claim that workers in the area are not wearing "Level B" protective gear as required.
- March 30, 1998-- Shutdown occurrs when the metal parts furnace (MPF) overheats due to feeding an illegal amount of nerve agent GB into the furnace. The ACAMS alarm in the MPF duct rings off at approximately 850 times the allowable stack concentration for agent. The ACAMS alarms in the common stack register a large chemical spike. No DAAMS tubes are located at the duct ACAMS to confirm for agent and no one knows if the DAAMS tubes in the stack at the time of the incident have been analyzed to confirm for agent. Army officials claim that agent did not go out the stack, but can't prove that the large amount of chemical released was not agent. The chemical plume was neither quantified or qualified.
- November 21, 1998 - January 7, 1999-- There are seven instances of Unpack Area ACAMS alarms with individuals wearing inadequate protective clothing.
- November 25, 1998-- Vapor leaks of GB (sarin) are detected from three 105mm projectiles. The agent is detected while one of the projectiles is being processed into an incinerator.
- November 28, 1998-- Another vapor leak of GB is detected from a 105mm projectile which is in an on-site container.
- December 4, 1998-- It is reported that 24 vapor leaks have been detected in the past two months, all involving 105mm projectiles. Each of these 16-inch long bullet-shaped

objects contains .17 gallons of GB. 16 of the leaks were detected after the projectiles were transferred from the storage igloos to the incinerator building. Eight of the leaks occurred when crews were removing a heavy bolt screwed into the nose of the projectile.

- December 13, 1998-- Liquid Incinerator is shut down after 140 gallons of GB (sarin) are spilled while being fed into the incinerator, raising serious questions about the engineering and design of the technology.
- April 13, 1999-- Shutdown occurs when TOCDF back-up power system fails after Depot-wide outage. This failure compromised the negative air flow system, fans leading to the stacks and other critical systems. Possible agent release to the environment and worker exposure.
- April 16, 1999-- There is confirmed agent reading in the DFS Cyclone Enclosure which is adjacent to the outside--possible agent release to environment.
- May 1, 1999-- ACAMS alarms at 508.4 twa in Unpack Area with three workers in inadequate protective clothing. During feed stop on LIC 1, there is ACAMS duct alarm at 1.26 asc and a stack alarm at .34 asc.
- May 5, 1999-- Agent vapor leak forces workers out of certain areas within TOCDF.
- May 21, 1999-- Agent migrates from a Level A to a Level C area where agent is not supposed to be present. The ACAMS reading in the Level C area is 75 times the alarm point of .2twa. After alarm for agent presence, seven workers have to don the masks that are at their hips and evacuate. They are not in adequate protective clothing. Army officials testified in federal court that they don't know if any agent escaped to the outside environment during this incident.
- May 24, 1999-- Workers removing nose closures from 105mm projectiles encounter liquid agent in a burster well where liquid agent isn't anticipated. Workers are not in adequate protective clothing. According to testimony of Project Manager Tim Thomas the ACAMS rang off at approximately 1900twa--50 times the maximum level of agent for the clothing the workers were wearing.
- May 26, 1999-- Workers in the Toxic Maintenance Area are removing plastic bags of waste when the ACAMS alarms at 1985twa causing them to evacuate. One of the bags containing liquid agent is ripped. Again workers are not in adequate protective clothing. Workers still ring off positive for agent after doffing their clothing in the airlock. They then ring off positive after being rinsed with water and still ring off positive after a further rinsing with bleach. They have final positive readings as they depart from the airlock.
- June 4, 1999-- County-wide power outage causes TOCDF negative air flow system (HVAC) to go down. It is 25 minutes before the emergency backup power system comes on. Backup power is supposed to come on automatically. Loss of the HVAC system causes agent to migrate into Level C areas where agent isn't supposed to be. There are 3 site masking alarms during the power outage event. Army officials testified in court that they don't know if agent migrated to the outside environment.
- June 5-June14, 1999-- TOCDF is in "Stand Down" by order of Chem Demil according to testimony of Col. Joseph Huber in federal court. No munitions are processed during this period while a Review Team from Aberdeen is looking at recent agent events at TOCDF.

- June 14, 1999-- TOCDF starts up after "Stand Down." Processing of M-55 rockets is resumed. However TOCDF is shut down again because within 6 hours of start-up, allowable feed rate for rocket processing is violated.
- August 1 - September 13, 1999-- There are 19 "potential" worker exposures. 4 are in Level B clothing. 11 are due to rips in protective ensembles or gloves and 4 workers are present in over 500 IDLH atmosphere.
- August 9, 1999-- Tangled air hoses prevent DPE entrants from reaching egress air locks.
- August 9, 1999-- Worker exposed to nerve agent with tear in protective suit not seen at clinic until three and a half hours later.
- August 25, 1999-- ACAMS in Unpack Area alarms at .21 twa. The ACAMS heat trace is discovered to be burning.
- Week of Aug. 31-Sept. 4-- DFS feed chute gets jammed with rocket pieces. Site team shuts down DFS to change out warped section of feed chute. Angle irons used to dislodge previous jam get jammed in chute also.
- Week of Aug. 31-Sept. 4-- Internal report blames cracks in concrete floor of MDB for decon seepage into electrical room and states that new cracks continue to be identified.
- September 9, 1999-- Cleanlines and organization of toxic areas is so bad that processing is shut down for 59 hours to get housekeeping issues straightened out.
- September 20, 1999-- Internal report states that SOPs are happening too quickly for people to keep up and more often than not, new SOPs are not being carried out.
- September 21, 1999-- Internal report reveals that workers are performing unapproved SOP of hitting wooden pallets with a steel mallet to loosen pallet covers which results in projectiles falling from pallets onto to UPA floor.
- September 23, 1999-- Internal report blames poor contamination control and inadequate decontamination attempts for high levels of contamination in airlocks.
- September 27, 1999-- Control room operator discovers that two "pressurized" ton containers have been in the 90-day storage site for greater than the allowed time. Report of incident states that information transmitted to management after discovery of tons is "less than adequate,...training received on environmental inspections is inadequate." Incident results in a Government Nonconformance Report and an EG&G Deficiency Report.
- November 3, 1999-- Manager orders worker to make DPE entry against advise of monitoring team who informed him of questionable ACAMS reliability in hot area.
- November 3, 1999-- TOCDF system engineer calls LIC slag removal system "fatally flawed"--engineers have to "jumper" the system code to get the system to operate correctly.
- November 3, 1999-- ACAMS alarm of .37 in LIC Secondary room goes unnoticed for 2 hours during which time several workers enter the room.
- November 9, 1999-- ACAMS in EHM alarms at 1.23 twa with unmasked workers present. Personnel are told to exit into airlock but are not told seriousness of situation and are not told to mask.
- December 6, 1999-- The protective suits of two workers are melted during slag removal operation in one of the liquid incinerators.

- December 7, 1999-- In a fire in the upper gate of the deactivation furnace feed chute, three rocket sections burn. Flames are also seen on the floor and at the shear blade. The time of the fire is uncertain "due to unreliability of the fire sensor." Instructions have been given to avoid leaving rocket sections on the upper gate "even if it means burning them in the chute." Three hours earlier, the lower gate malfunctioned and resulted in a stop feed. It takes ten days to prepare report on the incident.
- February 20, 2000-- Two workers exposed to nerve agent GB when it leaks into room where they are working.
- February 23, 2000-- 40 to 45 gallons of molten slag spills from a drum and starts a fire that burns the covering of the concrete floor and electrical equipment in a secondary room of the liquid incinerator.
- April 30, 2000-- A maintenance man just happens to walk past the Cyclone Ash Bin Enclosure of the Deactivation Furnace (DFS) and notices smoke, heat and a bulged out door. There is a fire going on that no one had detected. The fire ignites and decomposes the charcoal in the filter system of the Ash Bin and would have entered the filter banks of the MDB if it hadn't been discovered by a worker out for a walk. The fire was precipitated when the blind flange was installed in preparation for an entry into the DFS to clear a jam in the Heated Discharge Conveyor.
- May 8, 2000-- After workers finish maintenance on deactivation furnace feed chute there is confirmed release of nerve agent GB out of common stack into environment at 11:26 pm. Army reports that afterburner was blown out due to malfunction of air flow meter which was clogged with liquid. Stack alarm rings off for about 20 minutes at somewhere between 3.7 and 8.6 times the allowable stack concentration of GB. Army reports on the alarm reading are inconsistent. Mysteriously, after stack alarm rings off, alarm in furnace duct leading to stack rings off for agent presence. Facility managers say they have no clue as to why sequence of alarms was apparently backwards.
- May 9, 2000-- A confirmed release of GB to the environment takes place at about 1:15 am (less than an hour and a half after the confirmed release May 8) when workers attempt to relight deactivation furnace afterburner. Local emergency officials not notified until four hours after first GB release. Decision made by Army manager not to immediately notify local officials is in violation of Army SOPs, facility's operating permit granted by State of Utah and agreements with local emergency responders. Facility is shut down until investigation team, headed by the Army, makes final report on the incidents. EG&G manager predicts investigation will lead to physical modification, not just new SOPs. Shut down could last several weeks.
- June 6, 2000-- TOCDF is still shut down. It is reported that the facility's shut down is costing about $285,000 per day--totaling almost $8 million to date.
- July 26, 2000-- TOCDF has been shut down for 79 days. At $285,000 per day--the cost so far is more than $22 million.
- July 28, 2000-- The Utah DEQ authorizes the restart of the two liquid incinerators and the metal parts furnace after the entire facility had been shut down for 81 days following the May 8-9 agent releases.
- September 19, 2000-- The Utah DEQ authorizes the restart of the DFS after it had been shut down for 133 days following the May 8-9 agent releases.

- October 19, 2000-- At the Utah CAC meeting, it is stated that there had been 97 agent alarms at TOCDF since May 8. 14 of the alarms were in the common stack.
- November 16, 2000-- At the Utah CAC meeting, it is stated that there had been 41 agent alarms at TOCDF since October 19. Three of the alarms were in the common stack and five were in ducts leading to the common stack.
- November 25, 2000-- The nerve agent GB (sarin) is detected in employees' work clothes. The workers come in from inspecting filters outside in cold weather and apparently the sarin begins vaporizing as their clothing warms up.

History of mismanagement. What impacts follow from conclusions that can be drawn from recent publications that have documented mismanagement on the part of PMCD, such as the February 2001 Army Audit Agency report where managers who made some 3,000 design changes "didn't assess the full cost, schedule, environmental and operational effects." In addition there is the testimony before the U.S. Subcommittee on Chemical Demilitarization on April 25, 2001 and the review of that testimony by the Congressional Research Service dated May 14, 2001. How might these indicate impact of schedule, cost, safety, honesty, and accountability?

Additional questions. Why volatilize the hazardous chemical agent before you get rid of it? Volatilization possess greater risk in that a major event or accident could cause much greater damage, threaten workers, and harm the community. Still the question, why? What is the impact on analysis of the use of carbon filters on the final stack? Comments by PMCD personnel at the public meeting in Pueblo spoke to these filters as an addition that would capture any leftover toxic emissions. However, it is our understanding that PMCD decided to try the filters at the Tooele facility in Utah. However, just before they acted, the risk assessment on using the carbon filters as suggested came out, which PMCD had commissioned. What did that assessment really say and what is the impact on plans for PCD? Is it true that the assessment said that there was zero benefit to putting them on the stack and doing so increased risk to workers-significant risk from a possible "puff" or accident? In addition, workers would apparently have to change them out. This increased work of putting the filters on the stack and taking them off meant increased risk to workers as well.

Did the National Research Council warn PMCD in 1994 that there could be potential problems from back pressure that could mean a "puff" or a blow? Could not also any significant change in fluid flow conditions (flow rate, temperature, contaminant mix, etc.) result in "sloughing" or "puff" releases? If these questions are not precisely correct, considering they are offered by lay persons not familiar with these processes, then we request full explanation of these reports or advise and the implications for workers, risk of accident, and potential health and environmental impacts.

Is there any plan at PCD to utilize an isolation valve or "knifegate" on the downstream end of the kiln between the exhaust and the afterburner to isolate the material in the kiln during an upset condition? We understand that it is included in the design at Anniston, Alabama, and is a modification. Are there plans to use it here in Pueblo? Is so, what are the implications of deployment during an incident or upset condition? Is it potentially dangerous and, if so, how?

The EIS evaluation of the baseline option as a chemical weapons disposal technology must be based on actual performance data from the Army's Johnston Atoll Chemical Agent

Demilitarization System (JACADS) and Tooele Chemical Demilitarization Facility (TOCDF) incineration facilities under all operating conditions including all "upset" and "shutdown" conditions.

PMCD DEIS and ACWA DEIS must address the potential presence of, creation of and release of dioxins in all the alternatives. In ACWA's Neutralization Biotreatment process, dioxins were apparently present in test in connection with a "CatOx." How did that happen and is it, and how is it, effectively eliminated? To compare with the Modified Baseline method, PMCD must provide full data of what is present after volatilization and before the afterburner. 96-7

A clear, readable and understandable comparative chart and thorough list of constituents of all emissions is essential for any adequate review. ACWA has provided far more data than PMCD. Please also provide.

Community safety. The citizens and agricultural communities of Pueblo and surrounding counties must be assured that all actions necessary to prevent contamination or a perception of contamination of the air, land, water, plants and animals will be taken. Air, land, water, plant and animal samples from the agricultural communities must be tested on a regular and ongoing basis by an independent third party prior to construction of any facility through demolition of the facility. These test results must be available to the public on a timely basis. Real time monitoring by an independent third party of any and all emissions must be in place as evidence of a clean and healthy environment during all chemical destruction at PCD and the public must be able to access this information on a real time basis. The lack of agricultural related information in the draft environmental impact statements must be adequately addressed before an environmental impact statement will be complete. 96-8

It is apparent from the substance of the two DEISes and the accumulating comments of the public near Pueblo, that the people of Pueblo commenting on the DEISes have a much greater understanding of the environmental, health, economic, and agricultural impacts. Therefore, the decision for determining choice of destruction technologies should be referred to the people. 96-9

Comments by Boone-Avondale Citizens Alliance (BACA)

We include here the comments of the Boone-Avondale Citizens Alliance (BACA) and take them as our own. It is our understanding that they may have been submitted already by BACA:

- Both DEISes fail to address agricultural impacts. There is no data in either DEIS regarding impacts during the construction or operation of the facility. Regarding agricultural impacts, in both DEISes there is no data regarding cumulative impacts to crops, livestock or grazing land from emissions. It is unclear as to the impacts to surface water or groundwater as it relates to livestock and crops. In both DEISes 96-10
- There is insufficient data regarding socioeconomic impacts as a result of an accidental spill or release of mustard agent. In meeting with both PMCD and ACWA officials, they have indicated that in the case of an accidental spill or release of mustard gas the percentages were negligible. However, for the small communities of Avondale and Boone even a small percentage could have devastating socioeconomic impacts. 96-11

- It is indicated in both DEISes that the region of influence for agricultural issues was a five county region but, the counties are not named in the PMCD DEIS . These counties need to be clearly named in both reports. The PMCD DEIS indicates that CHPPM is preparing a study on the potential impacts of a routine release of agent on agricultural production and that the study will be released and evaluated before the destruction operations at PCD commence. This report should have been done prior to and included in the DEISes and for the FIES. Additionally, it is unclear if this study will include data on cumulative impacts. In both DEISes there is no information provided regarding "perceived' contamination and how the Department of the Army will reimburse those affected. 96-12 96-13

- The PMCD DEIS should provide data that demonstrates that modified baseline is as safe as baseline incineration.

- In the PMCD DEIS, there in no information regarding verifying that the munitions bodies have been properly punctured and what happens in the event that a shell is punctured but somehow gets plugged and is fed into the incinerator.

- In the PMCD DEIS, the facility is referred to as a full-scale facility. However, according to the Notice of Intent (NOI) that was filed it states that with the exception of baseline incineration technology, all other technologies would be built as a pilot project. Therefore, the PMCD DEIS is erroneous by referring to modified baseline incineration as a full-scale facility for Pueblo.

- In the PMCD DEIS it indicates that baseline is a demonstrated destruction process and therefore, the modifications done for the Pueblo site would not be new technology. This statement is misleading since one of the key aspects of the modified version is that the frozen chemical agent would be fed into the incinerator while it is still inside the munitions body. This key aspect of the process has not been properly tested and therefore should be characterized as an undemonstrated process. Modified baseline should be characterized as a pilot project and not as a demonstrated destruction process.

- Additionally, trial burns would need to be conducted of the modified baseline incineration. Again, this should characterize modified baseline as a pilot project and not as a demonstrated destruction process.

- In the PMCD DEIS, the Certificate of Designation needed for the incineration process is not considered. This step in the permitting process needs to be included in the FEIS.

- In the PMCD DEIS, for modified baseline incineration, transportation of the munitions to the destruction facility will be done by Modified Ammunition Vans (MAV's). With the neutralization processes the transportation will be done with on-site containers (ONC's). Why is there a difference is the type of transportation being used for each process, since the munitions are identical? In the ACWA DEIS, there is no indication on how the 96-14

munitions will be moved from the storage igloos to the destruction facility. Both reports need to clearly specify how the munitions will be transported. 96-14

- In the PMCD DEIS, all numbers provided are done so in metric. In the ACWA DEIS, they are done in the standard American system. This makes comparisons difficult and confusing. This also adds to the amount of time needed to properly review the DEISes. 96-15

- In the ACWA DEIS, data is provided that characterizes the air and gases generated by the alternative technologies during the process. In the PMCD DEIS, there is no monitoring of the air and gases that are generated by baseline or modified baseline during the process. PMCD should be required to provide data that characterizes what air and gases are being generated between volatilization and the afterburner. Otherwise it is impossible to do a reasonable and/or a fair comparison of the different technologies. In both DEISes, since there is no information that characterizes what air and gases that are being generated between volatilization and the afterburner in the incineration process it is impossible to predict what emissions there will be, what impacts on air quality there will be and consequently the types of accident scenarios.

- Regarding emissions, in both DEISes, the Department of the Army indicates that no significant impact will result from the construction or operations of the facility because the emissions from the facility will not be above the limits set by the State of Colorado. This is misleading since adverse impacts can and do occur when emissions levels fall within set limits. Air emissions for the alternative technologies were not included in the PMCD DEIS. It is impossible to do a reasonable and/or a fair comparison of the different technologies if this information is not available in both DEISes. 96-17

- Several times in the PMCD DEIS, it states that the **air emissions** are within established limits. It is unclear what established limits are used in determining this. It should clearly state which guidelines were used. In the PMCD DEIS, it is unclear if the new EPA Maximum Achievable Control Technologies (MACT) rules were used for emission control. It should clearly state if the MACT rules were applied. Regarding emissions, in the PMCD DEIS, there is no information that indicates when the Department of the Army will determine that mercury vapor emissions are no longer in compliance as a result of incineration. The only "solution" provided in the PMCD DEIS is a slow down of the destruction process. This process just releases the vapor at a slower rate. This is not a solution. This only allows the facility to stay in compliance.

- Regarding emissions, in the PMCD DEIS, if you use the "solution" of a slow down of the destruction process to deal with the mercury vapor emissions then all the calculations for plant operations are inaccurate.

- Both DEISes have indicated that there would be cumulative negative impacts in which water might be diverted from other projects and there might be higher water prices. There is no indication what the other projects might be and it is unclear to what extent it would have on "agriculture." 96-18

Additionally, in both DEISes it does not indicate what **socioeconomic impacts** there would be as a result of higher water prices. Both reports indicate the impacts would be negligible, but there is no data to support this statement. Also, there is no data to indicate how the impacts were assessed and if it included extreme situations, such as several years of drought.

Both DEISES are unclear as to what amount of water is "consumed" and water that is "used." These terms have two very different meanings. Water "consumed" is not returned to the water basin. Water that is "used" is returned to the water basin. The amounts need to be clearly defined. Both DEISes are unclear on the amounts of water that is recycled and the amount of the recycled water that is consumed/used. These amounts need to be clearly defined. 96-18

- Regarding **groundwater**, both DEISes indicate that the terrace alluvial aquifer located under PCD and the Arkansas River Valley aquifer are not hydraulically connected. Yet, both cite the Rust, Inc. (1997) report that found some connection between aquifers in a narrow alluvial channel near Unnamed Creek in the south central portion of PCD. The information in the Rust, Inc. report should be fully discussed and evaluated for impacts to groundwater. Both DEISes indicate that if necessary they will purchase additional water for the operation of the facility. However, the Department of the Army own "junior" rights. In a drought season, they may not be able to withdraw additional water. The DEISes do not indicate what would happen in this situation. Both DEISes do not address the possibility of an impact of operation being the lowering of the water table. Should this occur how is Department of the Army going to reimburse those affected? 96-19

- Regarding **sanitary wastes**, both DEISes have indicated needing to expand or build new evaporative lagoons. However, there is no information regarding the current condition of the existing lagoons and if they meet state and local permit requirements. In the PMCD DEIS, there is no information regarding the pre-treatment of the sanitary wastes before they are put into the lagoons. Both documents should address this issue. 96-20

In both DEISes, there is no information or discussion on using **contaminated water** in the destruction process. This information could be helpful in determining if there would be an added benefit with each technology. 96-21

- Regarding **aquatic habitats and fish**, in the ACWA DEIS, there is no information regarding the impacts on Haynes and Boone creeks during construction and operation. Likewise, it is unclear it there is any impacts based on the PMCD DEIS. 96-22

Both DEISes indicated that the electrical sub-station could be used in the redevelopment of the Pueblo Chemical Depot after the demilitarization process was complete. Neither DEIS can support these statements if the proper infrastructure is not implemented. The sub-station must be built with a 13.2Kv standard in order to provide enough power to the entire base. The same goes for other infrastructure. It must be sufficient for the entire base not just the demilitarization facility in order for it to used for future redevelopment. 96-23

In the PMCD DEIS, the brine that is estimated to be generated is approximated daily and over the life of the project. In the ACWA DEIS, the amount of brine generated is 96-24

estimated annually. This makes comparing the technologies difficult. Both reports should list the amounts similarly. 96-24

- Regarding **noise impacts**, in the PMCD DEIS, there is no information that in the case the facility would have to be used on a 24 hour basis in order to meet the 2007 treaty deadline and if this would exceed nighttime noise limits.

- Regarding **environmental justice**, the ACWA DEIS used the national census figures for 1990 and the PMCD DEIS used the Colorado census figures for 1990. Both reports should include both national and Colorado census figures in addition to databases that reflect the migrant/seasonal worker populations of the area. It is unclear why the information is presented differently in each report. It makes reviewing the material difficult and confusing. In both DEISes the analysis considered population characteristics within a 50km radius. The ACWA DEIS indicates that there were 62 census tracts within this 50km radius. The PMCD DEIS breaks these tracts down to those completely within the 50km radius and those partially within the radius. It is unclear why the figures for the census tracts are reviewed differently. But, it makes reviewing the material difficult and confusing. The information should be presented in like formats for easier comparison. Both DEISes used the 1990 census information to determine the minority population of the immediate vicinity of PCD. Whereas, the reports acknowledge that the 1990 census does not account for the migrant/seasonal population of the area. There is other data available to help determine the percentage of this population. Otherwise the reports are incomplete. 96-25

- Both DEISes do not address the **socioeconomic or housing impacts** to the migrant/seasonal worker population of the area. There is currently a severe lack of migrant and/or low- income housing available. These impacts are not addressed in the reports. Both DEISes do not properly address housing issues for the population as a whole or the influx of workers during construction. Current housing costs and rental costs in the area are in the higher price range. There is currently a severe lack of low-income housing available. These impacts are not addressed in these reports. Regarding socioeconomic impacts, both DEISes are unclear on the payment of taxes. It should be clearly defined who will be paying both property and sales taxes. The socioeconomic impacts of both DEIS do not reflect the information provided by the Institute for Defense Analysis estimation that only 10% of the overall project budget will be spent in Pueblo. These documents should be in agreement on the amount estimated. 96-26 96-27

- ACWA DEIS addresses **emergency response** under human and health risks. The PMCD DEIS only addresses this issue under mitigation and monitoring. PMCD needs to properly address this issue under human and health risks as well. Regarding human and health risks and emergency response, the ACWA DEIS indicates that there is a Memorandum of Agreement with the Boone Volunteer Fire Department (BVFD) to provide emergency response assistance to PCD. There is no information to as to the training and qualifications BVFD has in dealing with the type of emergency that would most likely arise at the PCD and therefore it is impossible to determine if this assistance 96-28

could be reasonably counted upon. There is no information regarding the TTC Fire Department and the Pueblo Rural Fire Department's training and qualifications as wel. Regarding human and health risks, in the PMCD DEIS, the number of injuries listed during operation of the neutralization processes is listed as 82. But, in the ACWA DEIS, the number of injuries listed during operation of the neutralization processes is listed as 30. What is the reason for the discrepancy in these figures? 96-28

- Both DEISes are unclear regarding the number of in-migration workers and transient workers and how many workers could be hired locally. Definitions of what an in-migration worker and what is a transient worker is should be clearly defined in both DEISes. 96-29

Both DEISes have used a multiplier of 7% in determining indirect jobs as a result of direct employment. This is an unreasonably high number. It should be a 3-4% multiplier to reflect a more accurate figure. 96-30

- In the ACWA DEIS, it discusses an **accident** that would occur during operations and an accident scenario for "no action." The PMCD DEIS only discusses an accident scenario for 'no action." It is unreasonable for PMCD DEIS to assume that an accident would only occur during "no action." Both scenarios need to be discussed in the PMCD DEIS. The incident of an airplane crashing into an igloo under "no action" is just as likely during operations. The PMCD DEIS has not properly discussed the maximum credible event. In public discussions, the event where the loss of power would occur and the emergency generations would fail to go on has been characterized as impossible. This is very misleading, since such an event has already occurred at Tooele. In which case, the public should be made aware of the possibility of such an event and its impacts and that data should be included in the DEISes.

COMMENTS ON PURPOSE AND NEED SECTION, — PMCD DEIS (1-1 to 1-15)

1.1 INTRODUCTION

General Comments.

This section is an inappropriately biased advocacy discussion for incineration. It should be rewritten and limited to essential, balanced introductory information.

p. 1-2, l. 9: DCD aka TOCDF?; **l. 24:** what date was the FPEIS issued?

p. 1-2, ll. 28-29. "The National Research Council (NRC) has endorsed incineration as the method of choice for destroying the stockpile of chemical agents and munitions (NRC 1994, p. 130)."

Imprecise and potentially misleading. In fact, a committee of the National Research Council, one of several empanelled to review and advise chemical weapons programs endorsed incineration in 1994. Other NRC committees have "endorsed" other technologies since then. It is

not clear that discussion of NRC activities is necessary here, but if it is included, it should include discussion of the full range of advice the programs have received from NRC committees.

1.2 PURPOSE AND NEED

p. 1-4, ll. 39-40, *"The purpose of the propsed destruction of the PCD inventory of chemical agents in compliance with U.S. Public Law 99- 145 and the CWC and (2) conduct the destruction activities in a safe and environmentally sound manner. The need for the proposed action is to eliminate the risk to the public and to the 3environment from continued deterioration of the munitions in storage and to allow for the release of PCD land for reuse under the updated reuse development plan for PCD (PDADA 2000)."*

The purpose and the need for this project are one and the same -- viz., "*compliance with U.S. Public Law 99-145 and the CWC." "(S)afe and environmentally sound destruction"* is a matter of methodology, not of purpose or need. *"(E)limination of the risk...from continued deterioration of the munitions in storage..."* is very small and smaller at Pueblo than at most of the other chemical weapons sites. It would not warrant a program of this magnitude and cost to the taxpayer were it not for the legal mandates. These irrelevant references should be removed.

p. 1-4, l. 25: the possible 5-year extension to the deadl. might be mentioned here.

1.3 SCOPE

p. 1-5, ll. 3-5. *"The specific goal of the current analysis is to identify and compare the potential environmental impacts among the alternatives that could accomplish the destruction of the stockpile at PCD by the required destruction date of April 29, 2007."*

Pure fiction. It is widely understood that none of the available options will result in destruction of the PCD stockpile by 2007. NEPA and the EISs it requires call for candid disclosure leading to informed decision-making. Fiction, even official fiction, is inappropriate and unlawful.

p. 1-5, ll. 8-9. *"...the risks and consequences of possible accidental releases of chemical agent are described and compared among alternatives..."*

The risks and consequences of releases of substances other than chemical weapons agent must be identified and discussed as well.

p. 1-5, ll. 13-15. *"Any of these technology alternatives, or combination of alternatives, must be capable of destroying both the chemical agents and the munitions themselves, some of which contain explosive components."*

The system selected for deployment at the PCD should be capable of treating all of the components of the weapons and related, potentially contaminated materials on site with minimal release of pollutants to the environment. Final waste products should be managed on site unless they are shipped off site for reuse or recycling. (Metal parts, for example, might fit into this category.) Systems that are unable to meet these criteria are unacceptable.

The information contained in this DEIS should be sufficient for a comparative evaluation of the systems under consideration, with full disclosure of both primary and secondary waste

management options. Unfortunately, much of the essential information is not contained in this document.

p. 1-5, ll. 20-21. *"Additionally, the CSDP FPEIS clearly showed that continued storage poses greater risks than the proposed action at PCD."*

Not so! The CSDP FPEIS included **claims**, based on a woefully deficient risk analysis, that continued storage poses greater risks than destruction at the PCD. Subsequent risk analyses by the Army and other agencies have confirmed that the risks associated with continued storage are very low throughout the time likely to be involved in destroying these weapons, even under the most pessimistic projections, and that the storage risks for the particular stockpile configuration at the PCD are very, very low.

Clearly, the greatest risks to public safety, public health and the environment occur during destruction.

p. 1-5, l. 22. *"The baseline incineration technology is a demonstrated destruction process."*

"Baseline incineration" is not a technology. Like all of the alternatives under consideration for disposal of the Pueblo chemical weapons stockpile, it is a system of technologies. **All** of the technologies that make up **all** of the systems under consideration have been "demonstrated." The Army's experience with "baseline incineration" has been highly problematic. Those problems should be disclosed and discussed candidly in this EIS.

p. 1-5, ll. 22-25. *The lessons learned in destruction of mustard projectiles at JACADS have resulted in proposed modifications to portions of the baseline process which could be tailored to the Pueblo stockpile.*

These lessons should be described, along with the changes in process design and equipment they generated, the expected differences in process performance they will cause and the resultant health and environmental impacts.

p. 1-5, l. 25. *Thus, the modified incineration process is not new technology.*

As noted above, "baseline incineration" is not a technology. It is a system of technologies, combined to form a particular task. That system is new. It has never been built before. It isn't even fully designed yet. It has never destroyed chemical weapons before. Several units, similar to those envisioned for parts this new system, were used at JACADS to process a small number of munitions, and it is our understanding that air emissions from this exercise failed to meet air quality standards.

Actual design of the modified baseline system did not begin until March, 2001. Its components have not all been demonstrated as effective for the tasks they will be expected to perform in a modified baseline system. No independent oversight mechanism of the sort used very successfully by the ACWA program was employed to verify the design and effectiveness of the demonstration effort. The modified baseline system is far and away the most immature of the options under consideration for Pueblo and, in our judgment, is not ready for full scale deployment.

Tests in parts of the baseline incineration system at JACADS were certainly not tests of the "key elements" of the modified incineration process, and were not successful. Mercury

emissions, for example, were high above the acceptable standard. Despite the assertion by PMCD representatives that this was due to flaws and impurities in some lots of the munitions tested at JACADS, this conclusion is pure speculation. If we have the same lots here at PCD, excessive mercury emissions may result from any incinerator, modified or not, proposed for PCD. Measures to contain these "impurities" must be clearly spelled out in the specs for the incineration systems. In addition, these "trial burns" only tested 4.2" mortars. What other surprises await us from the "modified" incinerator burning the other types of munitions?

p. 1-5, ll 35-36. *...trial burns would be conducted in the modified incineration facility before full-scale destruction operations could begin.*

Regulatory trial burns cannot establish the ability of this newly designed system to function effectively. If a modified baseline system were to be constructed at the PCD (a serious mistake in our judgment), it will be imperative that a full-system pilot-scale operational evaluation be conducted.

p. 1-6, l. 1-11. By law, the Final EIS for Pueblo must discuss in detail **all** of the available options. This superficial discussion of the ACWA-demonstrated systems is woefully inadequate and misrepresents the status of design and development of those systems. It must be substantially improved.

p. 1-6, l. 7-11: "Thus, estimated data concerning neutralization are available for comparison to actual emission rates for incineration." The actual emission rates for incineration are not derived from modified baseline incinerators, so emissions from the modified system remain "estimated" also. Tests at JACADS in a vaguely similar, jury-rigged system, without carbon filters, resulted in some unnerving emissions. Even proposed changes to the modified incineration design to incorporate capture of heavy metals and other toxins may not do the job properly. Evidence for successful tests of the modified incineration system is, at best, scanty and uncompelling. In addition, if operating an ACWA pilot test facility will completely dispose of the stockpile weapons in under 3 years, there is no point even considering an incineration system at PCD.

p. 1-8, l. 22: gases, not gasses.

p. 1-9, ll. 26-29: "specifying the alternatives which were considered to be environmentally preferable. The U.S. Army may [note - not "will"] discuss differences based on other relevant factors, including economic and technical considerations and statutory missions." This suggests that the primary criteria for the ROD are environmental, and that cost and schedule are secondary. Assuming "environmentally preferable" includes safety for the workers and public in addition to the environment, this statement is in contradiction to presentations by PMCD representatives which state that cost and schedule are the main criteria for the ROD. It also seems to contradict p. 1-12 l. 39-42: "A decision (...) rests on numerous factors, such as PCD's mission requirements, schedule, availability of funding, and environmental considerations" which leave environmental aspects last. Given that the neutralization alternatives are more easily controllable systems, have fewer emissions, have "hold-and-test" capability at virtually every step, handle all aspects of the weapons destruction on-site, and result in a lower-volume and more easily manageable waste

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stream, the environmentally preferable choice is clear. It can be argued that the neutralization alternatives also fulfill all the other criteria more adequately than either incineration system.

Given that emissions are predicted to be so much lower from the Neutralization alternatives (p. 3-23), it would take some significant decreases in Cost and Schedule, and increases in Safety, for Baseline Incineration or Modified Incineration to be considered a viable alternative for PCD. The data presented in either DEIS do not show either Incineration alternative to be a clear winner based on any criteria.

p. 1-10, l. 23: The acronym "DA" is not defined.

1.4 PUBLIC INVOLVEMENT AND THE NEPA PROCESS

General Comments.

This section discusses only opportunities for public comment, not for public involvement. In fact, there have been very few opportunities for public involvement in decisions affecting the chemical weapons disposal process at the PCD.

The Environmental WIPT began as a closed process, unavailable to the public. It required a concerted effort by several people to get those meeting opened up. Opportunities for participation in the WIPT discussions are still limited, but valuable.

No mention is made of the Colorado Chemical Demilitarization Citizens Advisory Commission. While this commission has not provided local citizens with an opportunity for direct participation in chemical demilitarization decisions, it has proven to be a valuable forum for discussion of some issues and has provided an avenue for indirect input. It should be discussed here.

A discussion of the innovative and remarkably successful ACWA public process that led to the demonstration and availability of the neutralization-based systems under consideration for Pueblo should be included here, as well. Some of this information appears in Section 1.8. The separation is confusing. We suggest that these two sections be merged, or at least made contiguous with a clear explanation for any separation that remains.

1.5 RELATION OF THIS DEIS TO ACWA ACTIONS

General Comments.

The site-specific EIS for Pueblo must fully discuss all of the available options for destruction of the chemical weapons at the PCD. The considerable data generated by the ACWA program will certainly be useful in discussing the neutralization-based options, but this EIS cannot defer to another for essential analysis and disclosure.

1.8 CITIZENS' GROUPS

See comments on Section 1.4.

COMMENTS ON PMCD CHAPTER 2. THE PROPOSED ACTION

Table 2.1-1. These timetables from U.S. Army (1999) are out of date and should be updated to include the latest projections. If the earliest date for ACWA pilot tests to begin is January 2006 (stated on p. 2-2 l. 11), and if it will take approx. 32 months for the pilot testing to be completed for PCD with an ACWA technology, and if the pilot testing will destroy the stockpile of chemical weapons at PCD (as stated in the PMCD document), then an estimated completion date is known or at least projected for PCD and can be put in the table. This completion date may be irrelevant for the purposes of the text discussion which references the table, but the final EIS should incorporate the most up-to-date information.

p. 2-1 l. 2-30. When were the various chemical weapons created and brought to PCD, and what was their source?

p. 2-5: Please list the known or suspected impurities, and their estimated quantities, of the various mustard agents.

2.2 STOCKPILE DESCRIPTION

2.2.1 Chemical Agents

p. 2-6, l. 1-6. *"This DEIS considers health effects resulting from inhalation only, since this would be the principal mechanism of exposure during routine handling and destruction activities."*

This EIS must discuss all reasonably plausible impacts from chemical weapons destruction activities, not just those associated with "*routine handling and destruction activities,*" and must include a discussion of risks to workers, as well as to the public.

"A detailed explanation of the human health effects of exposure to these agents is given in the FPEIS (see Appendix B in U.S. Army 1988); information on the effects on animals can also be found in the FPEIS (see Appendix O in U.S. Army 1988)."

No discussion of the health effects of exposure to toxic chemicals published in 1988 is sufficient in 2001.

p. 2-6, l. 1-2: "This DEIS considers health effects resulting from inhalation only."

This statement explains the paucity of data presented on the health effects of the chemical agents in this DEIS. This is not appropriate, since as noted on p. 2-5, blistering of exposed tissue is the main mode of action of the mustard agents. Please give rational explanations why inhalation only was considered.

2.2.2 Chemical Munitions

p. 2-6, ll. 20-23. *"The explosives used to disperse the mustard agent include tetryl, tetrytol, Composition A5, Composition B4, and trinitrotoluene (TNT). Composition A5 is the explosive*

RDX mixed with stearic acid. Composition B4 is a mixture of TNT and RDX (CBDCOM 1997). Tetrytol is a mixture of tetryl and TNT."

The full chemical names of these compounds should be provided and, if possible, diagrams of their chemical structure. Ditto for propellants.

2.3.3 Waste Management

General Comments.

This section is woefully inadequate. It seems to suggest that there is no significant difference between the waste streams produced by the available technologies. Not so. It also seems to suggest that compliance equals "no significant impact." That assumption is clearly and demonstrably false.

This section should describe the differences in general terms, should recognize that impacts occur even if facilities operate within regulatory limits all of the time, and should acknowledge that no facility operates within regulatory limits all of the time. Discussion in later chapters should discuss these matters in greater detail.

p. 2-15, ll. 6-8. *"Construction and operation of a chemical munitions destruction facility using any of the technologies (incineration or neutralization) being considered for implementation at PCD would produce hazardous and non-hazardous solid and liquid wastes."*

Misleading. Construction and process waste streams should be described and dealt with separately. Process solid waste streams should be described in some detail with emphasis on hazardous constituents and the complexity and risks associated with any further treatment or containment required. It is our understanding that the neutralization-based systems produce no liquid process wastes until they are shut down and drained for decommissioning.

2.3.4 Schedules

This section is largely fiction. There is no excuse for PMCD's continued use of schedule estimates for incineration that are widely recognized as unachievable. It is inexcusable in public discourse and it is illegal in an EIS.

Please give permit, construction and systemization times for the ACWA technologies, based on current data. No rationale is given for a January 2006 start date.

2.4 On-site Handling and Transportation

p. 2-17, l. 16: Please detail the "detailed procedures" that would be developed for handling of munitions.

2.5 References

p. 2-17, l. 7 and p. 2-18, ll. 17-19: Attempts to locate this Mitretek document on NSCM (U.S. Army 2001) failed. Does this document indeed exist? Was it completed in February, 2001? If so, why is it unavailable to the general public for review? Several citizens of Pueblo County participated in the public Availability Sessions conducted by Mitretek and are curious about the final report.

p. 2-18 l. 15 and 19: Manager.

COMMENTS ON PMCD, CHAPTER 3. DESCRIPTION OF ALTERNATIVES

General Comments.

This chapter is remarkably superficial and unhelpful in almost every respect. The descriptions of system options are all-but-useless in attempting to understand what actually happens as munitions are processed through them and makes understanding of the differences between the systems nearly impossible. The health and environmental impacts of construction and operation of the various options are not discussed at all.

This chapter must be substantially revised and improved and should be resubmitted for public review before the Final EIS is issued.

General Comments.

It is extremely important that one of the two neutralization-based systems be chosen for destruction of the chemical weapons at the PCD. Neither incineration option is acceptable.

The baseline incineration design begins with the assumption that the mustard agent in the munitions can be effectively drained. Experience demonstrates that the agent has gelled or solidified inside the munitions and draining of the agent will be difficult at best. If the agent cannot be drained from the projectiles, baseline incineration makes no sense for the stockpile at the PCD.

Modified baseline is a last minute attempt to design a new incineration system for this site. It has been developed with very limited unit process performance data and without public oversight, and experience, both at JACADS and with incinerators burning waste mixtures in the private sector, suggests that there are likely to be difficult permitting and compliance problems for this system. The concept involves feeding large volumes of mixed materials into a single incinerator, a highly undesirable approach to combustion waste treatment. Significant portions of the chemical weapons waste stream are not treated at all by this system as described in the preliminary design information we have seen. Basic design is still incomplete. This system is not ready for prime time.

There is significant local and national opposition to both incineration options. The selection of either incineration option is likely to result in costly conflict, slower permit review, increased operational difficulties, and greater risk to worker and public safety and to human health and the environment.

By comparison, the neutralization options enjoy widespread public support. Permit reviews should be much easier and faster. Conflict costs and delays will almost certainly be avoided. Compliance problems and costs should be substantially reduced. Health and environmental risks would be substantially lower. The national and international chemical

weapons demilitarization effort will suffer a serious setback if either incineration option is chosen for Pueblo.

3.1 INTRODUCTION

p. 3-1, L. 17-18. *"The information presented concerning the two neutralization alternatives has been provided by the U.S. Army ACWA program."*
The ACWA program is in the Department of Defense chain of command.

p. 3-1 l. 21-22. Given that the Incineration alternatives propose shipping the energetics and brine wastes and dunnage off-site for treatment (p. 3-8), they hardly qualify as technologies that provide for the "complete destruction of the chemical weapons stockpile at PCD" or as a complete approach "system" according to the definition on page 3-2.

3.1.3.3. Access Road to the Site

p. 3-6 l. 15. Please incorporate the latest decisions about roads that will be upgraded and widened. The east road may now be the chosen access route.

3.3.1 Technology Neutral Infrastructure Projects

General Comments.
This section describes the infrastructure projects, but not the impacts. Impacts must be described and discussed.

3.2 DESTRUCTION SYSTEMS

General Comments.
The methods of transport of weapons from igloo to destruction facility differ for various options for no apparent reason. If a less-than-maximally-protective container system is to be used, the rationale must be presented and the increased risks to workers, to the public and to the environment must be discussed in reasonable detail.

3.2.1 Baseline Incineration

p. 3-8, l. 4-6. *"The energetics may be shipped off-site to a permitted TSDF, or disposed of on-site in a rotary-kiln deactivation furnace (DFS) that is contained within a reinforced, explosive-containment structure."*
The impacts of both options must be described and discussed. For wastes transported offsite, likely destination sites, transportation methods and routes must be identified and the implications for health and environmental risks must be discussed and compared.

p. 3-8, l. 17-18. *"The PCD inventory is quite stable..."*

True, and interesting in view of the emphasis on the risk of continued storage in other parts of this document.

p. 3-8, l. 19-20. *"Energetics would be removed before the munitions are processed at the munitions destruction building (MDB).*

Processed how? With what impacts?

p. 3-8, l. 21-22. *"Prompted by operating difficulties encountered at JACADS and TOCDF, the incinerator designated for dunnage would be eliminated."*

This requires explanation. What difficulties were encountered? What would replace the dunnage incinerator as the treatment method for dunnage? What would be the impacts?

p. 3-8, l. 22-24. *"Also, to substantially reduce costs, liquid scrubber brines salts would not be dried, but would be shipped to an off-site TSDF in liquid form."*

This requires explanation. Evaporating water is not a complex industrial process. Why didn't the Brine Reduction Area methods work? What alternatives exist? Why was transportation to an injection well considered the best of the available options? (Cost is not the only relevant consideration.)

The impacts of the alternatives must be described and discussed. For wastes transported offsite, likely destination sites, transportation methods and routes must be identified and the implications for health and environmental risks must be discussed and compared. For underground injection of contaminated brine, the ultimate environmental fate of contaminants must be discussed.

p. 3-8 l. 34-35 Have tests of frozen munitions been conducted? Were the munitions really frozen at JACADS, as mentioned? How many? What kind?

3.2.3 Neutralization and Biotreatment System

Sections 3.2.3 and 3.2.4: Please incorporate the latest results available from the late June tests of 4.2" mortar disassembly and access to agent with high pressure water, by ACWA technologists at CAMDS/TOCDF. Results on mock agent were favorable. Please also include the changes to a titanium liner from the flawed platinum liner. The engineering documentation should be citable by now (ref. p. 3-10 l. 11).

p. 3-9, L. 1-3. *"A single-story facility could be built more rapidly and inexpensively than a two-story facility required for baseline incineration."*

Details are required, along with a comparison with other options.

p. 3-9, l. 13-22. Much more detail is required. Impacts of various options must be discussed. **l. 14:** How will the frozen munitions be cut open?

p. 3-9, l. 33-34. *"more information will be provided as the facility design becomes more complete."*

and **p. 3-10, l. 10-11.** *."..more information will be presented as the facility design becomes more complete. The facility design is evolving and current engineering documentation is not citeable."*

These comments are far more applicable to the Modified Incineration system than to either of the neutralization systems, but similar language does not appear in the Modified Incineration discussion. This is unfortunate evidence of bias in favor of incineration on the part of the drafters. Considerable design detail for both of the neutralization systems has been available for many months and should have been included in this Draft EIS. Inexcusable omissions like this reinforce the need for additional public review of a revised draft of this chapter.

p. 3-9, l. 19: Please describe the "other destruction system" proposed for energetics treatment.

p. 3-9, l. 27: ONCs or MAVs? Be consistent, please.

p. 3-10 l. 4-5 and 20-21 (also section 3.3.2 l. 25): These sections state that the baseline reverse assembly process or a modification of this process will be used to access the agent. The proposed modifications to this process should be clearly described in these sections, not just in the additional technical documents. This is especially important since the modifications are quite substantial, based on presentations given by the ACWA representatives at the Colorado CAC meetings and Comment meetings held recently. In addition, based on the numerous problems with the baseline reverse assembly process identified at JACADS and TOCDF, a better discussion of the modifications and design changes for the ACWA technologies is warranted (beyond those listed on p. 3-17). Results from the tests of the disassembly process performed in late June, 2001 on 4.2" mortars at CAMDS/TOCDF need to be summarized and discussed here also.

p. 3-10 l. 26-27: Known problems and concerns with warping of the platinum liners should be clearly described and the solutions to these problems (e.g. replacement with titanium liners) should be addressed in detail in the final EIS. As a general comment, these sections all need to be updated with the latest results and proposed or accepted solutions to any difficulties identified with testing of the ACWA technologies.

3.3 PROCESS OPERATIONS

3.3.3 Destruction Process

p. 3-11 l. 23-25: Since the incinerators are designed specifically for the physical form and chemical characteristics of the expected incoming materials, how can they possibly be considered for post-destruction activities? How precisely do the incinerators have to be designed, to accommodate the various types of munitions? How well have the chemical characteristics of the expected incoming materials been qualified/quantified and how accurate does this have to be in order to design an adequate facility?

3.3.3.1 Baseline incineration process

p. 3-12, L. 8-10. *"Donovan Chambers are used routinely at some Army sites for destruction of conventional munitions. Detailed information about Donovan Chambers and their emissions are not available at this time."*

A shocking admission, if true. Donovan Chambers are "used routinely" by the Army, but detailed information is not available? Please explain. All options and their impacts must be discussed.

p. 3-12 l. 7: What is a Donovan Chamber, exactly? Do they work properly? Please cite data and references.

p. 3-12, lines 25-28: Please detail how it will be determined whether energetics and dunnage are contaminated or not.

3.3.4 Pollution Abatement and Waste Handling Processes

p. 3-13, L. 24-26. *"The effluents from all the chemical munitions destruction alternatives would include*
gases and solids. The modified and baseline incineration systems would also have liquid effluents."

We believe this to be an accurate statement, but it is inconsistent with assertions about liquid wastes in several other places in the PMCD document.

p. 3-14, L. 15-18. *"For the incineration processes, 24-hr/day, 7-day/week operations are assumed. Operations of the neutralization alternatives would be on a 12-hr/day, 6-day/week, 46-week/year basis, with the remainder of the time set aside for equipment maintenance and other activities.*

This section and the accompanying Table 3.1 should be reviewed carefully and revised as needed. We have been advised, for example, that the data presented for the neutralization systems is NOT based on 12-hour/day operation and there is no way that the incineration systems could operate 24 hours/day without down-time *"for equipment maintenance and other activities."*

3.4.2.1: Incineration Processes

What are the laboratory wastes referred to in this section? Is there, or will there be, a laboratory on site?

3.5 NO ACTION ALTERNATIVE

p. 3-16, l. 20-26. This section's reliance on a risk analysis published in 1988 is inappropriate. More thorough analyses have been done since then and the results of those efforts should be discussed.

Table 3.2, p. 3-18 to 3-27 is insufficient and inaccurate in some respects. It should be reviewed and revised at appropriate and it should be accompanied by a candid discussion of the impacts, risks and differences.

p. 3-19 l. 16-18: Please include any more recent information on solutions to the problems of salt plugging and corrosion associated with the SCWO reactor and feed line design. Also, the reference cited for the problems with thermal stress on the reactor liner. (PMACWA 2001) deals with Silver II and GPCR/TW-SCWO technologies only. Have these problems also been identified in the Neut-SCWO system proposed for PCD? How will "No construction wastes" be produced by the Neut-SCWO technology??

p. 3-23 Air Quality - criteria pollutants/Human Health: When and how will the site-specific health risk assessments be conducted for the incineration technologies, and how will the risk assessments in and of themselves "ensure no adverse health effects"? The standards that must be met for emissions and wastes all allow adverse health effects, albeit at a low incidence. Will health risk assessments be conducted for the Neutralization technologies, or is it assumed that there will be no adverse health effects from these systems due to the estimated lower emissions?

Table 3.4-1: Why are values for the commodities based on only 16 days or 35 hours (for fuel oil) per year compared to 276 days and 600 hours (fuel oil) for ANAD and PCD? Why is the Annual operational input for natural gas, process water and other categories at PCD almost twice as much in as ANAD, but Electric power, fuel oil and potable water are the same? In the last line, what does "Values are based on 38% availability of operations" mean?

p. 3-26 l. 10: Where would the proposed commercial landfill be?

p. 3-28: Why is Modified Baseline Incineration not discussed? This seems to be the only viable incineration alternative proposed for PCD. Is Baseline Incineration only discussed because it is being constructed at PBA and ANAD?

COMMENTS ON PMCD SECTION 4, EXISTING CONDITIONS AND ENVIRONMENTAL IMPACTS.

4.6 Waste Management and Facilities

The summary, as well as the later parts of this section, state that "no significant impacts" are expected as a result of construction of a destruction facility or destruction of solid wastes produced from operations "on waste management systems or the environment." The measuring medium for this claim seems only to be a regulatory one. The basis for thes claim is "accordance with regulations" and disposal " as prescribed by EPA and applicable state and local regulations" or "in accordance with all applicable regulations" or that disposal would be "in an off-site permitted facility." NEPA and requirements of the EIS process call for understanding impacts, whether the work comes into compliance or meets regulations or not. The issue is impact, not compliance. It is certain knowledge that one can meet all regulations and still have impact. The

DEIS simply does not address itself to impacts in and of themselves. Meeting regulations becomes and excuse for not providing necessary data based upon real experience and knowledge of the site to assess the impact to the community.

In addition, it is important for all to understand that to say significant impacts "are not expected" means nothing without context. By design, one hopes that such is the case. However, catalogued experience of the unexpected should be included so as to discuss impacts for those possible unexpected events. This approach is wholly inadequate for review in the DEIS. It is sloppy and lacks accountability.

The units of measurement used are not consistent and make it very difficult for the public to participate in the process of commenting. Table 4.3 are in kilograms and liters, table 4.4 is in cubic yards, gallons, and tons; table 4.5 is in pounds, gallons, and tons; table 4.7 is in tons and gallons. Consistency is needed.

There is an apparent discrepancy between the PMCD DEIS and the ACWA DEIS on wastes generated at the Pueblo Chemical Depot in 1999. PMCD Table 4.3 lists hazardous solids as 2,000 lb., while ACWA Table 6.4.1 lists hazardous solids as 12,200 lb. This is a significant difference.

Another significant discrepancy is that the PMCD DEIS, in **Table 4.3** has Hazardous contaminated soils at 93,000 lbs and being shipped off site while the ACWA DEIS, in **Table 6.4-1** has hazardous contaminated soils at 83,000 lbs going offsite and 7,500 being composted on site in Building 591. The figures for contaminated groundwater are also off by a slight margin. These discrepancies damage credibility. Just what is correct? And, for that matter, what other errors are there in the two DEIS?

In the PMCD DEIS, estimated total wastes from the two incineration methods are exactly the same. While this is understandable for most of the wastes, one would expect some difference from other wastes, as in spent hydraulic fluids, propellant and filters. Explanation is warranted.

Hazardous waste in the form of ash residue from the furnace system in the incineration processes clearly have some impact. As stated in 4.6.3.1 the solid hazardous wastes will require 150 truck trips. Where is the ash and other waste stored prior to shipment and what impact may it have on workers or the environment? What is the impact of the transportation in the community? And lastly, what is the impact at the proposed off-site disposal facility?

The approximately 55 million liters (14.5 million gal.) of hazardous brine waste is problematic. It is earmarked for shipment off-site to the tune of 4000 trips by 5000-gal tanker trucks to a "permitted site." The PMCD DEIS fails to describe and catalogue the experience that other facilities such as JACADS and TOCDF had with the brine process. What problems, what successes, have these facilities had with the brine solution? What is the impact of loading and transporting this amount of brine? What is the impact on the destination permitted site? Clearly impact at other locations should be considered in the total impact from the various technologies.

The PMCD DEIS fails to document the constituents, and the corresponding amounts, within brine solutions at other sites. Just what can we expect from this brine solution and what are the impacts.

Again, it is difficult for the average citizen to compare the wastes generated as shown in Table 4.7 and 4.5. In the former, nonprocess wastes are not broken down. On page 4-26 it is stated that, for the neutralization processes plans are for processing all process liquids back through the reaction vessel. Just what concretely does this mean? How does this change the wastes amounts? Is the amount of brine salts in Table 4.7 the resultant salt weight after recycled

liquids are processed through and after any evaporation? Explain and contrast how the near 5000 tons of salts compare in detail with the 14.5 million gallons of brine from the incineration processes?

On p. 4-25, it is stated that the brine salts from the neutralization facilities "could contain significant amounts of toxic heavy metals (e.g. lead)." Is there any data anywhere to give a better prediction of these amounts? From experience and data at other sites? Does this mean that such heavy metals come from the mustard gas or the energetics or some other source? Do we understand that any heavy metals present would also be present if the method of destruction is baseline incineration and modified baseline incineration? Where would these heavy metals end up in either of the incineration methods? In the brine? In the filters? In the emissions? This is particularly important.

We in Pueblo insist on no heavy metals being released into the environment, whether in air or in ground and express concern at the form they are in if and when it is shipped off-site. This needs far greater detail in discussing impacts.

4.6.3.2 Impacts of Neutralization

PMCD says "If the hazardous brine salt failed the RCRA test, stabilization of the waste may be required for disposal." Just how might this stabilization occur? In the ACWA DEIS, page 6-29, it says "a new facility might need to be constructed or an existing facility might need to be expanded to handle the solid salt waste." These statements alone cannot possibly be satisfactory for determining impacts as required by law. This requires more specificity.

4.6.5 Cumulative Impacts.

Our concern with wastes is perhaps best focused on the statement: "The greatest potential for significant direct and cumulative impacts lies with the liquid brines." We find the brine solutions resulting from the incineration technologies to be far more problematic than the brine salts of the neutralization technologies. The volume is higher, transporting liquid carries more risk. The impact on all sites together is higher.

In addition, the presence of hazardous solid waste ash from the incineration technologies adds the risk for significant impact. From the perspective of wastes, the neutralization technologies appear to us to be preferable to the incineration technologies.

An ACWA pilot test facility and an incinerator combined would indeed, as noted in ACWA DEIS 6.22.4.2 "about double the amount of sanitary wastes requiring disposal." Unless other more important, in terms of safety and health, reasons prevail, it seems unnecessary and unwarranted to see the construction and operation of both and ACWA facility and a PMCD incineration facility.

Again, with an ACWA facility the processes for handling identified hazardous waste brine salts that are not stabilized are not identified. To simply say that "the Army will work with regulators to develop procedures" is not adequate for the stabilization process.

COMMENTS ON AIR EMISSIONS (PMCD DEIS)

4.7.1.2 , p. 4-30- Existing Air Quality
p. 4-31, l. 1.

Conclusion that "concentrations around PCD are likely to be lower, in general, than the data in Table 4.9 indicate" is based on the false assumption that Pueblo does not have more and larger sources of pollution than areas around the R. D. Nixon Power plant and other named locations. If monitoring in Pueblo were done near the much larger Comanche Power station or the Rocky Mountain Steel mill, background levels would be likely to register far higher than those given for Colorado Springs, adding to a more dangerous cumulative effect.

p. 4-31, l. 27-29. Misleading. Gives figures on lead for Colorado as "less than 1% of the standard" ignoring the effects of huge amounts of lead emitted by steel mill in Pueblo. Pueblo's air quality is not representative of Colorado. These figures are available (see TRI, www. scorecard.org). See comments on 4.7.5.1 (below).

p. 4-31, l. 30-31. Statement that " a major modification of a steel mill . . . resulted in significant improvement in air quality since the early 1980's" ignores current effect of large quantities of polluting emissions from the mill on air quality (see TRI), as well as the possibility of additional illegal amounts of pollution (Colorado vs. Rocky Mtn. Steel Mill now pending trial). Description of existing air quality ignores impact of several major stationary sources already permitted for construction and scheduled to be operational before a facility at PCD is built. Increments that these will consume for PSD are available at CDPHE and should be included in this analysis. Without consideration of these factors, any predictions on cumulative impact will bear no relationship to reality.

Table 4.10, p. 4-33. Allowable increments for PSD. Incomplete. Figures should be given for all criteria pollutants, ozone, PM<2.5, and lead, not just SO_2, NO_2, and PM<10, for purposes of comparison.

4.7.3, p. 4-36. Indicates that sprinkling with water will be used "as necessary to control fugitive dust during construction activities" but does not indicate the amounts of water required. Given Pueblo's dry air and strong winds during the spring when construction activity is likely to occur, the amount of water to be used should be indicated, as it is likely to be significant.

4.7.3. Insufficient data. Additions to concentration in ambient air should be given for each pollutant and for each technology, including the background concentrations of each pollutant in micrograms per cubic meter and percent of Class II increment used, with comparison to NAAQS.
4.7.4, p. 4-37-38, including Table 4.12. Impacts of Operations.

Attempts to draw conclusions about the relative impacts of the four technologies, providing Table 4.12 in support. However, the conclusions are likely to be false because in Table 4.12, "Emissions of criteria pollutants and volatile organic compounds" for all technologies, the numbers given for neut/bio and neut/SCWO are vastly different from those provided by ACWA for those technologies. The difference is as great as several thousand percent (e.g., on SO_2, 2.1 lbs/hr. For neut/bio as opposed to .02 lbs./hr. in the comparable chart in the ACWA DEIS.). One must assume that the figures in the ACWA DEIS for its own technologies are more reliable than the parallel figures in PMCD.

The conclusion that "emissions of CO are roughly comparable for all technologies but are *slightly smaller* [emphasis added] for the neutralization alternatives" is false, based on the numbers provided by ACWA. Indeed, emissions of CO are three times higher with modified baseline than with neut/bio. The emissions of SO_2 with modified baseline incineration, rather than being 5 1/2 times those of neut/bio, are 586 times those of neut/bio, based on the figures in the comparable ACWA table. For NO_2 they are 9.525 rather than 7.62 times higher. For PM<10 they are rather 6.8 than 5 times higher. VOC's emitted by neut/bio are approximately only half of what is claimed in the table.

Table 4.12 makes it clear that of the neutralization technologies, neut/bio emits significantly fewer criteria pollutants and VOCs than than neut/SCWO and that modified baseline emits fewer than baseline incineration, but far more than either neutralization technology. Both the data and the interpretation of the data must be corrected. If outdated figures from ACWA studies were employed here, they must be updated and the table and its interpretation revised accordingly.

Numbers should be presented also in tpy (tons per year) in each category.

Section 4.7.4.1, pp. 4-38-42. Statement on p. 4-41, l. 7-9 that "the impacts of process and stack emissions on ambient-air concentrations of criteria pollutants were analyzed by adding the maximum concentration increases expected to result from that facility to the maximum existing concentrations" indicates inadequate methodology because it fails to take into consideration several other plants that have been permitted or already exist in this area. This section should be revised to include these in background figures. The information is readily available at the CDPHE. Only then can a meaningful comparison be made to the NAAQS. The conclusion that results will "indicate that none of those standards would be exceeded or closely approached as a result of operation of a baseline incineration facility" is based on incomplete data.

Section on Vehicular Emissions, p. 4-42 appears to have been written without the benefit of any information to base it on. The numbers and kinds of trucks required to haul wastes must be specified, and the amounts of their emissions —enough to fill a separate section in this document. As is, there is no basis for drawing any conclusion regarding impact on air quality. To merely say that they are "no greater than for any other industry employing similar numbers and types of vehicles" and that "therefore, impacts of vehicular emissions to the atmosphere are expected to be very small" fails all the rules of logical argumentation.

The comparison with "similar" industries is meaningless unless specific data is provided on emissions in those industries, and the claim of "similarity" would require justification that would unnecessarily complicate the presentation. Instead, get the figures and present them, and let the public decide whether the conclusion that impact on air quality is "very small" is justified by the evidence.

This kind of sloppy research and reasoning opens other sections of the document to suspicion. Had the writers no information to go on? Has the requisite research not been done?

Table 4.13, p. 4-39. Incomplete; omits critical information. Criteria pollutant impact analysis should include all criteria pollutants, not just ozone and nitrogen dioxide, and should include 1-hr., 3 hr., 24 hr., and annual impacts, as appropriate. Table fails take into account amounts

already permitted for release in Pueblo County in facilities currently under construction. Cumulative impact figures for actual conditions are therefore inaccurate.

Note c, under table 13 -- "complexities of ozone modeling preclude an extract estimate." Please define "extract estimate" —or is this a typo for "exact"?

Missing table: A table for modified baseline incineration should also be provided, including increment consumption for PSD based on cumulative amounts for all major stationary sources permitted to date.

4.7.4.2, p. 4-42. Figures for neutralization processes should now be available. Amounts of increment consumption for PSD of each criteria pollutant should be provided for each of the four proposed destruction processes to allow meaningful comparison. Even if, as you conclude, "the effect of such a [neutralization] facility on ambient air quality in the region is considered to be negligible" [l. 21-22], the public should be allowed to compare the effects of all processes, and since documents on competing processes are inconsistent in format, you need to provide all the information necessary, in the same units of measurement (preferably tpy or ppy) for the public to make meaningful comparison on all four alternatives.

4.7.5 .1 , p. 43. Failure to consider available facts is glaring here. The assertion that the lead emissions that may be released could be below the NAAQS for lead because "atmospheric concentrations of lead have decreased to a small fraction of NAAQS over the last 25 years, primarily due to the decreased use of leaded gasoline" (l. 8-9) assumes that Pueblo is subject to no more exposure to lead than the average city in Colorado.

However, lead in Pueblo comes not from gasol., primarily, but from industrial sources. TRI figures on lead released to the air in Pueblo County are readily available at www.scorecard.org. A cursory check of this will show that Pueblo County is radically uncharacteristic of the rest of the state. In fact, lead releases to the air in Pueblo County are the highest in the state, being 7.9 times of the amount released in the county with the second highest lead releases (Adams), and 250 times the amount released in the third highest county in the state (El Paso).

Furthermore, although ambient lead concentration data is unavailable, Pueblo also leads counties in Colorado with the greatest reported releases of lead compounds to the air. The most recent TRI figures indicate that Pueblo suffered release of 2,400 pounds of lead, which was more than 12 times the amount released in the next highest county, and 5.64 times as much as the next four counties put together, and far more than all that in the rest of the counties in the state combined. (See http://www.scorecard.org/env-releases/lead/).

Any addition to the lead in Pueblo's air is significant because the hazard is already so great. Citizens are already carrying a body burden that to increase would be unconscionable.

No figures are given for upsets. How frequently are they expected to occur? What is a worst-case scenario if one or more pollution controls fail? Releases of pollutants other than mustard agent should also be predicted for situations of "process fluctuation."

4.7.7 Cumulative Impacts

Paragraph on "With other off-post actions" ignores existing data and contains inaccuracies.

Distances given for proposed cement kiln and and Comanche Plant in relation to Depot are inaccurate. Check a map.

Army data cited as 1997 pre-dates several permits for large NO_2 and SO_2 producing facilities in Pueblo to be built before the Depot's construction will occur. Several major stationary sources have been permitted since 1997. Reference to specific figures for each of these facilities must be included in any consideration of cumulative effects. Air Emissions (construction) permits on record in the Colorado Department of Public Health and Environment issued since 1997 indicate that large portions of the increments for SO_2 and NO_2 will be used up by these facilities, leaving a far smaller allowance for the PCD.

A process with the emissions of incineration will have a much harder time falling within limits than a process whose impact on ambient air is "negligible" (as described in 4.7.4.2, p. 4-42, l. 22). Exact figures should be provided for all emissions referred to. The final sentence in the section unnecessarily limits applicability to "health-based" standards," which are dismally weak at best. No mention is made of opacity or other standards, including those established as necessary to consider by the Clean Air Act, including recent amendments.

4.8. To assert that emission control may substitute for monitoring, both at the source and in the area, is unsupportable. If thorough monitoring determines that "airborne concentrations may be below below the detection limits of present monitoring instruments," then the monitoring will have provided the information needed. However, to say that no monitoring should be required because it might not find airborne concentrations" is circular logic. It is equally logical to state that "airborne concentrations may NOT be below the detection limits of present monitoring instruments." Should monitoring be skipped on that basis as well? You imply that it should. Of course, expense may be incurred, data must be analyzed, etc. That's what monitors require. This section makes no sense. Certainly, because of the enormity of the project, all possible monitoring should be done

4.8.1. Data omitted. Existing emissions at PCD are part of background pollution and should be given with amounts and sources.

4.8.2 No data provided to support general statement. Specifically, what hazardous pollutants will be emitted, how many of each kind, and from what sources? What toxic air pollutants will be emitted, in what quantities, and from what sources? The PMCD document lacks a chart of amounts of non-criteria pollutants emitted comparable to that provided by ACWA. This serious and glaring omission in itself raises questions. Is the Army trying to hide something? Is there something in the data that the Army wishes for the public not to know? Surely this information is known. Failure to provide it raises questions about the credibility of the Army. This is a critical element of the report; we have been waiting for this information for several months, as promissed at the CAC meeting on June 4, and it is still missing.

NEPA requires that federal decision-makers dislose to the public what they know. The omission of this information either constitutes a failure to disclose what the Army knows about incineration, or it indicates that the Army does not know what non-criteria pollutants, and in what amounts, will be emitted. This information is provided in the ACWA DEIS and in further detail in its technical supplement. In the case that this information is not known, the method under

consideration (incineration) should under no circumstances be considered. If this information is known and not included, the site-specific DEIS violates NEPA.

4.8.3. Critical data omitted. Simply saying that "releases of hazardous and toxic air pollutants from construction would not be expected to exceed those from any similar construction project" is insufficient. A breakdown of the sources of all toxic air pollutants should be given. The assertion of "negligible" impact is unsupported without amounts given, numbers of trucks, etc. In fact, according to TRI data (see www. scorecard.org) the population of Pueblo County faces a cancer risk "more than 100 times the goal set by the Clean Air Act," and "67% of this air cancer risk is from mobile sources," primarily diesel trucks. No impact is, as you claim, "negligible." Comparing this to "any similar" construction project is irrelevant because the occurrence of "similar" construction projects is indeed negligible.

So-called "conclusions" are meaningless if not related to premises supported by factual data; i.e., a detailed breakdown of data on what hazardous and toxic air pollutants will be released during construction, from what sources, and in what quantities, including specific amounts of toxic metal pollution must be included here, based on the numbers of vehicles expected to be employed in construction.

4.8.4.1. Emissions at JACADS "were within applicable standards or limits." This is a meaningless statement because there are no limits on some emissions. Were there upsets? JACADS data alone is insufficient. Whereas projections for baseline incineration may be based on JACADS, baseline incineration is not a realistic option for this operation. Modified incineration should have different results. It is not clear what monitoring employed at JACADS, and whether this would be employed in Pueblo. To say that "impacts" are "expected to be small" is insufficient. Furthermore, JACADS perameters do not apply, according to note b. Simply saying that "any facility at PCD would be required to comply with the standards for treatment oand disposal of military waste munitions" is a meaningless statement. What standards, specifically. Will a filtering system be installed to aid dioxin removal? If so, what kind? How effective will it be?

Mercury: the Army has no experience to date removing mercury. Clearly, experience with this of this technology is not advanced enough to provide solutions to problems. Hoped-for results (from "enhanced monitoring, design changes, " etc. will not necessarily materialize. This is an inadequate treatment of a critically important subject with enormous health and economic consequences for those who live and farm near the Depot.

Re: nitroglycerine. Percentage of removal alone is insufficient. Amounts of pollutant to be emitted must be given. The % figure is meaningless without numbers on total amount to be processed.

Metals. p. 4-47. Glosses over the subject; simply saying that emissions are "within applicable standards" is insufficient. Which standards? Precisely what amounts were emitted? This information is even more important than that for criteria pollutants because of the toxic nature of the pollutants and the fact that amounts are not regulated by law. For example, at existing incinerator(s), how often has the pollution abatement system failed. When it does, what happens? Can there be unplanned releases of toxins? The public deserves to know the truth about what could be put into the air it breathes.

Table 4.14. Omits critical information. Specific kinds of dioxins are not enumerated; amounts should be given for each kind. The note makes it clear that results will be different for JACADS. Specific projections for Pueblo needed, not simply results of a test burn at JACADS. Experience with monitoring, data collection on this method are apparently inadequate to answer critical questions. The ACWA documents provide this information. A comparable analysis is needed here, with complete tables. Comparison of this most important aspect of all technologies is impossible until PMCD provides this information.

No information provided in section for modified baseline incineration. Since modified baseline incineration is the incineration alternative under most serious consideration, omission of data for modified baseline is a critical gap.

4.8.5.1 and 4.8.5.2. The comparison should be drawn with similar language in reference to each technology. I.e., is an "increase [of] organic emissions to 145% of their normal values" to be compared with an increase of 2% for neutralization alternatives? Clarity in choice of language, using parallel vocabularies and even sentence structure in both sections, would enable the reader to determine the impact of all technologies in this regard.

Appendix E

Does its best to downplay risk from dioxins. Comparisons appear designed to camouflage risk (I.e., equivalent of "2.5 packs per second," instead of saying "approx. 2 billion cigarettes per year," or "79 million packs per year." Instead, a detailed table of the kinds of dioxins to be emitted, the amounts of each kind, along explanation of what kind of filtering system (or other pollution control) will be used to prevent it from entering the air, and how much dioxin would get beyond that system, are needed. ACWA provided this information, and so should PMCD.

Dioxin is one of the most toxic materials known to man, as well as persistent once it is deposited in the environment. Some dioxins are worse than oher. In the PMCD document, dioxins are lumped together and not treated separately. Guesstimates of dioxin emissions are not acceptable to the public that will be affected by them. All production of dioxins is being phased out internationally. It is already present in the average human body at levels that are too high. There is NO release of dioxin that is inconsequential. Injury to even one person cannot be equated with compliance.

No facility operates without violation; the projections made are based on full compliance. However, there is zero probability that they will ever meet those levels. What levels of dioxin might be emitted in case of non-compliance; e.g., from an upset.

Where is the protocol to accompany these projections? Are they based on complex, unsupported modeling exercises or taken from the limited experience on Johnson Atoll? If these were discovered by accident and were a surprise by-product of incineration at Johnson Island, how many more could possibly have gone undetected?

The EIS leaves it unclear what techniques will be used to monitor dioxin emissions. Admittedly, monitoring for dioxin is very difficult and slow, but it is essential. Incineration is a highly complex process, and the composition of emissions depends on small differences in the waste stream, based on assumptions about what is in the waste, since we can't find out exactly what is true. Conditions in the burn box change constantly. No one knows or can predict what will come out of the top of the box. The statement in Appendix does not reflect the possible

scenarios. For example, at existing incinerator(s), how often has the pollution abatement system failed. When it does, what happens? Can there be unplanned releases of toxins?

Sections 4.7 and 4.8 entirely omit mention of greenhouse gases, namely CO_2. This draft fails to address issues associated with manufacture of greenhouse gases, including but not limited to quantities in all processes and impact.

4.22.3 Waste Management

In the event of an accident, the issue is glossed over with the statement that simply says that "plans and resources would be in place...". For a multi-million dollar NEPA process by the agency that has been doing this for years, this is woefully ridiculous. Plans and resources need to be identified. That is what this section of the DEIS is for.

Moreover, if and accident involving the dispersion of agent and/or a clean up of a mustard agent spill is discussed here, it should be developed much more in the possible scenarios that could occur. Certainly do not just rely on a plane crash as the worse case scenario. There are many bad scenarios that could occur, and would be more likely than a plane crash, that need to be fully reviewed.

4.25.6 Closure and decommissioning

Regarding waste management and closure and decommissioning, the amount of hazardous wastes at PCD are compared to that of JACADS, at about 5.4 million lbs. The document says "treating and disposing of roughly 10 times as much hazardous waste could challenge the capacity of permitted, offsite TSDFs. To adequately assess waste management impacts, more detailed information is needed concerning waste amounts and capacities of the TSDFs to be used." This leads to important questions. First 10 times greater than what? Next, the DEIS should have the information about the TSDFs here discussed. Is that not what the DEIS is supposed to do? How can we possibly understand impacts with such an uninformative 3 paragraphs as is in 4.25.6? What is the impact of transporting this much material? What is the impact on the TSDFs themselves? Is on-sight treatment a consideration? If so, what is the potential impact?

The DEIS points to JACADS as the only information to go by noting that there is no detailed analysis of wastes generated from closure and decommissioning. The EIS must outline plans for closure and dismantling of the disposal facility, and plans for clean-up of the buildings and area immediately affected by the demilitarization process.

The questions of whether closure and decommissioning will occur and how are critical to review of environmental impacts. Is the Pueblo Chemical Depot scheduled for closure or not? If so when? If the answer is not known, then the possible eventual decisions on closure need to all be considered.

As we note from previous public comments, "decisions on closure of the chemical weapons disposal facility -- no matter what technology is chosen -- should not be left until later. The closure process at JACADS is proving to be expensive, lengthy, inefficient, potentially unsafe and altogether incomplete. Basic clean-up technology decisions have not been made, communication between stakeholder agencies is lacking, and the Army's unwillingness to clean the Atoll to the requested residential standards is unacceptable.

"Intentional or not, the JACADS closure experience, and the issue of the clean-up of Johnston Atoll, has set expectations for closure activities at continental U.S. stockpile sites. "

What are the potential futures for the different types of facilities associated with the alternative destruction technologies under consideration? If an incinerator is built, what possible future uses might that incinerator be used for, if any, after the chemical munitions have been destroyed?

None of the above issues have been addressed adequately, if at all.

p. 4-173 l. 3: facilities

p. 4-194 l. 1-5: "[We need to obtain a copy of this document.]" Was a copy ever obtained? If not, how can this Mitretek 2000 document be used and referenced in this DEIS.

As we note from previous public comments, "decisions on closure of the chemical weapons disposal facility -- no matter what technology is chosen -- should not be left until "later". The closure process at JACADS is proving to be expensive, lengthy, inefficient, potentially unsafe and altogether incomplete. Basic clean-up technology decisions have not been made, communication between stakeholder agencies is lacking, and the Army's unwillingness to clean the Atoll to the requested "residential" standards is unacceptable.
"Intentional or not, the JACADS closure experience, and the issue of the clean-up of Johnston Atoll, has set expectations for closure activities at continental U.S. stockpile sites. "

The people of Pueblo County and the surrounding areas should not be left to uncertain and questionable promises to do the job well for public safety, health, and costs. The potential risks to agriculture need to be assessed thoroughly and the compensation for harm discussed thoroughly.

COMMENTS ON PMCD 4.13-4-14 AND ACWA CHAPTER 6 (WATER)

With respect to current water use PMCD cites current use at 150 acre feet per year (Pg. 4-86. L. 24) and ACWA cites a current use of 4.3 acre feet per year (Pg. 6-102 l. 24 and Pg. 6-209 l. 24). Both ACWA and PMCD raise questions concerning the adequacy of water rights. ACWA indicates a need to establish a new contract with current water rights holders and add pipeline to "G" block. PMCD describes a reduction in availability and potentially higher prices for other water users. 96-31

The quality of existing groundwater according to ACWA, except for contamination at south PCD is good for prime drinking except naturally occurring high selenium levels, some nitrate and sulfate in high concentrations. PMCD states that water has increased in "hardness" over the years but meets Federal Standards for drinking, except naturally occurring high selenium levels. 96-32

ACWA estimates construction use of water to be 8.6 acre feet per year for both neut/bio and neut/SCWO. PMCD estimates 7 acre feet per year construction use of water. Both estimate 20 acre feet of water but do not indicate what that estimate is based on or what the work schedule is. 96-33

ACWA indicates that no impact to quality of groundwater is expected but if some were to occur it would be negligible and short-lived, however, the possible increase in selenium is less 96-34

water is available is not addressed. Any diminution in quantity is to be restored (somehow) "quickly" (Pg. 6-209 l. 30). "Quickly" is not defined.

What happens to water after the process is complete? According to ACWA if it is contaminated it is recirculated back into the process where it becomes uncontaminated but after that what? Who knows? According to PMCD the water used will become hazardous waste and transported to an off-site facility. ACWA states that emissions for normal operations would not affect downwind wetlands but fails to indicate the location of such wetlands. 96-34

With respect to accidental release of contaminated water the facility (ACWA) is designed to contain small releases using a berm. What kind of berm and how is it built? 96-35

p. 6-225 l. 15-19: During construction run-off will be controlled by "standard controls" and "Many safety features will prevent accidents…." Define safety features. 96-36

p. 6-211, l. 22-26. Define the "standard precautions."

Who will be the most likely water users affected by a depleted aquifer and how will they be compensated? 96-37

p. 6-209, l. 30. How long will it take to recharge the aquifer? 96-38

COMMENTS ON HEALTH, SAFETY, ACCIDENTS, AND INFRASTRUCTURE (both documents)

PMCD DEIS:

First of all, PMCD makes it difficult to compare side by side with ACWA. They use estimates for power, water, natural gas, etc., on daily consumption's or usage. ACWA uses annual estimates. It makes for long calculations to compare side by side. Also PMCD on many occasions uses outdated reference data.

One example of this is in PMCD's Appendix I, (sec. 1.3.1 page 10). PMCD outlines the potential risk to human exposure on a worst case scenario, (i.e.: airplane crash) using population data from a 1990 Census. Also, they do not give any estimates for more likely scenarios such as a tornado or the possibility of a lightning strike. They also use the worst case (airplane crash) and 1990 census data in table I-4 (page 16) outlining off-post fatalities. Another example is in Appendix I (sec.1.3.1 page 11). There are comparisons for Mortars and 155-mm projectiles but missing are comparisons for 105-mm projectiles. There is new census information out and there are also more realistic or likely scenarios to base possible exposure and effects to human populations.

PMCD's Executive Summary gives an overview of PCD and the proposed construction and operation of an incineration facility with some comparisons to the ACWA program. It outl. the use and or demands for electric power, water, natural gas, etc. PMCD's estimates seem to weigh in favor of the incineration process, but when making actual comparisons their results seem to be contradictive. For example in ES. 3.2 it states that water demands for the proposed operation of a Modified-Baseline Incinerator **would not exceed** PCD's current pumping capacity

or existing water rights. And that this method would use 60% less process water than Neutralization. But when you look at PMCD's table, Appendix D (table D-2, page 9) Mod/Baseline uses approximately 15,695,000 gals. Annually, compared to ACWA (sec. 6.31 page16) which shows 13,000,000 gals. Annually. Also ACWA feels that the current water permits may not be sufficient enough to operate the facility and may have to purchase additional water to meet the demand. Both concur that current electrical capacity is not sufficient for either process, PMCD makes reference that an upgrade or increase has already been planned for the site. Regardless, comparing the tables is extremely misleading and complicated.

PMCD Proposed Action (sec. 2.3.4 page 15) states that the current projected timeframe for the appropriated environmental permits and CD authority is September 2002. Where did they come up with this date and what other Colorado facilities did they use to estimate the time required obtaining the permits? They also state that incineration would take approximately 24 months with final destruction completed by 2007. This conflicts with other PMCD documents that show final destruction could take until 2018. This section goes on to say that in the ACWA proposal start up and testing wouldn't take place until 2006 with a 36-month process for final destruction. If both are pilot facilities how and where does the information come from in estimating these dates?

PMCD (sec. 4.9.2.1 page 51) calculates the estimated number of worker fatalities and injuries for **construction** of Baseline and Mod/Baseline facilities. If Mod/Baseline is a pilot facility then how do you arrive at these estimates? It is also stated in this section that the estimates were calculated from the Bureau of Labor Statistics, reported by the National Safety Council. Given the fact that estimates for both ACWA and PMCD used this same reference, why is there such a difference in the estimated injuries and fatalities? PMCD (table 4.16 page 52). Worker injuries for Baseline (60), Mod/Baseline (45), Neut/Bio (48), Neut/SCWO (44). While ACWA (sec. 6.7.2.1 table 6.7-1 page 73) shows Neut/Bio (19), Neut/SCWO (18). Also when calculating the potential for injury or deaths how many of the following were included in those calculations?

What is the total number of workers proposed to construct this facility? How many hrs. of over-time per day will workers be required to work? Worker injury and fatality rates go up with hrs. on the job along with days worked without a day off. What will be the average experience of the work force employed to construct the facility? How and who will conduct training for workers? What length of time and to what extent will workers be trained?

What percentage of the total work force will be management or supervisors and how was this figured in the estimates given in this section? What is the experience of the contractor or contractors, and how did PMCD figure that into these estimates? And finally the estimated fatalities for construction are none? If the answers to the questions above were not taken into consideration then how was this estimation arrived at?

PMCD (sec. 4.9.2.1, table 4.17 page 54) is a breakdown of worker injury and fatalities for systemization and operation. It also compares all four methods for destruction. How accurate are the estimates in the table if the questions in the previous section were not taken into consideration?

PMCD makes no reference as to how construction workers will be trained or prepared for potential chemical releases during construction. They do state that this is of minimal concern during this stage, as the handling of munitions will not take place during the construction process. In contrast continued storage would result in a higher risk for potential accidental releases.

PMCD makes no reference to the Transportation Technology Center just north of the PCD, and therefore does not address if those employees have been or will be trained for an accidental release. This applies to both the construction and operation phase of the proposed incineration facility. Also were those employees figured in the totals for potential accidental exposure?

In (sec 4.24.2 page 172) PMCD states that from the proposed destruction facility approximately 8,900 tons of scrap would be generated. They state that the sale of this scrap for recycling could offset the potentially adverse environmental affects, as well as reduce the energy requirements, of mining and smelting virgin ores. Given the current price of scrap metal, and its constant fluctuations.

Also considering the fact that scrap metal is readily available, to imply that this could offset the potential environmental impacts due to construction and operation of the proposed facility is far fetched. The fact that the scrap could be sold and recycled locally would be a positive impact, but should not be used to diminish the negative effects of operating the proposed incinerator.

PMCD's Executive Summary (ES.3.18) states that the economic impacts for construction of the proposed facility would be small. They also state that due to the increase in employment, and the potential for those employees to spend that money locally, the positive impacts to the community would be great. PMCD makes no reference to the amount of imported workers, which is normally a negative impact, their proposal would use, nor the negative impacts to the local job market that would occur after the operation is completed and those employees essentially loose those jobs.

Finally PMCD gives no clear data as to the total amounts of local workers that would be used. They also provide no data as to whether or not local unionized workers would be utilized, which goes back to not only economical impacts, but also the question of experienced workers in relation to the potential for worker injuries and fatalities. Unionized workers typically make more per hour and have more experience in their selective fields than non-union workers. They also typically have extensive safety training and procedure resulting in a dramatic difference in the number of worker related injuries or fatalities.

ACWA DEIS

The tables and estimates in the ACWA DEIS seem to be more comprehensive, but there are still some discrepancies in data as it compares to PMCD.

Both ACWA and PMCD refer to the Bureau of Labor Statistics, reported by the National Safety Council to calculate their estimates. But there are major differences in the estimates given by each. The first example is ACWA (sec 6.7.2.1 table 6.71 page 73). Worker injuries and fatalities during construction. Neut/ Bio (19) injuries, Neut/SCWO (18). While PMCD (sec. 4.9.2.1 table 4.16 page 52) shows Neut/Bio (48), Neut/SCWO (44), Baseline (60), and Mod/Baseline (45). Why such a difference? 96-39

Although the numbers used by ACWA in estimating injuries and fatalities are present, (i.e. the average hrs. per full time employees per yr.) There is no consideration taken in the amount of overtime required, nor the number of days worked without a day off. Both of these can have a major effect in the amount of work-related injuries or deaths. 96-40

ACWA like PMCD, does not make reference to the experience of the work force and/or the contractor or contractors. Nor does it address the amount of local Unionized workers that would be utilized during construction. Unionized workers typically make more per hour and have more experience in their selective fields than non-union workers. They also typically have extensive safety training and procedure resulting in a dramatic difference in the number of worker related injuries or fatalities. The fact that Union workers typically make more per hr. also has the potential for a much greater positive impact from the proposed project. 96-41
It would be equally as important to apply the same questions to ACWA as in the DEIS for PMCD.

What is the total number of workers proposed to construct this facility? How many hrs. of over-time per day will workers be required to work? Worker injury and fatality rates go up with hrs. on the job along with days worked without a day off. What will be the average experience of the work force employed to construct the facility? How and who will conduct training for workers? What length of time and to what extent will workers be trained? What percentage of the total work force will be management or supervisors and how was this figured in the estimates given in this section? What is the experience of the contractor or contractors, and how did PMCD figure that into these estimates? 96-42

And finally the estimated fatalities for construction are none? If the answers to the questions above were not taken into consideration then how was this estimation arrived at? 96-43

ACWA (sec 6.7.1.4 page 70) refers to PCD's Chemical Accident / Incident Response and Assistance Plan. It states that this is currently being revised. When will it be available? Before the final EIS? 96-44

ACWA (sec. 6.7.2.2) states that operations will require 635 FTE's /yr. (full-time employees) and also states that number will be a mix of government and contractor employees. How many of each? 96-45

Sec. 6.7.2.2 also covers risks of inhalation of chemical agent. It says that the estimates depend in part on detailed facility designs that are not yet available. When will they be? Before the final EIS? 96-46

ACWA does identify the Transportation Technology Center just north of the PCD as having the potential of exposure to workers in the event of an accident, but does not say to what extent those employees will be trained or prepared in the event of a chemical accident. Also who would conduct training for those employees? And what precaution or measures has TTC been advised of to address this issue? 96-47

ACWA uses the same worst case scenario (airplane crash) instead of a more likely or realistic scenario (i.e. tornado, lightening strike) 96-48

The ACWA DEIS seems to give a more realistic estimate toward the numbers of injuries, deaths, supply and demand on utilities etc. The data is incomplete. Those things that ACWA has stated as unavailable or under revision need to be included before the final EIS is released. 96-49

NOISE, VISUAL RESOURCES, SOILS, TERRESTRIAL, AND VEGETATION and other topics (both documents)

ACWA:

p. 6-88 - Elevation of 1500 m is equated to both 4700 and 4800 ft. More precise values are given throughout the PMCD document for all measurements. 96-50

p. 6-113 l. 10: 5 snakes are mentioned, but only 4 species are named
p. 6-113 l. 12: tesselatus 96-51
p. 6-125 last l.: Kaczmarek

PMCD:
p. 4-76 l. 30 are widely available
p. 4-99 l. 36: 5 snakes are mentioned, but only 4 species are named
p. 4-100 l. 1 tesselatus
p. 4-114 l. 18 should be section 4.14.4?
p. 4-117 l. 26 Kaczmarek
p. 4-118 l. 48 Kaczmarek
p. 4-104 Table 4.27 Operation column -Wildlife - "noise effects within 100 m(...) of site" should be in the Construction column to agree with the information in the text
p. 4-172 l. 33: stored
p. 4-173 l. 5: of a closure plan

b. More extensive notes:

Please note: Although the ACWA and PMCD DEISESs are treated separately below, comments for each are relevant to both documents, since the two were compared and contrasted at the same time.

ADDITIONAL COMMENTS:

ACWA:
p. 6-12 l. 18: Pueblo is located West, not east of the Pueblo Chemical Depot. 96-52

p. 6-88 - "Operation of the facilities would not create significant, visible emissions." This is not mentioned in the PMCD document. Will the incineration technologies create visible emissions? 96-53
Document does not discuss transmission lines as a significant impact on the visual resources.

Earthquakes - it appears that impacts of possible earthquakes are not discussed. This is confusing, given that the last earthquake in the area was in 1979. Given the unpredictability of earthquakes, will the buildings of the facility be built to withstand mild to moderate seismic disturbances? This is alluded to in the ACWA discussion, but not stated outright. 96-54

6.13.3.2 and 6.15.3.2 - "Given such low emissions, a screening-level ecological risk assessment would not be warranted." While I appreciate the confidence of the ACWA group in the alternative technologies, it probably is a good idea to measure a baseline level for the flora and fauna in the area, if only to give some poor graduate students some baseline data to use for their theses in the future! In addition, the ecological risk assessment being planned for the Pueblo Chemical Depot as part of the contaminated groundwater clean-up and Depot Restoration plans are not mentioned here. 96-55

Unlike the PMCD document, the ACWA EIS does not discuss potential effects of water use by the facility on nearby aquatic habitats. Air emissions only are considered in the Construction and Operations sections. 96-56

p. 6-124 Table 6.16-1: The list of wildlife not observed at PCD does not include 3 species listed in the same table in the PMCD document on p. 4-118. It appears that the PMCD document has been updated to reflect more recent knowledge of flora and fauna in the area e.g. Vulpes velox and Hybognathus hankinsoni. In addition, on p. 6-126, there is no mention of the swift fox as a federal candidate species. 96-57

p. 6-128: There is no discussion of the possible effects of groundwater usage on pretected species and wetlands. 96-58

PMCD:

p. 4-79 - "No soil contamination would be incurred under incident-free operation" but the ACWA document admits at least a low concentration of contamination may be present from air emissions as a result of normal operations. Given that emissions from an alternative technology are much less than those from an incinerator, as stated several times inthe PMCD document, a discussion of possible soil contamination is warranted, even if the conclusion is that there will be no significant impact from it. Any soil contamination, no matter how small, could have ramifications for agricultural products from the local area.

There is no discussion in this section of possible impacts from a chemical agent spill (although it is given a thorough discussion in section 4.22 Accidents) - while it is assumed that all 4 technologies under consideration would not be significantly different in this respect, there is no acknowledgement of the possibility of a spill and its effect, e.g. during transportation of the munitions from the igloos to the facility. A reference to section 4.22 might be included here.

p. 4-166: The statement is made that other products of mustard hydrolysis would be present at concentrations much lower than mustard or thiodiglycol, and would therefore be less toxic to aquatic biota. This is not necessarily true, as the by-products may be more toxic even at lower concentrations. Statements such as this should be backed up with research data and a list of byproducts of hydrolysis other than thiodiglycol.

p. 4-173: "No closure plans have been developed for any of the proposed locations in the continental US..." - surely these should have been outlined by now, and the effects of such plans considered in the EIS? Any impacts of a potential decision to use the facility for non-stockpile weapons destruction or for any other purpose post-destruction must also be considered in the EIS. A long-term use for the facility beyond chemical weapons destruction would significantly affect long-term impacts of the facility.

Both ACWA and PMCD:

The Final EIS should be updated with the final plans for electrical transmission line locations. The presence of Cnemidophorus neotesselatus, a recently described hybrid parthenogenetic species, is likely, given the presence of its parental species at PCD. 96-59

Neither DEIS mentions the recently completed INRMP ecological assessment for the PCD, which may have more recent and relevant data for the natural resources sections. Nor has a recent survey conducted of Chico Creek and other nearby areas by the Colorado Natural Heritage Program been referenced. 96-60

Neither DEIS mentions in detail the most recent groundwater contamination clean-up efforts currently underway at the Depot. Although these may not have any significant effects, being conducted in the southern part of the Depot, a longer discussion of the systems in use and timeframe for completion, and possible impacts on groundwater and water availability for the proposed facility, may be warranted. 96-61

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

Both DEISes need to add comments on costs. When the Army figures cost, they need to consider that the costs to build and operate are not the only costs. They must also figures the costs to area farmers and ranchers of lost business when the public knowledge that dioxins are being emitted and may be getting into the food chain through purchase of their products. 96-62

Also, the increased medical costs for area residents, many of whom are the working poor who neither qualify for Medicaid nor can afford medical insurance. Any pollutants added to the air may aggravate existing respiratory problems, of which Pueblans have 150% of the level of the rest of the state. SO_2 levels are already high, and may be higher after recently permitted facilities are built. Cancer associated risks from dioxins and other pollutants can add to medical costs. Even for those with medical insurance, coverage is decreasing and costs are rising. Air pollution is a problem in Pueblo, owing to lax enforcement of the Clean Air Act by the state and egregious violations by the resident steel mil. Three coal-burning plants have been permitted for the area (power, cement). Increased expense will be borne not by insurance, but directly by the people. 96-63

APPENDICES (PMCD DEIS)

Notice of Intent p. A-1 l. 34: Is the "single-story incineration process" equivalent to Modified Baseline? If so, why is it considered to be built as a full-scale operation in the DEIS, instead of as a Pilot facility (as stated in the Notice of Intent)? This is very misleading and confusing, and has important ramifications for the relevance of the PMCD DEIS to the Actions being proposed for the PCD.

Will the FDEIS outline a preferred alternative?

p. B-7 l. 22: to, not do, discuss

p. C-7 l. 10-11: Were the PCB emissions monitored from the JACADS DFS significantly lower than standards for the State of Colorado? Permitted levels for CONUS PCB incinerators are not really relevant for this DEIS; besides, it might be expected (although unfortunate) that incinerators specifically operating for the incineration of PCBs are also emitting significant levels of PCBs. Perhaps a comparison to hazardous waste incinerators more similar to those at JACADS would be a little more relevant.

p. C-10 Table C.: Why are so many different units used? These should be consistent, to allow for easier comparison, the CO levels in particular (ppm vs. mg/cubic metre). What is dscm compared to cubic meters?

p. C-12 l. 1-12: Mercury was not the only substance that did not meet emission criteria during the JACADS trial burns. Please detail the "enhanced monitoring, design changes, and operational modifications" necessary to keep mercury emissions below standards.

p. C-18 l. 7: The acronym MPC is not defined.

p. C-18 l. 7: Emissions

p. D-3 l. 22. Please explain the "provisions" that will be made for the protection and evacuation of on-post personnel; **l. 28**: What is "grubbing"?

ADDITIONAL NOTES:

PCD has 4 types of munitions but basically one type of chemical agent. Therefore it seems to make the most sense to build an ACWA technology pilot plant here, rather than an incinerator Pueblo Chemical Depot seems to be one of the most obvious choices for a pilot ACWA technology, particularly since the agents are really only smaller versions of the bulk mustard agent containers at Edgewood, Maryland, where a Neut-Bio facility has already been built. Problems with "heal" of agent to the inside of the munition body seem to have been successfully addressed by the ACWA systems. 96-64

We will be eagerly anticipating the final DEIS with its answers to all our questions. Only when these and other questions are answered will anyone be able to ascertain with some semblance of truth just what the environmental impact will be.

ATTACHED COMMENTS

These comments from Diane Hart should be considered as ours.

Ms. Kimberly Collins
Assembled Chemical Weapons Assessment
Draft Environmental Impact Statement Coordinator
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Bel Air, MA 21015

Mr. Gregory Mahall
Program Manager for Chemical Demilitarization
Public Outreach and Information Office
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Aberdeen Proving Ground, MA 21010-4005

Re: Comments on the Draft Environmental Impact Statements on the Destruction of Chemical Weapons at the Pueblo Chemical Depot.

Before my detailed statements I would like to state that the majority of this community, the local elected officials, state legislators and the congressional delegation are in favor of a neutralization technology. The decision is to be based on cost, schedule, and safety. This community has looked at all the factors and has determined that the neutralization technology is best for this community. 96-65

The Draft Environmental Impact Statements are complex, confusing, and inconsistent. Why are some numbers in metric figures and others in standard numbers? This makes comparisons extremely difficult. 96-66

The PMCD Document seems to be concerned with the chemical agent only. There is no clear long term description of the operations system of the modified baseline process proposed for Pueblo. Modified baseline has not even been designed or tested. Since there is no data on it, why is it not considered a pilot process? The ACWA technologies had to do a pilot program that was highly scrutinized. Why is this different for modified baseline?

The **water** issue is extremely confusing and needs a great deal of explanation. The water rights need to be spelled out in detail. Where are the sources for the water? Where will additional water be purchased? When speaking about water issues the terms "used," "consumed," "recycled," and "processed" need to be clarified. 96-67

The **agricultural** impacts are virtually ignored. This is a critical issue that must be addressed. 96-68

Regarding **Waste Management,** PMCD 4.6.3.2, p. 4-25, notes that the neutralization facilities would produce brine salts that could contain significant amounts of heavy metals. Why is there no mention of heavy metals in wastes with the incineration facility? Are the heavy metals going out the stack and into the air with this technology? There is no mention by PMCD or ACWA as to the exact location where the hazardous wastes are to be shipped. 96-69

Noise Resources (PMCD 4.10.3, pp. 4-69; ACWA 6.8.1., p. 6-84): The EPA has set 55 db(A) for daytime noise levels and 50 db(a) for night levels. PMCD states that it will meet the daytime levels and that there will be no construction at night. If the treaty deadl. of April 2007, which the Army said it c an meet, the facility would require 24-hr. Construction and the nighttime noise levels could not be met. 96-70

Visual Resources (PMCD 4.11.2-4, p. 4-72): The emission stacks for the incineration technology would be 140 feet high, compared to 100 feet high for neutralization technology. The stacks would be visible to most offpost viewers. This would create a cumulative impact on this community which already has the image of stacks, from a steel mill, power plants, and a proposed cement plant, to name a few. There is no mention of visibility impacts from the operating stacks.

What are the emissions? How high do they go? What is their opacity? And what is the dissipation rate? What are the allowable limits? There is no mention of visibility impacts from fugitive dust emissions created by construction and those limits.

Air Emissions for all technologies and very poor and must be addressed in more detail. There should be a comprehensive chart listing all emissions from all sources in all technologies and the amounts in standards American figures, including tons per year. 96-71

If there are any questions concerning the above comments, I can be contacted at (719) 948-0071 or 29685 Hegler Ct., Pueblo, CO 81006.

Sincerely,

Diane Hart

End of Comments

Signature Pages Follow

COMMENTS ON PMCD DEIS & ACWA DEIS
Citizens for Clean Air and Water in Pueblo and So. Colorado, et.al. 8-9-2001, pg 1

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COMMENTS ON PMCD DEIS & ACWA DEIS
Citizens for Clean Air and Water in Pueblo and So. Colorado, et.al. 8-9-2001, pg 2

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COMMENTS ON PMCD DEIS & ACWA DEIS
Citizens for Clean Air and Water in Pueblo and So. Colorado, et.al. 8-9-2001, pg 3

The above sign for themselves and on behalf of the following individuals and identified organizations:

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COMMENTS ON PMCD DEIS & ACWA DEIS
Citizens for Clean Air and Water in Pueblo and So. Colorado, et.al. 8-9-2001, pg 4

....and on behalf of the following additional individuals and identified organizations:

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00097

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 97-1

NAME: J.E. Herzberger

STREET ADDRESS: 5446 Stonemoor Drive

CITY: Pueblo, CO

ZIP CODE: 81005

Logic tells me that neutralization will keep the products of the process "captive" until they are known to be harmless. Incineration of the other hand are bound to have breakdowns when non combusted elements/poisons are released in to the air. Once this happens control of them is lost. 97-2

00098

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: I want the mustard gas to be neutralized (Neutralization), Keeping it self-contained. I DON'T WANT INCINERATION!!! 98-1

NAME: Shirley A. Lewis

STREET ADDRESS: 39 Massari Rd.

CITY: Pueblo, Co

ZIP CODE: 81001

I DON'T WANT ANY CHEMICALS that might get into the air to KILL PUEBLOANS or my relatives who live out out in eastern Colorado.

00099

500 Pinnacle St.
Berea, KY 40403
August 2, 2001

Mr. Jon Ware
Assembled Chemical Weapons Assessment EIS
9700 S. Cass Ave./PO Box 8369
Argonne, Illinois 60439-4871

Dear Sir:

For over ten years I have been following and learning about the need of disposing of the mustard and nerve gasses and other chemical weapons which are stored at the Blue Grass Army Depot in Madison County, KY.

We live ten miles from it, Eastern Kentucky University is only three miles and Berea College is ten miles away. Elementary and Junior High schools are two miles from the depot along with homes and businesses.

I feel non-incineration technology is the only safe way of disposal. I am informed that electrochemical oxidation might be the best method. Also I have faith that you at ACWA have the right method. I strongly support the opinions and research findings of Craig Williams who promotes using alternative methods instead of incineration. 99-1

These safe methods of disposal are necessary to maintain the health and safety of the many people living especially in Madison County.

Sincerely,

Mrs. Roberta Schaeffer

Mrs. Roberta Schaeffer

00100

500 Pinnacle St.
Berea, KY 40403
August 3, '01

Mr. John Ware
Assembled Chemical Weapons Assessment EIS
9700 S. Cass Ave./PO Box 8369
Argonne, Illinois 60439-4871

Dear Sir:

I attended my first public meeting concerning the disposal of the chemical weapons including nerve gas, at the Blue Grass Army Depot over ten years ago. I know the emissions from their incineration is loaded with cancer producing ions and chemicals which would adversely affect the many people living nearby and those students going to colleges and schools in the three - ten miles radius of the Blue Grass Depot. Their lives would be placed in jeopardy for both short term and long term health. 100-1

I strongly support chemical meutralization of all the weapons to be disposed, namely the electro-oxidation as the best and safest one. The ACWA EIS draft shows it to be environmentally friendly and safe for us people. 100-2

Sincerely,

E W Schaeffer MD

E. W. Schaeffer M. D.

00101

July 30, 2001

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Assembled Chemical Weapons Assessment
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RE: Comments on the Draft Environmental Impact Statements

Dear Ms. Collins and Mr. Mahall:

Attached are the comments for the Draft Environmental Impact Statements for both the PMCD and ACWA DEIS from the Boone/Avondale Citizens Alliance (BACA). Please accept the following comments concerning the destruction of the chemical munitions at the Pueblo Chemical Depot. If you should have any questions please feel free to contact me.

Sincerely,

Mitzie Martinez
Director
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cc:
John Klomp, Pueblo County Commissioner
Michael Wenstrom, EPA Office of Environmental Justice

Both DEIS' fail to address agricultural impacts. There is no data in either DEIS's regarding impacts during the construction or operation of the facility. **101-1**

Regarding agricultural impacts, in both DEIS' there is no data regarding cumulative impacts to crops, livestock or grazing land from emissions. It is unclear as to the impacts to surface water or groundwater as it relates to livestock and crops. **101-2**

Regarding agricultural impacts, in both DEIS' there is insufficient data regarding socioeconomic impacts as a result of an accidental spill or release of mustard agent. In meeting with both PMCD and ACWA officials, they have indicated that in the case of an accidental spill or release of mustard gas the percentages were negligible. However, for the small communities of Avondale and Boone even a small percentage could have devastating socioeconomic impacts. **101-3**

It is indicated in both DEIS' that the region of influence for agricultural issues was a five county region but, the counties are not named in the PMCD DEIS . These counties need to be clearly named in both reports. **101-4**

Regarding agricultural impacts, the PMCD DEIS indicates that CHPPM is preparing a study on the potential impacts of a routine release of agent on agricultural production and that the study will be released and evaluated before the destruction operations at PCD commence. This report should have been done prior to and included in the DEIS' and for the FIES'. Additionally, it is unclear if this study will include data on cumulative impacts. **101-5**

Regarding agricultural impacts, in both DEIS' there is no information provided regarding "perceived' contamination and how the Department of the Army will reimburse those affected. **101-6**

The PMCD DEIS should provide data that demonstrates that modified baseline is as safe as baseline incineration.

In the PMCD DEIS, there in no information regarding verifying that the munitions bodies have been properly punctured and what happens in the event that a shell is punctured but somehow gets plugged and is fed into the incinerator.

In the PMCD DEIS, the facility is referred to as a full-scale facility. However, according to the Notice of Intent (NOI) that was filed it states that with the exception of baseline incineration technology, all other technologies would be built as a pilot project. Therefore, the PMCD DEIS is erroneous by referring to modified baseline incineration as a full-scale facility for Pueblo.

In the PMCD DEIS, it indicates that baseline is a demonstrated destruction process and therefore, the modifications done for the Pueblo site would not be new technology. This statement is misleading since one of the key aspects of the modified version is that the frozen chemical agent would be fed into the incinerator while it is still inside the

munitions body. This key aspect of the process has not been properly tested and therefore should be characterized as an undemonstrated process. Modified baseline should be characterized as a pilot project and not as a demonstrated destruction process.

Additionally, trial burns would need to be conducted of the modified baseline incineration. Again, this should characterize modified baseline as a pilot project and not as a demonstrated destruction process.

In the PMCD DEIS, the Certificate of Designation needed for the incineration process is not considered. This step in the permitting process needs to be included in the FIES.

In the PMCD DEIS, for modified baseline incineration, transportation of the munitions to the destruction facility will be done by Modified Ammunition Vans (MAV's). With the neutralization processes the transportation is will be done with on-site containers (ONC's). Why is there a difference is the type of transportation being used for each process, since the munitions are identical? In the ACWA DEIS, there is no indication on how the munitions will be moved from the storage igloos to the destruction facility. Both reports need to clearly specify how the munitions will be transported.

In the PMCD DEIS, all numbers provided are done so in metric. In the ACWA DEIS, they are done in the standard American system. This makes comparisons difficult and confusing. This also adds to the amount of time needed to properly review the DEIS'.

In the ACWA DEIS, data is provided that characterizes the air and gases generated by the alternative technologies during the process. In the PMCD DEIS, there is no monitoring of the air and gases that are generated by baseline or modified baseline during the process. PMCD should be required to provide data that characterizes what air and gases are being generated between volatilization and the afterburner. Otherwise it is impossible to do a reasonable and/or a fair comparison of the different technologies.

In both DEIS', since there is no information that characterizes what air and gases that are being generated between volatilization and the afterburner in the incineration process it is impossible to predict what emissions there will be, what impacts on air quality there will be and consequently the types of accident scenarios.

Regarding emissions, in both DEIS', the Department of the Army indicates that no significant impact will result from the construction or operations of the facility because the emissions from the facility will not be above the limits set by the State of Colorado. This is misleading since adverse impacts can and do occur when emissions levels fall within set limits. **101-7**

Air emissions for the alternative technologies were not included in the PMCD DEIS. It is impossible to do a reasonable and/or a fair comparison of the different technologies if this information is not available in both EIS'.

Several times in the PMCD DEIS, it states that the air emissions are within established set limits. It is unclear what established set limits are used in determining this. It should clearly state which guidelines were used.

In the PMCD DEIS, it is unclear if the new EPA Maximum Achievable Control Technologies (MACT) rules were used for air quality. It should clearly state if the MACT rules were used for the air quality.

Regarding emissions, in the PMCD DEIS, there is no information that indicates when the Department of the Army will determine that mercury vapor emissions are no longer in compliance as a result of incineration. The only "solution" provided in the PMCD DEIS is a slow down of the destruction process. This process just releases the vapor at a slower rate. This is not a solution. This only allows the facility to stay in compliance.

Regarding emissions, in the PMCD DEIS, if you use the "solution" of a slow down of the destruction process to deal with the mercury vapor emissions then all the calculations for plant operations are inaccurate.

Both DEIS' have indicated that there would be cumulative negative impacts in which water might be diverted from other projects and there might be higher water prices. There is no indication what the other projects might be and it is unclear to what extent it would have on "agriculture". **101-8**

Additionally, in both DEIS' it does not indicate what socioeconomic impacts there would be as a result of higher water prices. Both reports indicate the impacts would be negligible, but there is no data to support this statement. Also, there is no data to indicate how the impacts were assessed and if it included extreme situations, such as several years of drought. **101-9**

Both DEIS' are unclear as to what amount of water is "consumed" and water that is "used". These terms have two very different meanings. Water "consumed" is not returned to the water basin. Water that is "used" is returned to the water basin. The amounts need to be clearly defined. **101-10**

Both DEIS' are unclear on the amounts of water that is recycled and the amount of the recycled water that is consumed/used. These amounts need to be clearly defined. **101-11**

Regarding groundwater, both DEIS' indicate that the terrace alluvial aquifer located under PCD and the Arkansas River Valley aquifer are not hydraulically connected. Yet, both cite the Rust, Inc. (1997) report that found some connection between aquifers in a narrow alluvial channel near Unnamed Creek in the south central portion of PCD. The information in the Rust, Inc. (1997) should be fully discussed and evaluated for impacts to groundwater. **101-12**

Regarding groundwater, both DEIS' indicate that if necessary they will purchase additional water for the operation of the facility. However, the Department of the Army **101-13**

own "junior" rights. In a drought season, they may not be able to withdraw additional water. The DEIS' do not indicate what would happen in this situation. **101-13**

Regarding groundwater, both DEIS' do not address the possibility of an impact of operation being the lowering of the water table. Should this occur how is Department of the Army going to reimburse those affected? **101-14**

Regarding sanitary wastes, both DEIS' have indicated needing to expand or build new evaporative lagoons. However, there is no information regarding the current condition of the existing lagoons and if they meet state and local permit requirements. **101-15**

In the PMCD DEIS, there is no information regarding the pre-treatment of the sanitary wastes before they are put into the lagoons. Both documents should address this issue. **101-16**

In both DEIS', there is no information or discussion on using contaminated water in the destruction process. This information could be helpful in determining if there would be an added benefit with each technology. **101-17**

Regarding aquatic habitats and fish, in the ACWA DEIS, there is no information regarding the impacts on Haynes and Boone creeks during construction and operation. Likewise, it is unclear it there is any impacts based on the PMCD DEIS. **101-18**

Both DEIS' indicated that the electrical sub-station could be used in the redevelopment of the Pueblo Chemical Depot after the demilitarization process was complete. Neither DEIS can support these statements if the proper infrastructure is not implemented. The sub-station must be built with a 13.2Kv standard in order to provide enough power to the entire base. The same goes for other infrastructure. It must be sufficient for the entire base not just the demilitarization facility in order for it to used for future redevelopment. **101-19**

In the PMCD DEIS, the brine that is estimated to be generated is approximated daily and over the life of the project. In the ACWA DEIS, the amount of brine generated is estimated annually. This makes comparing the technologies difficult. Both reports should list the amounts similarly. **101-20**

Regarding noise impacts, in the PMCD DEIS, there is no information that in the case the facility would have to be used on a 24 hour basis in order to meet the 2007 treaty deadline and if this would exceed nighttime noise limits.

Both DEIS' used the 1990 census information to determine the minority population of the immediate vicinity of PCD. Whereas, the reports acknowledge that the 1990 census does not account for the migrant/seasonal population of the area. There is other data available to help determine the percentage of this population. Otherwise the reports are incomplete. **101-21**

Regarding environmental justice, the ACWA DEIS used the national census figures for 1990 and the PMCD DEIS used the Colorado census figures for 1990. Both reports **101-22**

should include both national and Colorado census figures in addition to databases that reflect the migrant/seasonal worker populations of the area. It is unclear why the information is presented differently in each report. It makes reviewing the material difficult and confusing. **101-22**

Regarding environmental justice, in both DEIS' the analysis considered population characteristics within a 50km radius. The ACWA DEIS indicates that there were 62 census tracts within this 50km radius. The PMCD DEIS breaks these tracts down to those completely within the 50km radius and those partially within the radius. It is unclear why the figures for the census tracts are reviewed differently. But, it makes reviewing the material difficult and confusing. The information should be presented in like formats for easier comparison. **101-23**

Both DEIS' do not address the socioeconomic or housing impacts to the migrant/seasonal worker population of the area. There is currently a severe lack of migrant and/or low-income housing available. These impacts are not addressed in the reports. **101-24**

Both DEIS' do not properly address housing issues for the population as a whole or the influx of workers during construction. Current housing costs and rental costs in the area are in the higher price range. There is currently a severe lack of low-income housing available. These impacts are not addressed in these reports **101-25**

Regarding socioeconomic impacts, both DEIS' are unclear on the payment of taxes. It should be clearly defined who will be paying both property and sales taxes. **101-26**

The socioeconomic impacts of both DEIS do not reflect the information provided by the Institute for Defense Analysis estimation that only 10% of the overall project budget will be spent in Pueblo. These documents should be in agreement on the amount estimated. **101-27**

ACWA DEIS addresses emergency response under human and health risks. The PMCD DEIS only addresses this issue under mitigation and monitoring. PMCD needs to properly address this issue under human and health risks as well.

Regarding human and health risks and emergency response, the ACWA DEIS indicates that there is a Memorandum of Agreement with the Boone Volunteer Fire Department (BVFD) to provide emergency response assistance to PCD. There is no information to as to the training and qualifications BVFD has in dealing with the type of emergency that would most likely arise at the PCD and therefore it is impossible to determine if this assistance could be reasonably counted upon. There is no information regarding the TTC Fire Department and the Pueblo Rural Fire Department's training and qualifications as well. **101-28**

Regarding human and health risks, in the PMCD DEIS, the number of injuries listed during operation of the neutralization processes is listed as 82. But, in the ACWA DEIS, the number of injuries listed during operation of the neutralization processes is listed as 30. What is the reason for the discrepancy in these figures? **101-29**

Both DEIS' are unclear regarding the number of in-migration workers and transient workers and how many workers could be hired locally. **101-30**

Definitions of what an in-migration worker and what is a transient worker is should be clearly defined in both DEIS'. **101-31**

Both DEIS' have used a multiplier of 7% in determining indirect jobs as a result of direct employment. This is an unreasonably high number. It should be a 3-4% multiplier to reflect a more accurate figure. **101-32**

In the ACWA DEIS, it discusses an accident that would occur during operations and an accident scenario for "no action". The PMCD DEIS only discusses an accident scenario for 'no action". It is unreasonable for PMCD DEIS to assume that an accident would only occur during "no action". Both scenarios need to be discussed in the PMCD DEIS. The incident of an airplane crashing into an igloo under "no action" is just as likely during operations.

The PMCD DEIS has not properly discussed the maximum credible event. In public discussions, the event where the of a loss of power would occur and the emergency generations would fail to go on has been characterized as impossible. This is very misleading, since such an event has already occurred at Tooele. In which case, the public should be made aware of the possibility of such an event and its impacts and that data should be included in the FEIS'.

00102

From: larry.sparks@wgint.com

Sent: Wednesday, August 08, 2001 4:08 PM

To: acwacomment@anl.gov

Cc: Samuel J. Kasley (E-mail); Tom McCord

Subject: Comments to Draft Environmental Impact

Mr. John Ware,

Comments are attached for your consideration on the ACWA Draft Environmental Impact Statement (DEIS). This DEIS is for the Design, Construction, and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapon Destruction Technologies at One or More Sites published in the Federal Register on May 9, 2001.

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ACWA DEIS – Comments and Observations

1. Comment: The information in both the baseline and ACWA DEIS should be consistent in the different tables. For example, different units of measurement were used in the documents made available for comment (e.g., water use was reported in gpy and acre fpy). Some of the numbers appear to be different (e.g., for utility use and other operational parameters), in part, because of rounding differences. 102-1

2. Comment: There is limited safety and health information on the ACWA processes. The DEIS should acknowledge this and provide as much comparison/data as possible and describe how the missing data will be gathered, published, and evaluated. At a minimum, standardized data tables between the various technologies should be provided. If data is not available, or if the data is predicated on design rather than demonstration, the table could note the basis of the data. 102-2

3. Comment: Water availability is a major issue in Colorado. Specific comparisons of water usage and wastewater discharges versus the brines generated from all processes should be presented 102-3

4. Question: How does the cost of all technologies' power usage compare, especially with new and higher electricity and gas prices, to baseline/modified baseline technology? Although additional power requirements are cited, the economic impact would provide a clearer picture of all alternatives. 102-4

5. Comment: The DEIS should address the throughput and life cycle schedules, to include the processes' ability to meet CWC completion dates, and the resulting impact to the environment. 102-5

00103

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Mr. Ware,

Enclosed are my comments in response to the Draft Environmental Impact Statement for the Assembled Chemical Weapons Assessment.

My comments primarily apply to two sections of the Draft EIS for ACWA technologies: *Accidents Involving Assembled Chemical Weapons* and *Human Health and Safety*. These comments introduce specific concerns in regard to complexity. I would like the concern with complexity, as conceptualized in these comments, introduced into the ACWA EIS. There are also some related comments regarding schedule and costs.

For your information I am including various ways I can be contacted:

University e-mail: Richard.Futrell@acs.eku.edu
University phone: (859) 622-1581 or (859) 622-1644

Home e-mail: itsus@apollo.chapell.com
Home phone: (859) 527-3352

I am most easily contacted at home prior to 9/20/01.

Thank you for your consideration and I look forward to the response to my comments.

Sincerely,

R. Futrell

Richard Futrell, Ph.D

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Comments Submitted for the Draft Environmental Impact Statement for Assembled Chemical Weapons Disposal

Dr. Richard Futrell
Department of Anthropology, Sociology, and Social Work
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Summary of Comments

- Essential Considerations Related to Human Health and Safety and to Accidents are Missing from Risk Analysis
- Two Characteristics of Chemical Weapons Disposal Technology Need to be Included in Risk Analysis
  - Complexity of Interactions Among Failures in the Components of the Overall Technology
  - Degree of "Tight Coupling" Among Components of Overall Disposal Technologies
- Probabilities of Adverse Health and Safety Consequences, and of Accidents are Increased by Technologies with Tight Coupling and Complex Interactions
  - Control of Technology
    - Necessity for Centralized Authority
    - Necessity for Decentralized Authority
    - No Social Structural Solutions are Possible to Management in Systems Containing the "Centralization/Decentralization" Contradiction
- Schedule
- Costs
- Conclusions

Essential Considerations Related to Human Health and Safety and to Accidents are Missing from Risk Analysis

All technologies being considered for the disposal of chemical weapons are complex in the usual sense of being sophisticated technologies with many parts and involving complicated operations. My comments are not about this sense of complexity. My comments are developed from a point of view based in Charles Perrow's concept of "normal accidents." (Perrow, 1984, ; 1994)[1] From this point of view there can be seen essential risk considerations which have not been assessed in the ACWA EIS.

Two Characteristics of Chemical Disposal Technology Need to be Included in Risk Analysis

Charles Perrow (1984) characterizes overall risk of technological systems along two dimensions. One dimension has to do with how complex a total technological system is in terms of the *interactions among failures* or malfunctions in normal operating procedures and component processes. The second dimension has to do with how *tightly* the separate components within the total technological system are *coupled*. 103-1

I have neither read in documents nor heard at public meetings what I feel is a sufficient discussion of risk analysis based on these two dimensions of risk. It is also my impression that discussions at public meetings have not adequately dealt with risk based on this specific type of complexity. I agree that all technologies for the disposal of chemical weapons have risks based on the fact that they require sophisticated and complicated engineering processes and forms of social organization. However, I am concerned that the technologies currently under consideration do vary in terms of *coupling* and *interactions among failures* of normal operating processes and procedures. Furthermore, I think that the effects of variation on these two dimensions is essential to risk analysis considered in choosing technology for chemical

[1] Charles Perrow is Professor of Sociology at Yale University. He has spent many years studying complex systems both empirically and theoretically. His work is highly respected in several fields, including Sociology of Formal Organizations; Management; Technology; and Risk Assessment.

weapons disposal.

Complexity of Interactions Among Failures in the Components of the Overall Technology

Perrow characterizes risk along two dimensions. One dimension, *interactions*, characterizes the type of consequences which flow when a technology "...with a lot of components [has] two or more failures among components that interact in some unexpected way." (Perrow, 1984, p.4) The emphasis is on the fact that multiple technological failures can interact with each other and create new situations that are not reducible to any one of the failures. *Complexity*, in Perrow's meaning, has to do with the potential of a system to develop complicated, intertwined, non-sequential interactions among component failures. The *complexity* of a system increases, in Perrow's meaning, with increases in the potential of some failures to interact with and escalate the problems of other, simultaneously occurring failures, and for these interactions to create new problems - some of which may have never been previously encountered or even imagined as possible. Universities, government bureaucracies, chemical plants, nuclear electric generating plants, and research and development labs are complex in this sense. Malfunctions in two or more components of these systems have a great potential to "feed on one another" and bring about new situations which are not part of the design, which no one has ever encountered before, some of which may be hidden from observation, for which there are no currently existing procedures, and which take time to figure out before anyone knows how respond.

Failures on assembly lines, in trade schools, during continuous processing such as bread or drug manufacturing, have "linear" relationships, that is, the component failures do not escalate into complex interactions among themselves. These are failures that occur in "...expected and familiar production or maintenance sequence, and those

that are quite visible even when unplanned." (Perrow, 1984 p.78)

Linear failures do not have great potential to feed on one another. The low potential for failures to interact in ways that escalate problems may be because components are not connected in multiple "feedback loops", the system may be a single or limited goal organization, parts can be turned off easily and quickly without effecting safety, failures occur as a sequence and can be understood relatively clearly and the steps for solving the problems are also relatively clear.

The issue conceptualized by *interaction* is not the complexity of the organization of the system or the complexity system components themselves. The issue is the complexity of the *interactions* among multiple, simultaneous failures of normal operations of the system and its components.

Degree of "Tight Coupling" Among Components of Overall Disposal Technologies

The second dimension Perrow uses to characterize risk is *coupling*. Coupling refers to the *interdependence* characteristics of various components of an overall system. "System" includes both technological components and human social organization.

Coupling characterizes the extent to which "...processes happen very fast and can't be turned off, the failed parts cannot be isolated from other parts, or there is no other way to keep the production going safely." Problematic events occurring in systems that are tightly coupled are more likely to set off other problematic events than in systems that are not tightly coupled. *Coupling* has to do with how much slack there is between one component and another component in a system. Coupling affects how quickly malfunctions escalate in relation to how quickly remedial actions can be taken. The more *tightly coupled* system components are, the less response time there is in

problematic situations. Problematic situations have greater potential to escalate into serious events in tightly coupled systems than in loosely coupled systems. Dams, railroads, and airplanes are tightly coupled. Assembly lines, most manufacturing, and government services such as the post office are loosely coupled systems. Components in a loosely coupled system can often operate for a time independently of components which may be experiencing failures.

Probabilities of Adverse Health and Safety Consequences, and of Accidents are Increased by Technologies with Tight Coupling and Complex Interactions.

Perrow classifies systems as falling somewhere in the space of four categories created by combining the two dimensions of *interaction* and *coupling*. This categorical space and some examples of existing systems in each category are shown in Figure 1 (from Perrow, p. 327, 1984.)

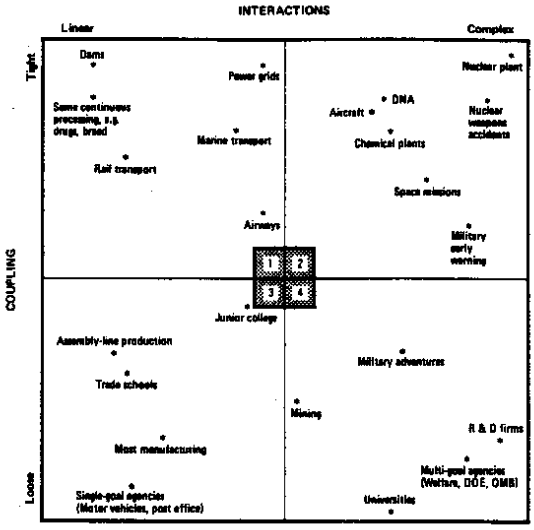

Figure 1 Interaction/Coupling

Control of Technology

Perrow's work has shown that both tight coupling and complex interaction among failures independently increase the difficulties management and "line" personnel face when trying to control effects that problems in multiple components, technological or organizational, have on the operation of other components. Combining these two system characteristics dramatically intensifies the risk potential of a technology by increasing the probabilities of unimagined consequences. (See Appendix One for an excellent "everyday" illustration from Perrow, 1994.)

When previously unimagined consequences occur in a system's operations it is important for personnel to develop informed responses in order to manage the consequences adequately. The necessity for informed response in tightly coupled systems with complex interactions among failures presents organizational management with two contradictory requirements. These contradictory organizational requirements are built into the social structure and are thus impossible to "fix" by reorganization of management practices, line personnel training, or by periodic modifications of the technology. (In fact modifications of technology can increase risk by increasing the potential for complex interactions among failures.)

Necessity for Centralized Authority

One organizational requirement for managers of tightly coupled systems with the potential for complex interactions among failures is the necessity of *centralized authority* and immediate unquestioning response by line workers to management commands. Centralized authority is necessary because malfunctions in technologies with complex interactions among failures in components which are tightly coupled leave little time for "hands on" workers to analyze, discuss and develop responses before incidents escalate rapidly into serious events.

Rapid and unquestioning response to centralized commands

is necessary in systems that are tightly coupled, and have the potential for highly complex interactions among failures in system components.

Necessity for Decentralized Authority

The second organizational requirement presented to managers and workers in tightly coupled technologies with potential for complex interaction among failures is for *decentralized authority*. A decentralized social structure is necessary because personnel who are face to face with the unique problematic situations resulting from interacting malfunctions must have the time and authority to imagine possible causes and to explore those possibilities. In order to imagine and explore possibilities, they must talk with and question each other about not only their own "on site" ideas, but also those of managing engineers, and of the standard operating procedures. Hands on personnel must have time to try various responses to the interacting malfunctions, to watch the consequences of their trials, and to make informed judgments based on the consequences of their actions.

Considered and questioning response,rather than obedience to commands, by hands on workers is necessary in tightly coupled systems with complex interactions among malfunctions.

These conflicting social structural necessities present management with the *contradictory* organizational requirements for rapid response and unquestioning obedience, and simultaneously, for slow response and critical questioning. The first necessity, rapid response and obedience, requires a centralized organizational structure with strict lines of command and little conversation among line workers. The second necessity, slow response and critical questioning, requires a decentralized organizational structure with negotiated decision making and free movement of conversation among personnel.

Management choice of *centralized* authority decreases total organizational effectiveness in controlling malfunctions, especially those previously unimagined. This decrease in effectiveness stems from *organizational inability* to allow sufficient time for studying the problem, especially by "hands on" personnel who have the experience necessary for reasoning about the "quirks" of the technology.

Management's choice of *decentralized* authority will decrease total organizational effectiveness in controlling malfunctions because decentralization slows down organizational response to rapidly developing events.

The consideration of centralization/decentralization is shown in Figure 2. (From Perrow, 1984, p.332)

Centralization/Decentralization of Authority Relevant to Crises

COUPLING	INTERACTIONS: *Linear*	INTERACTIONS: *Complex*
Tight	CENTRALIZATION for tight coupling. CENTRALIZATION compatible with linear interactions (expected, visible). Dams, power grids, some continuous processing, rail and marine transport. 1	CENTRALIZATION to cope with tight coupling (unquestioned obedience, immediate response). DECENTRALIZATION to cope with unplanned interactions of failures (careful slow search by those closest to subsystems). Demands are incompatible. Nuclear plants, weapons; DNA, chemical plants, aircraft, space missions. 2
Loose	CENTRALIZATION or DECENTRALIZATION possible. Few complex interactions; component failure accidents can be handled from above or below. Tastes of elites and tradition determine structure. Most manufacturing, trade schools, single-goal agencies (motor vehicles, post office). 3	DECENTRALIZATION for complex interactions desirable. DECENTRALIZATION for loose coupling desirable (allows people to devise indigenous substitutions and alternative paths), since system accidents possible. Mining, R&D firms, multi-goal agencies (welfare, DOE, OMB), universities. 4

Figure 2 Centralization/Decentralization of Authority Relevant to Crisis

No Social Structural Solutions are Possible to Management in Systems Containing the "Centralization/Decentralization" Contradiction

Increasing management centralization to deal with problems that emerge from tight coupling increases the difficulty of dealing with problems that emerge from complex interactions among multiple malfunctions.

Solutions for the unresolvable paradox continually faced by management due to this social organizational contradiction begins with choice of technology. Reducing overall technological risk by choosing an effective technology with the least possible tight coupling and lowest potential for complex interaction among malfunctions will change organizational requirements, perhaps to the point of not only mitigating the contradiction and the resulting management paradox, but of eliminating them altogether..

Revising and upgrading training; and instituting engineering and technology *modifications* to basic systems, such as adding redundancies, using lessons learned about past incidents, can be effective in reducing risk up to a point. However, when a system requires continual modifications, the modifications themselves can add to the probability of unexpected problems emerging from interactions among multiple malfunctions, thus making the basic technology even more risky.

Schedule

I have a very brief comment about schedule. It seems to me to be common sense that tightly coupled technologies with highly complex interactions among system failures will have more delays than more loosely coupled technologies with less potential for complex interactions among failures.

Costs

I understand that risk and schedule are more central

concerns than cost. However, cost is important, especially when dealing with congressional decision makers. As with schedule, it seems to me that systems with more loosely coupled technologies with the least complex interactions among system failures will be less costly over the long run.

Conclusions

Choice of technology is fundamental in reducing the type of risk that emerges in tightly coupled systems that have high potential for complex interactions among component failures. I urge that the ACWA EIS evaluate the technologies under consideration in terms of this type of risk and make the results available to the public. I am also asking that this analysis be explicitly brought to the attention of decision makers, for example in the DAE process. When the analysis is brought to the attention of decision makers, I further request that base line technology be included. An example of the type of results that can be expected from this type analysis are shown in Figure 3. (From Perrow, 1984)

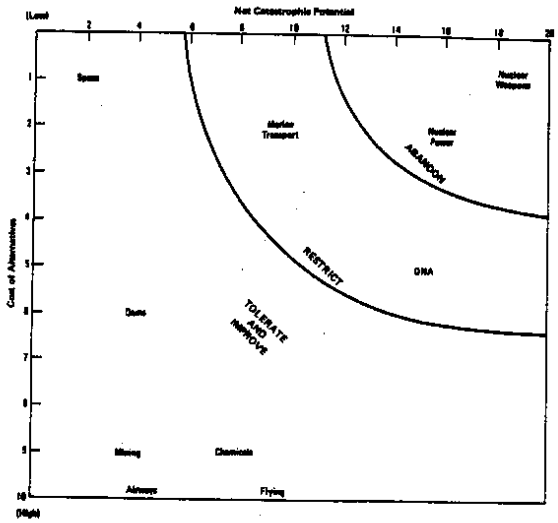

Figure 3 Policy Recommendations

At this point in my own considerations I do not know how the various ACWA technologies will come out relative to each other in an analysis such as suggested here. I suspect that they will cluster toward the center of Fig. 1; fall close to, and perhaps some will fall within, the category "Centralization or Decentralization" category in Fig. 2; and, within the "Restrict" region of Fig 3. At least some ACWA technologies may fall in the "Tolerate and Improve" region of Figure 3. Any of the ACWA technologies which do fall into the "Tolerate and Improve" region should be given priority according to the analysis discussed in these comments.

I am encouraged by my confidence that in a "normal accidents" comparison, *any* of the ACWA technologies will rate much better than baseline technology in terms of human health and public safety, risk of accidents, and even considerations of schedule and cost . 103-2

Bibliography

Perrow, Charles; Normal Accident: Living with High Risk Technologies. Basic Books; New York; 1984

Perrow, Charles; "Accidents in High Risk Systems." *Technology Studies*, 1/1, 1994, 1-20.

R. Jutrite

Appendix
An "Everyday" Illustration of Interaction Among Failures

[Quoted from Perrow: "Accidents in High Risk Systems." *Technology Studies*, 1/1, 1994, 1-20.]

"Take the following sequence of events: I am suddenly short of time in the morning because the coffee pot broke (failure 1, nothing is perfect). I left the car keys on the table and hurried out of the apartment (failure 2, related to failure 1 because of the tension). I cannot get back into the apartment because the keys are on the ring with the car keys (failure 3, since there is a common source it is called a 'common mode failure'). I have a spare apartment key hidden for just such occasions (a redundancy, designed in), but lent it to a friend who was returning some books (failure 4, occurring independently of failures 1-3, and a failure only because of an interaction with a remote part of the system, rather than something breaking or performing below standards). There is a bus system, a redundant path, but it is just so happens that the owners have locked out the drivers due to a safety dispute (failure 5, independent again). I go to my friendly neighbor who has a car he rarely drives, but he tells me that the battery is dead and the service truck will not be there until later in the morning (failure 6, independent). I use his phone to call a taxi, but of course there will be a two-hour wait because of the bus lockout (failure 7, common mode). I call the boss: 'just one of those crazy days when everything seemed to go wrong' and she says, 'including the contract signing with X and your possible promotion.' This is an example of an unexpected interaction of failures; it leads to a complete break down of the routine of going to work."

00104

STATE OF COLORADO

OFFICE OF EMERGENCY MANAGEMENT
Tommy F. Grier, Jr. - Director

DEPARTMENT OF LOCAL AFFAIRS
Division of Local Government

Bill Owens
Governor

Bob Brooks
Executive
Director

August 9, 2001

Mr. Gregory Mahall
Program Manager for Chemical Demilitarization
Public Outreach and Information Office
Building E-4585
Aberdeen Proving Ground, MD 21010-4005

Re: Comments on the Draft Environmental Impact Statement

Dear Mr. Mahall:

The following comments are in regard to the ***Draft Environmental Impact Statement*** for the ***Destruction of Chemical Munitions At Pueblo Chemical Depot, Colorado.*** The comments focus on this agency's area of expertise, i.e., the State of Colorado and emergency management, particularly as it relates to the Chemical Stockpile Emergency Preparedness Program (CSEPP).

The State Of Colorado Office of Emergency Management endorses and adopts in full as its position in this matter the response and comments of the Pueblo County Department of Emergency Management filed this date and signed by Mr. Steven Douglas, Director.

104-1

These issues have clearly been oversights and errors at some stage of the process and their unexplained inclusion in the released Environmental Impact Statements will undermine years of understanding and credibility with the public. Should you have any questions on this matter please contact me at (303) 273-1829. Thank you for your attention.

Sincerely,

David W. Holm, .
CSEPP Program Manager and Deputy Director

15075 South Golden Road, Golden, Colorado 80401-3979 (303) 273-1622 FAX (303) 273-1795 TDD (303) 273-1794

00105

Comments on the Draft Environmental Impact Statement for ACWA and PMCD Technologies
Pueblo Chemical Depot
Pueblo, Colorado

June 6, 2001

I consider myself to be one of the fortunate few in Pueblo who have had the time to research the pros and cons of the various technologies for mustard agent disposal.

I have attended three of the most recent CAC meetings, had many conversations with local politicians and the Sierra Club as well as being able to meet with the contractors who will be bidding on the project. Also, my husband was able to tour the Neutralization/Biodegradation Facility located at the Army's headquarters in Aberdeen, Maryland.

So far, I have only been able to read about the water issues in the Draft Environmental Impact Statements, however, I am confident that I have educated myself enough to reach a decision based on pretty thorough research.

I support the Neutralization/Biodegradation Technology for the mustard agent disposal at the Pueblo Chemical Depot. Besides being very impressed with the health and safety aspects of the Neutralization/Biodegradation technology, I believe Pueblo's economic development at least won't suffer and possibly may even prosper as a result of choosing a more progressive and safer technology. I am certain that having a chemical weapons incinerator will not help attract new businesses to Pueblo. We are lucky to have a choice that greatly reduces emissions and I am glad that our County Commissioners are also supporting the Neutralization Technologies. 105-1

Although I support the Neutralization/Biodegradation Process, I still have questions and comments about the Draft Environmental Impact Statements.

1.) We recently had an EPA environmental impact study completed in Pueblo where actual samples were obtained to determine toxicity levels. Although I have not read this entire DEIS yet, it seems as if many of the conclusions reached were based on outdated research material with no actual samples taken for this draft. Are there any plans to actually test each of the seven existing wells for specific water quality and flow rates or install an air quality monitor prior to construction activity and if so, will this be a part of the final Environmental Impact Statement? 105-2

2.) According to both DEIS, the PCD has junior water rights and will have to obtain additional water rights from other users. Who will be asked to give up their water rights? Also, the DEIS mentions that there is a possibility that water prices will go up as a result of ChemDemil activities. How will the Army insure that other activities outside the Depot will not be adversely affected? 105-3

3.) I understand that the water used for incineration will become hazardous waste and be transported offsite and possibly be injected into a well in Texas. What happens to the water waste from the Neutralization Process? Both Neutralization contractors have suggested that we may be able to reuse this water but the DEIS does not describe what happens to this non-hazardous waste water. 105-4

4.) The Neut/Bio will use 39 acre feet of process water. The Modified Baseline will use 29 acre feet of process water. Please describe the operations schedules that these numbers are based on. How many hours per week, how many weeks per year and, most importantly, how many years? Is the Neut/Bio reusing some of the same water and if so, what then is the consumptive use of the Neut/Bio process? 105-5

5.) According to the groundwater studies done in the DEIS, the quantity of water in the aquifers will be restored "quickly" and within 2 years of the process being complete (according to the PMCD document) the water quality and quantity will be back to normal. Who will be affected by the temporary depletion of the aquifer? 105-6

6.) What is the definition of "standard precautions" when referring to preserving the existing surface water? Is there a book of labor standards used to maintain the existing surface water? 105-7

These are my questions and comments so far. Thank you.

Dorothy M. Olivier
412 Lincoln Street
Pueblo, CO 81004
dmolivier@home.com
719-544-5680

08/09/2001 17:27 SUNRISE TRAVEL → 16302524611 NO.455 P02

1.

00106

MS. KIMBERLY COLLINS
ASSEMBLED CHEMICAL WEAPONS ASSESSMENT
DRAFT ENVIRONMENTAL IMPACT STATEMENT COORDINATOR
MORGE ENGINEERING SERVICES
2014 TOLLGATE ROAD, SUITE 208
BEL AIR, MD. 21015

MR. GREGORY MAHALL
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION
PUBLIC OUTREACH AND INFORMATION OFFICE
BUILDING E-4585
ABERDEEN PROVING GROUND, MD 21010-4005

RE: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENTS ON THE DESTRUCTION OF CHEMICAL WEAPONS AT THE PUEBLO CHEMICAL DEPOT.

BEFORE MY DETAILED STATEMENTS I WOULD LIKE TO STATE THAT THE MAJORITY OF THIS COMMUNITY, THE LOCAL ELECTED OFFICIALS, STATE LEGISLATORS AND THE CONGRESSIONAL DELEGATION ARE IN FAVOR OF A NEUTRALIZATION TECHNOLOGY. THE DECISION IS TO BE BASED ON COST, SCHEDULE AND SAFETY. THIS COMMUNITY HAS LOOKED AT ALL THE FACTORS AND HAS DETERMINED THAT THE NEUTRALIZATION TECHNOLOGY IS BEST FOR THIS COMMUNITY. 106-1

2.

THE DRAFT ENVIRONMENTAL IMPACT STATEMENTS ARE COMPLEX, CONFUSING AND INCONSISTENT. WHY ARE SOME NUMBER IN METRIC FIGURES AND OTHERS IN STANDARD NUMBERS? THIS MAKES COMPARISONS EXTREMELY DIFFICULT. 106-2

THE PMCD DOCUMENT SEEMS TO BE CONCERNED WITH THE CHEMICAL AGENT ONLY. THERE IS NO CLEAR LONG TERM DESCRIPTION OF THE OPERATIONS SYSTEM OF THE MODIFIED BASELINE PROCESS PROPOSED FOR PUEBLO. MODIFIED BASELINE HAS NOT EVEN BEEN DESIGNED OR TESTED. SINCE THERE IS NO DATA ON IT WHY IS IT NOT CONSIDERED A PILOT PROCESS? THE ACWA TECHNOLOGIES HAD TO DO A PILOT PROGRAM THAT WAS HIGHLY SCRUTENIZED WHY IS THIS DIFFERENT FOR MODIFIED BASELINE?

THE WATER ISSUE IS EXTREMELY CONFUSING AND NEEDS A GREAT DEAL OF EXPLANATION. THE WATER RIGHTS NEED TO BE SPELLED OUT IN DETAIL. WHERE ARE THE SOURCES FOR THE WATER? WHERE WILL ADDITIONAL WATER BE PURCHASED? WHEN SPEAKING ABOUT WATER ISSUES THE TERMS USED, CONSUMED, RECYCLED AND PROCESSED NEED TO BE CLARIFIED. 106-3

THE AGRICULTURE IMPACTS ARE VIRTUALLY NON EXISTENT. THIS IS A CRITICAL ISSUE AND MUST BE ADDRESSED. 106-4

3.

WASTE MANAGEMENT - PMCD 4.6.3.2 PAGE 4-25 IT NOTES THAT THE NEUTRALIZATION FACILITIES WOULD PRODUCE BRINE SALTS THAT COULD CONTAIN SIGNIFICANT AMOUNTS OF HEAVY METALS. WHY IS THERE NO MENTION OF HEAVY METALS WASTES WITH THE INCINERATION FACILITY? ARE THE HEAVY METALS GOING OUT THE STACK AND INTO THE AIR WITH THIS TECHNOLOGY? THERE IS NO MENTION IN PMCD OR ACWA AS TO THE EXACT LOCATION WHERE THE HAZARDOUS WASTES ARE TO BE SHIPPED. 106-5

NOISE RESOURCES PMCD 4.10.3 PAGE 4-69 ACWA 6.8-1 PAGE 88 THE EPA HAS SET 55 dB(A) FOR DAYTIME NOISE LEVELS AND 50 dB(A) FOR NIGHT LEVELS. PMCD STATES THAT IT WILL MEET THE DAYTIME LEVELS AND THAT THERE WILL BE NO CONSTRUCTION AT NIGHT. IF THE TREATY DEADLINE OF APRIL 2007, WHICH THE ARMY SAID IT CAN MEET, THEN THE FACILITY WOULD REQUIRE 24 HOUR CONSTRUCTION AND THE NIGHT NOISE LEVELS COULD NOT BE MET. 106-6

VISUAL RESOURCES PMCD 4.11.2, 3, 4 PAGE 4-72 THE EMISSION STACKS FOR THE INCINERATION TECHNOLOGY WOULD BE 140 FT. HIGH COMPARED TO 100 FT. HIGH FOR THE NEUTRALIZATION TECHNOLOGY. THE STACKS WOULD BE VISABLE TO OFF POST VIEWERS. THIS WOULD CREATE A CUMULATIVE IMPACT ON THIS COMMUNITY WHICH ALREADY HAS THE IMAGE OF STACKS FROM A STEEL MILL, POWER PLANTS 106-7

4.

AND A PROPOSED CEMENT PLANT TO NAME A FEW.
THERE IS NO MENTION ABOUT VISIBILITY IMPACTS
FROM THE OPERATING STACKS. WHAT ARE THE EMISSIONS?
HOW HIGH DO THEY GO? WHAT IS THE OPACITY? AND WHAT IS
THE DISSIPATION RATE? WHAT ARE THE ALLOWABLE LIMITS? 106-7
THERE IS ALSO NO MENTION ABOUT THE VISIBILITY IMPACTS
FROM FUGITIVE DUST EMISSIONS CREATED BY CONSTRUCTION
AND THOSE LIMITS.

AIR EMISSIONS FOR ALL TECHNOLOGIES ARE VERY POOR
AND MUST BE ADDRESSED IN DETAIL. THERE SHOULD BE
A COMPREHENSIVE CHART LISTING ALL EMISSION AND THE 106-8
AMOUNTS IN STANDARD AMERICAN FIGURES.

IF THERE ARE ANY QUESTIONS CONCERNING THE ABOVE
COMMENTS I CAN BE CONTACTED AT 719 948-0071 OR
29685 HEGLER CT, PUEBLO CO 81006.

SINCERELY,
Diane Hart

00107

PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION
BUILDING E-4585
ABERDEEN PROVING GROUND, MD 21010-4005
MR GREGORY MAHALL

My evaluation of the destruction technologies proposed for the Pueblo Chemical Depot certifies that the Neutralization technologies by far surpass that of incineration.

One of the serious problems I would like the PMCD to address in the FEIS (this time with TRUTH and ACCURACY) is the TIME factor. Ie: The number of hours per day/ days per wk/months and years this process will take. It has been established that the 2007 deadline is ridiculous and impossible. PMCD'S preoccupation with this unattainable deadline makes it hard to separate fact from fiction in their haphazard calculations.

This is an extremely important issue since ALL IMPACTS are affected by DURATION.... Some are mitigated some worsen. We must have the truth for the sake of comparison. What about increased medical costs on an already sick population whom insurance companies are trying to hide from? 107-1

I would also like an analysis of PM2.5 emissions using the most CURRENT INFORMATION AVAILABLE with the consideration that our high altitude and abundance of sunlight make it easier for particulate matter to accumulate and linger. 107-2

What happens after an incinerator facility is permitted (using only modeling for their statistics) and once its up and running the emissions exceed the original estimates? Do the standards simply become more lax? Are the cumulative affects of the other already existing major stationary sources of pollution taken into consideration? Does the fact that Pueblo, CO is currently an attainment area raise the bar on the amount of pollution that will be allowed to overstep the standards?

We will not be duped by inconsistent – fickle figures.... We want the FACTS.

Pueblo has decided that the neutralization process poses the least threat to our air, water, crops, wildlife and economy. We are confident that the Army's decision will reflect our vote.

Sincerely,

Michelle Latka

Michelle Latka
29 Archway
Pueblo, CO 81005

00108

Families *concerned about*
NERVE GAS
INCINERATION

P.O. Box 1463 • Anniston, Alabama 36202
(205) 236-1496

August 9, 2001

Mr. Jon Ware
ACWA EIS
9700 S. Cass Ave.
P.O. Box 8369
Argonne, IL 60439-4871

Dear Mr. Ware:

Enclosed please find our comments for the Alabama section of the EIS for the Assembled Chemical Weapons Assessment (ACWA). Families Concerned About Nerve Gas Incineration (Families) represents many citizens of the area affected by the nerve gas destruction at Anniston Army Depot. Since 1992 we have made it our mission to educate the community regarding the presence of the nerve gas at the Depot and the pros and cons of the various destruction methods.

We have supported the efforts of the ACWA from the beginning, and we are happy to be able to provide the enclosed comments. We hope they will be carefully considered in the construction of the final Environmental Impact Statement.

Sincerely,

Vickie G. Tolbert
Rufus Kinney
Brenda Lindell
Donald D. Patterson
Members, Families Concerned About Nerve Gas Incineration

Suzanne Marshall
S.A.F.E.
Serving Alabama's Future Environment

Mitch Lawson, Coordinator
Coosa River Basin Initiative
Rome, Georgia

ACWA EIS Comments for ALABAMA

§ 4.4 Waste Management

In general, we realize that any ACWA technology will create hazardous waste. We support technologies which are able to prevent pollution to the greatest extent possible. We urge that pollution prevention practices be upheld during construction as well as operations. 108-1

On page 4-29 line 20, the EIS states that brine wastes from any ACWA technology could contain PCBs, yet this section offers no information as to how these wastes would be treated...it appears that a plan for further treatment of these waste does not exist. On page 4-33, the EIS states that "no significant impacts are expected..." from waste management practices. Unless the EIS includes more information here on how waste contaminated with PCBs, etc. could be destroyed, the public cannot fully assess the impact of the wastes. 108-2

Given the existing high levels of toxic chemicals in the environment and our bodies, any activities involving chemical warfare agents, including the additional release of hazardous wastes, is "significant." 108-3

The EIS should reference Appendix C -- the methodology for assessing health risks from substances like PCBs. 108-4

§ 4.5.1.2 Emissions

Concerning the existing sources of criteria pollutants, listed on page 4-43, lines 15-17, consideration should be given to curtailing certain operations which create criteria pollutants and their precursors during ACWA operations. 108-5

ACWA technology operations should be conducted in such a way that emissions are kept to a minimum. This should be true no matter what the annual emissions are for ANAD or Calhoun County as a whole. (see p. 4-45 lines 2-6). 108-6

§ 4.5.1.3 Air Quality

Concerning SAAQS and NAAQS (p. 4-45 and p. 4-27): same as above comment: ACWA technologies should operate in a manner which keeps emissions to a minimum; not simply meeting attainment status criteria. 108-7

§ 4.5.2.2 Emissions from Operations

In this section, concerning "stacks," the technologies are referenced with no mention of air pollution abatement (e.g. page 5-50 lines 22-30; page 4-55 lines 1-12). Please clarify. 108-8

§ 4.6.2 ACWA Facility Emissions

On pages 4-67 through 4-75, Concerning Estimated Toxic Air Pollutant Emissions for ACWA Technologies: Table 7.6-4 shows significantly greater numbers of toxic pollutants from the Neutro/GPCR/TW-SCWO technology than from the other ACWA technologies. Is the increased number of emissions a result of the process captured in Table 4.6-4 or has this technology provided more detailed information than the other options? 108-9

Please provide the reason for the significantly greater number of Toxic Air Pollutants represented in Table 4.6-4 as compared to the other options. 108-10

Comparisons of certain Pollutants between technologies also reflects significantly higher quantities of certain emissions of particular concern (i.e.: PCBs and TCDDs) from Table 4.6-4 than from the other ACWA technologies. This could be technology specific, regarding processing (ie: for PCBs during nerve agent processing Neutro/SCWO shows PCB emissions at $1.5x10^{-9}$ [μg/s] vs. PCBs during nerve agent processing for Neutro/GPCR/SCWO shows PCB emissions at $9.6X10^{-2}$ [μg/s]). Since both are Neutro/SCWO technologies, explain the differences in the emissions of PCBs for each process. 108-11

Another example: using the same two technologies in comparison, there appears a significant difference in Mercury emissions as a result of operating the boiler(s) for each. The Neutro/SCWO Table cites boiler Mercury emissions at $5.2x10^{-1}$ (μg/s), the Neutro/GPCR/SCWO shows Mercury emissions from their boiler at $9.4x10^{-1}$ [μg/s], almost twice the amount of the former option. Please explain this disparity. 108-12

All three alternatives applicable for VX treatment show varying amounts of VX emissions leaving the Filter Farm Stack ranging from 2.8 to 3.7 [μg/s]. Although 108-13

footnoted as "worst-case estimate" - at the detection limit, this raises concerns about the capability of the technologies to contain VX agent. Please provide VX emissions data for normal operations and explain conditions under which "worst-case scenario" VX emissions at the levels cited could occur. 108-13

§ 4.6.3.2 Impacts of Operations

On Page 4-80, regarding HAPs and NESHAP regulatory action, please provide the quantities of HAPs specifically related to the toxic pollutants emitted via the alternatives under consideration that would trigger NESHAP regulatory action. 108-14

§ 4.7 Human Health and Safety - Routine Operations

§ 4.7.1.4 Emergency Response

Regarding the PAR (Protective Action Recommendation) on page 4-86, it has come to our attention that the PAR will be based on a CSEPP Guidebook, yet to be released for ANAD and the surrounding community. The Guidebook will define procedures to determine the PAR. Information on the Guidebook currently offered for CSEPP at the Anniston, Alabama site has caused significant controversy in regards to assumptions including, but not limited to, the toxicity standards being used to determine the PAR. 108-15

If such a Guidebook exists for the ANAD and surrounding community it should be provided in its entirety as part of the Final ACWA EIS.

§ 4.7.2.2 Impacts of Operations

This section (along with the referenced Tables and Appendix C) represents the best attempt at quantifying risks to Workers, On and Off Post Residents, based on available information. Appendix C reflects a methodology that is conservative in all dimensions of risk estimates and calculations.

It is obvious however that there are numerous assumptions factored into this section due to the lack of specific demonstration or other empirical data. All additional data gathered through additional demonstration information and/or Engineering Design Studies that can add to the information provided within this section should be incorporated into the ACWA FEIS (or sooner if possible through ACWA Outreach) for public consumption. 108-16

Although outside the scope of this EIS, we point out the all the ACWA technologies are classified as "non-emissive" treatments when compared to baseline incineration, which is classified as an "emissive" treatment technology. We also note that none of the ACWA technologies would be regulated by the MACT rule or other regulations specific to combustion facilities. 108-17

§ 4.19 Socioeconomics

The impacts of "in-migration" to the area during construction and operations of an ACWA facility is described throughout the section. But nowhere is there consideration of possible "negative" effects from construction and operations. For example, there may be "out-migration" from the area, a decrease in agricultural practices, etc. 108-18

The EIS should account for such negative impacts, even if specific data or references are not available.

§ 4.20 Environmental Justice

We concur that construction and operation of an ACWA technology may not disproportionately affect people of color or low income communities in Alabama.

However beyond the literal requirements of the Executive Order on Environmental Justice as defined on page 4-198 lines 18-27, the *intent* of the Executive Order -- the basic principles of environmental justice -- should be upheld: that everyone has the right to a clean, healthy environment and the highest levels of protection of public health. This may be beyond the narrow scope of the EIS, but we urge ACWA to develop an understanding of environmental justice principles on which the Executive Order is based. 108-19

§ 4.21.1.2 Methods of Analysis

On page 4-203 Lines 5-6, regarding the D2PC Model assessment: If the CDP adopts the D2-Puff dispersion modeling system (or any other advanced modeling system) it should be captured in the ACWA FEIS with any deviations noted as related to this section. 108-20

§ 4.21.1.3 Exposures and Deposition

On pages 4-203 and 4-204, regarding the no effects plume: Revised Acute Exposure Guidance Levels (AGELs) currently under review by EPA for GB and VX (Federal Register Vol 66 No. 85) should be factored into this section upon promulgation. 108-21

Proposed AGELs for Mustard currently under consideration by the EPA (CAS Reg. No. 505-60-2) should be factored into this section upon promulgation.

On Pages 4-203 and4-204, regarding the "no deaths" contour: See comment on § 4.21.1.2 (D2PC model) revisions required should advanced modeling capabilities be implemented. 108-21

§ 4.21.2.4 Human Health and Safety

On pages4-208 through 4-213, relating to Fatality Estimates, Table 4.21.2: We note and appreciate the inclusion of the recommended lower Lct_{50} standards by the NRC's 1997. 108-22

On Page 4-213 Line 6, relating to the "MDB stack:" It is assumed this refers to the "Filter Farm Stack" cited previously in the EIS. Within the CDP's baseline incineration program, the exhaust stacks from the furnaces are referred to as the "common stack" and the equivalent to the "Filter Farm Stack" is referred to as the HVAC stack. 108-23

Using the term "MDB stack" could be misconstrued as something other than the "Filter Farm Stack" This term should be modified to conform with terminology used previously in this EIS (see Table 4.6-2). 108-24

On Page 4-213 Lines 6 through 11, relating to major process chemicals: Progress in containment design achieved during the engineering design studies should be included in the ACWA FEIS. 108-25

§ 4.22.4 Waste Management and Facilities

On page 4-242 Lines 26 through 30, related to hazardous and non-hazardous waste disposal capacities: Regarding ACWA created hazardous and non-hazardous waste and the existing disposition of current amounts handled at ANAD it is not clear that the capacity exists based on the referenced chart (Table 4.4-1) as none of these wastes are generated from chemical weapons treatment and therefore might not be applicable to this particular waste treatment stream. 108-26

Additionally, those wastes noted on Table 4.4-1 as shipped off site need to be identified as to what types of wastes leave ANAD now, compared to those created by ACWA; what type of treatment would ACWA off site wastes be subject to (ie: deep well injected, 108-27

incinerated, land filled, etc.); and, where are the current and proposed reception sites located for current and proposed off site waste shipments. 108-27

Are the current locations permitted to handle chemical weapons treatment waste? Are the communities willing to accept such waste? Are there any "special" processes needed for additional permits (ie: Class I or II permit Mood's) at the proposed reception sites? What is the anticipated public reaction to the information being presented to reception communities that they may be receiving such wastes? 108-28

§ 4.22.6.2 Impacts of Operations

Cumulative Impacts with Other Actions

On page 4-247 Lines 13 through 15, related to maximum risk for a baseline incinerator: We disagree with the findings referenced as maximum carcinogenic risk as cited in the EIS for PBA (Appendix H of U.S. Army 1997) and believe that corrected methodology and assessment modeling integrated into the cited assessment would put baseline incinerator operations at PBA over the $1x10^{-6}$ standard generally considered representative of negligible risk. 108-29

Therefore, an ACWA pilot plant operating simultaneously with a baseline incinerator would represent an increased carcinogenic risk of well over the $6.2x10^{-7}$ stated in this section.

On page 4-247 Lines 27 through 28, related to maximum agent releases from a baseline incinerator: We strongly disagree with the assumption stated that the maximum agent releases from a baseline incinerator would be similar to those of the ACWA facility. 108-30

ACWA facilities have only one delivery pathway for agent to escape into the environment (via the Filter Farm Stack) during operations. Baseline has the HVAC stack and a Common Stack (furnace stack) both of which vent into the atmosphere.

ACWA technologies provide significantly greater control of the agents during processing; do not have two competing air flow systems; rely on automatic waste feed cutoffs to stop agent processing; do not accumulate agent in a common stack PFS (pollution filter system); do not create the risk of such accumulated agent escaping during a process upset (puffs, explosions, etc.); do not rely on isolation valves to curtail agent movement during or immediately after processing; do not have agent being injected 108-31

under pressure into an open-ended treatment system; do not allow treated agent gases (at varying DRE's) to escape directly into the environment; do not process agent in a high velocity air movement system; are not dependent on afterburners, scrubbers and other PAS systems to modify chemical configurations (possibly containing agent - particularly during upset conditions) to prevent agent releases; do not treat agent under high pressure/high temperature (the highest temperature treatment process for agent is the ElchemOx process @ 190 ° F with the electrochemical cell closed downstream of the feed prior to temperature introduction); and other factors. 108-31

We strongly recommend this statement be modified to more accurately reflect the significant difference in the potential maximum agent release from baseline incineration when compared to ACWA applications.

§ 4.22.14 Environmental Justice

On Page 4-258 (and referenced Section 4.20): Based on comments noted in § 4.22.6.2 Impacts of Operations, Cumulative Impacts with Other Actions above, we strongly feel the impacts of a baseline incinerator, either in combination with other actions (as exemplified in this Section) or by itself, would have significant Environmental Justice implications for the 30 mile radius of ANAD.

As witnessed in Anniston, Alabama, where the baseline incinerator is now constructed, direct negative economic impacts are manifesting themselves (ie: lower property values; inability to sell homes within the zone; inability to attract new businesses; population decrease, etc.). Similar impacts could be expected to be replicated within the ANAD 30 mile radius (possibly larger radius depending on new toxicity standards and improved plume modeling). 108-32

Therefore, we feel strongly that high and adverse consequences within the scope of environmental justice would exist should a baseline incinerator be considered in the cumulative impacts of this EIS.

§ 4.24 Mitigation

As a general statement, we urge precautionary and preventative measures to be taken at every step of the construction and operations phase. These principles apply to all potential impact areas, including those which the EIS feels do not require mitigation (p. 4-262 line 12-14). 108-33

00109

August 7, 2001

Mr. Jon Ware
ACWA EIS
9700 South Cass Avenue/PO Box 8369
Argonne, Illinois 60439-4871

Dear Mr. Mahall,

Please accept the following comments regarding the Draft Environmental Impact Statements for the ACWA and PMCD Technologies proposed for the Pueblo Chemical Depot.

1. The time extension for public review of these documents was useful as these documents and the back-up documentation was extensive. However, the ninety-day comment period was still much too short to investigate all aspects of the DEIS. **109-1**

2. There are many issues surrounding water use for all the proposed processes described in both DEIS. There is no detail surrounding the consumptive use of water for each of the processes. Net water use is provided, but my understanding of the processes indicates that the ACWA processes can reuse a significant portion of their water in the process. The PMCD processes cannot reuse the water and in fact must transport the used water off-site. It is clear that PMCD processes that remove water from the site will have an enormous impact on the local water supplies that has not been fully explored in the DEIS. **109-2**

3. There is limited data that supports the PMCD DEIS statements that Modified Baseline Incineration is as safe as baseline incineration (and baseline incineration is by no means safe based on actual reports). Based on my research, there is little information that supports the above claim. In fact, the Modified Baseline Incinerator is an unproved technology (it has yet to be designed) that will use Pueblo, Colorado as a test site. The PMCD DEIS describes Modified Baseline without the use of actual operational data. This is again associated with the fact that Modified Baseline as described for Pueblo, Colorado has not been built or tested. For these reasons alone, Modified Baseline Incineration is unacceptable for health, safety, environmental, and economic reasons.

4. The Modified Baseline Incineration constructed and tested on Johnson Atoll did not pass RCRA requirements and therefore may not be considered a successful test of this technology. All PMCD DEIS information concerning Modified Baseline Technology must be questioned due to the failure of the Johnson Atoll facility to pass RCRA Standards.

5. The PMCD DEIS has little detail concerning the inputs and outputs from the Incineration process. Additional information concerning input and output data promised by PMCD and ACWA was never provided to the reviewers of these documents. However, from what information on process inputs and outputs that is provided in the DEIS, it is clear that the ACWA processes are the superior choice to the PMCD process.

6. Neither DEIS provides any detail upon the significant agriculture business that surrounds the Pueblo Chemical Depot. This is an unfortunate oversight that makes the review of the technologies incomplete. Based on information from actual outputs from other hazardous waste incinerators, it is clear that either Incineration technology brings a much higher real and perceived risk to agriculture in the area. ACWA Technologies have a much smaller real and perceived risk to agriculture. **109-3**

Thank you for the opportunity to provide comments on the DEIS for the ACWA and PMCD Technologies proposed for the Pueblo Chemical Depot. It is clear from the information in the DEIS that either of the ACWA Technologies provide higher levels of safety and environmental protection than either PMCD Technology. I urge you to make the better choice for Pueblo by selecting either of the ACWA Technologies.

Sincerely,

Rick Hanger

00110

Tuesday 7 August 2001

99 Neely Street
Berea, Kentucky 40403

Mr. Jon Ware
ACWA EIS
9700 S. Cass Ave.
P. O. Box 8369
Argonne, IL. 60439-4871

Dear Mr. Ware,

There are two areas I wish to address in regard to the ACWA EIS. The first is section 7.22.12.2, entitled Wildlife, on pgs. 7-236 through 7-238. The second is section 7.22.3.3, dealing with Water Supply and Sewage Treatment, on page 7-218.

To begin with, the statement that "emissions from a baseline incinerator would be small" is highly questionable indeed, in light of the monitoring problems out at Toelle, Utah. Regardless of the actual amount of emissions, however, the size of the individual particles would be extremely small- and that is what makes them so dangerous! The intense heat of incineration increases toxic chemical bonds, and,at the same time, blasts the particles into extremely small pieces. This greatly increases the surface areas of the particles for toxic coating. Because the alveoli of the lungs are designed to handle the relatively large particles of nature, the tiny, toxic incinerator particles slip through its filters, causing disease to wildlife and humans alike. 110-1

Also, incinerator toxins have been found in pristine lakes with no other sources of pollution around for hundreds of miles. As the retired black army gentleman who spoke at the last meeting said, all of us already have radiation in our bones, as a result of the nuclear tests conducted in the 1940s in the desert. Strontium 90 has been found in the baby teeth of children across the country. The wind blows as it will. Please, please don't add to this horrific military legacy by building these incinerators! We have closed system alternatives; let's use them. 110-2

Concerning the water question, when the alternative technology

presenters came and we were issued sticker dots to place on the technologies we favored, I was discussing water with one of the presenters. He stated that, at the end of his process, the water quality would be such that "you could water your rose bushes with it". On closer questioning, however, he backed away from this bold statement.

There is no mention in the ACWA EIS as to how water from these processes will ultimately be handled. Water used in any of them needs to be evaluated by independent, ie. nonmilitary, non ACWA technology scientists before being declared safe to water bushes, pour out on the ground, or to be released into Muddy Creek or the Kentucky River. Citizens should certainly have some input into who those scientists will be. 110-3

Thank you for your consideration of these comments, Mr. Ware. It is my hope that they will contribute in some small way to the safe disposal of these weapons.

Sincerely,

Laura Merrell Manges

Laura Merrell Manges, RN, NCTMB

00111

Quote from Dr. Norman Vincent Peale,
minister, motivational speaker, co-founder of Guideposts and
Peale Center for Christian Living, and author of 46 books
including *The Power of Positive Thinking.*

There has to be a safe way to transport the nerve gas to an existing incinerator. Just too many schools and homes surrounding proposed incinerator site in Madison County. There's no way everyone could be protected in the event of a spill.

Mrs. James A. McKnight

POSITIVE THINKING POSTCARD
Copyright © 1999 Peale Center for Christian Living
The Outreach Division of Guideposts, Pawling, N.Y. 12564
041-5758

Mr. Jon Ware
ACWA EIS
9700 S. Cass Ave.
(P.O. Box 8369)
Argonne, IL
60439-4871

111-1

111-2

00112

Mayor Ann L. Durham
P.O. Box 250
Richmond, Kentucky 40476-0250

August 8, 2001

Mr. Joe Ware
Assembled Chemical Weapons Assessment EIS
9700 S. Cass Avenue
P.O. Box 8369
Argonne, Illinois 60439-4871

Dear Mr. Ware:

In response to the Assembled Chemical Weapons Assessment (ACWA) draft Environmental Impact Statement (EIS), I offer the following on behalf of the City of Richmond. Our comments are in response to specific statements listed in the EIS. They should in no way be interpreted to represent all points of concern or be the City's final position in regards to the ACWA Program.

The City of Richmond's interest is to assure the safety of our people and to protect the environment while encouraging the expeditious elimination of the chemical weapons at the BGAD. It is our intent to work closely with the Army in choosing the best technology and carrying out this mandate.

If you need additional information, please contact me at (859) 623-1000.

Sincerely,

Ann L. Durham,
Mayor

(859) 623-1000 --- TDD # 1-800-247-2510 --- FAX # 859-623-7618

§ 73.3 Water

On page 7-17, Lines 34-35 it states that the "current water supply infrastructure at BGAD would be sufficient to meet those needs if the existing water supply lines were extended." Given the volumes identified and the need for fire protection in the chemical limited area we encourage verification of capacity of existing lines south of the chemical area. If the existing lines are less than 8" in diameter the existing lines would not be of sufficient capacity to provide potable water and fire protection. We submit that the existing line south of the chemical area may be 2" or 4". 112-1

Inconsistencies appear between pages 7-17 lines 23-24 which state the existing water supply system would be sufficient to supply the needs of the proposed ACWA facility and on lines 26, 27 & 28 of the same page where it states clearly that "construction of the ACWA pilot test facility would require water for numerous uses, including washing, dust control, preparation of concrete and fire control. These needs have not been estimated quantitatively." How can one determine adequacy of existing water supply without understanding quantitatively the needs? 112-2

It is the City's understanding that a Request for Proposal (RFP) to privatize utility services at the Depot will include substantial upgrades to the existing water system. It appears the intent for privatization and the EIS statement that the existing utilities would be sufficient to supply the needs of the proposed ACWA pilot facility are inconsistent. The City of Richmond is prepared to work with BGAD to provide water service to the entire Depot by investing in the City's South Development Area Water Plan. 112-3

The most appropriate solution for water supply from an operation and maintenance standpoint is to follow the water system plan for the South Development Area developed by the City of Richmond.

The water system plan for The South Development Area includes the water system components to supply 4.0 mgd to the area. With the completion of this plan the City of Richmond will have the capacity and expertise to serve the Depot, now and in the future. The City of Richmond will not entertain the idea of selling water to a wholesaler to serve the Depot. Not only will this make the service unreliable but also unattractive economically. Plans 112-4

have been presented to Army personnel that would include the Depot in the main supply loop for the area. After initial capital improvements to the water system, little future capital improvements would be required. The goal of this plan would be to decommission the old Depot water treatment plant. 112-4

The City of Richmond is the sole supplier of water and sewer service to the South Development Area. We believe this to be the perfect opportunity for the U.S. Army to partner with local government to provide water and sewer service.

§ Wastewater

Currently, BGAD operates two wastewater treatment plants. The wastewater plant that discharges into Muddy Creek on the Depot property is logistically capable of accepting the flow from the ACWA pilot test facility but it does not have the capacity. The EIS proposes to construct a new wastewater treatment plant for sewage probably at the ACWA test facility site. This would create three discharge points at the Depot operating under three separate Kentucky Pollution Discharge Elimination System Permits (KPDES). 112-5

To create another discharge point is counter productive to the concept of regional planning to maximize the use of public funds and is not environmentally the best approach to treating the wastewater at the BGAD.

During the planning phase of the development of the City of Richmond Wastewater Facilities Management Plan, our staff met with representatives of the Blue Grass Army Depot. As a result of that meeting a major portion of the Depot's wastewater infrastructure lies within the City's planning area boundary. The Kentucky Division of Water encouraged the development of a regional wastewater system for the south-central portion of Madison County. 112-6

As a result of the implementation of the Wastewater Facilities Management plan adopted in 1998, the City of Richmond has invested $9.5 million in wastewater infrastructure to serve the South Development Area including the Army Depot.

The EIS proposes a new wastewater treatment plant in the Muddy Creek water shed. I submit to you that to transport the sanitary wastewater expected during the construction phase from the Chemical Limited Area to the existing wastewater collection system of the Depot is a more prudent approach. The installation of a sewage pumping station and force main would be less expensive than the cost to construct a wastewater treatment plant.

The long-term solution to the wastewater treatment situation at the Blue Grass Depot would be to invest in the outfall sewer identified in the 112-7a

Facilities Management Plan of the City of Richmond and abandon the existing treatment plants. With this plan both the sanitary wastewater from the construction phase and the operations phase of the chemical demilitarization operation could be treated and although the waste from the chemical demilitarization must be pretreated to eliminate toxic substances, the size of such a process would be considerably reduced if the sanitary wastewater is segregated.

The advantages of this plan are listed below:

(1) This solution will remove two wastewater discharge points from the Muddy Creek watershed and the Hayes Fork watershed.

(2) Eliminate capitol expenditures that would otherwise be abandoned in the near future when the chemical demilitarization operation is completed;

(3) Allow the Depot to be free from wastewater treatment and operations cost;

(4) Reduce cost to the Depot since the wastewater service fees or rates would be based on the same rates charged the existing City customers.

The listed benefits of this plan should make it an overwhelming choice for the investment in the long-term wastewater system plans adopted by the City of Richmond and approved by the Kentucky Division of Water.

If the BGAD solicits competitive bids for utility services, a private firm could not provide the level of responsibility and facility maintenance afforded by the City of Richmond.

Additionally, a Request for Proposal for utility privatization will place the City of Richmond in the awkward position of government bidding against private enterprise. It has long been the position of the City of Richmond to not compete in the business arena.

§ 7.4 Waste Management

On page 7-27, the EIS states that brine wastes from any ACWA technology could contain PCBs, yet this section offers no information as to how these wastes would be treated... It appears that a plan for further treatment of these waste does not exist. On page 7-29, the EIS states that "no significant impacts are expected..." from waste management practices. Unless the EIS includes more information here on how waste contaminated with PCBs, etc. could be destroyed, the public cannot fully assess the impact of the wastes.

Given the existing levels of toxic chemicals in the environment and our bodies, any activities involving chemical warfare agents, including the additional release of hazardous wastes, is "significant." **112-7b**

PCB's are long life components that do not break down. Therefore, they will have a long-term effect on groundwater, surface water or any other median they come in contact with. We question if there is sufficient data to determine the true impacts of PCB related to the ACWA Program.

§ 7.42 Pilot Test Waste Generator and Treatment Requirements

It appears from the EIS that solid and liquid waste, both hazardous and non-hazardous will be generated, during construction and operation. The volume of waste, hazardous and non-hazardous, has been estimated using techniques that rely on a number of assumptions. Page 7-23, lines 24, 25, 26, 27 state that "all the proposed ACWA technologies would produce brine salts as solid waste. These salts could contain significant amounts of toxic heavy metals (e.g. lead). Such solid waste <u>would probably</u> fail the Resource Conservation and Recovery Act (RCRA) toxicity characteristics Leaching Procedures (TCLP)." **112-8**

The EIS states that the hazardous salt waste would need to be stabilized to reduce leachate of the heavy metal to a level that would allow it to be approved for land disposal of hazardous waste. It further states that salt waste have proven somewhat difficult to stabilize. This language clearly demonstrates the none of the proposed ACWA technologies have been developed to definitively determine quantities of solid and liquid waste, hazardous and non-hazardous. Nor is the process of the different technologies capable of defining the exact by-product or a means of disposing of the waste that is proven to be environmentally safe. 112-8

Table 7.4. Summary of Waste Generated at BGAD list the amounts and types of waste generated at BGAD during 2000. Identified are 650 tons of solid hazardous, and 13 tons of hazardous liquid, 362 tons of non-hazardous liquids that are being shipped through the City of Richmond or the City of Berea every day to reach their disposal destination. Further, it identifies 80 tons of hazardous solids buried or remaining on post that if not handled properly, certainly has the capability of contaminating soil or groundwater on the Depot which could be carried off site. These numbers are alarming before we introduce to the area a ACWA pilot facility that fails to define quantities of liquid and solid waste or a proven mechanism of disposal that does not require additional test and study. 112-9

Page 7-28 indicates potentially hazard waste generated annually from the Operation of ACWA Pilot Test Facility at BGAD. The table list by quantity chemicals that are super corrosive. On page 7-29 lines 16-17 it is noted that the quantities in tons should be multiplied by 2.5 after Stabilization. For example brine salts 2,900 tons would become 7,250 tons. We have great concern over the level and technical development in this facet of the ACWA process.

§ 7.5.13 Air Quality

We are comfortable with the Kentucky Department of National Resources Air Quality permitting process and we generally agree with the comments to the EIS Air Quality Section provided by the Kentucky Environmental Foundation. 112-10

§ 7.7.14 Emergency Response

We are greatly concerned that the PAP (Protective Action Plan) referenced on page 7-82 is base on a CSEPP Guidebook yet to be release for BGAD and the surrounding community. Emergency response personnel are currently working on emergency operation plans for Madison County. It is difficult, if not impossible, for an EOP to be created to assure public safety without having access to the CSEPP Guidebook. 112-11

Further, BGAD according to page 7-83, line 18 is staffed at all times with Four (4) firefighters. On Line 21-22, it states BGAD has mutual aid agreements with local fire departments and medical facilities to augment its emergency services. It appears by the numbers that BGAD is inadequately staffed to effectively handle an emergency and would therefore be relying on the City of Richmond Fire Department as spelled out in the Mutual Aid Agreement. 112-12

The City of Richmond is currently pressed to maintain its present ISO Fire Classification (Class 3) with the number of fire personnel and equipment it has in the City's Fire Department. Additionally, the Richmond Fire Department has been identified as the entity to take a major role in the field decon for emergency workers and evacuees. This undertaking alone requires several of the City's personnel. The CSEPP Program has been very beneficial in planning, securing warning equipment and necessary items, however the emergency response personnel and equipment are not in place to handle a substantial evacuation. Funding for these emergency services does not exist in the City of Richmond's Budget. For public safety to be provided there must be an investment in the resources sited above before chemical demilitarization at BGAD begins. 112-13

Preliminary estimates by the City of Richmond Emergency Personnel indicates a need for 16 additional personnel, (estimated $476,000 per year), one new pumper (estimated cost $250,000), one aerial firetruck (estimated cost $450,000) and one new building to house police and fire administration substation (estimated cost $1,000,000). The existing Madison County Emergency Operations Plan, Annex Q, Hazardous Materials Operations, III

Direction and Control states "Direction and Control for hazardous material incidents is shared between local and state authority. Locally, efforts will be coordinated by Fire Services in these respective jurisdictions. This clearly mandates that an emergency within the community created by Chemical Demilitarization Activities at the Depot is this responsibility and jurisdiction of the Richmond Fire Department. To date there has been no investment in training, equipping or constructing facilities adequate to respond to a chemical emergency at the BGAD or within the City of Richmond. Thus leaving our Mutual Aid Agreement worthless. We submit that public safety will not be assured during Chemical Demilitarization unless there are significant investments into the City of Richmond emergency services.

ADDITIONAL CONCERNS: EVACUATION CAPABILITIES IN THE EVENT AN OFF-SITE EMERGENCY CREATED BY CHEMICAL DEMILITARIZATION.

In the event of a release at BGAD that creates off-site evacuation we have several concerns that are not specifically addressed in the ACWA preliminary EIS. First, is the issue of the capacity of our roadways to provide for complete or partial evacuation. Duncannon Lane and U.S. 25 which are major roadways around BGAD are both beyond capacity. While plans have been made to substantially upgrade both roads but are realistically scheduled for completion too many years down the road to benefit during Chemical Demilitarization. The last thing that all concerned can accept is for these two roads to be under construction at the time of chemical weapons disposal. Efforts must be made by the Army to expedite these two projects to assure their completion by the time construction of its disposal facility begins. This is a reasonable expectation given the time frame involved in choosing a technology and obtaining and air quality permit. **112-14**

Additionally, we are concerned that the City of Richmond's Emergency Service Personnel have not been provided sufficient gear to handle a chemical emergency. These emergency service people who must be relied on to carry out every aspect of an evacuation situation from directing traffic to providing trauma care are not equipped or trained to do so. Without our **112-15**

Emergency Service Personnel being adequately supplied with equipment and training we risk total loss of our EMS personnel. It is unreasonable to assume the emergency personnel could don this equipment at the Depot. They must be provided off-site access to Personal Protection Equipment and Facilities to address an emergency.

Until realistic discussions begins to address the physical and monitary considerations involved in protecting our people and the environmental this community stands unprepared for Chemical Demilitarization.

00113

Karyn J. Jones
G.A.S.P.
P. O. Box 1693
Hermiston, OR 97838
541-567-6581

Jon Ware
ACWA EIS
9700 S. Caff Avenue
Argonne, Il 60439-4871

August 7, 2001

Dear Sir,

The following comments are being submitted on behalf of G.A.S.P., Susan L. Jones, Mark R. Jones, Merle C. Jones, Debra McCoy-Burns and myself, Karyn J. Jones on the ACWA EIS. We are submitting the comments to retain all of our legal rights that are provided through NEPA.

We believe that the decision to exclude the Umatilla Army Depot, Oregon site from the ACWA EIS was based on incorrect and misleading information provided to ACWA by PMCD. The information provided claims that operations of chemical weapons destruction using incineration would be completed in 2006 at Umatilla. However after reviewing Memorandum For Col. Lesniak, Project Manager for Chemical Stockpile Disposal, Subject: FY 2000 Basis of Calculations for the CSDP Operations Schedules we now know that operations at Umatilla using incineration will not be completed before 2012. There are also other factors that have the potential to prevent or seriously delay the operation of the baseline incinerators at Umatilla. These factors include ongoing litigation G.A.S.P. et al versus the State of Oregon to have the permits at Umatilla revoked, the State of Oregon DEQ Compliance Schedule for the Umatilla Army Depot, a growing list of permit modifications, unresolved secondary waste issues, problems associated with the dunnage incinerator and the Status Report being prepared by the Governors Executive Review Panel for Emergency Preparedness. 113-1

We are including the following documents as part of our comments:

- Memorandum For Col. Lesniak, Project Manager for Chemical Stockpile Disposal, Subject: FY 2000 Basis of Calculations for the CSDP Operations Schedules
- State of Oregon DEQ Memo from Wayne Thomas, Manager, Chemical Demilitarization Program to Langdon Marsh, DEQ Director dated January 24, 2000
- Letter from Stuart A. Sugarman, Esq. To State of Oregon Environmental Quality Commission dated December 14, 1998
- Case No. 00-99-09349 Petitioners Memorandum Opposing Respondents Motion for Summary Judgement and Supporting Petitioners Cross Motion for Summary Judgement

We include by reference the following documents:

All of the documents submitted to the Circuit Court of the State of Oregon for the County of Multnomah by Richard Condit, Esq. and Stuart A. Sugarman, Esq. for G.A.S.P. et al v State of Oregon

The State of Oregon Compliance Schedule for the Umatilla Army Depot Incineration Destruction Facility

Permit Modifications that were previously referenced

We request that a site specific Supplemental ACWA EIS be completed in a timely manner for the disposal of the chemical stockpile at the Umatilla Army Depot, Oregon. 113-2

Sincerely,

Karyn J. Jones

Karyn J. Jones

00114

Pueblo County Department of Emergency Management
JUDICIAL BUILDING - 320 WEST 10th ST B1 - PUEBLO, CO 81003-2995
TELEPHONE: (719) 583-6220 - FAX: (719) 583-6218

August 9, 2001

Mr. Jon Ware, Environmental Team Leader
Assembled Chemical Weapons Assessment (ACWA)
P.O. Box 8369
Argonne, Illinois 60439-4871

Re: Comments on the Draft Environmental Impact Statement

Dear Mr. Ware:

The following comments are in regard to the ***Draft Environmental Impact Statement*** for the ***Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites.*** The comments focus on my Department's area of expertise, i.e., the Pueblo County community and emergency management, particularly as it relates to the Chemical Stockpile Emergency Preparedness Program (CSEPP).

1. Page 6-149, Table 6.19-8 (Public Service Employees in Pueblo, Pueblo County, and Colorado) indicates that the number of paid fire protection employees in Pueblo County (not including the City of Pueblo) is 0. **The correct number is 50,** including 29 with the Pueblo Rural Fire Department, 12 with the Transportation Technology Center Fire Department, 4 with the Rye Fire Protection District, 3 with the Pueblo West Fire Department, and 2 with the Department of Emergency Management (Pueblo Emergency Response Teams). It is unclear why volunteers were not included in the count. It is typical for rural areas, including Pueblo County, to rely of volunteers for fire protection. **114-1**
2. Page 6-173 line 5 and page 6-189 line 9 both indicate that structures (offices, shops, etc.) on the Transportation Technology Center (TTC) site are about 3 miles from the PCD site boundary. **That distance is actually 5 miles.** **114-2**
3. Page 6-189 lines 4-5 indicates that "portions of the residence have been overpressured to allow safe shelter-in-place if necessary." That is incorrect. **No portion of the referenced residence has been overpressurized.** The occupants of that residence have been issued personal protective equipment to support shelter-in-place. They have also been provided training on the use of that equipment. **114-3**
4. The public has been tasked with reviewing and commenting concurrently on two draft Environmental Impact Statements for destruction of the chemical weapons stockpile at the Pueblo Chemical Depot. As this office has reviewed the accident scenarios associated with the "no action" alternative (continued storage) included in both documents, we are struck with the marked differences between the consequences associated with those accidents. Although the scenarios in both EISs are very similar and the same dispersion model (D2PC) is used, the outcomes are sufficiently different to bear mention. Concerns about the use of D2PC in the two EISs prompted this office to seek clarification from the Army. We received that clarification in the form of the attached May 11, 2001 Information Paper furnished by the Office of the Chief of Legislative Liaison, U.S. Army. It notes, "Each agency relies on past practice in the development of assumptions to run their models. Although PMCD and ACWA used the same agent dispersion model (D2PC), the different assumptions caused different outcomes." **114-4**

How different are those outcomes? According to this draft EIS, (Table 6.21-2) the estimated fatalities for an aircraft crash into the storage area under the very stable E-1 weather conditions total 75 (59 on-post and 16 off-post). In contrast, Table I-7 of the ***Draft Environmental Impact Statement*** for the ***Destruction of Chemical Munitions at Pueblo Chemical Depot, Colorado*** (i.e., the incineration alternative) indicates that a similar accident, under similar conditions could potentially result in between 5,900 and 12,200 fatalities, depending on the sensitivity level of the population at risk. Although the two model outcomes are strikingly different and the larger numbers are extremely unsettling, **it is important to note that neither projection is linked to the agent destruction technology. They are both storage-based scenarios and are therefore technology neutral.** **114-4**

This concludes the Pueblo County Department of Emergency Management's formal comments on the Draft EIS. Thank you for the opportunity to comment. We look forward to having the chemical weapons destruction process move ahead.

Sincerely,

Steven G. Douglas, Director

Attachment – 11 May 2001 *INFORMATION PAPER*

INFORMATION PAPER ON
ENVIRONMENTAL IMPACT STATEMENT ACCIDENT ANALYSIS
METHODOLOGY DIFFERENCES
11 May 2001

This paper outlines the different storage accident modeling assumptions made between the two Draft Environmental Impact Statements (DEISs) prepared by the Program Manager for Chemical Demilitarization (PMCD) and the Program Manager for Assembled Chemical Weapons (ACWA). The modeling is for the purpose of predicting the potential off site fatalities, which could result from a hypothetical catastrophic accident, associated with the continued storage of the chemical agent at Pueblo Chemical Depot. This storage accident analysis has no bearing on the selection of a technology to destroy the chemical munitions at Pueblo Chemical Depot. The potential accident to the storage site reflects the option of continued storage, which is the "No Action" alternative in the EISs.

Accident analyses performed for the two DEISs are exercises that analyze highly unlikely catastrophic events. Therefore, worst-case scenarios are used for the parameter inputs to the accident model. These include the accident initiator, hazard source term, time of hazard release, distance of hazard air plume, worst-case meteorological assumptions (including wind direction toward the highest population center), and no protective actions assumed for the general public, e.g., evacuation. This results in a worst case, though highly unlikely, impact to the surrounding population. Although both modeling techniques are very conservative in their approach, the models differ in selection of several conservative parameters. Differences in modeling parameters between the PMCD and ACWA DEIS resulted in different predictions for off site fatalities.

The development of assumptions for running impact models involves many techniques. Each agency relies on past practice in the development of assumptions to run their models. Although PMCD and ACWA used the same agent dispersion model (D2PC), the different assumptions caused different outcomes. The PMCD model uses hazard categories to adjust the down wind hazard plume. This is consistent with previous PMCD DEISs and provides more consistent predictability between different PMCD demilitarization sites. This technique produces a very conservative down wind hazard distance. This technique is not used in the ACWA model. The hazard source in the PMCD model also uses a theoretical maximum agent content for the storage igloo rather than the actual agent content which is used in the ACWA model. Additionally, The PMCD model uses a, more realistic hazard release time than the ACWA DEIS, which uses the model default release time.

The Program Managers for each DEIS have met for the purpose of adjusting each parameter to reflect a more realistic scenario, yet still provide a very conservative comprehensive assessment. The results are expected to

reflect a lower PMCD fatality prediction and an increased ACWA fatality prediction. Regardless of the technique used, it must be recognized these projections are bounding estimates. Any potential chemical fatalities resulting from an accident at Pueblo are likely to be far less than predicted in either DEIS.

Chemical Stockpile Emergency Preparedness Program (CSEPP) planning assumptions remain valid. CSEPP uses accident scenarios based on the maximum credible event for emergency response planning. The Colorado emergency management community should continue to use CSEPP planning assumptions for developing emergency response plans and for making protective action recommendations.

For further information, contact Lieutenant Colonel Sandi Dittig, Office of the Chief of Legislative Liaison, at (703) 697-8602.

FURNISHED BY:
Office, Chief of Legislative Liaison

00115

COMMENTS TO THE DEPARTMENT OF THE ARMY

ON THE DRAFT
ASSEMBLED CHEMICAL WEAPONS ASSESSMENT (ACWA)
ENVIRONMENTAL IMPACT STATEMENT (EIS)

FOR THE DESIGN, CONSTRUCTION, AND OPERATION AND CLOSURE
OF A FACILITY FOR THE
DESTRUCTION OF CHEMICAL AGENTS AND MUNITIONS
AT BLUE GRASS ARMY DEPOT (BGAD), KENTUCKY

AS NOTICED IN THE FEDERAL REGISTER
VOL. 65, NO. 233
MONDAY, DECEMBER 4, 2000

SUBMITTED BY
THE KENTUCKY ENVIRONMENTAL FOUNDATION, ET AL.

THURSDAY, AUGUST 9, 2001

Mr. Jon Ware
ACWA EIS
9700 S. Cass Ave.
Argonne, IL 60439-4871

August 9, 2001

Dear Mr. Ware,

Following are specific comments on the draft ACWA EIS.

The Kentucky Environmental Foundation, and the other organizations and individuals listed, strongly support the construction and operation of an ACWA pilot plant for chemical weapons disposal at the Blue Grass Army Depot. We are committed to working collaboratively with others to ensure that the chemical weapons are destroyed as soon as possible -- but without sacrificing public health and worker safety.

We look forward to your response.

Sincerely,

Craig Williams
Kentucky Environmental Foundation Director

ACWA EIS COMMENTS

§ 7.3 Infrastructure

Figure 7.3.1 does not seem to correspond with the statement that electrochemical oxidation uses the highest amount of electricity. 115-1

§ 7.4 Waste Management

In general, we realize that any ACWA technology will create hazardous waste. We support technologies which are able to prevent pollution, to the greatest extent possible. We urge that pollution prevention practices be upheld during construction as well as operations. 115-2

On page 7-27, the EIS states that brine wastes from any ACWA technology could contain PCBs, yet this section offers no information as to how these wastes would be treated...it appears that a plan for further treatment of these waste does not exist. On page 7-29, the EIS states that "no significant impacts are expected..." from waste management practices. Unless the EIS includes more information here on how waste contaminated with PCBs, etc. could be destroyed, the public cannot fully assess the impact of the wastes. 115-3

Given the existing levels of toxic chemicals in the environment and our bodies, any activities involving chemical warfare agents, including the additional release of hazardous wastes, is "significant." 115-4

The EIS should reference Appendix C -- the methodology for assessing health risks from substances like PCBs. 115-5

§ 7.5.1.2 Emissions

Concerning the existing sources of criteria pollutants, listed on page 7-39, lines 8-10, consideration should be given to curtailing certain operations which create criteria pollutants and their precursors during ACWA operations.

ACWA technology operations should be conducted in such a way that emissions are kept to a minimum. This should be true no matter what the annual emissions are for BGAD or Madison County as a whole. (see p. 7-39 lines 21-25). **115-6**

§ 7.5.1.3 Air Quality

Concerning SAAQS and NAAQS (p. 7-41 and p. 7-25): same as above comment: ACWA technologies should operate in a manner which keeps emissions to a minimum; not simply meeting attainment status criteria.

§ 7.5.2.2 Emissions from Operations

In this section, concerning "stacks," the technologies are referenced with no mention of air pollution abatement (e.g. page 7-46 lines 20-32; page 7-51 lines 1-12). Please clarify. **115-7**

§ 7.5.3.2 Impacts of Operations

On page 7-54 the EIS states that "Short term increments for all four ACWA technologies would be almost the same." However there are significant differences in the number and quantity of "Estimated Toxic Air Pollutants Emissions" shown in Tables 7.6-2; 7.6-3; 7.6-4; and, 7.6-5 (pages 7-63 to 7-75) and the "...Total Concentrations of Criteria Pollutants.."" in Tables 7.5-10 through 7.5.13 (pages 7-55 through 7-7-58). Significant differences in one type or emission would seem to negate their being "almost the same" for other types of pollutants. **115-8**

On page 7-59 - Lines 6-8, Concerning lead emissions: Please explain what happens to the lead contained in the munitions if emissions of this material are considered "negligible". **115-9**

On page 7-59 - Lines 8-10, Concerning "production of ozone:" Please explain why this process can not be "accurately quantified." Is the scientific capability lacking or is the data on the contributors to such production missing from the ACWA technologies information provided into ACWA? **115-10**

On page 7-61 - Lines 2-3, Concerning releases of "dinitrotoluene:" Tables 7.6-1 lists the amount of dinitrotoluene emitted at BGAD as a result of OB/OD. Tables 7.6-2 through 7.6-5 do not show any dinitrotoluene emitted from ACWA CW processing. Are any of the substances listed in Tables 7.6-2 through 7.6-5 by-products of the ACWA treatment of explosives/energetics containing dinitrotoluene? If so, which ones? Are the emissions of Toluene shown in Tables 7.6-2 through 7.6-5 a result of the treatment of dinitrotoluene contained in the chemical weapons at BGAD? **115-11**

§ 7.6.2 ACWA Facility Emissions

On pages 6-63 through 7-75, Concerning Estimated Toxic Air Pollutant Emissions for ACWA Technologies: Table 7.6-4 shows significantly greater numbers of toxic pollutants from the Neutro/GPCR/TW-SCWO technology than from the other ACWA technologies. Is the increased number of emissions a result of the process captured in Table 7.6-4 or has this technology provided more detailed information than the other options? **115-12**

Please provide the reason for the significantly greater number of Toxic Air Pollutants represented in Table 7.6-4 as compared to the other options. 115-12

Comparisons of certain Pollutants between technologies also reflects significantly higher quantities of certain emissions of particular concern (i.e.: PCBs and TCDDs) from Table 7.6-4 than from the other ACWA technologies. This could be technology specific, regarding processing (ie: for PCBs during nerve agent processing Neutro/SCWO shows PCB emissions at $1.5x10^{-9}$ [µg/s] vs. PCBs during nerve agent processing for Neutro/GPCR/SCWO shows PCB emissions at $9.6X10^{-2}$ [µg/s]). Since both are Neutro/SCWO technologies, explain the differences in the emissions of PCBs for each process. 115-13

Another example: using the same two technologies in comparison, there appears a significant difference in mercury emissions as a result of operating the boiler(s) for each. The Neutro/SCWO Table cites boiler mercury emissions at $5.2x10^{-1}$ (µg/s), the Neutro/GPCR/SCWO shows mercury emissions from their boiler at $9.4x10^{-1}$ [µg/s], almost twice the amount of the former option. Please explain this disparity.

All three alternatives applicable for VX treatment show varying amounts of VX emissions leaving the Filter Farm Stack ranging from 2.8 to 3.7 [µg/s]. Although footnoted as "worst-case estimate" - at the detection limit, this raises concerns about the capability of the technologies to contain VX agent. Please provide VX emissions data for normal operations and explain conditions under which "worst-case scenario" VX emissions at the levels cited could occur. 115-14

§ 7.6.3.2 Impacts of Operations

On Page 7-77, regarding HAPs and NESHAP regulatory action, please provide the quantities of HAPs specifically related to the toxic pollutants emitted via the alternatives under consideration that would trigger NESHAP regulatory action. 115-15

§ 7.7 Human Health and Safety - Routine Operations

§ 7.7.1.4 Emergency Response

Regarding the PAR (Protective Action Recommendation) on page 7-82, it has come to our attention that the PAR will be based on a CSEPP Guidebook, yet to be released for BGAD and the surrounding community. The Guidebook will define procedures to determine the PAR. Information on the Guidebook currently offered for CSEPP at the Anniston, Alabama site has caused significant controversy in regards to assumptions including, but not limited to, the toxicity standards being used to determine the PAR. 115-16

If such a Guidebook exists for the BGAD and surrounding community it should be provided in its entirety as part of the Final ACWA EIS. 115-17

Table 7.7-1 Annual Hazard Rates - No Action vs. ACWA

There is no time frame associated with this Table. The "no action" option would appear to extend into infinity, while any ACWA option would necessarily have an end point. The 1988 FPEIS for the CDP (Chemical Demilitarization Program) using baseline incineration, indicated a higher risk for continued storage (ie: no action) than for disposal. The Table referenced shows the opposite. Please explain this disparity. 115-18

Please also provide an equal time frame for the comparison within this Table. 115-18

§ 7.7.2.2 Impacts of Operations

This section (along with the referenced Tables and Appendix C) represents the best attempt at quantifying risks to workers, on and off post residents, based on available information. Appendix C reflects a methodology that is conservative in all dimensions of risk estimates and calculations.

It is obvious however that there are numerous assumptions factored into this section due to the lack of specific demonstration or other empirical data. All additional data gathered through additional demonstration information and/or Engineering Design Studies that can add to the information provided within this section should be incorporated into the ACWA FEIS (or sooner if possible through ACWA Outreach) for public consideration. 115-19

Although outside the scope of this EIS, we point out the all the ACWA technologies are classified as "non-emissive" treatments when compared to baseline incineration, which is classified as an "emissive" treatment technology. We also note that none of the ACWA technologies would be regulated by the MACT rule or other regulations specific to combustion facilities. 115-20

§ 7.8 Noise

Generally, we are comfortable with this section.

§ 7.9 Visual Resources

Generally, we are comfortable with this section.

§ 7.10 Geology and Soils

Generally, we are comfortable with this section.

§ 7.11 Groundwater

Generally, we are comfortable with this section.

§ 7.12 Surface Water

Generally, we are comfortable with this section.

§ 7.13 Terrestrial Habitats and Vegetation

Regarding the "impacts of construction" on page 7-122, it seems that siting the ACWA technology on Proposed Area A would result in less impact on trees and other vegetation. 115-21

§ 7.14 Wildlife

The section does not identify impacts to wildlife for Proposed Area A; only for Proposed Area B. Please clarify. 115-22

On page 7-125 in the section on Mammals, the EIS notes that hunting takes place on BGAD. During and after ACWA technology operations, we recommend as a precautionary measure, prohibiting consumption of any wildlife from BGAD. 115-23

§ 7.15 Aquatic Habitats and Fish

Generally, we are comfortable with this section.

§ 7.16 Protected Species

The EIS notes that Kentucky has no statute on protected and endangered species (page 7-132 line 22). However, the federal Endangered Species Act exists for this purpose and should be referenced in this section, along with the other state agencies. 115-24

In Appendix E, the biological assessment is done for only two of the four demonstrated ACWA technologies. The assessment must include a review of impacts of electrochemical oxidation and the Neutralization/GPCR/SCWO option. 115-25

The Appendix notes that two endangered species exist on BGAD: the running buffalo clover and the Indiana bat. However the impact of the Indiana bat is not considered here because the locations of the bat on BGAD were not found. As a precautionary measure, the EIS should identify potential impacts on this species even if their exact location is unknown. 115-26

§ 7.17 Wetlands

We have no comments for this section.

§ 7.18 Cultural Resources

This section should include reference to applicable laws protecting Native American cultural, sacred and historical sites. 115-27

On page 7-142, line 21-22, and elsewhere in this section regarding traditional cultural properties, the EIS notes that "interested Native American governments" are being consulted.... The EIS should clarify which federally recognized tribes have been consulted. 115-28

§ 7.19 Socioeconomics

The impacts of "in-migration" to the area during construction and operations of an ACWA facility is described throughout the section. But nowhere is there consideration of a possible "negative" effects from construction and operations. For example, there may be "out-migration" from the area, a decrease in agricultural practices, etc. 115-29

The EIS should account for such negative impacts, even if specific data or references are not available.

§ 7.20 Environmental Justice

We concur that construction and operation of an ACWA technology <u>may not</u> disproportionately affect people of color or low income communities in central Kentucky. 115-30

However beyond the literal requirements of the Executive Order on Environmental Justice as defined on page 7-170 lines 17-27, the *intent* of the Executive Order -- the basic principles of environmental justice -- should be upheld: that everyone has the right to a clean, healthy environment and the highest levels of protection of public health. This may be beyond the narrow scope of the EIS, but we urge ACWA to develop an understanding of environmental justice principles on which the Executive Order is based. Also see comment to Sec. 7.22.14 115-30

§ 7.21 Accidents Involving Assembled Chemical Weapons

Generally we are comfortable with the section.

§ 7.21.1. Scenarios

Regarding page 7-175 Line 21: We request explanation on the basis for considering the feasibility of using modified ammunition vans instead of ONCs. 115-31

§ 7.21.1.2 Methods of Analysis

On page 7-176 Lines 5-6, regarding the D2PC Model assessment: If the CDP adopts the D2-Puff dispersion modeling system (or any other advanced modeling system) it should be captured in the ACWA FEIS with any deviations noted as related to this section. 115-32

§ 7.21.1.3 Exposures and Deposition

On pages 7-176 and 7-177, regarding the no effects plume: Revised Acute Exposure Guidance Levels (AGELs) currently under review by EPA for GB and VX (Federal Register Vol 66 No. 85) should be factored into this section upon promulgation. 115-33

Proposed AGELs for Mustard currently under consideration by the EPA (CAS Reg. No. 505-60-2) should be factored into this section upon promulgation. 115-34

On Pages 7-176 and 7-177, regarding the "no deaths" contour: See comment on § 7.21.1.2 (D2PC model) revisions required should advanced modeling capabilities be implemented. 115-35

§ 7.21.2.4 Human Health and Safety

On pages 7-181 through 7-186, relating to Fatality Estimates (Table 7.21.2: We note and appreciate the inclusion of the recommended lower Lct_{50} standards by the NRC in 1997.

On Page 7-185 Line 20, relating to the "MDB stack:" It is assumed this refers to the "Filter Farm Stack" cited previously in the EIS. Within the CDP's baseline incineration program, the exhaust stacks from the furnaces are referred to as the "common stack" and the equivalent to the "Filter Farm Stack" is referred to as the HVAC stack. 115-36

Using the term "MDB stack" could be misconstrued as something other than the "Filter Farm Stack" This term should be modified to conform with terminology used previously in this EIS (see Table 7.6-2).

On Page 7-186 Lines 21 through 25, relating to major process chemicals: Progress in containment design achieved during the engineering design studies should be included in the ACWA FEIS. 115-37

§ 7.21.2.7 Biological Resources

On page 7-200, regarding endangered clams: In each accident scenario previously mentioned in this EIS, the amount of agent released in the worst case model (ie: airplane crash into a storage igloo) would be greater for storage than operations. This section appears to contradict all previous analysis. Please explain (not that clams are our priority, rather for the sake of consistency). 115-38

§ 7.21.3 Impacts of Accidents during No Action (Continued Storage)

On page 7-205 Lines 3 through 4, regarding probability of the bounding accident: As referenced on page 7-174 Lines 22 through 23, the probability equation of $1x10^{-8}$ equals one occurrence in 100 million years. We feel this explanation of the equation should be used throughout the EIS as it puts the equation into terms the public better understand. 115-39

On page 7-205 Lines 10 through 13, regarding fatality estimates: Does the number of estimated fatalities assume CSEPP procedure implementation ? 115-40

§ 7.22 Cumulative Impacts

On page 7-212 Lines 9 through 11, regarding construction and operations time: The EIS states that an ACWA technology would require 34 months to construct; 31 months of operations. In § 7.23.3 Lines 28/29 it states, "Constructing and operating one or more pilot test facilities would be an action of limited duration - up to two years." 115-41

Having one section state approximately 5.4 years for construction/operations and another state approximately 2 years for construction/operations is wildly inconsistent. Please reconcile these figures. 115-42

§ 7.22.3 Infrastructure (All Sections)

It is assumed that all increased demands on infrastructure cited in this section and referenced to Table 7.3-1 as annual requirements are approximately equal in the number of years the increases would be required for any ACWA pilot thereby allowing an actual comparison of overall increases in electricity, natural gas, process water, potable water and sewage between technologies. Please clarify. 115-43

§ 7.22.3.3 Water Supply and Sewage Treatment

On page 7-218, related to increased water usage: Section and referenced chart (Table 7.3-1) and referenced Section (7.3.3) do not explain the percentage of additional water needed for any ACWA technology that would be recycled within any of the options. Do the numbers cited in Table 7.3-1 exclude amounts recycled? If so the actual annual consumption numbers would vary depending on each individual technology's capability to reuse water. Please clarify in a comparative manner between technologies. 115-44

§ 7.22.4 Waste Management and Facilities

On page 7-219 Lines 23 through 28, related to hazardous and non-hazardous waste disposal capacities: Regarding ACWA created hazardous and non-hazardous waste and 115-45

the existing disposition of current amounts handled at BGAD it is not clear that the capacity exists based on the referenced chart (Table 7.4-1) as none of these wastes are generated from chemical weapons treatment and therefore might not be applicable to this particular waste treatment stream. **115-45**

Additionally, those wastes noted on Table 7.4-1 as shipped off site need to be identified as to what types of wastes leave BGAD now, compared to those created by ACWA; what type of treatment would ACWA off site wastes be subject to (ie: deep well injected, incinerated, land filled, etc.); and, where are the current and proposed reception sites located for current and proposed off site waste shipments. **115-46**

Are the current locations permitted to handle chemical weapons treatment waste? Are the communities willing to accept such waste? Are there any "special" processes needed for additional permits (ie: Class I or II permit Mods) at the proposed reception sites? What is the anticipated public reaction to the information being presented to reception communities that they may be receiving such wastes? **115-47**

§ 7.22.6.2 Impacts of Operations

Cumulative Impacts with Other Actions, Including a Baseline Incinerator

On page 7-228 Lines 24 through 26, related to maximum risk for a baseline incinerator: We disagree with the findings referenced as maximum carcinogenic risk as cited in the EIS for PBA (Appendix H of U.S. Army 1997) and believe that corrected methodology and assessment modeling integrated into the cited assessment would put baseline incinerator operations at BGAD over the $1x10^{-6}$ standard generally considered representative of negligible risk. **115-48**

Therefore, an ACWA pilot plant operating simultaneously with a baseline incinerator would represent an increased carcinogenic risk of well over the $6.2x10^{-7}$ stated in this section.

On page 7-229 Lines 3 through 5, related to maximum agent releases from a baseline incinerator: We strongly disagree with the assumption stated that the maximum agent releases from a baseline incinerator would be similar to those of the ACWA facility. **115-49**

ACWA facilities have only one delivery pathway for agent to escape into the environment (via the Filter Farm Stack) during operations. Baseline has the HVAC stack and a Common Stack (furnace stack) both of which vent into the atmosphere. **115-50**

ACWA technologies provide significantly greater control of the agents during processing; do not have two competing air flow systems; rely on automatic waste feed cutoffs to stop agent processing; do not accumulate agent in a common stack PFS (pollution filter system); do not create the risk of such accumulated agent escaping during a process upset (puffs, explosions, etc.); do not rely on isolation valves to curtail agent movement during or immediately after processing; do not have agent being injected under pressure into an open-ended treatment system; do not allow treated agent gases (at varying DREs) to escape directly into the environment; do not process agent in a high velocity air movement system; are not dependent on afterburners, scrubbers and other PAS systems to modify chemical configurations (possibly containing agent - particularly during upset conditions) to prevent agent releases; do not treat agent under high pressure/high temperature (the highest temperature treatment process for agent is the ElchemOx process @ 190 ° F with the electrochemical cell closed downstream of the feed prior to temperature introduction); and other factors. **115-51**

We strongly recommend this statement be modified to more accurately reflect the significant difference in the potential maximum agent release from baseline incineration when compared to ACWA applications. 115-51

§ 7.22.12.2 Wildlife

On pages 7-236 through 7-238: We disagree with the statement that emissions from a baseline incinerator would be "small." "Small" is an inappropriate term in the context of emissions and deposition, particularly incineration emissions. "Small" amounts of dioxin, mercury, PCBs etc. can have a profound impact on wildlife and their habitat, reproductive capability and alike. 115-52

§ 7.22.12.3 Aquatic Habitats and Fish

For pages 7-238 through 7-239: See comment on "Wildlife" above. 115-53

§ 7.22.12.4 Protected Species

For pages 7-239 through 7-240: See comment on "Wildlife" above. 115-54

§ 7.22.14 Environmental Justice

On Page 7-244 (and referenced Section 7.20): Based on comments noted in § 7.22.6.2 Impacts of Operations, Cumulative Impacts with Other Actions, Including a Baseline Incinerator above, we strongly feel the impacts of a baseline incinerator, either in combination with (as exemplified in this Section) other technologies or by itself, would have significant Environmental Justice implications for the 30 mile radius of BGAD. 115-55

During the 1979 "Smoke Pot Incident" the majority of impacted citizens were people of color, lending evidence that chronic emissions from a baseline incinerator and/or releases of agent during routine and non routine operations has a potential to disproportionately impact such populations. Additionally, since the figures provided on low-income populations being well above the national average within the 30 mile radius of BGAD, this aspect of Executive Order 12898 also applies. 115-56

As witnessed in Anniston, Alabama, where a baseline incinerator is constructed and about to go on line, direct negative economic impacts as a result of this technology are manifesting themselves (ie: lower property values; inability to sell homes within the zone; inability to attract new businesses; population decrease, etc.). Similar impacts could be expected to be replicated within the BGAD 30 mile radius (possibly larger radius depending on new toxicity standards and improved plume modeling). 115-57

Therefore, we feel strongly that high and adverse consequences within the scope of environmental justice would exist should a baseline incinerator be considered in the cumulative impacts of this EIS. 115-58

§ 7.23 Other Impacts

Generally, we are comfortable with this section.

On page 7-248, however, the EIS states at line 7-8 that the ACWA facilities "would be decontaminated and demolished, and the land would be returned to long-term productivity." This seems to imply that the fate of the facility, in regards to closure, has 115-59

already been determined. It also implies that statements on closure are within the scope of this EIS. Please clarify. **115-59**

§ 7.24 Mitigation

As a general statement, we urge precautionary and preventative measures to be taken at every step of the construction and operations phase. These principles apply to all potential impact areas, including those which the EIS feels do not require mitigation (p. 7-248 line 20-21). **115-60**

Respectfully submitted
August 9, 2001 by

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00117

COMMENTS TO THE DEPARTMENT OF THE ARMY

ON THE DRAFT
ASSEMBLED CHEMICAL WEAPONS ASSESSMENT (ACWA)
ENVIRONMENTAL IMPACT STATEMENT (EIS)

FOR THE DESIGN, CONSTRUCTION, AND OPERATION AND CLOSURE
OF FACILITIES FOR THE
DESTRUCTION OF CHEMICAL AGENTS AND MUNITIONS

AS NOTICED IN THE FEDERAL REGISTER
VOL. 65, NO. 233
MONDAY, DECEMBER 4, 2000

SUBMITTED BY
FAMILIES AGAINST INCINERATOR RISK (SALT LAKE CITY, UT), ET AL.

THURSDAY, AUGUST 9, 2001

COMMENTS ON THE ACWA EIS

When the decision was made to exclude Utah from the ACWA EIS process due to PMCD's projected destruction completion date for the Tooele stockpile, PMCD knew the the schedule was inaccurate--Utah burning could not be completed by 2004 as projected.

Recent findings substantiate the Utah schedule slippage. In April, an internal Army report was presented at a US Senate Subcommittee Hearing which indicates, using actual operational data from the Utah and Pacific incinerators, that the Utah stockpile will not be destroyed until 2010.

Given that: 117-1

- the decision to exclude Utah from the ACWA EIS was based on PMCD's fraudelently projected schedule; and
- evidence shows that the Utah stockpile will not be destroyed using incineration until 2010;

Therefore, commenters recommend a supplemental EIS that includes Tooele be completed in such a way that it does not halt progress at the other sites included in the present ACWA EIS.

Respectifully submitted
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COMMENTS TO THE DEPARTMENT OF THE ARMY

ON THE DRAFT
ASSEMBLED CHEMICAL WEAPONS ASSESSMENT (ACWA)
ENVIRONMENTAL IMPACT STATEMENT (EIS)

FOR THE DESIGN, CONSTRUCTION, AND OPERATION AND CLOSURE
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VOL. 65, NO. 233
MONDAY, DECEMBER 4, 2000

SUBMITTED BY
THE OREGON CHAPTER OF THE SIERRA CLUB, ET AL.

THURSDAY, AUGUST 9, 2001

COMMENTS ON THE ACWA EIS

When the decision was made to exclude Oregon from the ACWA EIS process due to PMCD's projected destruction completion date for the Umatilla stockpile, PMCD knew the the schedule was inaccurate--Umatilla burning could not be completed by 2006 as projected. This statement is evidenced by the following.

1. January 2000 memos from the Oregon DEQ's permit chief, Wayne Thomas, show clearly that:

• the Army fraudently included the DUN furnace in the Oregon permit application although they knew the DUN would not work; and

• the Army had not come up with a way of dealing with the dunnage that could not be burned in the unworkable DUN.

PMCD knew when Oregon was excluded from the ACWA EIS that the above concerns with secondary waste had not been resolved and would adversely impact the projected schedule.

2. The EQC, chaired by Henry Lorenzen, insisted that the permit include certain basic elements that had to be present before any test burns could be started. It used the term "showstoppers." These showstoppers cannot be resolved and thus provide additional substantiation that the original 2006 completion date can not be met

3. Furthermore, prior to the determination being made on which sites would be included in this EIS, an analysis by A.D. Little concluded that the 2006 completion date for Oregon could not be met. 118-1

Recent findings also substantiate the Oregon schedule slippage. In April, an internal Army report was presented at a US Senate Subcommittee Hearing which indicates, using actual operational data from the Utah and Pacific incinerators, that the Oregon stockpile will not be destroyed until 2012.

Commenters want it noted that the largest part of the Umatilla stockpile (63.9%) is HD mustard stored in bulk containers, the same material in the same configuration as the Aberdeen Proving Ground stockpile that will be treated with neut-bio.

Given that:

• the decision to exclude Oregon from the ACWA EIS was based on PMCD's fraudulently projected schedule;

• evidence shows that the Oregon stockpile will not be destroyed using incineration until 2012; and

• the majority of Oregon's stockpile is identical to the stockpile at Aberdeen, which is going to be destroyed by neut-bio;

Therefore, commenters recommend a supplemental EIS that includes Umatilla be completed in such a way that it does not halt progress at the other sites included in the present ACWA EIS.

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COMMENTS TO THE DEPARTMENT OF THE ARMY

ON THE DRAFT
ASSEMBLED CHEMICAL WEAPONS ASSESSMENT (ACWA)
ENVIRONMENTAL IMPACT STATEMENT (EIS)

FOR THE DESIGN, CONSTRUCTION, AND OPERATION AND CLOSURE
OF A FACILITY FOR THE
DESTRUCTION OF CHEMICAL AGENTS AND MUNITIONS
AT THE PINE BLUFF ARSENAL (PBA), ARKANSAS

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SUBMITTED BY
PINE BLUFF FOR SAFE DISPOSAL, ET AL.

THURSDAY, AUGUST 9, 2001

Mr. Jon Ware
ACWA EIS
9700 S. Cass Ave.
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Argonne, IL 60439-4871

August 9, 2001

Dear Mr. Ware,

Please accept the following comments for the Draft Environmental Impact Statement for the Assembled Chemical Weapons Assessment.

General comments

We support deployment of an ACWA pilot facility in Pine Bluff, even if it means retrofitting an existing incinerator. We see the ACWA technologies as safer, more efficient, environmentally just means of chemical weapons disposal. **119-1**

Although the PBA stockpile does include some nerve agent munitions, roughly 80% of our stockpile is ton containers filled with mustard agent. Therefore, the Parsons/Honeywell neutralization and bioremediation system should still be considered applicable for our site. **119-2**

Specific comments

§ 5.4 Waste Management

In general, we realize that any ACWA technology will create hazardous waste. We support technologies which are able to prevent pollution, to the greatest extent possible. We urge that pollution prevention practices be upheld during construction as well as operations. **119-3**

On page 5-28 Lines 14-19, the EIS states that brine wastes from any ACWA technology could contain PCBs, yet this section offers no information as to how these wastes would be treated...it appears that a plan for further treatment of these waste does not exist. On page 5-30 Lines 12-13, the EIS states that "no significant impacts are expected..." from waste management practices. Unless the EIS includes more information here on how waste contaminated with PCBs, etc. could be destroyed, the public cannot fully assess the impact of the wastes. **119-4**

Given the existing high levels of toxic chemicals in the environment and our bodies, any activities involving chemical warfare agents, including the additional release of hazardous wastes, is "significant." **119-5**

The EIS should reference Appendix C -- the methodology for assessing health risks from substances like PCBs. **119-6**

§ 5.5.1.2 Emissions

ACWA technology operations should be conducted in such a way that emissions are kept to a minimum. This should be true no matter what the annual emissions are for PBA or Jefferson County as a whole. (see p. 5-42 lines 13-18). **119-7**

§ 5.5.1.3 Air Quality

Concerning SAAQS and NAAQS (p. 5-42 and p. 5-28): same as above comment: ACWA technologies should operate in a manner which keeps emissions to a minimum; not simply meeting attainment status criteria. **119-8**

§ 5.5.2.2 Emissions from Operations

In this section, concerning "stacks," the technologies are referenced with no mention of air pollution abatement (e.g. page 5-47 line 26, and page 5-61 line 2 ; page 5-51 lines 4-15). Please clarify. **119-9**

§ 5.6.2 ACWA Facility Emissions

On pages 5-61 through 5-69, Concerning Estimated Toxic Air Pollutant Emissions for ACWA Technologies: Table 5.6-4 shows significantly greater numbers of toxic pollutants from the Neutro/GPCR/TW-SCWO technology than from the other ACWA technologies. Is the increased number of emissions a result of the process captured in Table 5.6-4 or has this technology provided more detailed information than the other options? **119-10**

Please provide the reason for the significantly greater number of Toxic Air Pollutants represented in Table 5.6-4 as compared to the other options. **119-11**

Comparisons of certain Pollutants between technologies also reflects significantly higher quantities of certain emissions of particular concern (i.e.: PCB's and TCDD's) from Table 5.6-4 than from the other ACWA technologies. This could be technology specific, regarding processing (ie: for PCB's during nerve agent processing Neutro/SCWO shows PCB emissions at $1.5x10^{-9}$ [μg/s] vs. PCB's during nerve agent processing for Neutro/GPCR/SCWO shows PCB emissions at $9.6X10^{-2}$ [μg/s]). Since both are Neutro/SCWO technologies, explain the differences in the emissions of PCB's for each process. **119-12**

Another example: using the same two technologies in comparison, there appears a significant difference in Mercury emissions as a result of operating the boiler(s) for each. The Neutro/SCWO Table cites boiler Mercury emissions at $5.2x10^{-1}$ (μg/s) , the Neutro/GPCR/SCWO shows Mercury emissions from their boiler at $9.4x10^{-1}$ [μg/s] , almost twice the amount of the former option. Please explain this disparity. **119-13**

All three alternatives applicable for VX treatment show varying amounts of VX emissions leaving the Filter Farm Stack ranging from 2.8 to 3.7 [μg/s]. Although footnoted as "worst-case estimate" - at the detection limit, this raises concerns about the capability of the technologies to contain VX agent. Please provide VX emissions data for normal operations and explain conditions under which "worst-case scenario" VX emissions at the levels cited could occur. **119-14**

§ 5.6.3.2 Impacts of Operations

On Page 5-70, regarding HAP's and NESHAP regulatory action, please provide the quantities of HAP's specifically related to the toxic pollutants emitted via the alternatives under consideration that would trigger NESHAP regulatory action. **119-15**

§ 5.7 Human Health and Safety - Routine Operations

§ 5.7.1.4 Emergency Response

Regarding the PAR (Protective Action Recommendation) on page 5-76, it has come to our attention that the PAR will be based on a CSEPP Guidebook, yet to be released for PBA and the surrounding community. The Guidebook will define procedures to determine the PAR. Information on the Guidebook currently offered for CSEPP at the Anniston, Alabama site has caused significant controversy in regards to assumptions including, but not limited to, the toxicity standards being used to determine the PAR. **119-16**

If such a Guidebook exists for the BGAD and surrounding community it should be provided in its entirety as part of the Final ACWA EIS.

§ 5.7.2.2 Impacts of Operations

This section (along with the referenced Tables and Appendix C) represents the best attempt at quantifying risks to Workers, On and Off Post Residents, based on available information. Appendix C reflects a methodology that is conservative in all dimensions of risk estimates and calculations.

119-17

It is obvious however that there are numerous assumptions factored into this section due to the lack of specific demonstration or other empirical data. All additional data gathered through additional demonstration information and/or Engineering Design Studies that can add to the information provided within this section should be incorporated into the ACWA FEIS (or sooner if possible through ACWA Outreach) for public consumption.

Although outside the scope of this EIS, we point out the all the ACWA technologies are classified as "non-emissive" treatments when compared to baseline incineration, which is classified as an "emissive" treatment technology. We also note that none of the ACWA technologies would be regulated by the MACT rule or other regulations specific to combustion facilities.

§ 5.19 Socioeconomics

The impacts of "in-migration" to the area during construction and operations of an ACWA facility is described throughout the section. But nowhere is there consideration of possible "negative" effects from construction and operations. For example, there may be "out-migration" from the area, a decrease in agricultural practices, etc. **119-18**

The EIS should account for such negative impacts, even if specific data or references are not available.

§ 5.20 Environmental Justice

We concur that, that construction and operation of an ACWA technology may not disproportionately affect people of color or low income communities in central Kentucky.

However beyond the literal requirements of the Executive Order on Environmental Justice as defined on page 5-161 lines 11-20, the *intent* of the Executive Order -- the basic principles of environmental justice -- should be upheld: that everyone has the right to a clean, healthy environment and the highest levels of protection of public health. This may be beyond the narrow scope of the EIS, but we urge ACWA to develop an understanding of environmental justice principles on which the Executive Order is based. **119-19**

§ 5.21.1.2 Methods of Analysis

On page 5-165 Lines 2-3, regarding the D2PC Model assessment: If the CDP adopts the D2-Puff dispersion modeling system (or any other advanced modeling system) it should be captured in the ACWA FEIS with any deviations noted as related to this section. **119-20**

§ 5.21.1.3 Exposures and Deposition

On pages 5-165 and 5-168, regarding the no effects plume: Revised Acute Exposure Guidance Levels (AGELs) currently under review by EPA for GB and VX (Federal Register Vol 66 No. 85) should be factored into this section upon promulgation. **119-21**

Proposed AGELs for Mustard currently under consideration by the EPA (CAS Reg. No. 505-60-2) should be factored into this section upon promulgation. **119-22**

On Pages 5-165 and 5-168, regarding the "no deaths" contour: See comment on § 5.21.1.2 (D2PC model) revisions required should advanced modeling capabilities be implemented. **119-23**

§ 5.21.2.4 Human Health and Safety

On pages 5-170 through 5-174, relating to Fatality Estimates Table 7.21.2: We note and appreciate the inclusion of the recommended lower Lct_{50} standards by the NRC's 1997. **119-24**

On Page 5-173 Line 21, relating to the "MDB stack:" It is assumed this refers to the "Filter Farm Stack" cited previously in the EIS. Within the CDP's baseline incineration program, the exhaust stacks from the furnaces are referred to as the "common stack" and the equivalent to the "Filter Farm Stack" is referred to as the HVAC stack. **119-25**

Using the term "MDB stack" could be misconstrued as something other than the "Filter Farm Stack" This term should be modified to conform with terminology used previously in this EIS (see Table 5.6-2). **119-26**

On Page 5-174 Lines 15 through 20, relating to major process chemicals: Progress in containment design achieved during the engineering design studies should be included in the ACWA FEIS. **119-27**

§ 7.22 Cumulative Impacts

On page 5-196 Lines 19 through 21, regarding construction and operations time: The EIS states that an ACWA technology would require 32 months to construct; 32 months of operations. In § 5.23.3 Lines 20-21 it states, "Constructing and operating one or more pilot test facilities would be an action of limited duration - up to two years."

Having one section state approximately 5.3 years for construction/operations and another state approximately 2 years for construction/operations is wildly inconsistent. Please reconcile these figures. **119-28**

§ 5.22.4 Waste Management and Facilities

On page 5-202 Lines 10 through 18, related to hazardous and non-hazardous waste disposal capacities: Regarding ACWA created hazardous and non-hazardous waste and the existing disposition of current amounts handled at PBA it is not clear that the capacity exists based on the referenced chart (Table 5.4-1) as none of these wastes are generated **119-29**

from chemical weapons treatment and therefore might not be applicable to this particular waste treatment stream. **119-29**

Additionally, those wastes noted on Table 5.4-1 as shipped off site need to be identified as to what types of wastes leave PBA now, compared to those created by ACWA; what type of treatment would ACWA off site wastes be subject to (ie: deep well injected, incinerated, land filled, etc.); and, where are the current and proposed reception sites located for current and proposed off site waste shipments. **119-30**

Are the current locations permitted to handle chemical weapons treatment waste? Are the communities willing to accept such waste? Are there any "special" processes needed for additional permits (ie: Class I or II permit Mood's) at the proposed reception sites? What is the anticipated public reaction to the information being presented to reception communities that they may be receiving such wastes? **119-31**

§ 5.22.6.2 Impacts of Operations

Cumulative Impacts with Other Actions

On page 5-207 Lines 13 through 15, related to maximum risk for a baseline incinerator: We disagree with the findings referenced as maximum carcinogenic risk as cited in the EIS for PBA (Appendix H of U.S. Army 1997) and believe that corrected methodology and assessment modeling integrated into the cited assessment would put baseline incinerator operations at PBA over the $1x10^{-6}$ standard generally considered representative of negligible risk. **119-32**

Therefore, an ACWA pilot plant operating simultaneously with a baseline incinerator would represent an increased carcinogenic risk of well over the $6.2x10^{-7}$ stated in this section.

On page 5-207 Lines 23-30, the document shows the maximum carcinogenic risk (related to mustard-the only carcinogenic agent in the stockpile) for baseline incineration is 7 times greater (7 in 1,000,000) than the EPA benchmark level (1 in 1,000,000), whereas the maximum carcinogenic risk from the ACWA pilot facility is 25 times less (1 in 25,000,000) than the EPA benchmark. We feel this significant difference is worth noting explicitly in EIS. **119-33**

On page 5-208 Lines 7 through 10, related to maximum agent releases from a baseline incinerator: We strongly disagree with the assumption stated that the maximum agent releases from a baseline incinerator would be similar to those of the ACWA facility. **119-34**

ACWA facilities have only one delivery pathway for agent to escape into the environment (via the Filter Farm Stack) during operations. Baseline has the HVAC stack and a Common Stack (furnace stack) both of which vent into the atmosphere.

ACWA technologies provide significantly greater control of the agents during processing; do not have two competing air flow systems; rely on automatic waste feed cutoffs to stop agent processing; do not accumulate agent in a common stack PFS (pollution filter system); do not create the risk of such accumulated agent escaping during a process upset (puffs, explosions, etc.); do not rely on isolation valves to curtail agent movement during or immediately after processing; do not have agent being injected under pressure into an open-ended treatment system; do not allow treated agent gases (at varying DRE's) to escape directly into the environment; do not process agent in a high velocity air movement system; are not dependent on afterburners, scrubbers and other PAS systems to modify chemical configurations (possibly containing agent - particularly during upset conditions) to prevent **119-35**

agent releases; do not treat agent under high pressure/high temperature (the highest temperature treatment process for agent is the ElchemOx process @ 190 ° F with the electrochemical cell closed downstream of the feed prior to temperature introduction); and other factors. **119-35**

We strongly recommend this statement be modified to more accurately reflect the significant difference in the potential maximum agent release from baseline incineration when compared to ACWA applications.

§ 5.22.12.2 Wildlife

On pages 5-213 through 5-215: We disagree with the statement that emissions from an baseline incinerator would be "small." "Small" is an inappropriate term in the context of emissions and deposition, particularly incineration emissions. "Small" amounts of dioxin, mercury, PCB's etc. can have a profound impact on wildlife and their habitat, reproductive capability and alike. . **119-36**

§ 5.22.14 Environmental Justice

On Page 5-217 (and referenced Section 5.20): Based on comments noted in § 5.22.6.2 Impacts of Operations, Cumulative Impacts with Other Actions, we strongly feel the impacts of a baseline incinerator, either in combination with (as exemplified in this Section) or on by itself, would have significant Environmental Justice implications for the 30 mile radius of PBA.

As witnessed at the stockpile site in Anniston , Alabama, where a baseline incinerator is constructed and about to go on line, direct negative economic impacts as a result of this technology are manifesting themselves (ie: lower property values; inability to sell homes within the zone; inability to attract new businesses; population decrease, etc.). Similar impacts could be expected to be replicated within the PBA 30 mile radius (possibly larger radius depending on new toxicity standards and improved plume modeling). **119-37**

Therefore, we feel strongly that high and adverse consequences within the scope of environmental justice would exist with baseline incineration.

§ 5.24 Mitigation

As a general statement, we urge precautionary and preventative measures to be taken at every step of the construction and operations phase. These principles apply to all potential impact areas, including those which the EIS feels do not require mitigation (p. 5-22 line 12-14). **119-38**

Respectfully submitted
August 9, 2001
by

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00120

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 9 2001

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Jon Ware
ACWA Environmental Team Leader
P.O. Box 8369
Argonne, IL 60439-4871

Dear Mr. Ware:

EPA is pleased to provide the following comments for the Department of Defense's (DOD) *Draft Environmental Impact Statement (EIS) for the Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technology*, dated May 2001. Our comments are offered in accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. We appreciate DOD's efforts in extending the comment period for an additional 45 days. We also appreciate your meeting with our office and providing an informational briefing on your program and this EIS.

The purpose of the Assembled Chemical Weapons Assessment (ACWA) EIS is to analyze the potential environmental impacts of a proposed action to pilot test one or more alternative systems for the destruction of Assembled Chemical Weapons (ACWs) at one or more alternative Army installations that are storing ACWs. The scope of the EIS includes the impacts from constructing and operating each successfully demonstrated destruction technology as a pilot facility at each of the installations to which it applies. The four installations included in the EIS are Anniston Army Depot (ANAD) in Anniston, Alabama; Pine Bluff Arsenal (PBA) in Pine Bluff, Arkansas; Pueblo Chemical Depot (PCD) in Pueblo, Colorado; and Blue Grass Army Depot (BGAD) in Richmond, Kentucky. The ACWs that are to be destroyed exist in a variety of forms, each with a different combination of components. The EIS assumes that the pilot tests will be operated at design throughputs comparable to those of the incineration facilities at ANAD and PBA. The four destruction systems that are assessed in the document are those that successfully completed the initial demonstration testing. The systems are (1) neutralization followed by biological treatment (NEUT/Bio), (2) neutralization followed by supercritical water oxidation (NEUT/SCWO), (3) neutralization followed by gasphase chemical reduction/transpiring wall supercritical water oxidation (Neut/GPCR/TW-SCWO), and (4) electrochemical oxidation (Elchem Ox). The no action alternative is also assessed.

Some of our comments also pertain to relevant sections concerning the DEIS for Destruction of Chemical Munitions at Pueblo Chemical Depot (PMCD), since these are relevant to programmatic concerns. The official comment letter on the PMCD DEIS is being sent by EPA Region 8 in Denver, Colorado. We encourage close coordination within the Department of Defense between the site-specific EISs and the programmatic EIS concerning chemical weapons destruction. EPA recommends that, in reviewing our enclosed comments on individual depots, and particularly Pueblo, DOD determine their applicability to the design technologies at other

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sites as well. We assume that DOD will follow up with site specific EISs for the three remaining sites at ANAD, PBA, and BGAD.

EPA is concerned that DOD has not adequately identified environmental impacts nor does the EIS contain sufficient information to thoroughly assess environmental impacts. EPA is assigning a rating of EC-2 (Environmental Concerns-Insufficient Information). This is based on a variety of concerns identified in the attached detailed comments, including transportation of wastes, impacts on agriculture, and accident planning, and the need for additional information on these concerns to be included in the Final EIS (FEIS). We have enclosed a summary of EPA's rating definitions.

Thank you for the opportunity to provide comments on this proposed action. If you have any questions regarding this letter, please feel free to contact me at (202) 564-2400 or Marguerite Duffy at (202) 564-7148.

Sincerely,

Anne Norton Miller
Acting Director
Office of Federal Activities

Enclosure

EPA COMMENTS ON DOD'S DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE DESIGN, CONSTRUCTION AND OPERATION OF ONE OR MORE PILOT TEST FACILITIES FOR ASSEMBLED CHEMICAL WEAPONS DESTRUCTION TECHNOLOGY

EPA recommends that, in reviewing our comments on individual depots, and particularly Pueblo, DOD determine their applicability to the design technologies at other sites as well.

General Comments for Both PMCD DEIS and the Pueblo Discussion in the ACWA DEIS (The PMCD Pueblo specific comments follow this section.)

1. It is apparent from the EIS and the tiered site specific EIS for Pueblo and EPA Region 8 discussions with ACWA and PMCD, that the Department of Defense (DOD) plans to construct one facility at the Pueblo Chemical Depot (PCD). We understand that DOD plans to decide in the fall which of the four alternatives is the best technology to destroy the stockpile of mustard agent chemical munitions at PCD. The presentation of the environmental analyses in the documents two DEISs needs to be improved. One cannot determine what the current state of knowledge is regarding which technology might be the most effective and efficient and which alternative would be environmentally preferable. The FEISs should include additional information to evaluate the relative environmental impacts and other decision factors for the alternatives. **120-1**

2. Suggested changes include: (a) improved presentation of the environmental analyses for comparison of technologies, for example, a table showing dioxin air emissions; (b) additional information specifically comparing the environmental impacts of each alternative for hazardous waste generation and air pollution; (c) additional information concerning air impacts on the agricultural community.

3. In addition, the public wants to be kept informed about the environmental performance of the chemical weapons destruction technologies. They are very interested in the performance of other facilities and will be especially interested in performance information for PCD from initial start up through facility closure. We recommend that the monitoring sections (section 4.26.5 PMCD, no specific ACWA section) include a program to keep the public informed continuously throughout the project. We recommend that this information both confirm the technology performance assumptions made in the EISs and demonstrate compliance with applicable environmental regulations. **120-2**

Inconsistencies, Lack of Coordination between ACWA and PMCD EISs

4. One major area of concern for EPA stems from the discrepancies and lack of coordination between the two EISs. We note inconsistencies between the documents regarding power supply, water supply, wetlands, water consumption, contaminant emissions and communication upgrades **120-3**

(see below comments and the PMCD comment letter for additional details). Reviewers have also noticed other editing items and inconsistencies such as the number of frost free days in Pueblo (157 vs. 218) and tables with inconsistent or inappropriate units (i.e., soil and waste quantities should all be in tons not thousand lbs. PMCD tables in section 4.6.1.1) We also recommend an increased use of tables that compare all four alternatives side-by-side. **120-3**

5. A great deal more effort needs to be taken to ensure the Pueblo environmental analysis is consistent and comparable between the two documents. The environmental analyses need to cover the same impacts and pollutants of concern for each alternative. We also recommend an increased use of tables that compare all four alternatives side-by-side. **120-4**

6. The projections of air emissions and consumptive water use are not well defined. At the June 7, 2001, public meetings in Pueblo, the Army spokesperson said that they were still calculating the dioxin emissions and it was thought that neutralization/bio would have higher dioxin emissions than incineration. The Army spokesperson also said that the final figures on consumptive water use have not been determined. The FEIS needs to include the final estimates. **120-5**

7. EPA suggests that the contractors for ACWA and PMCD work jointly on the affected environment and environmental consequences chapters (Chapter 6 -- ACWA and Chapter 4 -- PMCD). The EIS contractors should also work jointly in preparing one set of tables comparing the environmental impacts and technology efficiencies among the four alternatives. **120-6**

Comparison of Alternatives

8. Air quality is one of the most significant areas of concern for chemical weapons destruction. The public and the decision maker should be able to easily compare the levels of emissions and ambient concentrations, and the types of air pollution from each of the alternatives. The FEIS should include a table with each of the major air pollutants of concern. The comparison table should include air emissions for the main Hazardous Air Pollutants (HAP) of concern, such as the more toxic of the dioxins (i.e., TCDD), mercury, cadmium, and lead, and other pollutants of concern. The toxicity equivalents for both dioxins and furans should be developed to compare air emissions from each of the technologies. These comparison tables should also include the criteria pollutants for air and volatile organic compounds. **120-7**

9. The EISs do not provide enough information on the transportation of wastes from PCD. Issues such as managing brines and other hazardous chemicals shipped on local roads are important, especially to the agricultural community. One cannot determine from these documents which technology would have the highest demand on the local highways or what technology requires the greatest volume of hazardous waste to be transported onto or out of the PCD. **120-8**

10. The alternatives analysis should evaluate the impacts of energetics treatment and/or disposal. Currently, most alternatives include both on-and off-site treatment/disposal without examining the potential environmental impacts of either on-site treatment, or off-site treatment and disposal **120-9**

Agricultural Impacts

11. We recommend that a section be added to both FEISs on potential impacts to agriculture. Portions of the impact analysis are already present in the socioeconomic and other sections of the EISs. This impact assessment will also be of use in preparing for the agricultural risk assessment that will be necessary the RCRA permitting process.

This agricultural impact assessment should include: (a) deposition of destruction byproducts affecting livestock or crops in both the short term (during operations) and long-term (soil deposition); (b) potential public or market perception that destruction byproducts have affected livestock or crops. The perceptions of wholesalers, distributors and retailers that products might be grown in contaminated soils can affect the marketability of the farm products marketed across the country; and (c) specific crops and livestock operations that are present in the Pueblo area including crops used as feed. **120-10**

12. The FEISs should also develop plans to mitigate the impacts of the proposed facility on agriculture. The farmers, ranchers and agricultural workers would be the best sources for potential mitigation efforts. From our discussions with the Pueblo community, there is some concern regarding the potential risks or lack of risks to the public and potential customers for agricultural products. This is probably the case at the other sites as well. An independent third party review of the agricultural impact assessment may also be helpful to avoid developing public perception problems. **120-11**

13. The agricultural impact analysis or the accidents impact analyses (Sections 6.21 ACWA or 4.22 PMCD) should also take into account the potential impact of an accident on farmlands and agricultural workers, many of whom, by virtue of their socioeconomic status and work histories, may be more vulnerable to exposures to hazardous substances. In particular, care should be taken to understand the nature of the workforce close to the PCD and to incorporate this understanding into the numbers regarding potential exposures. **120-12**

ACWA-EIS Pueblo Specific Comments

14. Page S-46, Socioeconomics - "From 1990 to 1999, the population growth rate was less than 1%." Add "per year" after the 1% or state that the population grew less than 1% between 1990 and 1999. **120-13**

15. Page S-49, table S.6-1 - The statement in the Operations paragraph that carcinogenic risks are "almost all associated with boilers, not destruction facility processes" appears unsupported since only direct inhalation was considered for the risk estimates in the EIS. The majority of the persistent bioaccumulative compounds were assumed in the EIS to be emitted from the treatment units. EPA guidance on conducting risk assessments strongly recommends that indirect exposure pathways be considered, especially when persistent bioaccumulative compounds are assumed to be emitted. (*Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities*, July 1998) **120-14**

Section 6:

16. Page 6-12, third paragraph, line 18 - "Pueblo (population 100,000) , located ~~east~~ west of PCD, is the only city . . . " **120-15**

17. Page 6-19. Section 6.3.3.1 - Current Supply and Use: According to this section, PCD currently uses 1.4 million gallons/yr of water and generates 7.8 million gallons of wastewater annually. Please explain how the quantity of wastewater disposed is 5 times the quantity of water produced. **120-16**

18. Page 6-29, second paragraph - "If the solid salt wastes would need to be stabilized, either a waste management process for stabilizing the waste would be needed, or alternatively, the waste would need to be shipped off post to an appropriately permitted treatment facility. If the salt wastes would need to be treated, a new treatment facility might need to be constructed." We recommend that the handling of the salt wastes be more thoroughly discussed. What impacts would a treatment facility have? Would the treated salt wastes be landfilled? How would wastes from the treatment facility be disposed? **120-17**

19. Page 6-29, line 20 - Does ACWA have any test data showing the brine salts would pass the RCRA TCLP test? It is EPA's understanding that lead and mercury are contained in significant quantities in the mustard projectiles. Given the presence of lead and mercury it should be concluded that the brine salts will likely fail the TCLP test and will be characteristic hazardous waste, as well as listed hazardous wastes in Colorado. **120-18**

20. Page 6-32, line 22 - Has the ACWA program identified any potential off-site facilities that could accept the untreated brine salts for treatment and disposal? It is unclear whether the polyethylene encapsulation treatment identified in the EIS would be acceptable treatment under the 40 CFR Part 268 Land Disposal Restriction (LDR) requirements for brine salts. **120-19**

21. Page 6-34, line 1 - Given the levels of heavy metals found in the brine produced at the baseline incineration facilities that are treating mustard and other chemical agents, it appears likely that the brine salt from an ACWA facility would be a characteristic hazardous waste. It does not appear to be appropriate to pursue a delisting of brine salt and other residues from the ACWA facilities, unless more detailed analytical data supporting a delisting is generated that supports such a delisting petition. For purposes of the FEIS, EPA recommends that all salt, biomass, and other residue should be considered as hazardous wastes. **120-20**

22. Page 6-35, line 2 - The sentence that starts "Depending on the technology chosen . . . " please clarify the meaning of "amount of loading of the wastes in the stabilization matrix". Is this term referring to the amount of treatment reagent that would be needed to treat the salt (on-site) to below the Hazardous Waste Land Disposal Restriction requirements? **120-21**

23. Page 6-35, line 15 and page 6-34, line 22 - What is the level of certainty that water will be recycled from the liquid wastes at an ACWA facility? Economic considerations at one baseline incineration facility prompted a decision by the Army to discontinue drying brine into a dry salt for shipment off-site. What would be the impact to waste generation and water use rates if water recycling was not conducted? **120-22**

24. Page 6-60, table 6.6-1 and page 6-63, table 6.6-2 - Table 6.6-1 estimates that dioxin compounds and other organic compounds from incomplete treatment will be present in the filter farm stack for the Neut/Bio process. Why are these organic compounds not assumed to be present in the filter stack of the Neut/SCWO process? The FEIS should explain the difference in air emissions between these two alternatives. **120-23**

25. Page 6-60, table 6.6-1 and page 6-63, table 6.6-2 - It appears that the assumption was made that each of six banks of carbon filters in series would be able to achieve 95% removal efficiency, thus giving a System Removal Efficiency (SRE) of 1- (.05 ^{6}) or 99.999998%. This appears overly optimistic. What documentation was used to support such a high SRE for organic compounds using carbon filters and for PM using HEPA filters. Has the Army demonstrated this level of SRE for the carbon filters used at the baseline incineration facilities? How was the SRE for dioxin compounds calculated, since SREs are assumed for organics and PM (using the HEPA prefilters)? **120-24**

26. Page 6-63, table 6.6-2 - Estimated emission values for total HpCDF and TCDD are listed, but estimates of individual congeners of HpCDF and TCDD are not listed. Does dioxin congener data exist for emissions from the Neut/SCWO process? **120-25**

27. Page 6-68, Table 6.6-3 - The modeled mustard gas concentrations are based on an emission rate equivalent to the minimum detection limit of the exhaust gas monitor. Please included this information as a footnote for the table. **120-26**

28. Page 6-75, line 22 - This section should more clearly discuss that only direct inhalation was considered for risk estimates. EPA guidance on conducting risk assessments at combustion facilities strongly recommends that indirect exposure pathways be considered, especially when persistent bioaccumulative compounds, such as dioxin, are assumed to be emitted. It would also be helpful to know what guidance or procedures were used in conducting the inhalation risk calculations. **120-27**

29. Page 6-76, line 12 - It is not clear what partitioning of risk would occur between process emissions, such as boilers, and treatment unit emissions if indirect exposure pathways were considered in the risk assessment, since the majority of the persistent bioaccumulative compounds were assumed to be emitted from the treatment units. More complete risk estimates would be useful in determining whether or not the Neut/Bio emissions should be treated through the carbon filters. **120-28**

30. Page 6-79, line15 - Please clarify the sentence starting with "In order to use the ACW destruction systems for pilot testing, plans have been made to recycle all process water through the system." Why is recycling process water thorough the system needed to use an ACW system for pilot testing? **120-29**

31. Page 6-81, line 7 - The Risk Assessment in Appendix C does not support this statement that "exposures through water, soil, or food chain pathways would result in minimal, if any, additional risk to off-post residents" since indirect exposure pathways were not evaluated. **120-30**

32. Page 6-81, line 21 - refers to the risk calculations for the no action alternative shown in Table 6-7.3. The table was not included in the DEIS. **120-31**

33. Page 6-103, line 3 - The estimated water use values in this paragraph should be changed to 19,400,000 gal for Neut/Bio and 24,400,000 gal for Neut/SCWO in order to be consistent with table 6.3-1. **120-32**

34. Page 6-103, lines 8-9 - There is no support for the statement that impacts on groundwater withdrawals would be minimal. The aquifer would be drawn down and there may be impacts to the local agricultural water users and wetlands. **120-33**

35. Pages 6-133, lines 18-19 - The conclusion that there will be no wetland impacts is not supported by other sections of the DEIS. The groundwater and water supply sections of the DEIS indicate that the increased use of water will draw down the terrace alluvial aquifer, potentially de-watering wetlands. It appears that seepage from outcroppings of this aquifer are the water source for many of the wetlands at PCD. **120-34**

36. Page 6-159, lines 3-7 state that there is a significant population of seasonal farm workers present at certain times of the year and that this population is difficult to track statistically. While accurate numbers are difficult to obtain, both the CDPHE and Pueblo County should have estimates of the approximate size of this group. For the purposes of this EIS, such estimates would be useful in more precisely assessing risk. **120-35**

37. Page 6-162, Paragraph 1 - The statement is made that ". . . there is no evidence that impacts considered in this EIS affect minority and low-income persons any differently than they would affect other persons." Did the analysis consider that poor and minority populations may have increased vulnerability to environmental insults due to social and economic circumstances? Issues for consideration include low birth weight babies, inadequate nutrition, cultural practices and limited access to health care. **120-36**

38. Page 6-162, Section 6.20.3.1 - The statement is made that ". . . existing housing stock would probably be able to accommodate increased demands." While this should be true, the effect on poorer populations may be to make it less affordable by applying upward price pressure on rents for the existing housing stock.

The statement is also made that ". . . the increased employment and income would be a positive, not an adverse, consequence of construction." We suggest that you also look at the other aspects of the increased employment. For instance, the consequence for poorer and minority populations may, in fact, be neutral or even negative. Anecdotal evidence from other communities suggests that poor and minority populations often receive few if any of the direct jobs brought in by a new construction project. The negative effects flow from increased prices on rents, goods and services. **120-37**

39. Page 6-223, line 25 - We disagree with the conclusion in section 6.24. "Because no adverse impacts on land use...., socioeconomics or environmental justice (EJ) were identified, no mitigation would be required for these resource areas." There is an environmental justice community identified. Previous operations at the Pueblo Chemical Depot have already impacted nearby EJ communities and will continue during the period when Depot closure and cleanup and **120-38**

implementation of the chemical weapons destruction facility are taking place. As discussed in our comments above and EPA Region 8's meeting on EJ at Pueblo, increased and focused information and communication would be appropriate types of mitigation for this project. See in particular, our comments (#11 above) on the agricultural risk assessment, technical assistance to the agricultural community, accidents impact analysis for agriculture, and an accessible information and monitoring program. **120-38**

40. Page 6-224, line 3 - All data currently available appear to indicate that hazardous waste streams will be produced from the pilot test facilities. It is unclear why "potentially" is used in this sentence. **120-39**

Anniston Army Depot (AAD), Alabama and Blue Grass Army Depot (BGAD), Kentucky

41. A great deal of the information necessary to make an informed decision as regards the pilot test facilities at AAD and BGAD is not presented in the document. Admittedly, some of the activities in question remain to be determined. An array of possible options is given, but there is little discussion as to the specific impacts associated with each of possible outcomes and/or why one would be chosen over another. For example, if the wastes produced by a particular process are ultimately determined to be hazardous/unstable, then another process would have to be developed to address this matter. In the event this stabilization proves to be beyond current technologies, the material will be stored or transported elsewhere. The actual amount of this unstabilized material was noted to vary by a factor of 2.5. How and where this material would be transported remain unknown. The new waste streams will be generated from the construction, operation, storage, and transport of these alternative destruction technologies and the cumulative effects of these new waste streams are not adequately addressed in the EIS. In the event that new waste streams are not stabilized, what is DOD's plan? **120-40**

42. A complete understanding of all aspects of every action is not necessary for reasoned decision-making, but, at least, a ranking (rather than just listing) of possibilities can be given along with some idea of their outcomes. In a related matter, statements are made in the detailed text sections that infrastructure demands would increase by some percentage amount, but there was no further characterization of the impacts this increase would have. For example, streams receiving treated sewage effluent may already be at or near assimilative capacity. Hence, merely indicating that additional waste loading is a possibility does not portray its significance. **120-41**

Moreover, other than just physical size, there is inadequate information on the siting criteria for the alternative areas described for test facility construction. As a rule, EPA prefers those areas which have minimal habitat values, are out of the floodplain, etc., but understands there can be compelling reasons why certain sites may be selected. These reasons should be made known in the FEIS. Also, EPA assumes that DOD will prepare site specific EIS's. **120-42**

43. ANAD possesses approximately 4.5 million pounds of ACWs.. The potential synergism and increased costs associated with running two different types of treatment systems (incineration and chemical oxidation) simultaneously are need to be considered. We note that DOD has experience with incineration destruction of conventional munitions (e..g., the Kansas Army Ammunition Plant) whereas implementing other technologies to destroy CWA munitions will require time and effort to reach the same safety and operating efficiencies. **120-43**

Action Alternative/Facility/Site Locations:

44. AAD-Proposed Area B appears to be superior to the other two sites, having more than just the minimum acreage, above the floodplain, apparently no aquatic/wetland involvement, existing access via West Patrol Road, and acceptable site preparation. Mitigation for environmental losses would also be nominal. The FEIS needs to generally discuss the preferred location so the impacts associated with extending infrastructure (water, gas, and sewer lines, etc.) can be examined for degree/kind of impact(s). We assume DOD will prepare site specific NEPA documentation to more thoroughly address these types of detailed site-specific issues. Additional upgrades to wastewater treatment facilities will also be necessary. Details for same should be included in the final document, especially environmental effects of increased discharges on receiving stream(s). The constituents of these waste streams should also be detailed. **120-44**

45. In addition, the FEIS needs to discuss what actions will be taken to remediate the igloos which have become contaminated by leaking munitions. **120-45**

Specific Technology Comments:

46. For ANAD/BGAD, the Neutralization/Biological pilot treatment system appears to be a null alternative since this technique will not work for nerve agents. Of the remaining alternatives, the Neutralization/Supercritical Water Oxidation (Neut/SCWO) appears to offer more efficient conversions. However, there are other forms of neutralization/chemical oxidation which may not be as difficult to 'maintain, i.e., the super-critical fluids in question are a dense gas medium that is maintained above its critical temperature (the temperature above which it will not liquify by pressure). Failure to maintain this critical temperature would potentially disrupt treatment operations and efficiencies. **120-46**

47. For large-scale decontamination projects, the U.S. Army Edgewood Research, Development and Engineering Center (Material Safety Data Sheet; 2/14/94) recommends both HTH (bleach or sodium hypochlorite) and sodium hydroxide for VX:oxidation and hydrolysis. Is DOD investigating other chemical neutralization and oxidation processes that are more efficient and easier to maintain during a protracted treatment project? **120-47**

48. Similar to VX, HD and HT will hydrolyze and then can be oxidized with a common reactant, i.e., diluted (35%) hydrogen peroxide. It is a cleaner oxidizer and its byproducts do not form intermediary chlorine compounds. It can be very concentrated or kept diluted, and is very efficient at oxidizing organic compounds of this class. Importantly, wastewater streams would possess less salts than other standard oxidizers. **120-48**

49. For GB, a fluorinated organophosphorous compound, we offer that an incineration system may be the first logical step. Flura Chemical (a private concern) designed and utilized a 1,200 degree Fahrenheit (laboratory-type) tube furnace, hydrogenator (moisture inducer), nickel-catalyst wet scrubber and calcium hydroxide neutralization tanks followed by activated carbon scrubbing to accomplish neutralization. This pilot system was successful in treating over 200 lbs. of perfluoroisobutylene (PFIB), a Russian blood agent, and other fluorinated military poison gases and liquids. Detection limits at the end of the treatment train using real-time sampling equipment showed a non-detect down to a 0.1 ppb (detection) limit. While the proposed **120-49**

Neut/SCWO will work in conjunction with incineration, the treatment train as proposed for GB is unclear. GB will not neutralize very efficiently and thus incomplete oxidation may result. The chemistry/physics of the Neut/SCWO technology needs to be more fully explained. **120-49**

50. This DEIS summary does not include a detailed description of the monitoring (to include locations, such as, work areas, fence-line perimeters, downwind communities, etc.) which will be conducted during the pilot treatments. Since some of the compounds and their intermediaries are difficult to detect in real-time settings, monitoring proposal(s) should be more definitively described in the final document. A review of destruction efficiencies predicted for each of the proposed treatment methods should be available in the final document. **120-50**

Anniston Army Depot, Alabama (ANAD)

51. The accident analysis on page S-66 appears to be a worse-case scenario and may not be an accurate measure of the probability of a lesser release incident. During the treatment/neutralization phase, a large number of mines, projectiles, rockets and mortars would be handled. For this reason we believe more detail should be provided on the probability of a release incident during the repetitive treatment activity of handling and preparing these munitions. This possibility should be examined in the final document. **120-51**

52. Page 4-33: The DEIS does not provide sufficient detail on how: *Mustard agent would be neutralized by hot water followed by caustic (NaOH) solution to prevent agent reformation.* DOD proposes that mustard agent would reform during the treatment process. The chemistry of this reformation is not elaborated upon in the EIS. If mustard agent reformation is a potential problem during this treatment process, the FEIS should provide specific details on how this reformation would occur, what measures would be taken to quantify this reaction and how fugitive emissions will be controlled. The need to quantify this reformation is important in order to determine the amount of reagents required for the neutralization. The FEIS should provide more specific details on how this reformation of mustard gas would be quantified (e.g., how much, how often, what cost) during the treatment process. **120-52**

53. Page 4-37 & 4-38: The DEIS does not provide a specific breakdown of the hazardous wastes generated from each of the four chemical treatment technologies. Table 4.4-5 just addresses wastes generated from the ACW incinerator at ANAD. **120-53**

54. Page 4-67: Table 4.6-2: The DEIS does not indicate where the fluorine as part of the GB molecule would go. While hydrogen fluoride is extremely soluble and will probably drop out in the chemical oxidation processes, there may be a potential for fugitive emissions. The table also does not show any intermediate fluorinated organic compounds analogous to chlorine (e.g., HxCDD). **120-54**

55. Page 4-98: The DEIS needs to indicate what type of monitoring devices would be employed during the treatment process. More information needs to be provided regarding the time necessary to identify reliably a source release, what backup systems will be available, and the accuracy of these monitoring systems in detecting an agent release. **120-55**

Regarding the alarm for the detection systems: How is the alarm activated? What is the

likelihood of false positives triggering an alarm (what about the reverse in which a release would fail to trigger an alarm)? Who will oversee activation of the alarm system and is there a manual activation setting? Will persons off the ANAD facility be capable of hearing the alarms (irrespective of wind direction/climatic conditions)? How will monitoring be verified to avoid either panic situations, or worse, a lack of response to a significant release? The DEIS does not provide specific details as regards training events, planning procedures, or contingency plans in this regard. Furthermore, the DEIS does not specify how quickly the monitoring system can become re-operational should there be an outage resulting from severe weather, electrical failure, etc. **120-55**

56. Page 4-98 Continued: Impacts of the No Action: What type of igloo agent monitoring is performed and what type of instrument will be used? The technology for each compound or compounds should be specified, and the accuracy of these field devices for detecting releases should be given. **120-56**

57. Page 4-204: While the likelihood of a macro scale accident is extremely small, what contingency plans would be implemented to help mitigate the adverse impacts of a release on future land uses of affected parcels? **120-57**

58. Page 4-208: The statement that GB is expected to degrade in air quickly due to acid/base hydrolysis appears to be contrary to the analysis provide in A-15. The estimated halflife of GB is projected at 7.7 hours. Hydrofluoric acid is a hydrolysis product. It is very corrosive and toxic. No direct information on this compound is provided at A- 15. **120-58**

59. Pages 4-209 & 210: Table 4.21-2: This table is not very useful or realistic, since it does not characterize fatality estimates for other than healthy adult males. **120-59**

60. Page 4-211: Regarding the statement: *Sufficient data are not available to determine whether children or the elderly are actually more sensitive to the toxic effects of an acute chemical agent exposure than the rest of the population.* While direct data may be unavailable, there are many pesticide compounds with very acute toxic effects similar to chemical warfare agents. There are well documented incidents and appropriate toxicological and scientific correlations to sensitive populations which can be made and would be helpful in this EIS to assess correctly exposure risks. **120-60**

61. Page 4-212 & 213: The Neut/Bio treatment process would utilize a CERCLA listed hazardous substance, i.e., ferrous sulfate. The addition of this sulfur-bearing compound would potentially increase the difficulties associated with ultimate disposal of the waste streams this technique generates. The Elchem Ox process utilizes silver nitrate. Silver compounds are also potentially RCRA hazardous wastes (via toxicity characterization). The addition of a silver-bearing compound could similarly increase difficulties associated with the ultimate disposal of generated waste streams from this process. The production of these hazardous/toxic materials is a potentially significant problem which will have to be factored into the decision-making process as regards selection of a treatment technology. **120-61**

62. Page 4-213: The DEIS states that the containment design will be addressed by future engineering studies. The results of these studies need to be incorporated into the FEIS. **120-62**

63. Page 4-247: The risks associated with the JACADS incinerator and ACWA pilot facility are estimated in the DEIS. In combination, they are deemed to be negligible - based upon a maximum carcinogenic standard. However, the analysis does not appear to specify the increase in risks associated with increased accidents or risks from running two treatment systems simultaneously. There are potentially synergistic risks associated with running two different types of treatment processes at the same time which should be examined. **120-63**

64. Page H-3: The range of risk is reasonably estimated by EPA to be lower than the "all or none" scenario (a plane crashing into the igloo) presented in the EIS. The likelihood of a conventional accident (a munition is mishandled and a release results) are far greater than the plane crashing scenario. EPA's experience would suggest that the range of risk for a typical industrial accident is probably less than one in a thousand. We ask that DOD examine the risk for this high hazard work involving explosive munitions where personnel are wearing "moon-suits," where accidents can and do occur more frequently. **120-64**

65. Page H-11: The DEIS does not contain a full and complete analysis of the hazards which would be experienced by the workers at the ACWA pilot facility. The health/safety impacts associated with activities not directly related to treatment, viz., plant operation, are given in total, but should be disaggregated by accident category in the final EIS. Furthermore, there are potentially significant impacts to workers involving ACW, including heat stress, emotional stress, etc. which are not addressed in the DEIS in any manner. We recommend that DOD address these impacts in the FEIS. **120-65**

66. Chapter 3, Page 3-10, Line 26 - Indicates that platinum liners are utilized in the SCWO units associated with the Neut/SCWO process. It was our understanding from the Engineering Design Study testing done under the ACWA program that the platinum liners had proved unsuccessful and had been replaced with titanium liners. **120-66**

67. Chapter 3, Page 3-17, Lines 16-19 - Indicates that during the design and construction of the integrated systems, it might be determined that material handling equipment, mixing tanks, heating components, and similar items not described in the disassembly and treatment processes would be needed. This leaves open the possibility that additional units/processes/systems may be added to the facility that are not addressed in the EIS. If it is not likely that such ancillary equipment would cause /contribute to any significant environmental impact, a statement to that effect would seem appropriate in this section of the EIS to address this potential uncertainty. **120-67**

68. Page 3-20, Lines 12&13 - Indicate that ventilation air would be held and tested <u>prior to release to the pollution control processes</u>. It is understandable why certain air streams might be held and tested prior to release to the atmosphere, but it is not clear why any of the air streams would be held and tested prior to release to the pollution control processes. Additional explanation would be helpful. **120-68**

69. Chapter 3, Page 3-20, Lines 14-20 - This paragraph indicates that solid residues from pollution abatement equipment and waste handling processes could be managed as solid waste rather than hazardous waste. This would be the case unless the residuals had the potential to leach heavy metals above TCLP levels. Chemical agents are listed as hazardous waste in some states (e.g., Kentucky). Therefore any solid residues from pollution abatement equipment and **120-69**

waste handling processes that have been in contact with chemical agent would be considered as a listed hazardous waste. Hence this material would have to be managed as a hazardous waste. **120-69**

Pine Bluff Arsenal

70. We recommend that DOD determine the environmental impact differential between the pilot test facility and the Anniston Chemical Demilitarization (ACDF) and Pine Bluff Chemical Demilitarization (PBCDF) facilities which are both under construction. The comparison should document the increase/decrease environmental impact between the anticipated ACDF and PBCDF baseline from data from TOCDF and JACADS and the alternate technology tests and projections. The impacts (life cycle) should include: air emissions (process and fugitive), solid waste generated and disposal impact, hazardous waste generated and disposal impact, energy use (fuel oil, natural gas, gasoline, electricity, etc.), natural and man made materials used, water discharges and run off, water use, ecological impact. **120-70**

71. In Arkansas, the US Army and Arkansas Department of Environmental Quality (ADEQ) signed an Order concerning chemical weapons and when the chemical weapons are a hazardous waste. DOD should use the Order and ADEQ regulations to determine solid and hazardous waste and revise the text as warranted. **120-71**

72. The EIS discusses human health and ecological impact. We recommend DOD follow the EPA guidance documents which set a national standard and which were used to support the PBCDF RCRA permit. Then the EIS can determine the differential risk between the PBCDF and the pilot test facility. **120-72**

73. The statement on page S-22 regarding Waste Management reads "All nonprocess operational wastes could be potentially contaminated by agent and would require treatment." This statement appears to be missing from PBA's Waste Management Section. **120-73**

74. The text should be modified to include a statement that ADEQ must issue a RCRA permit. **120-74**

75. On page 5-47 it states that the pilot facility would be subject to all of the Clean Air Act because PBA is a major source. This conflicts with the statement on page 5-70 that the pilot facility will not be a major source and therefore, no regulatory action would be necessary. **120-75**

76. Should have explained on pages 5-70 and 5-71, that a permit with treatment standards must be obtained prior to treatment of the PCB waste. **120-76**

77. Page 5-7, the paragraph concerning the central incinerator complex should mention that the complex is being upgraded to meet the MACT rule. **120-77**

78. Page 5-59 line 11 states that " ...emission of lead... would be negligible..." This statement must be verified by stack testing and other metals, should be addressed as well. **120-78**

79. DOD should address the situations where the weapons are not in original/good condition--agents that have reacted in the containers such as jellied liquid, liquid under pressure, pH **120-79**

changes, deterioration of the explosives, etc. **120-79**

80. DOD should provide the pilot test facility schedule detailing the major steps. The steps may be: all permit applications submitted, all permits issued, construction started, construction complete, testing phase, operational phase, and closure. **120-80**

81. DOD should review the Eaker Air Force Base's Study for Archeological Park and Museum commissioned by the City of Blytheville. We note that the Study's author made a presentation to the Eaker Air Force Base's Restoration Advisory Board. He discussed an earthquake which occurred in the1400's, and which caused an entire village now on Air Force property to sink to a depth of about 30 feet, as well as the great archeological value of this site. Also, he compared the 1400's earthquake with another one which occurred in the 1800's. He described the 1400's Yabro quake as being as great or greater than the 1800's New Madrid quake. Based upon this information, it appears likely a quake event is more frequent than once per 10,000 years as reported on page 5-95. **120-81**

00121

YOUTSEY WATER COMPANY
♦♦♦
53685 HWY 96 E ♦ BOONE, CO 81025
Phone (719) 947-3809

August 6, 2001

Mr. Jon Ware
Assembled Chemical Weapons Assessment EIS
9700 S. Cass Ave./Post Office Box 8369
Argonne, Illinois 60439-4871

Dear Sir,

Local citizens in the area close to the Pueblo Chemical Depot (PCD) have been urged to comment on the various ways the army proposes to destroy the stockpile of weapons stored there. It is of concern for several reasons; our property is at the southeast corner of the PCD and at one time adjoined the PCD. Boone Creek begins on the PCD and flows south through our property. There are numerous springs cropping out on the banks of Boone Creek some on PCD property.

In the year 1911 a filing for water rights was made on Boone Creek and work done to put the water to beneficial use. In 1925 the property was purchased by the Youtsey family together with the original filing for the water and it has remained in the family ever since.

Water at that time was used mostly for agricultural purposes, however in 1944, a need for domestic and other uses was apparent, so springs were excavated and French drains installed, tanks made and pipe line laid to bring water from springs to tanks. From there potable water is distributed to where needed in various outlying areas of Pueblo and adjoining counties.

After much expense and effort the water right is adjudicated, and it continues supplying water to customers where needed at this time.

I have information provided by PCD Draft Environmental Impact Statement, May 2001, which I have studied carefully especially the area of Boone Creek Drainage and the ground water flow from the north atop the Pierre Shale. I feel groundwater feeding springs along Boone Creek from here to the PCD property, Lynda Ann and vicinity come from the area of Block G and a little east. Ariel photos indicate water north of Block G outside the PCD boundaries also flow in a southerly direction. 121-1

According to the Draft Environmental Impact Statement May 2001, the Army has "four water supply wells located in this trough because of the increased saturated thickness of the aquifer in this region (Chafin 1996)". (Existing Conditions and Environmental Impacts 4-81). I am in agreement with this information. 121-2

Water flows into the area of these wells possibly filling a low area on top of the Pierre Shale and flowing out to the other areas, Lynda Ann Reservoir south along Boone Creek also some flowing south east to the town of Boone.

According to your plan of action the destruction would take place in the vicinity of, Block G. It would use water from the wells there and the amount of water you estimate used could deplete the aquifer, drying up springs to the south on Boone Creek. 121-3

In your report you state under Existing Conditions and Environmental Impacts page 4-88, 4.13.4.1 Impact of Baseline Incineration. " Direct environmental impacts could occur through depletion of the ground water resources and it's quality ground water use during operation. Indirect groundwater impacts include a reduction in availability to other users and/or increased cost to those users. You also state in 121-4

your report water drawdown in the aquifer can cause, and does release, minerals that are undesirable in potable water. With this I agree. Also during destruction the report says a greater use of water would be temporary. A temporary delay of a few years (three estimated years) would be detrimental to our customers who have purchased water from this water system since its beginning. Water quality is good and customers prefer it over other water that can be purchased. **121-4**

I feel that as you set the destruction of weapons processes in motion, it would destroy this business, as well as the commercial water delivery service which hauls water exclusively from Youtsey Water Company. Furthermore, the diminished water supply, when returned would be of inferior quality due to minerals it could pick up.

There is also the possibility of accidental spills and air pollution; it is less than 100 feet from the surface through sandy soil to the aquifer atop the Pierre Shale, which could easily contaminate the aquifer. This is an environmental consideration which I feel the Army should consider. However, the loss of a business with approximately a thousand people depending on water should be considered also. Some customers have inquired "Is your water contaminated by Pueblo Chemical Depot?" The answer to that would be, that it in the past and present, it is and has been analyzed by the United States Geological Survey, the Colorado Department of Health, and other laboratories for contamination and it is free of contamination at this time. I feel that this is true as there is little activity in this area, but that would change if the porposed weapon disposal facilities are located in this area of the PCD. **121-5**

Wildlife also uses this area depending on water in winter. Geese, ducks and other migratory water foul remain here from November into March. In addition, both Canadian Geese and Ducks nest here during the summer months. To prove this is not talk I am providing a photo taken during the winter months. This photo is about 1.5 miles south of the Lynda Ann Reservoir. It provides an area of rest for migratory birds, also hunters have opportunity for game in the nearby fields where the birds feed. **121-6**

I am unable to comment on the proposed methods of destruction due to the time limit of the comment period. But the information brought to my attention above indicates a loss to the community as well as this community

Sincerely,

Frank Youtsey

Frank Youtsey
President/Owner

cc: Robert Krassa atty
cc: Kathleen Riley CDHE

00122

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

122-1

Comments: NO Incineration!!

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community.

NAME: Danny R. Nelson

STREET ADDRESS: 1619 Kirkapo Rd.

CITY: pueblo, Co 81001-1608

ZIP CODE: 81001-1608

00123

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

123-1

Comments: Incineration is NOT an option!

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community.

NAME: Melanie Quintana

STREET ADDRESS: 3061 O'Neal

CITY: Pueblo CO

ZIP CODE: 81005

00124

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: I am in favor of the Neutralization program. Incineration is really just an option. 124-1

NAME: Stephen Cox

STREET ADDRESS: 307 West 12th

CITY: Pueblo, Co

ZIP CODE: 81003-2812

00125

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 125-1

NAME: Ed + Lois Boedecker

STREET ADDRESS: 76 Drake

CITY: Pueblo, CO

ZIP CODE: 81005

This should be the choice of the people who have to "live" with it. Please respect our choice.

00126

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: THE PORE IS OBVIOUS - NEUTRALIZATION! INCINERATION MAKES NO SENSE AT ALL! 126-1

NAME:

STREET ADDRESS: JANA HART & LOUISE ORGAN

CITY: 147 KINGSLEY

ZIP CODE: PUEBLO, CO 81005

00127

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: Incineration is NOT an option! I WILL move out of town if it is put into affect! 127-1

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community.

NAME: Melissa Ayres

STREET ADDRESS: 29685 Hegler Ct

CITY: Pueblo, CO

ZIP CODE: 81006

00128

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: It seems there should not be a question as to which method to use. 128-1

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community.

NAME: LaVonne Mueller

STREET ADDRESS: 121 S. Spaulding Ave.

CITY: Pueblo West, CO 81007

ZIP CODE:

00129

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments:

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 129-1

NAME: KATHY REITH

STREET ADDRESS: 3407 AZALEA ST

CITY: PUEBLO, CO

ZIP CODE: 81005

I have attended 3 meeting presenting incineration as well as the 2 neutralization tech. and I feel there is no question that neutralization is the way to go

00130

Draft Environmental Impact Statement Public Comment
Pueblo, Colorado **July 30, 2001**

Comments:

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 130-1

NAME: Helen M. Lyons Helen M. Lyons
ADDRESS: 31200 Daniel Rd.
CITY: Pueblo, CO
ZIP: 81006

Pueblo doesn't want an incinerator!!!!

00131

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: I AM IN FAVOR OF NEUTRALIZATION! 131-1

NAME: CHARLENE RICHARDSON

STREET ADDRESS: 2253 EVERETT RD.

CITY: PUEBLO

ZIP CODE: 81006

00132

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: WANT NEUTRALIZATION! 132-1

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00133

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

Comments: Neutralization!!!! 133-1

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community.

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00134

Draft Environmental Impact Statement Public Comment
Pueblo, Colorado July 30, 2001

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. The only choice 134-1

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00135

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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999 18TH STREET - SUITE 300
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August 9, 2001

Ref: 8EPR-EP

Mr. Gregory Mahall
Public Outreach and Information Office
Program Manager for Chemical Demilitarization
Building B-4585
Aberdeen Proving Ground, Maryland 21010-4005

Re: Pueblo Chemical Depot, Destruction of Chemical Munitions, DEIS Review No. 010161

Dear Mr. Mahall:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, Region 8 of the Environmental Protection Agency (EPA) has reviewed and rated the *Draft Environmental Impact Statement (DEIS) for Destruction of Chemical Munitions at Pueblo Chemical Depot* (PCD)dated May 2001. A separate DEIS comment letter will be sent out from EPA headquarters on the Assembled Chemical Weapons Assessment (ACWA) DEIS – *Design, Construction and Operation of One or More Pilot Test Facilities for Assembled Chemical Weapons Destruction Technologies at One or More Sites.* The two documents are out for review at the same time.

EPA's main concern is that the DEIS(s) did not present sufficient information to compare the environmental impacts between alternatives. The same information was not disclosed for each of the alternatives and much of the environmental analyses for different alternatives were presented such that the results were not comparable. With the level of information in the DEISs, it is unclear how the document could be used by DOD decision makers to consider the environmental impacts of selecting one of the four technology alternatives. The FEIS should provide more detail on the decision(s) that will be based on this EIS and how the decisions correspond to the ACWA decision(s). Additional information is also needed on impacts to human health from air emissions and hazardous waste generation. Our detailed comments are attached.

We appreciate the level of outreach to EPA from PCD, Program Manager for Chemical Demilitarization (PMCD) and ACWA on this EIS and environmental justice issues. The basic introductory session and the public meetings provided a good basic understanding of the destruction technologies and issues. The attendance of PCD, PMCD, ACWA and State permit writers at our July 2001 Environmental Justice session should improve each agency's understanding of environmental justice concerns at Pueblo.

Based on the procedures EPA uses to evaluate the potential effects of proposed actions and the adequacy of the information in the DEIS, the environmental analysis for the *DEIS for Destruction of Chemical Munitions at Pueblo Chemical Depot* will be listed in the Federal Register in the category EC-2. This means that the review has identified environmental impacts that should be avoided in order to fully protect the environment, and the DEIS does not contain sufficient information to thoroughly assess environmental impacts. Enclosed is a summary of EPA's rating definitions.

We appreciate your interest in our comments. Please contact Dana Allen at (303) 312-6870 if you have any questions about these comments.

Sincerely,

Cynthia Cody
Director, NEPA Program
Office of Ecosystems Protection
and Remediation

Enclosure

cc: Marguerite Duffy, EPA HQ
Penny Robitaille, PMCD
Kathryn Cain, PCD
Jon Ware, ACWA

Environmental Protection Agency - Region 8 Comments
Pueblo Chemical Depot, Destruction of Chemical Munitions DEIS
August 9, 2001

GENERAL COMMENTS FOR BOTH PMCD AND ACWA DEIS

1. It is apparent from the EIS and the tiered site specific EIS for Pueblo and EPA Region 8 discussions with ACWA and PMCD, that the Department of Defense (DOD) plans to construct one facility at the Pueblo Chemical Depot (PCD). We understand that DOD plans to decide next winter which of the four alternatives is the best technology to destroy the stockpile of mustard agent chemical munitions at PCD. One cannot determine from the two DEISs which technology is the environmentally preferred alternative, or which technology would be the most effective and efficient in destroying the munitions. The FEISs should include additional information to evaluate the relative environmental impacts and other decisions factors for the four alternatives. (See also comment 12.) 135-1

2. Suggested changes include: (a) improved presentation of the environmental analyses for comparison of technologies, (b) additional information specifically comparing the environmental impacts of each alternative for hazardous waste generation and air pollution, (c) additional information concerning air impacts and impacts on the agricultural community.

3. In addition, the public wants to be kept informed about the environmental performance of the chemical weapons destruction technologies. They are very interested in the performance of other facilities and will be especially interested in performance information for PCD from initial start up through facility closure. We recommend that the monitoring sections (section 4.26.5 PMCD, no specific ACWA section) include a program to keep the public informed continuously throughout the project. We recommend that this information both confirm the technology performance assumptions made in the EISs and demonstrate compliance with applicable environmental regulations. 135-2

Inconsistencies, Lack of Coordination between ACWA and PMCD EISs

4. One major area of concern for EPA stems from the discrepancies and lack of coordination between the two EISs. We note inconsistencies between the documents regarding power supply, water supply, wetlands, water consumption, contaminant emissions and communication upgrades (see below and the AWCA comment letter for additional details). Reviewers have also noticed other editing and inconsistency problems such as the number of frost-free days in Pueblo (157 vs. 218?) and having tables with inconsistent or inappropriate units (i.e., soil and waste quantities should all be in tons not thousand lbs. - PMCD tables in section 4.6.1.1) 135-3

5. A great deal more effort needs to be taken to ensure the Pueblo environmental analysis is consistent and comparable between the two documents. The environmental analyses need to 135-4

cover the same impacts and pollutants of concern for each alternative. We also recommend an increased use of tables that compare all four alternatives side-by-side. 135-4

6. The projections of air emissions and consumptive water use are not well defined. At the June 7, 2001, public meetings in Pueblo, the Army said that they were still calculating the dioxin emissions and it was thought that neutralization/bio would have higher dioxin emissions than incineration. The Army spokesperson also said that the final figures on consumptive water use have not been determined. In an August 8, 2001 meeting with another Army representative, EPA was informed that dioxin emissions for neutralization/bio were being revised to lower than the information presented in June. The FEIS needs to include the final estimates. 135-5

7. EPA suggests that the contractors for ACWA and PMCD work jointly on the affected environment and environmental consequences chapters (Chapter 6 -- ACWA and Chapter 4 - - PMCD). The EIS contractors should also work jointly in preparing one set of tables comparing the environmental impacts and technology efficiencies among the four alternatives. 135-6

Comparison of Alternatives

8. Air quality is one of the most significant areas of concern for chemical weapons destruction. The public and the decision maker should be able to easily compare the levels of emissions and ambient concentrations, and the types of air pollution from each of the alternatives. The FEIS should include a table with each of the major air pollutants of concern. For all four technology alternatives (and on-site destruction of energetics if appropriate), the comparison table should include air emissions for the main Hazardous Air Pollutants (HAP) of concern, such as the more toxic of the dioxins (i.e., TCDD), mercury, cadmium, and lead, and any other pollutants of concern. The toxicity equivalents for both dioxins and furans should be developed to compare air emissions from each of the technologies. These comparison tables should also include the criteria pollutants for air and volatile organic compounds. 135-7

9. The EISs do not provide enough information on the transportation of wastes from PCD. Issues such as managing brines and other hazardous chemicals shipped on local roads are important, especially to the agricultural community. One cannot determine from these documents which technology would have the highest demand on the local highways or what technology requires the greatest volume of hazardous waste to be transported onto or out of the PCD. 135-8

10. The alternatives analysis should evaluate the impacts of energetics treatment and/or disposal. Currently, most alternatives include both on-and off-site treatment/disposal without examining the potential environmental impacts of the on-site treatment, and off-site treatment and disposal. 135-9

Agricultural Impacts

11. We recommend that a section be added to both FEISs on potential impacts to agriculture. Portions of the impact analysis are already present in the socioeconomic and other sections of 135-10

the EISs. This impact assessment will also be of use in preparing for the agricultural risk assessment that will be necessary the RCRA permitting process.

Agriculture represents the largest sector of the economic base in the communities immediately surrounding PCD. Farming and ranching provide significant employment to both full-time residents and migratory farm workers. As part of the public meetings for the EIS, it became apparent that impacts to agriculture are a major concern to these communities. Agriculture is also experiencing economic difficulties. It is not uncommon to find farmers and ranchers in southern Colorado leaving the industry because of economic difficulties. Minor or perceived impacts may be significant to this economically stressed industry. 135-10

This agricultural impact assessment should include: (a) deposition of destruction byproducts affecting livestock or crops in both the short term (during operations) and long-term (soil deposition); (b) potential public or market perception that destruction byproducts have affected livestock or crops. The perceptions of wholesalers, distributors and retailers that products might be grown in contaminated soils can affect the marketability of the farm products marketed across the country; and (c) specific crops and livestock operations that are present in the Pueblo area including crops used as feed.

12. The FEISs should also develop plans to mitigate the impacts of the proposed facility on agriculture. The farmers, ranchers and agricultural workers would be the best sources for potential mitigation efforts. From our discussions with the community, there is some concern regarding the potential risks or lack of risks to the public and potential customers for agricultural products. This is probably the case at the other sites as well. An independent third party review of the agricultural impact assessment may also be helpful to avoid developing public perception problems. 135-11

13. The agricultural impact analysis or the accidents impact analyses (Sections 6.21 ACWA or 4.22 PMCD) should also take into account the potential impact of an accident on farmlands and agricultural workers, many of whom, by virtue of their socioeconomic status and work histories, may be more vulnerable to exposures to hazardous substances. In particular, care should be taken to understand the nature of the workforce close to the PCD and to incorporate this understanding into the numbers regarding potential exposures. 135-12

PMCD DEIS COMMENTS

General Comments:

14. The FEIS should add a section comparing the pros and cons of the four technologies alternatives. The DEISs include the fundamentals of each technology, but did not identify which technology is likely to be the most "successful" (effective and efficient) in destroying munitions and mustard agent at Pueblo. Some of the factors which may be used to evaluate the technology are energy use; reliability; volumes and types of air pollution, hazardous waste

and other destruction byproducts; cost; ease of obtaining permits and ease of closure. (See also comment 1)

15. We recommend that cost estimates for each of the technologies (including construction and operations costs) be included in the alternative comparison. It appears from the alternatives development and differences in energy use, cost may be an important decision factor.

16. The DEIS should discuss the specific decisions that will be based on this document. For example, could PMCD decide to implement the ACWA technologies? If an ACWA technology is selected by the Department of Defense, what will be PMCD's decisions? Will PMCD be deciding on a backup technology in case the ACWA technology fails or does not perform sufficiently?

17. The DEIS presents very few references for the statements and assumptions presented, especially in regard to the Neutralization/Biotreatment and Neutralization/SCWO alternatives. The supporting information relied on for this EIS should be referenced.

18. The PMCD EIS did not include the alternatives of building two ACWA facilities. Although this decision appears unlikely at PCD, for consistency the PMCD EIS should include this alternative.

19. Quantitative estimates of risk and supporting information should be presented for each of the alternatives in the FEIS. Currently, the EIS does not present quantitative estimates of risk for the two PCD incineration treatment alternatives. The risk estimates for the neutralization alternatives did not include supporting information or references. We also recommend adding quantitative risk or regulatory standards for comparison purposes. The revised risk estimates should also replace terms such as "allowable levels" with the specific levels and references to the standard or criteria.

20. Information on how explosive compounds will be handled should be provided in the FEIS. Explosive compounds are major part of the munitions, but there is no discussion concerning these compounds in the evaluation of the modified incineration alternative. The DEIS only states that explosives will be treated on-site or shipped off-site. Further elaboration is needed, as the handling of explosives can be a significant process difficulty and may change environmental impacts.

21. Executive Summary - The summary is weak in comparing the alternatives. See above in the comments for both ACWA and PMCD regarding improvements needed for comparing the technologies and making decisions. This summary did not answer basic questions such as which technology: is the quickest to implement, is the least expensive, has the least risk, has the greatest benefit to the local community, and so forth? It may be helpful to have a table as shown below comparing the alternatives in the Executive Summary. The following table is a start on the types of issues we think the public and decision makers would find useful in comparing the different alternatives.

EPA R8 Comments
PMCD DEIS Page 5

	Baseline Incineration	Modified Incineration	Neutralization /Biotreatment	Neutralization /SCWO
1. Time (years)				
Design	? 0 yr	?	?	?
Construction	? 1.5 yrs	?	?	?
Trial Burn	? 1.25 yrs	?	?	?
Permitting	? 1.5 yrs	?	?	?
Operation	? 2 yrs	?	? 3 yrs	?
Closure	? 1.5 yrs	?	?	?
2. Community				
Employment	# jobs	# jobs	# jobs	# jobs
Acceptance	? Poor	?	? Better	?
Agricultural	? Moderate to Poor (perception for organic farms)	?	? - water use impacted	? -water use impacted
Post-Closure reuse	? Removal desired	?	? leave some structures	?
3. Eco-Impact				
Air	?	?	?	?
- Dioxin	?	?	?	?
- Mercury	?	?	?	?
- Other Air pollutants	?	?	?	?
Groundwater	?	?	?	?
Surface Water	?	?	?	?
Wetlands	?	?	?	?
4. Input/Output				
Power backup	High need	High need	Moderate	Moderate
Mass balance cost/ton destroy	$ /ton	$ /ton	$ /ton	$ /ton

Transport volume	? Moderate	? Moderate	? High	? High
Hazardous waste generation	?	?	?	?
Fuel use	? Very High	? High	? Low	?
5. Other criteria?				

22. Page 1-6, line 5 -- The statement "a pilot test facility would be constructed and operated prior to full-scale stockpile destruction operations" is inconsistent with line 10 which states that the pilot test facility would completely destroy the stockpile within three years without the construction of additional facilities.

23. Page 2-15, line 1-2 states that "Brines would be transported off-site for destruction at a permitted facility." It is unlikely that any brines will be this sent off for destruction. Typically, brines are treated or disposed of at permitted facilities.

24. Page 2-15, line 23: The projected "receipt of environmental permits" by September 2002 for the incineration alternatives does not appear realistic, given that the Army does not plan to issue a ROD on this EIS until December 2001.

25. Page 2-15, line 34: What is the basis for the "earliest projected date for initiation of startup and system checks for a ACWA pilot tests at PCD is January 2006"? No supporting information is presented.

26. Page 2-16, lines 21-26, Future Use -- It is not clear from this paragraph if there is a potential for the non-stockpile chemical warfare materiel to be destroyed at the Pueblo chemical destruction facility. Is there any warfare materiel stored or buried at Pueblo? Could the chemical destruction facility be used for treatment/destruction as part of the RCRA corrective action?

27. Figure 2.5 shows alternative locations A, B, and C; however, there does not seem to be a discussion of the pros and cons of selecting the different locations. What are the differences in the environmental impacts for the three locations? What basis will be used for selecting one location over the others?

Alternatives, Chapter 3

28. Page 3-7, Section 3.1.3.7 Waste Transfer Area - This section should describe what kinds of waste would be stored in the transfer area.

29. Page 3-13, Section 3.3.3.3 states that thermal treatment would raise the temperature above 540° C for 15 minutes, which is less than what incineration would require. Is the fuel oil

requirement needed for the incineration alternatives due to insurance/reliability needs? Fuel oil is typically the most expensive energy source and would most likely have to be trucked into the PCD.

30. Page 3-15, Table 3.1 - What are the references for the annual input requirements listed on this table? Why is the electric power required for the neutralization technologies so much greater than for the incineration technologies? What are the contingencies in the event of power outages and what are the expected frequency and duration of these outages?

    Fuel oil is included under table 3.1 but not table 3.2, why? Table 3.1 also does not compare well to Table 4.2 on page 4-16, where the Baseline Incineration requirements are nearly double the Modified Incineration requirements and more than four times the requirements for the Neutralization alternatives. Since cost can be a common factor in comparing power requirements, the question that could be answered in a summary table is, "What is the cost for the power requirements for each of the technologies compared?"

31. Page 3.18, Table 3.2 - This table does not present the differences between the four technology alternatives. For example, Table 3.2 indicates hazardous air quality impacts are either no exceedances of emissions standards/ with no significant impacts (incinerator alternatives) or 2% or less of allowable limits/ with small impacts (ACWA alternatives). The reader is unable to discern the difference between these impacts summaries, yet it appears the impacts are different.

32. Page 3-23, Table 3.2 - Liquid brine generation rates are the same for both baseline and modified incineration (14.45 million gallons). Given that the modified incineration system would only have one incinerator and therefore one PAS versus the three incinerators and PASs for baseline, why are the brine generation rates the same?

33. Page 3-23, Table 3.2 - There is no quantitative estimate of risk to human health for the incineration alternatives. "Less than 1 in 1 billion" is stated as the cancer risk for the Neutralization technologies, but table 4.24 (page 4-66) lists risk from mustard only as "less than 1 in 1 million". The FEIS should include quantitative estimates of risk using easily comparable terms.

Environmental Impacts and Analysis, Chapter 4
Water Supply

34. Page 4-10: The water supply sections are very different for the PMCD and ACWA EISs. The ACWA section finds that the PCD may need to purchase more senior water rights to meet the water needs of the destruction technologies. The PMCD EIS finds water supplies to be adequate. The FEISs should have the same conclusion for both water supply sections.

35. Page 4-11, Table 4.1 Average Annual Water Requirements - The total volume of water is not consistent with Table 3.2 for Groundwater. For example, Neutralization/Biotreatment appears to have the lowest water total water requirements, but under Table 3.2 it is listed as having the greatest water requirement (75 acre feet/day).

36. Page 4-13 line 8 - The use of local alluvial water to operate the facility may have an impact on the local agricultural community. The EIS states that this will be only a negligible impact; however, the basis for this conclusion was not discussed. Please clarify the potential impacts and why the impacts will be negligible to the agricultural community.

Waste Management and Facilities

37. Page 4-17, Section 4.6 - It should be noted that stating compliance with environmental regulations is not the same thing as disclosing environmental impacts. The regulation or standard may be important in determining the significance of the impacts. However there can still be substantial impacts (direct or cumulative) with complete compliance with environmental regulations. It should also be noted that not all environmental impacts are regulated. [See also page 4-50, lines 18-24 - Human Health section]

38. Page 4-20, lines 24-34 - mention that hazardous wastes are stored at a number of locations on the PCD installation. Is not clear from this paragraph the types of hazardous wastes that are being stored, the length of storage and the types of environmental impacts that may be present from storing hazardous wastes. The FEIS should provide more information on hazardous wastes present on the PCD installation.

39. Page 4-24, Table 4.5 - *Estimated total waste generated from operations of the incineration facilities* and Table 4.7 - *Waste generated from operations of the neutralization facilities* should be combined. Currently, the reader cannot compare the generation of wastes from the four different technologies because the tables do not have the same units or breakdown of waste types. In particular, it would be useful to show the differences in the amount of waste from energetics.

40. Pages 4-27, 43, 49 & 66; Sections 4.6.5, 4.7.7, 4.8.7, & 4.9.5 - Cumulative Impacts - do not include a discussion of the combination of ongoing cleanup actions and the proposed mustard agent destruction project. Figure 4.2 Existing Land Use at PCD shows several areas which could be undergoing cleanup and generating similar types of pollution. For example, there are a former shooting range, the western disposal demolition area, landfill/disposal area and a former chemical munitions burial ground, as well as the ongoing groundwater cleanup. The cumulative impact analysis should take into account the potential additive impacts of these other actions.

Air Quality - Sections 4.7 & 4.8, Appendix D

41. Page 4-32, Table 4.9 - The FEIS should include the latest promulgated 8-hour standard for ozone. The new standard should be compared to 8-hour average ozone levels at monitoring stations nearest PCD during the 5-year period 1996 - 2000.

42. Page 4-39, Table 4.13 - The FEIS should include the average 8-hour modeled ozone concentration since this standard will likely be effective during the operation of the project.

43. Page 4-44, Section 4.8 Air Quality – Release of Hazardous and Toxic Substances: the FEIS should have additional detailed information on the hazardous air pollutants that may be released from all four alternatives. Tables 6.6-1 & 6.6-2 (Estimated Toxic Air Pollutant Emissions from Neutralization/Biotreatment Technology at PCD & Neutralization/SCWO) from the ACWA EIS and the equivalent information developed for the two incinerator alternatives in should be included in the PMCD FEIS.

44. Page 4-45, line 9 - Any incineration alternative at PCD would be required to comply with the Hazardous Waste Combustion MACT Rule (40 CFR Part 63 Subpart EEE) and the CDPHE's incineration regulations (6 CCR Part 264 Subpart O). The Boiler and Industrial Furnace regulations (40 CFR Part 266) are not applicable. Table 4.14 should also be revised to reference the HWC MACT Rule.

45. Page 4-47, lines 12-14 - The emission rate for mustard gas is assumed to be equal to the upper limit of 0.03 mg/m^3. Please correct, since emission rates are mass/time vs. concentrations which are mass/volume.

46. Page 4-47, Table 4.15 - Recommend including a footnote for a reference for "Upper limits for ambient-air concentration".

47. Page 4-47, lines 31-32 - This statement says that metals were either non detectable or below EPA's established levels of concern. Based on performance at JACADS, what metals besides mercury were detected? Are the standards for metal emissions technology based or health based?

48. Page 4-48, lines 7-9 - Please clarify how the risks of releases have been calculated at 2% or less of allowable levels.

49. Pages 4-45→47, Section 4.8.4.1 - Impacts of incineration alternatives [also Appendix D, air emissions sections of the baseline incinerator alternative pages D-18-19 (lines 19-35 & 1-13) and modified incinerator alternative pages D-32-35], do not include enough analysis on the significance of air impacts and environmental consequences (40CFR1502.16). Stating compliance with RCRA or air permits, or destruction and removal efficiencies are not typically sufficient disclosure of air impacts. Additional information is needed in the FEIS on the significance or intensity of air impacts, particularly the byproducts of the destruction technologies.

50. Pages 4-46, lines 27-30 - Nitroglycerin is mentioned as another pollutant measured during performance tests at JACADS. It is not clear from the DEIS if nitroglycerin is a surrogate for measuring incinerator performance or a potential environmental impacts.

51. Page D-35, Table D.7 - Summarizes the data from the trial burn for the metal parts furnace at JACADS. Is there any data from actual operations of the metal parts furnace?

52. Page D-35, Table D.8 - As discussed earlier in our comments a list of hazardous air pollutants should be developed for the two incinerator alternatives. It is also not clear what

the PCD column denotes. Are these values current air emissions at PCD? Footnote 1 indicates that these values may be levels during construction.

53. Appendix D, Page D-23, Figure D.4 - this figure has been reduced to such a small size that it is unreadable. A larger conceptual site layout should be included in the FEIS.

54. Appendix D, Page D-40, lines 4-5 - mentions that wastes with residual mustard agent of < 200 ppb will be considered to be contaminated with residual agent. More information should be provided discussing the disposal of wastes above and below the 200 ppb limit. The environmental impacts of evaluating waste on the 200 ppb limit as well as the origins of this limit should also be included in the FEIS.

Human Health and Safety, Section 4.9

55. Page 4-57, line 20. It is unclear why "estimates of dioxin exposure at PCD await the completion of design". Dioxin stack test data from mustard treatment at JACADS could be used for the incineration alternatives along with dioxin data collected by ACWA during the treatability testing for the Neutralization/Biotreatment and Neutralization/SCWO alternatives. The FEIS should address dioxin exposures.

56. Pages 4-59→61, Tables 4.20, 4.21, and 4.22 - It is unclear why data from the 1993 mustard ton container MPF trial burn is listed in these tables, instead of data from the 1999 mustard undrained 4.2" mortar trial burn? Are there any data available to show the pollution generated from destroying the entire munition? We would anticipate that air emissions from bulk container incineration are different from burn emissions, which include incineration of the energetics and the metals parts furnace.

57. Page 4-61, Table 4.22 - The dioxin risk estimates from mustard incineration at JACADS presented in this table assumed only the direct inhalation pathway. Therefore, the risk estimate is incomplete. EPA guidance on conducting risk assessments strongly recommends that indirect exposure pathways be considered, especially when persistent bioaccumulative compounds such as dioxin are present.

58. Page 4-63, lines 9-19 - The current recommendation for controlling mercury emissions in the DEIS is to "actively monitoring the mercury emissions rates and modify the feed if mercury concentrations indicate changes from applicable emission levels." We recommend that the alternatives incorporate mercury capture or controls from the beginning of the process. We have not seen any information in the EIS to indicate that mercury will not be a problem. As discussed elsewhere in the DEIS, it appears that mercury is present in the munitions. Therefore, it does not appear that the Army will be able to change the feed into the mustard agent destruction facility.

59. Page 4-66, Table 4.24 - For the neutralization impacts to human health the risk of cancer from mustard is listed as "less than 1 in 1 million". This is not consistent with table 3.2, page 3-23, which estimates cancer risk less than 1 in 1 billion. What is the basis for this risk

estimate? As indicated earlier, we suggest that the risk estimates be presented for all alternatives in a manner allows comparison.

Water Quality and Quantity

60. Page 4-89 - The different destruction technologies will remove of up to 75 acre feet per year of groundwater which is tributary to the Arkansas River. This increased water use may have an impact on the local agricultural community. Water in the Arkansas River basin is very heavily appropriated. It is likely some of more junior water rights users have been utilizing the flows discharging from the terrace alluvial aquifer. The ACWA DEIS also mentions that found additional water rights will need to the purchased for augmentation. The impacts analysis should take flow augmentation changes into account.

61. Page 4-87, line 11-12 - States that the Depot has a wastewater lagoon with an NPDES permit that allows discharge to Boone Creek at a rate of 167,000 gal/d. Yet it appears that PCD does not have an NPDES permit and the lagoon is non-discharging. This discrepancy should be resolved in the FEIS.

62. Page 4-126, lines 35-36 - Discusses construction of running routes and utility corridors. We recommend selecting the routes and corridors which avoid impacts on nearby wetlands.

63. Page 4-1 69, Section 4.23 - Summary of Cumulative Impacts - should be revised to include impacts from ground water remediation, other RCRA corrective actions, and base closure activities.

64. Page 4-175, Section 4.25.6 Waste Management - should describe disposal of the wastes generated from closure and decommissioning. Is there a possibility of an on-site landfill? Could the wastes be treated or disposed of in the incinerator or neutralization technologies facilities?

Environmental Justice, Section 4.21

65. Page 4-151, Lines 22-23- "Information on the demographic and income characteristics for census tracts within a 50km (31-mi) radius was first collected and summarized (Table 4.37)." The information in Table 4.37 does not include the information on the income characteristics of the population. Either add the referenced data or delete the reference to income.

66. Page 4-151, Lines 33-35 - Describes the representation of minority or low-income populations. "Of the 62 Census tracts, 50 contained minority populations in excess of the state average, with percentages ranging from 20.8% to 18.5% of the total persons residing in each" with a reference to Figure 4.15." Figure 4.15 is a map which illustrates the income characteristics of the population surrounding the PCD, rather than the racial and ethnic characteristics. An additional map is needed showing the distribution of minority communities in the area, see comment below.

67. Page 4-154, Table 4.38 - Lists proportions of minority subgroups. From the numbers

supplied in the table, it may be inferred that about 40% of the population within 10 km of the PCD is minority. Without a map, there is no way to determine the distribution of minority populations among the census tracts. A map reflecting ethnicity will assist in analyzing the proximity of minority populations to the Depot.

68. Page 4-157, line 13 contains a typo. The reference should be to Section 4.22.5.instead of 4.2.2.5.

69. Page 4-157, line 17-15 - The language in Section 4.21.2 states that "Activities associated with chemical munitions destruction will not affect the existing populations of minority and/or low-income residents in the vicinity of PCD." This statement is not consistent with the rest of the DEIS. While it appears there will be that no significant health effects during normal operations, there will be some impacts in these communities.

00136

Draft Environmental Impact Statement Public Comment

Pueblo, Colorado July 30, 2001

I support the NEUTRALIZATION technologies for the mustard agent to be destroyed at the Pueblo Chemical Depot because this is the best choice for our community. 136-1

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NO TO INCINERATION!