TECHNICAL SUPPORT FOR
ROCKY MOUNTAIN ARSENAL

Record of Decision for the On-Post Operable Unit

Volume 2
Section 12

Version 3.1

June 1996

Contract No. DAAA 05-92-D-0002

Prepared by:

Foster Wheeler Environmental Corporation

Prepared for:

U.S. Army Program Manager's Office for the
Rocky Mountain Arsenal

This document is intended to comply with the National Environmental Policy Act of 1969.

The information and conclusions presented in this report represent the official position of the Department of the Army unless expressly modified by a subsequent document. This report constitutes the relevant portion of the administrative record for this CERCLA operable unit.

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M9604818

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B Agreement in Principle Regarding a Water Supply Between the Army, Shell, and SACWSD

12.0 Responsiveness Summary

12.1 Introduction

This section contains the Army's responses to comments submitted in regard to the Proposed Plan for the On-Post Operable Unit at RMA. Comments were received from CDPHE, EPA, USFWS, Shell, city and county governments, environmental action groups, and private citizens.

PMRMA solicited comments regarding the On-Post Operable Unit Proposed Plan during a 3-month-long public comment period (October 16, 1995 to January 15, 1996). The Proposed Plan and the primary supporting documentation[1] were made available to the public for the entirety of the public comment period. These documents were available at seven city and county libraries in the area as well as at the EPA Region VIII library. These documents, as well as the complete administrative record, were also available at the JARDF, which is located at the west entrance to RMA at 72nd Avenue and Quebec Street. A public meeting was held on November 18, 1995 to present and discuss the Proposed Plan with citizens and public officials. This Responsiveness Summary was prepared to respond to oral and written questions or concerns received by the Army during the public comment period.

The public meeting was held at RMA from approximately 9:00 a.m. to 12:30 p.m. Those in attendance included representatives from the Army, the Army's contractor (Foster Wheeler Environmental Corporation), Shell, EPA, USFWS, the state of Colorado (CDPHE), Tri-County Health Department, city and county officials, public interest groups, and citizens. A Court Reporter and Notary Public reported the proceedings of the meeting in a stenographic transcript, included as Section 12.6 and available for review in the JARDF. An agenda was prepared for the meeting and provided to attendees along with a copy of the Proposed Plan. A video, *Taking Action for the Future: The Proposed Cleanup Plan for Rocky Mountain Arsenal*, was presented that summarized the information provided in the Proposed Plan and a brief talk was given that described the rationale behind the selection of the preferred alternatives. A site tour of RMA was also made available to all attendees; technical experts accompanied the tours to explain ongoing remedial operations and to answer questions.

12.2 History of Community Relations Activities

The Army began developing its Community Involvement Program in the 1980s as the first environmental investigations were initiated. As part of this program, the Army has conducted one-on-one interviews and informal

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[1] Human Health Exposure Assessment for Rocky Mountain Arsenal (Ebasco 1990), Remedial Investigation Summary Report (Ebasco 1992a), Development and Screening of Alternatives Report (Ebasco 1992b), Human Health Exposure Assessment Addendum for Rocky Mountain Arsenal (Ebasco 1992c), Integrated Endangerment Assessment/Risk Characterization (Ebasco 1994), and Detailed Analysis of Alternatives Report (Foster Wheeler Environmental 1995a).

group meetings, solicited input using surveys and questionnaires, and pursued phone contacts to identify interested citizens and organizations, assess public perceptions of the issues, and determine appropriate mechanisms for engaging in two-way communication.

Educational outreach efforts have included developing several publications that describe current investigations and available remedial technologies, making literature regarding the on-post cleanup effort available to the public, and conducting open houses and public meetings. An example of a current publication includes "Update," which has been distributed to all (approximately 125,000) households within a 10-mile radius of the installation on a quarterly basis since 1990. Various topics are discussed in this quarterly pamphlet including RMA technical information and history, wildlife viewing tour schedules, educational programs, and recycling programs. The Army has also made the comprehensive documentation generated during the cleanup process available to the public in the JARDF, in the information repository maintained at the EPA Region VIII library, and at the Adams County, Aurora, Commerce City, Denver, Lakewood, Montbello, and Park Hill[2] libraries.

The Army held one of its largest public open houses in January 1994, following the release and distribution of the draft Detailed Analysis of Alternatives report for the On-Post Operable Unit. Regulatory agencies represented at the event were EPA, CDPHE, and Tri-County Health Department. The two primary responsible parties, Shell and the U.S. Army, were also represented, as were members of USFWS. The purpose of the event was to allow the public one-on-one experience with federal, state, and local professionals who could explain in simple terms the positions of their organizations in the various aspects of the cleanup. Videos were shown that detailed, in easy-to-understand terms, the various technologies outlined in the draft Detailed Analysis of Alternatives report. As part of the open house, the Army also offered site tours of RMA to the 1,000 citizens who attended.

Prior to April 1994, various public meetings and workshops were coordinated with interested citizens through the TRC, which was established under CERCLA guidelines. The committee, initiated at RMA in 1989, was comprised of representatives from local health and regulatory agencies, community residents, and local government. In November 1993, the TRC opened its meetings to the public. In April 1994, the Department of Defense directed military installations involved in environmental cleanup to form RABs. The RAB at RMA serves as a forum to exchange information and establish dialog among the communities, regulatory agencies, and the Army.

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[2] Only the Proposed Plan and the Final Detailed Analysis of Alternatives report were available for review at Park Hill Library.

Other tools used by the Army to keep the public informed have included the issuance of press releases and hotline phone numbers that provide callers with up-to-date information about cleanup operations. In addition, Army representatives visit area libraries, schools and grocery stores on a regular basis to distribute flyers and brochures dealing with public meetings and cleanup and recreational activities available at RMA.

The Proposed Plan was presented to the public on October 16, 1995. Press releases were sent to a variety of local and state news media, including the Rocky Mountain News and The Denver Post. The October 1995 edition of "Update," summarized the information provided in the Proposed Plan and was sent to all households within a 10-mile radius of RMA. Legal notice of the comment period, which at that time ran from October 16 through December 15, 1995, was published in The Denver Post on October 18, 1995 and in the Rocky Mountain News October 20, 1995. It was republished in mid-December in both newspapers when the comment period was extended.

At the December 7, 1995 RAB meeting it was decided to extend the public comment period for 1 month, i.e., to January 15, 1996, at the request of some commenters. Verbal and/or written comments were accepted by PMRMA both before and after the public meeting up to the deadline of January 15, 1996.

12.3 Responses to Comments

The remainder of this section consists of the Army's responses to written questions and comments received during the public comment period.

Since 1989, all remedial investigation activities at RMA have been performed in accordance with the FFA signed by the Army, EPA, USFWS, ATSDR, Shell, U.S. Department of the Interior, and U.S. Department of Justice. By signing the FFA, these entities were made part of all decision processes at RMA. The state of Colorado elected not to sign the FFA, but has played an active role in the decision-making processes for the On-Post Operable Unit. Throughout the RI/FS process, CDPHE (previously known as Colorado Department of Health) has been involved and has provided the Army with comments on the various aspects of the remediation at RMA.

Responses to comments are presented in the following order, based on the originator of comment:

Section	Topic
12-1	Responses to CDPHE Comments Dated January 19, 1996
12-2	Responses to EPA Comments Dated January 4, 1996
12-3	Responses to USFWS Comments Dated January 19, 1996
12-4	Responses to Shell Comments Dated January 19, 1996
12-5	Responses to City and County Government Comments —Adams County —City and County of Denver —Northern Community Coalition

12-6 Responses to Environmental Action Group Comments
—League of Women Voters
—Sierra Club
12-7 Public Meeting Transcript
12-8 Responses to Citizen Comments

A glossary of acronyms used in Section 12 is provided as part of the general table of contents.

12–1

Responses to CDPHE Comments

STATE OF COLORADO

Roy Romer, Governor
Patti Shwayder, Acting Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION

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RECEIVED
JAN 25 1996
Colorado Department of Public Health and Environment

January 19, 1996

Mr. Charlie Scharmann
Office of the Program Manager
Rocky Mountain Arsenal
AMCPM-RM
Commerce City, CO 80022-1748

Dear Mr. Scharmann:

Please find enclosed the state's comments on the On-Post Proposed Plan. If you have any questions, please don't hesitate to call.

Sincerely,

Barbara Nabors
RMA Project Manager
Hazardous Materials and
Waste Management Division

cc: Laura Williams
Lorraine Ross
Ken Conright
Martin Kosec
Bill Adcock
Ronel Finley
Jonathan Potter
Edward McGrath
Robert Foster
Vicky Peters

9602504-1/1

Colorado Department of Public Health and Environment
Comments on the RMA On-Post Proposed Plan

1. The Agreement for a Conceptual Remedy for the Cleanup of the Rocky Mountain Arsenal (Conceptual Agreement) which was signed by the parties on June 13, 1995, paragraph 17, provides that all well owners living within the DIMP plume footprint, defined by the detection limit of .392 ppb, based on the most recent quarterly monitoring results at the time the Record of Decision is signed, will be hooked up to an appropriate water distribution system. This hook up will be paid for by the Army and Shell. It is the State's understanding that all persons within the DIMP plume footprint, including those in the Henderson area and those with deep wells, will be offered a hook up to an appropriate distribution system.

It is also the State's understanding, confirmed by the Army and EPA at the public meeting held in Henderson on December 12, 1995 that Shell and the Army have made a separate and distinct commitment to provide an additional 4,000 acre feet of water to SACWSD, or, if such water is not available, to make a payment in an agreed-upon sum in lieu of water. This commitment is contained in paragraph 16 of the Conceptual Agreement.

2. The Conceptual Agreement, paragraph 18, provides that the Army and Shell will fund ATSDR to conduct an RMA Medical Monitoring Program in coordination with CDPHE. The state wishes to clarify that the Army and Shell are responsible for fully funding the participation of the state and ATSDR in the Medical Monitoring Program.

3. Paragraph 19 of the Conceptual Agreement provides that the Parties commit to good faith best efforts to establish a trust fund for the operations and maintenance of the remedy, including habitat and surficial soils. The Final Detailed Analysis of Alternatives and the Proposed Plan provide that these activities are estimated to cost approximately $5 million per year (in 1995 dollars) and that the principal and interest from the trust fund will be used to cover these costs.

To date, the Army and Shell have failed to identify legal mechanisms that would be necessary to establish the trust fund or otherwise develop basic trust fund details. Given the Conceptual Agreement and widespread stakeholder interest, the state requests that a series of working meetings on the trust fund be set up within the next month.

4. As previously noted to the Army, page 3 of the Proposed Plan contains an error. The Conceptual Agreement provides for RCRA-equivalent caps on Former Basin F, Army Complex and Shell Trenches. A RCRA-equivalent cap is not planned for Basin A.

5. The Proposed Plan states that "[g]roundwater plumes in the South Plants area are monitored and high lake levels are maintained to reduce migration of groundwater into the southern lakes (Page 13, Table 4)." In the Final DAA, the Army states that "[h]ydraulic controls are maintained to prevent contaminants from entering the lakes at levels that could have an adverse effect on biota." These descriptions differ from the Conceptual Agreement language which states that "lake levels...or other means of hydraulic containment will be used to prevent South Plants plumes from migrating into the lakes." It is our understanding that the method of hydraulic containment (either lake levels or other) will continue to be discussed and will be addressed prior to the final ROD. The state is encouraged that technical working group meetings are being held to discuss this issue.

6. Contrary to the Proposed Plan and the Detailed Analysis of Alternatives, the Army has not given adequate consideration to innovative treatment technologies for Hex Pit remediation. During negotiations on the Conceptual Agreement, stakeholders expressed a strong desire that a site on the Arsenal be used as a demonstration site to evaluate the use of innovative treatment technologies for other Army/Department of Defense facilities. The Parties contemplated that a variety of technologies would be considered based on a range of factors including effectiveness and cost. In the spirit of the Conceptual Agreement, all relevant factors for innovative technologies at the Hex Pit need to be considered as part of reaching a final decision in the ROD.

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Ms. Barbara Nabors
Colorado Department of Public
Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Dear Ms. Nabors:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Responses to your comments are provided below, numbered to correspond to your comments.

1. The U.S. Army and Shell Oil Company (Shell) remain committed to a resolution providing eligible residents with hook-ups as stated in the On-Post Record of Decision (ROD) and the Agreement in Principle with South Adams County Water and Sanitation District (SACWSD). The State is correct in noting that, based on the Agreement in Principle (enclosed) residents with wells within the diisopropyl methylphosphonate (DIMP) footprint will be offered connection to an alternative water supply.

2. To clarify the second part of your comment, the Army and Shell have made a separate and distinct commitment to provide a supplemental water supply to SACWSD. The Agreement in Principle with SACWSD requires that SACWSD water be supplied to consenting drinking water well owners within the DIMP plume footprint by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The Parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

3. To clarify the State's concern of funding for the Medical Monitoring Program as outlined in Paragraph 18 of the Agreement for a Conceptual Remedy for the Cleanup of the Rocky Mountain Arsenal, the Army and Shell will fund the Agency for Toxic Substances and Disease Registry (ATSDR) to conduct this effort in coordination with the Colorado Department of Public Health and Environment (CDPHE). The Program's nature and scope will include baseline health assessments and will be determined by the on-post monitoring of remedial activities to identify exposure pathways, if any, to any off-post community. This

Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group (MMAG) has been established to evaluate specific issues covered by the Medical Monitoring Program. The MMAG is composed of representatives of the Army, Shell, the U.S. Environmental Protection Agency, CDPHE, Tri-County Health Department, ATSDR, the U.S. Fish and Wildlife Service, Denver Health and Hospitals, and the Site-Specific Advisory Board. The MMAG also includes representatives from the communities of Commerce City, Henderson, Denver, Montbello, and Green Valley Ranch.

4. A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders and will be convened within 90 days of the signing of the ROD.

5. The State is correct in noting the error made on page 3 of the Proposed Plan. A Resource Conservation and Recovery Act-equivalent cap is not planned for Basin A. Basin A will be covered with a 6-inch formed concrete layer and a 4-ft soil cover as detailed in Section 9.3 of the ROD.

6. Water levels in Lake Ladora, Lake Mary, and Lower Derby Lake will be maintained to support aquatic ecosystems. The biological health of the ecosystems will continue to be monitored.

Lake-level maintenance or other means of hydraulic containment or plume control will be used to prevent South Plants plumes from migrating into the lakes at concentrations exceeding Colorado Basic Standards for Groundwater (CBSG) in groundwater at the point of discharge. Groundwater monitoring will be used to demonstrate compliance.

7. The Army understands the State's concern of considering innovative treatment technologies for the Hex Pit remediation. Subject to the results of treatability testing and technology evaluation, it has been decided that approximately 1,000 bank cubic yards (BCY) of principal threat material from the Hex Pit will be treated by an innovative thermal technology. Solidification will become the selected remedy if all evaluation criteria for the innovative thermal technology are not met. The remaining 2,[illegible] BCY of material will be excavated and disposed in the on-post hazardous waste landfill.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
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12–2

Responses to EPA Comments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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RECEIVED
JAN 12
BY

JAN - 4 1996

Ref: 8EPR-FF

Mr. Charles Scharmann
Office of the Program Manager
for the Rocky Mountain Arsenal
AMXRM-PM, Building 111
Commerce City, Colorado 80022-2180

Re: EPA Comments of the Final On-Post Detailed Analysis of Alternatives (DAA) and Proposed Plan dated October 16, 1995

Dear Mr. Scharmann:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final On-Post Detailed Analysis of Alternatives (DAA) and Proposed Plan which were issued for public comment on October 16, 1995. EPA previously raised fifteen disputes on the draft DAA in a letter dated September 22, 1995, and ten disputes on the draft Proposed Plan in a letter dated October 5, 1995. These disputes have been resolved through the inclusion of changes in the October 16th version of the DAA and proposed plan. EPA appreciates the effort expended by the Army to incorporate EPA's comments into the final documents.

Attached are comments regarding errors and omissions identified in the final DAA and Proposed Plan. These comments should be addressed via an errata sheet to the final DAA or an addendum to the DAA. Some of the comments are pertinent to the draft ROD which is scheduled to be issued this month. In addition, EPA may be submitting additional comments on the ARARs section of the final DAA.

If you have any questions regarding these comments, please contact me at (303) 312-6540.

Sincerely,

Denise M. Link

Denise Link
Superfund Project Manager

Enclosure

9600410-1/1

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cc: Laura Williams, EPA
Barbara Nabors, CDPHE
Lorraine Ross, EPA
Mike Anderson, Shell
Ronel Finley, USFWS
Vicky Peters, Co. AGO
Jonathon Potter, Army
Ken Conright, TCHD

Comments on
Final Detailed Analysis of Alternatives Report, Version 4.0
October 1995

GENERAL COMMENTS

It is difficult to correlate the data presented in the spreadsheets in Volume IV with the volumes, areas, and costs presented throughout the text and tables in Volumes II and III due to rounding and volume approximations.

Executive Summary

Page 3-15, first paragraph. Reference is made to figure ES 3-3.1 which shows the AOC. This critical figure is not included in this document. It should be included in the DAA.

Page 11-1, Section 11. Throughout this section, the DAA refers to the volume of contaminated soils in the Basin F Wastepile medium group as 600,000 BCY (580,000 BCY plus 20,000 BCY of contaminated material from the liner and subgrade). Table B4.2-3 shows that only 180,000 BCY of material from the Basin F Wastepile medium group would be disposed in the on-post landfill. Obviously an incorrect volume was used in this table. Consequently, the remediation cost shown in Table B4.2-3 has been underestimated by approximately $100 million. Please correct this discrepancy and confirm that the correct costs were used to determine the total remediation costs.

Soils DAA

Page 11-4, second paragraph. As stated in EPA's letter, dated September 22, 1995, the EPA believes that this paragraph contains conclusions about the operation and performance of the Basin F Waste Pile Systems that are not agreed upon by the EPA and the State. Language pertaining to the operation and performance of the Basin F Waste Pile Systems should be removed from the DAA.

Page 14-24 last paragraph, second sentence. The EPA is concerned by the Army's statement that, "It is assumed that this cap is RCRA-equivalent." The EPA has reviewed existing guidance documents which address the design requirements of a RCRA cap. All of these documents list a minimum three layer configuration consisting of cover, drainage and barrier layers. The Army's proposed cap does not include a drainage layer. A RCRA cap is designed to operate as a complete structure with each layer preforming a specific required function. The drainage layer provides

protection to the barrier layer and the waste below. It does this by conveying water off of the top surface of the barrier layer. This action reduces the hydraulic gradient across the barrier layer to the most minimum level possible. Without a drainage layer being present, as is the case in the Army's proposed cap, water that has infiltrated the cover will collect in the biota barrier. This water will attract root growth from above, increase the hydraulic gradient across the compacted clay barrier layer below and reduce the shear strength or structural stability of the cap.

The EPA would prefer that the Army include a drainage layer in their proposed cap configuration. This action would only minimally impact the capital cost of the cap and it would provide additional protection to the barrier layer.

Water DAA

Page 6-2, first paragraph. This page starts in mid-sentence. Obviously some text is missing. Please correct this error.

Comments on the
Proposed Plan for the Rocky Mountain Arsenal
On-Post Operable Unit
October 1995

Page 8, Ecological Risk Characterization. The Proposed Plan does not adequately describe the results of the Ecological Risk Characterization. The Army did not incorporate the suggested text revision made by EPA with our October 5th comments. The On-Post ROD should describe in more detail where contaminant exposure pathways to wildlife exist and how these pathways will be eliminated or the risk reduced to an acceptable level. In addition, the ROD should contain more detail on the results and conclusions drawn from the ERC. The area of dispute should be explained as well as the process outlined Paragraph 27 a. of the Conceptual Agreement.

9600410-1/1-B

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Ms. Laura Williams
U.S. Environmental Protection Agency
Region VIII
Mail Code 8EPR-F
999-18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Ms. Williams:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan.

In response to your comment on the Proposed Plan description of the results of the Ecological Risk Characterization, the U.S. Army followed U.S. Environmental Protection Agency (EPA) Guidance on Preparing Superfund Decision Documents, which states the Proposed Plan should be written in a clear and concise manner and should direct the public to the Remedial Investigation/Feasibility Study (RI/FS) report as the primary source of detailed information.

In preparing the Proposed Plan, the Army worked closely with all the Parties to address their dispute items from the draft version of the document. All comments, from each Party, were addressed.

The Army agrees with EPA that the Record of Decision (ROD) should include more detail. The ROD (1) describes in more detail where contaminant exposure pathways to wildlife exist and how either these pathways will be eliminated or the risk will be reduced to an acceptable level, (2) details the conclusions drawn from the Ecological Risk Characterization, (3) defines the Area of Dispute, and (4) outlines the process as first set forth in the Agreement for a Conceptual Remedy for the Cleanup of Rocky Mountain Arsenal (dated June 13, 1995), Paragraph 27a, to be used to monitor and evaluate areas that may pose risk to biota and to refine areas to be remediated.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Mr. Eduardo Quintana, Assistant Regional Counsel, U.S. Environmental
Protection Agency, One Denver Place, Suite 500, 999-18th Street,
Denver, Colorado 80202-2405
Mr. Gene Czyzewski, CDM Federal Program Corporation, 1626 Cole Boulevard,
Suite 100, Golden, Colorado 80401
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking Center
Commerce City, Colorado 80022-1748

12–3

Responses to USFWS Comments

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Rocky Mountain Arsenal National Wildlife Refuge
Building 111
Commerce City, Colorado 80022-1748
Telephone (303) 289-0232
Fax (303) 289-0579

IN REPLY REFER TO:

January 19, 1996

Mr. Charles Scharmann
Program Manager for Rocky Mountain Arsenal
Building 111
Commerce City, Colorado 80022-1748

Dear Mr. Scharmann:

The U.S. Fish and Wildlife Service has reviewed the Final On-Post Detailed Analysis of Alternatives and the Proposed Plan, which were released for public review in October 1995, and provides the following comments.

Overall, the Service believes that the subject documents adequately portray the Analysis of Alternatives considered, the resolution of disputes raised and the agreements made in reaching the Agreement for a Conceptual Remedy which was signed on June 13, 1995.

Although we believe the documents effectively describe the alternatives and the proposal, there are several areas where further planning and commitments are essential before a Record of Decision (ROD) can be developed for release and concurrence.

Two items included in the Conceptual Remedy which are of major concern to the Service are the development and delivery of on-Post water supplies and the establishment of a trust fund.

Although much attention and discussion has deservedly centered upon the development of off-Post water supplies, equal consideration needs to be given to future on-Post water needs. A dependable source of quality water is vital to maintaining future lake levels and to establish the revegetation essential for restoration and mitigation of contamination and remediation efforts.

Likewise the establishment of a trust fund, as envisioned in the Conceptual Agreement, would provide a continuing contingency to ensure the efficacy of the cleanup as a long term success.

The Service believes that resolution on the design and implementation of these items is an achievable and essential element of the forthcoming ROD. We look forward to working with all Parties towards that goal.

Sincerely,

Ray Rauch
Project Leader

9601915-1/1

Copies Furnished:

Ms. Laura Williams, U.S. Environmental Protection Agency, 999 18th Street, Suite 500, Denver, Colorado 80202
Mr. William McKinney, Shell Oil Company, 1700 Lincoln Street, Suite 4100, Denver, Colorado 80202
Mr. Howard Roitman, Colorado Department of Health and the Environment, 4300 Cherry Creek Drive South, Denver, Colorado 80222-1530
Ms. Barbara Nabors, Colorado Department of Health and Environment, 4300 Cherry Creek Drive South, Denver, Colorado 80222-1530
Mr. Dan McAuliffe, Department of Natural Resources, 1313 Sherman Street, Room 718, Denver, Colorado 80203
Document Tracking Center, Office of the Program Manager for Rocky Mountain Arsenal, Building 111, Commerce City, Colorado 80022-1748

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Mr. Ray Rauch
U.S. Fish and Wildlife Service
Rocky Mountain Arsenal National Wildlife Refuge
Building 613
Commerce City, Colorado 80022-1748

Dear Mr. Rauch:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan.

The Army agrees that the on-post water supply is an important issue, and measures similar to those delineated for off-post alternative water supplies are ongoing to ensure that water of appropriate quality is provided on-post.

During the formulation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operations and maintenance of the remedy. The Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the On-Post Record of Decision (ROD). Principal and interest from the Trust Fund would be used to cover the costs of long-term operations and maintenance throughout the lifetime of the remedial program. These costs are estimated to be approximately $5 million per year (in 1995 dollars).

It is the intent of the Parties that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remedial sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A trust fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders and will be convened within 90 days of the signing of the ROD.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Mr. L. Ronel Finley, Coordinator, U.S. Fish and Wildlife Service, Rocky
Mountain Arsenal, Building 111, Commerce City, Colorado 80022-2180
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

12–4

Responses to Shell Comments

Shell Oil Company

c/o Holme Roberts & Owen LLC
Suite 4100
1700 Lincoln
Denver, CO 80203

RECEIVED
JAN 19 1996

January 19, 1996

Mr. Charles T. Scharmann
RMA Committee Coordinator
Office of the Program Manager
Rocky Mountain Arsenal
ATTN: AMCPM-RM
Commerce City CO 80022-1748

Re: Comments on the Final RMA On-Post Proposed Plan

Dear Charlie:

Shell generally agrees with the site-wide remedy selection for the Rocky Mountain Arsenal (RMA), as described in the Final Proposed Plan for the RMA On-Post Operable Unit (October, 1995), and believes that it complies with the requirements of the Federal Facility Agreement and the Agreement for a Conceptual Remedy for the Cleanup of the RMA. Consequently, we have no comments on this document.

If you have any questions or need additional information, please contact me at your convenience.

Yours very truly,

W.J. McKinney
Project Manager
Denver Site Project

WJM:crc

9601910-1/1

cc:
Mr. Kevin T. Blose
Technical Director
Office of the Program Manager
Rocky Mountain Arsenal
ATTN: AMCPM-RM
Commerce City, CO 80022-1748

Mr. Brian Anderson
Office of the Program Manager
Rocky Mountain Arsenal
ATTN: AMCPM-RME-P
Commerce City, CO 80022-1748

Major Jonathan Potter
Rocky Mountain Arsenal
ATTN: AMCPM-RM
Building 111
Commerce City, CO 80022-1748

Ms. Laura Williams
RMA Coordinator
Environmental Protection Agency
Region VIII, One Denver Place
Mail Code 8EPR-FF
999 18th Street, Suite 801
Denver, CO 80202-2466

Ms. Barbara Nabors
Colorado Department of Public Health
And Environment
Hazardous Materials and Waste Management Div.
4300 Cherry Creek Drive South
Denver, CO 80222-1530

Mr. Ray Rauch
U.S. Fish and Wildlife Service
Rocky Mountain Arsenal
National Wildlife Refuge
Building 613
Commerce City, CO 80022-1748

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Mr. William J. McKinney
Shell Oil Company
c/o Holme Roberts & Owen, LLC
Suite 4100
1700 Lincoln
Denver, Colorado 80203

Dear Mr. McKinney:

Thank you for your letter regarding the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan and your general agreement with the selected site-wide remedy. The U.S. Army understands that Shell Oil Company has no comment on the Proposed Plan.

If you have any questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Readiness is our Profession

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80011-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Mr. William Adcock, Shell Oil Company, c/o Holme Roberts & Owen, Suite 4100,
1700 Lincoln Street, Denver, Colorado 80203
Mr. M.T. Anderson, Shell Oil Company, c/o Holme Roberts and Owen, Suite 4100,
1700 Lincoln Street, Denver, Colorado 80203
Mr. Edward McGrath, Holme Roberts and Owen, Suite 4100, 1700 Lincoln Street,
Denver, Colorado 80203
Mr. Thomas Cope, Holme Robert and Owen, Suite 4100, 1700 Lincoln Street,
Denver, Colorado 80203
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

12–5

Responses to City and County Government Comments

Adams County

ADAMS COUNTY, COLORADO

DEPARTMENT OF PLANNING AND DEVELOPMENT
ROBERT D. CONEY, DIRECTOR

4955 EAST 74TH AVENUE
(303) 853-7000
FAX (303) 853-7015

COMMERCE CITY, COLORADO 80022-1535

January 19, 1996

On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Attn: AMCPM-PM/
Col. Eugene H. Bishop
Building 111-RMA
Commerce City, CO 80022-1748

Dear Col. Bishop:

Under the Proposed Plan and Conceptual Agreement, non-hazardous waste from the Rocky Mountain Arsenal is proposed to be placed in the Basin A area for disposal. The placement of this waste would occur without a liner system normally required for such disposal.

It is not clear that this would be a cost effective method of disposal for the Arsenal's non-hazardous wastes. Adams County believes that the Record of Decision should allow the alternative option of off-site disposal of non-hazardous material. This would allow for a study of all the comparative cost and benefits of both on-site and off-site of non-hazardous materials.

This alternative is supported by the Director of Hazardous Materials and Waste Management Division, Colorado Department of Public Health and Environment's, letter to you, dated September 6, 1995. It is also supported by Tri-County Health Department.

Contamination at the Rocky Mountain Arsenal has negatively impacted economic development in the areas surrounding the Arsenal. Using local contractors to transport and dispose of the non-hazardous material would partially offset this negative impact. Off-site disposal would also allow the waste to be disposed of in a RCRA designed facility in segregated cells.

Past interim remedial actions at the Arsenal allowed removal of non-hazardous waste from the Arsenal and disposal of those wastes in facilities within Adams County. Adams County considers these wastes Special Waste and requires that they be placed into segregated cells in a RCRA designed facility.

Should you have any questions concerning these comments, please call. My number is 853-7003.

Sincerely,

Craig Tessmer, Environmental Analyst

cc: County Administrator
Director, Planning and Development

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Mr. Craig Tessmer
Adams County Department of Planning and Development
4955 E. 74th Avenue
Commerce City, Colorado 80022-1535

Dear Mr. Tessmer:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

Your letter proposes offsite disposal of nonhazardous materials in a Resource Conservation and Recovery Act-designed facility rather than placing it in the Basin A Consolidation Area. The Army understands your concern that this material be disposed properly and believes that the approach of placing the material under the Basin A cover will adequately immobilize any contaminants and provide a cost-effective method for disposal of nonhazardous materials. In addition, a large volume of fill material will be required to construct the Basin A Consolidation Area, and the RMA nonhazardous material will satisfy that need. Furthermore, by using this nonhazardous material onsite, there will be no negative impact from a very large number of trucks moving through the surrounding community. Cost for fill material is also minimized. Therefore, the Army chose to keep the nonhazardous material onsite to be used as fill material for the Basin A Consolidation Area.

In response to your other query about providing business opportunities to local contractors, to the extent that such efforts are consistent with federal contracting guidelines, the Army will continue to make a concerted effort to use local labor and contractors to support remediation activities.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

City and County of Denver

WELLINGTON E. WEBB
Mayor

CITY AND COUNTY OF DENVER

rec'd 24 Jan

DEPARTMENT OF HEALTH AND HOSPITALS

PUBLIC HEALTH
605 BANNOCK STREET
DENVER, COLORADO 80204-4507
PHONE: (303) 436-7300
FAX: (303) 436-5074

January 19, 1996

Program Manager
Rocky Mountain Arsenal
Attn: AMCPM-PM/ Col. Eugene H. Bishop
Building 111-RMA
Commerce City, Colorado 80022-1748

re: On-Post Proposed Plan

Dear Colonel Bishop:

Provided below are the Denver Public Health Department, Environmental Protection Division comments on the Army's Proposed Plan for the Rocky Mountain Arsenal.

General Comments

1. Potential Air Emissions

Any remedial activity that may result in the emission of air pollutants is of concern to Denver. Air emission modeling associated with the SQI has shown that the populated area of maximal total off-post deposition (even though negligible for the SQI) is the Montbello neighborhood. Understandably, the community is extremely concerned about combined emissions from future remedial measures because of the potential for detrimental health effects. In order to ensure the health and safety of onsite workers, visitors to the Arsenal, and the general population, we have previously advised that the characteristics and risks associated with the combined sources of air emissions be considered when evaluating the alternative remedial actions. More specifically, we expect that all dispersion associated with the various sources of emissions would be evaluated by air modeling and that the cumulative effect of all components of the separate sources be included in a Human Health Risk Assessment. This analysis has not yet been performed. Furthermore, we advised that in addition to monitoring emissions at their source and at the boundary of the Arsenal, that air monitoring stations be established within the surrounding communities for baseline and subsequent routine monitoring of indicator pollutants.

2. On-post Detonation of UXO

Component 14 of the Parties' agreement states that if explosives-containing munitions are found, they are to be taken to the closest on-post site for detonation. The DAA report (Vol. VII, page 9-4) indicates that site ESA-4b could be used again for on-site detonations. Is that site suitable today and will it remain so throughout the duration of the remedy, considering the continual development of the Denver International Airport and the vehicular corridor adjacent to the

eastern side of the Arsenal? How and where will agent-containing, unexploded munitions be destroyed?

3. Institutional Controls and Restrictions

As stated in our comments of 9/16/94, we would like to see a comparison of the effects of proposed restrictions associated with the various remedial alternatives on humans and wildlife, both during and after implementation.

4. Trust Fund

The Proposed Plan and the DAA report lack any proposed legal mechanism for the development of a Trust Fund. That mechanism and at least an estimated date when the Fund could be established should have been provided.

5. Human Health Risk Characterization

Since performing the human health risk characterization, DIMP, PCBs, and NDMA have been identified as contaminants of concern beyond the 27 others previously evaluated. More recent analyses of animals and soils have proven the presence of dioxins on the RMA. How will the risks posed by these new COCs be evaluated? After completion of the proposed remediation, how would any future additional contaminated media found to pose a significant risk be addressed?

7. Environmental Justice

Our 9/16/94 response to the Parties' descriptions of five conceptual cleanup approaches, reported several concerns heard from the residents living adjacent to the Arsenal. The Parties' agreement could partially address some concerns, such as medical health monitoring for Montbello residents (Component 18 of the Agreement). However, other concerns also exist:

- How will surrounding property values be effected by the proposed cleanup approach?
- Will education and vocational training opportunities be offered to the community during the remediation of the RMA?
- What emergency response measures will be established to protect the surrounding communities?
- Will the local communities' contractors and work force benefit from the opportunities afforded by the selected remedial actions?

8. Five-Year Reviews

It is not clear when the clock will be started on the five-year review of remedial actions. It is recommended that the reviews be site-specific and the trigger for starting the time clock be the completion of a separate site activity within the total site remedy. For example, review of the protectiveness of the remedy applied to the Army (Complex) Trenches should be performed within five years subsequent to completion of the slurry wall and RCRA-equivalent cap/cover.

9. Prioritization of Remedial Actions

Please see the attached letter, dated January 17, 1996.

Structures Medium

10. Structures Containing Agent

What measures will be taken to prevent accidental releases during the demolition, crushing, sorting, and sizing of debris from potentially agent-contaminated structures? If a release to air occurs at South Plants or elsewhere on RMA, how will the chemical agent's risk to the health and safety of any off-site human population be mitigated?

11. Caustic Washing of Structures and Soil Containing Chemical Agent

The DAA report, Vol. VII, page 9-8 states that "detailed laboratory and pilot scale testing would be necessary before implementing this alternative as this technology has not been well demonstrated and is largely theoretical." The narrative goes on to describe previous testing of this procedure at RMA. Re-formation of GB during the spray drying of the brine [spent caustic] solution, difficulties confirming that the brine was free from agent, and reported exceedance of air emission action levels were reported. At RMA there is potential for several types of chemical agents and other COCs in any batch of material to be treated, which further complicates the process and may require re-treatment. Yet, these implementation difficulties are not discussed elsewhere in the DAA report or the Proposed Plan. Please clarify why this process is the preferred alternative. Where would the treatment facilities be constructed?

Soils Medium

12. Inconsistencies in Soils Volume Estimates

What is the estimated total volume of soils in the South Plants Central Processing Area exceeding Human Health and Principle Threat? Human Health and Principle Threat volumes for soils were estimated in the DAA report for each contaminant of concern between land surface and a depth of 10 feet (or to the water table if it is shallower). (DAA, Vol. IV, pages A-4). Why wasn't the volume for the Proposed Plan's 5-foot depth of excavation detailed in this appendix? Volumes of

the soils media are inconsistently stated among numerous sections of the DAA report, its appendices, and the Mass Balance Logic Flow Diagram. Which are the correct estimates?

13. Firing Ranges

The October 1995 edition of "RMA Update," which was distributed at the same time as the Proposed Plan, includes a map on the front page showing areas of RMA where cleanup activities would be conducted under the Proposed Plan. Two soil remediation areas are depicted in Sections 12 and 19 on that map, which are believed to be firing ranges; these areas are not included in the Proposed Plan's Figure 4 - Preferred Soil Alternative. Please clarify whether these areas will be included in the remedial action.

14. Slurry Wall Construction

The DAA report (Vol. VII, page 6-9) states "for a slurry wall to control groundwater migration, a groundwater removal system is generally installed in conjunction with the slurry wall." We concur. It is recommended that dewatering and treatment of liquids within the Army (Complex) Trenches and the Shell Trenches be retained as an initial, necessary component of the remedy.

15. South Plants Cap/Cover

How was it determined that a biota barrier and 4 or more feet of soil cover would not be needed over the Human Health and Principle Threat exceedance soils that are proposed to be covered in the South Plants Balance of Areas?

16. Biota Barrier

Is it truly protective to use rubble from a demolished RMA structure as a biota barrier without first performing verification sampling and confirming the presumed lack of contamination?

17. Hex Pits

We would like to see an innovative treatment technology be applied to the 3300 cu. yd. of waste in the Hex Pits, if practicable. Of the available treatment alternatives, the alternative posing the least amount of risk to human health and safety is preferable.

18. Southern Lakes

Degradation of the quality of the surface waters in the southern lakes is threatened by the contaminants within the South Plant's plumes. The Proposed plan involves maintaining hydraulic control of the lakes and continued monitoring of groundwater quality and water-level data near the lakes in conjunction with the proposed capping of South Plants. The frequency of monitoring events and the method of controlling lake levels is not discussed. It appears

however, that the proposed alternative would only delay the need to extract/treat ever increasing concentrations of contaminants further from their source area. Should the ability to maintain the lake water levels be compromised (for example, due to the loss of a dam or the result of a severe draught) what response actions would be implemented?

19. Confined Flow System Monitoring

The DAA report offers several hypotheses regarding mechanisms to explain the numerous detections of contaminants in the confined flow system. Additional investigation and characterization of this deeper zone of groundwater contamination appears to be warranted. The proposed establishment of a monitoring well network consisting of 20 existing wells and annual sampling, seems premature and potentially insufficient. Additional wells are needed to assess the lateral extent of contaminant migration. More frequent sampling (such as quarterly sampling over some limited duration) would provide the data needed to better identify and designate a more appropriate monitoring network.

Thank you for extending the public comment period and for considering all comments. If you have any questions, feel free to call (tel. 436-7305).

Sincerely,

John D. Student
Remedial Program Manager
Environmental Protection Division
Denver Public Health Department

attachment

cc: Tom Stauch, Environmental Supervisor, Environmental Protection Division

jds:onpostpp

WELLINGTON E. WEBB
Mayor

CITY AND COUNTY OF DENVER

DEPARTMENT OF HEALTH AND HOSPITALS

PUBLIC HEALTH
605 BANNOCK STREET
DENVER, COLORADO 80204-4507
PHONE: (303) 436-7300
FAX: (303) 436-5074

January 17, 1996

SENT BY FAX (289-0485 & 289-0582)

Program Manager
Rocky Mountain Arsenal
Attn: Mr. Brian Anderson
Environmental Engineering Division
Commerce City, Colorado 80022

re: Sequencing of Remedial Activities

Dear Mr. Anderson:

The Denver Public Health Department, Environmental Protection Division, has reviewed the documentation for the Army's proposed sequence of remedial actions at the Rocky Mountain Arsenal. In general we found the sequence logical. Our exceptions to your priorities are noted on the attached Remedial Activities Rating Sheet.

In addition to addressing the "fixed facilities" subproject group that you have identified, we would like a commitment for early action on the following additional critical path issues:

- medical monitoring program,
- Trust Fund for O&M of remedial actions,
- contingency, health and safety, and emergency response plans, and
- air pathway monitoring program and baseline concentrations.

Please note that this letter supersedes my previous letter to you concerning this subject, dated January 16, 1996. Please discard that letter. Should you have any questions, please feel free to contact me (tel. (303)436-7305).

Sincerely,

John D. Student
Remedial Program Manager
Environmental Protection Division
Denver Public Health Department

cc: Tom Stauch, Environmental Supervisor, Environmental Protection Division

jds:ra-priorlrevl

9602413-1/1-A

Remedial Activities Rating Sheet

Indicate impression of risk (high/medium/low) and community interest (high/medium/low) for each subproject group. Rate each subproject group between 0 (low priority) and 6 (high priority) with total not to exceed 6 points for all subproject groups combined.

Subproject Group	Risk (H/M/L)	Community Interest (H/M/L)	Comments	Points
Fixed Facilities	NA	NA		NA
Off-Post Water	H	H	If there is exposure this must be addressed ASAP.	1
Section 36	H	H	Shell Trenches and complex Trenches need early remediation.	2
Section 26	M	H	Basin F Wastepile is controlled and final remedy can be delayed.	0
North Plants	L	L	Structures & Soil can be delayed.	0
South Plants	H	H	Hex pits need early remediation. Structures remediation should concentrate early in South Plants in order to accelerate schedule.	3
Other	M	L	Other structures could be delayed if they don't block soils clean-up and access can be controlled. Munitions should be addressed ASAP.	0
			Total	6

Name Environmental Protection Division

Organization Denver Public Health

9602413-1/1-A-a

priority.doc 12/7/95

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Mr. John D. Student
Environmental Protection Division
Denver Public Health Department
605 Bannock Street
Denver, Colorado 80204-4507

Dear Mr. Student:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

Responses to your comments on the Proposed Plan are provided in the enclosure to this letter.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

Readiness is our Profession

U.S. ARMY RESPONSES TO COMMENTS BY THE CITY AND COUNTY OF DENVER DEPARTMENT OF HEALTH AND HOSPITALS ON THE ROCKY MOUNTAIN ARSENAL ON-POST PROPOSED PLAN

General Comments

1. Potential Air Emissions

Your comment cites air emissions modeling associated with the Rocky Mountain Arsenal (RMA) Submerged Quench Incinerator (SQI) as a way to locate the "maximal" off-post deposition in the Montbello neighborhood. The SQI modeling reflected emissions from a 100-foot stack. Under these circumstances and stable atmospheric boundary layer conditions, maximum concentrations from a high emission source are frequently projected a considerable distance downwind. However, in the future remediation activity projected at RMA, all remediation will be associated with ground-level sources, and the maximum deposition, or ambient concentrations, will occur in the immediate proximity of the work area and will decrease rapidly with distance from the source. This phenomenon was demonstrated in the 1988 Basin F Interim Response Action (IRA) when moderate concentrations of various volatile organic compounds (VOC) and pesticides were detected in the immediate work area and decreased rapidly with distance from the work site.

The prevailing nighttime drainage wind is generally from south to north away from Montbello, and although the worst-case modeling scenario might reflect some higher concentrations in any random direction because of topography, this likely will not occur to the south. The prevailing dispersion pattern and windrose calculated during active remediation of Basin F illustrates this fact. It is also true that during daytime hours, heating of the ground can cause the wind flows to reverse, blowing up valley (from north to south). Thus Montbello will be downstream of the Arsenal during these times. However, as noted, the remedial actions will occur at ground level, in the center of the Arsenal, several miles away from the southern RMA boundary. Also, atmospheric conditions will be neutral to unstable, confining impacts to the close proximity to the remediation area. For these reasons, it is anticipated that impacts upon Montbello will be small.

A risk assessment conducted immediately after the Basin F IRA (Ebasco Constructors et al., 1989 Basin F Interim Action Close-out Safety Report, Draft Final, August 1989), indicated no risks at the RMA perimeter to public health and safety. As Montbello is at a farther distance and in the opposite direction of prevailing worst-case conditions, and as the past remediation of Basin F most likely reflects worst-case emissions, the Army does not anticipate high concentrations in the direction of Montbello. Recent smaller remediation activities during Pond A and Pond B closures and the South Plants pilot building demolition project provided similar results.

The Army intends to take proper precautions for Montbello and all other RMA perimeter areas when future active remediation commences. Dispersion associated with various sources of emissions will be evaluated by air modeling (as was done in the past), and intensive air monitoring

will be conducted both within the interior and at the perimeter of RMA during active remediation. Real-time monitoring will also be conducted close to all remediation sources for the health and protection of workers at RMA.

With respect to monitoring at nearby communities, both for baseline and routinely during remediation activity, a Medical Monitoring Program has been initiated. The primary goals of the Medical Monitoring Program are to monitor any off-post impact on human health due to the RMA remediation and to provide mechanisms for evaluation of health status on an individual and community basis. This Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group has been established to evaluate specific issues covered by the Medical Monitoring Program. As you are aware, the Group is composed of representatives of the Army, Shell Oil Company, the U.S. Environmental Protection Agency (EPA), the Colorado Department of Public Health and Environment (CDPHE), Tri-County Health Department, the Agency for Toxic Substances and Disease Registry (ATSDR), the U.S. Fish and Wildlife Service (USFWS), Denver Health and Hospitals, and the Site-Specific Advisory Board. The Group also includes representatives from the communities of Montbello, Commerce City, Henderson, Green Valley Ranch, and Denver.

2. On-Post Detonation of Unexploded Ordnance (UXO)

Identified UXO will be transported to an off-post Army facility for detonation or other demilitarization process unless the UXO is unstable and must be detonated on-post. On-post detonation will only be performed if UXO is unstable and cannot be safely transported to Army facilities that specialize in explosives or agent-filled UXO demilitarization. The suitability of on-post UXO detonation sites (including ESA-4b) will be evaluated during remedial design and, if needed, will be in accordance with Army Materiel Command (AMC) Safety Procedures (AMC-R 385-100 and AR 75-15). Site ESA-4b is located more than one mile from the eastern boundary of RMA, much farther than the 2,400 feet suggested in the AMC Safety Procedures. Agent-filled UXO will be transported off-post for demilitarization at an Army facility. Procedures for agent-filled UXO are described in the Final Detailed Analysis of Alternatives (DAA) in Volume VII, pages 9-3 and 9-4. Agent will be removed from the UXO, if possible, following Army regulations (AR 385-61 and AR 50-6).

3. Institutional Controls and Restrictions

The effects of restrictions would be similar for all remedial alternatives both during and after implementation.

4. Trust Fund

During the formation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operation and maintenance of the remedy. The

Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the On-Post Record of Decision (ROD). Principal and interest from the Trust Fund would be used to cover the costs of long-term operation and maintenance throughout the lifetime of the remedial program. The costs are estimated to be approximately $5 million per year (in 1995 dollars).

It is the intent of the Parties that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remedial sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders, and will be convened within 90 days of the signing of the ROD.

5. Human Health Risk Characterization

Polychlorinated biphenyl (PCB)-contaminated soil (identified by the PCB IRA with concentrations of 250 parts per million (ppm) or greater) will be excavated and disposed in the on-post Toxic Substance Control Act-compliant landfill. Soil identified with concentrations ranging from 50 to 250 ppm will be covered.

Aldrin and dieldrin are the principal risk drivers for soil. Contaminated soil will either be placed in a hazardous waste landfill, covered with Resource Conservation and Recovery Act or equivalent caps, covered with concrete caps, or covered with one or more foot of soil (in the case of the least hazardous soil). In addition, institutional controls and biota barriers will be in place to prevent intrusion by humans or animals. These actions will address risk concerns regarding other soil contaminants beyond the 27 compounds identified in the ROD. Groundwater contaminants are addressed by removing sources on-post, pump and treat systems on-post and off-post, attenuation, and alternate water supplies off-post. The combination of these two approaches will address risk concerns both on-post and off-post for any contamination not yet identified as well as PCBs, N-nitrosodimethlylamine (NDMA), and diisopropyl methylphosphonate (DIMP). However, monitoring will continue, and necessary modifications to the remedy will be evaluated, with public input.

In addition to the air monitoring and medical monitoring described in the response to your Comment Number 1, the Army will conduct monitoring of the remedy as it is implemented.

The selected remedy will also undergo a periodic, five-year review, as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

If the monitoring or the five-year review reveals additional contamination or that the cleanup approach is inadequate for the protection of human health and the environment, necessary modifications to the remedy will be evaluated, with public input, and will be made at that time.

6. Letter had omitted #6.

7. Environmental Justice

The Army believes that the selected remedy is consistent with the policies and guidelines pertaining to environmental justice. The Army will continue to inform and seek input from elected officials, local chamber groups, schools, stakeholder groups, realtors, and local businesses regarding activities presently underway and those planned for the future. Regarding medical health monitoring for Montbello residents, please see the response to your Comment Number 3, above. The following items are addressed individually:

- The Army understands that RMA has had both perceived and actual impacts on surrounding communities. The Army also believes that RMA has benefitted and contributed to the surrounding communities. The goal of the Army at RMA is to provide for an environmentally safe National Wildlife Refuge that will continue to contribute to a positive image for surrounding communities. RMA has had a very active public outreach program and will continue to work with the public on matters regarding the environmental cleanup program until RMA is fully transitioned to a Refuge. Additionally, the Army and Shell have agreed to provide $48.8 million to purchase a supplemental water supply for South Adams County Water and Sanitation District.

- Education and vocational training opportunities: The Army and the USFWS provide educational opportunities through remediation and wildlife tours, and the Army has recently received accreditation for its environmental education program through the Colorado School of Mines and the Denver Public Schools. These opportunities are expected to continue during the remedial activities. The Army also provides used computer equipment to the public schools in the local communities.

- Emergency response measures: The Army developed a contingency plan for emergencies many years ago and continually reviews the plan to keep it current with activities underway. Emergency plans will be part of the post-ROD remedial design activities. The Parties and the public will be kept informed of these contingency plans as they are written.

- Local contractors and workers: The Army has made and will continue to make a concerted effort, within federal contracting guidelines, to use local contractors and labor to support remediation activities.

8. Five-Year Reviews

A five-year review may be conducted any time within the five-year period after the finalization of the ROD and within each five-year period following. The site will be reviewed as a whole during that review. See also the response to Comment Number 7, above. Five-year reviews are intended to evaluate whether the response action remains protective of humans and the environment. Statutory five-year reviews are required no less often than each five years after the initiation of the remedial action.

9. Prioritization of Remedial Actions

Comment noted. Discussions with the Parties about sequencing remedial activities are ongoing.

Structures Medium

10. Structures Containing Agent

There is not sufficient contamination of the structures to generate an off-site air release. On-site workers will be wearing protective equipment during remediation to protect them from any on-site air releases. Therefore, the Army does not anticipate that either the surrounding communities or on-site workers will be exposed to air releases. Monitoring of the workers and air monitoring at work site boundaries and RMA boundaries will be performed to ensure safety. In addition, various dust control measures will be used to ensure no exposures to the surrounding communities.

11. Caustic Washing of Structures and Soil Containing Chemical Agent

Caustic washing was selected as the preferred alternative for agent-contaminated soil and structure debris because it effectively treats all agent compounds suspected to be present at RMA. Although caustic washing has not been demonstrated at full scale, the associated equipment is well-demonstrated and widely available. Implementation problems (e.g., materials handling, emission control) identified during testing can be overcome through proper engineering controls, and pilot-scale testing will be necessary prior to implementation to determine the proper treatment solution. Other treatment alternatives evaluated (e.g., solvent extraction with caustic, incineration) were not cost-effective due to batch operation and high residual disposal cost or high capital cost, and had similar or more difficult implementation concerns. Location of the treatment facilities will be determined during the remedial design.

Soils Medium

12. Soil Volume Estimates

The human health and principal threat exceedance volumes presented in the Detailed Analysis of Alternatives (DAA) (Vol. IV, Tables A-2 and A-3) for the South Plants Central Processing Area are estimated using the agreed-upon 5-ft depth criteria for excavation, and are an exception to the statement "...between the soil surface and a depth of 10 ft...". Exceedance volumes remaining in place between 5 and 10 feet include 32,000 bank cubic yards (BCY) of human health exceedance soil with a 17,000-BCY principal threat exceedance volume. The apparent discrepancies between the DAA text, Appendix A volume tables, and the Mass Balance Logic-Flow Diagram are due to overlapping volumes between human health exceedance volume, estimated agent volume, and UXO debris volume. Volumes presented in the Appendix A tables are total estimated volumes and are not adjusted for volume overlaps. Material quantities and costs were developed from adjusted volumes obtained by subtracting the overlapping volumes from the human health exceedance volume. The Mass Balance Logic-Flow Diagram is correct and in agreement with these adjusted volumes, with the exception of the surficial soil human health exceedance volume, which has been corrected to 87,367 BCY (corrected to include firing ranges volume). Overlapping volumes are discussed in the individual medium group sections (Sections 5-19) in the DAA (Volumes II and III).

13. Firing Ranges

The two soil remediation areas shown in the October 1995 edition of RMA Update and not shown in Figure 4 of the Proposed Plan are the Pistol Range in Section 19 and the Rifle Range in Section 12. These two areas were inadvertently left off Figure 4 but are included in the remedy. The selected alternative includes disposal in the on-post landfill of approximately 2,300 BCY of lead-contaminated soil from these sites.

14. Slurry Wall Construction

The necessity of dewatering upgradient of the slurry walls for the Complex Trenches and Shell Trenches will be evaluated during the remedial design If dewatering is included as part of the final design, the extracted water will be treated at an on-post facility (e.g., Basin A Neck treatment facility).

15. South Plants Cap/Cover

The selected alternative states that all modeled human health and principal threat volume in the South Plants Balance of Areas is excavated to a depth of up to 10 feet and disposed in the on-post landfill. No human health or principal threat exceedances are left in place; therefore, a wildlife barrier and 4 or more feet of soil cover are not necessary

16. Biota Barrier

The broken concrete or cobble from demolished structures will either be landfilled in the on-post hazardous waste landfill or consolidated under the Basin A cover. The biota barrier for the Basin A cover consists of a formed concrete layer and does not use any broken concrete or cobble from the on-post structures demolition. Rubble used for other wildlife barriers will be obtained from off-post sources.

17. Hex Pit

Subject to the results of treatability testing and technology evaluation, innovative thermal treatment will be used to treat 1,000 BCY of principal threat material from the Hex Pit. Solidification will become the selected remedy if all evaluation criteria for the innovative thermal technology are not met. The remaining 2,300 BCY of material will be excavated and disposed in the on-post hazardous waste landfill.

18. Southern Lakes

Since the issuance of the On-Post Proposed Plan, a technical working group composed of representatives from the Army, Shell, State, and EPA has been studying existing data from the southern lakes and assessing the need for additional action. No additional action has been determined necessary at this time. Water levels in Lake Ladora, Lake Mary, and Lower Derby Lake will be maintained to support aquatic ecosystems. The biological health of the ecosystems will continue to be monitored.

Lake-level maintenance or other means of hydraulic containment or plume control will be used to prevent South Plants plumes from migrating into the lakes at concentrations exceeding Colorado Basic Standards for Groundwater at the point of discharge. Groundwater monitoring will be used to demonstrate compliance.

19. Confined Flow System Monitoring

The proposed monitoring network was established after having reviewed years of confined flow system (CFS) data. Two different reports issued separately by the Army and Shell in 1994 provided extensive information about the wells in the CFS. The Army believes the proposed CFS monitoring network is adequate based on existing information. Increasing the frequency of sampling in the confined aquifer would not provide information to change that opinion, given the extremely low flow rate, typically about 13 feet per year.

Northern Community Coalition

Recycled Paper

Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

Hugh Rohrer, M.D., M.P.H.
Director

December 12, 1995

Mr. Charles Scharman, Technical Director
Environmental Engineering
Rocky Mountain Arsenal
Commerce City, Colorado 80022-1748

Dear Charlie:

The Northern Community Coalition (NCC) recently met and discussed the issue of an extension of time for comments on the Proposed Plan for onpost cleanup of the Rocky Mountain Arsenal. Following our discussion the NCC developed a consensus statement of our position concerning an extension of the comment period. That statement is as follows:

> Without a compelling, substantive reason, the time period for receiving comments on the proposed plan should not be extended. Under any circumstances an extension of no more than an additional 30 days should be granted.

If you have any questions about our position feel free to contact me. It is planned that the comments on the Proposed Plan to be offered by the Coalition will be submitted by the December 15, 1995 deadline.

Sincerely,

Chris J. Plant, M.P.H., Ph.D.
Deputy Director

c.c. NCC members

9534801-1/1

Recycled Paper

Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

Hugh Rohrer, M.D., M.P.H.
Director

January 17, 1996

On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Attn.: AMCPM-PM/Colonel Bishop
Building 111-RMA
Commerce City, Colorado 80022-1748

Dear Colonel Bishop:

Attached are the comments of the Northern Community Coalition on the Proposed Plan. The Coalition includes representatives of Adams County, the City of Commerce City, South Adams County Water and Sanitation District, School District 14, Tri-County Health Department and Representative Jeannie Reeser's office.

We are available to discuss our comments or answer questions you may have. Feel free to contact me if you desire additional discussion. We hope our comments will be useful in bringing to final resolution the matter of the on-post remedy. The community continues to support a protective, timely and effective remedy. The Coalition appreciates the opportunity to comment on the Proposed Plan.

Sincerely,

Chris J. Wiant, M.P.H., Ph.D.
Deputy Director

9601914-1/1

COMMENTS OF THE NORTHERN COMMUNITY COALITION
ON THE PROPOSED PLAN FOR CLEANUP OF THE ROCKY MOUNTAIN ARSENAL

January 1996

The Northern Community Coalition (NCC) appreciates the opportunity to comment on the Proposed Plan. For the most part, the Proposed Plan is consistent with the Conceptual Agreement that was developed by the U.S. Army, Shell Oil Company, the State of Colorado, the Environmental Protection Agency, and the U.S. Fish and Wildlife Service on May 9-11, 1995. As the NCC has stated in the past, the remedy outlined in the Conceptual Agreement satisfies the community's goal for a timely remedy that will provide long-term protection of public health, wildlife, and the environment even though it does not actually represent the community's concept of the ideal cleanup. It is, therefore, in the community's best interest to accept the proposed remedies so cleanup can be completed as soon as possible.

Nevertheless, the NCC conditioned its support of the Conceptual Agreement upon the appropriate resolution of certain issues. Satisfactory closure of these issues has not occurred and/or is not incorporated into the Proposed Plan. As a result, the NCC can only support the Proposed Plan if it is modified to include the following:

1. <u>A SATISFACTORY ALTERNATE WATER SUPPLY.</u>

   The NCC's top priority is to obtain replacement of the water supply impacted by the Arsenal. The Coalition cannot support a final on-post ROD unless the remedy selected includes an acceptable replacement supply of water or alternative cash resolution for future replacement. The water supply to be provided must meet the following criteria:

   a. Reliable, long-term, firm annual yield of a satisfactory amount that includes a quantity sufficient to serve the Henderson area;
   b. Potable water quality;
   c. Delivered at an acceptable location for service to the South Adams District;
   d. Fully authorized and permitted;
   e. Completed and delivered in a reasonable period of time;
   f. Assured by a suitable security mechanism; and
   g. Long term quality of the supply is assured by a watershed protection program.

With regard to the alternate water supply, paragraph 16 of the Conceptual Agreement provides:

> The U.S. Army and Shell Oil Company agree to provide or arrange for the provision of 4,000 acre feet of water, the details of which will be worked out between the U.S. Army, Shell Oil Company, and SACWSD. If such water is not available, the U.S. Army and Shell Oil Company will provide payment of an agreed upon amount of money in lieu of water. This obligation will be part of the final remedy and will be incorporated into the on-post ROD.

The NCC has never agreed that 4,000 acre feet is sufficient to replace the supply affected by the Arsenal, particularly if that quantity is also supposed to serve the DIMP plume area including Henderson. Nevertheless, the NCC could support an alternate water supply or an "in lieu of" cash settlement so long as it is <u>mutually</u> acceptable to the Army, Shell, and the South Adams County Water and Sanitation District (as required by the highlighted language above) <u>and</u> the selected water supply or cash settlement is incorporated into the final on-post ROD.

The Army's Proposed Plan departs from the Conceptual Agreement by omitting the very crucial highlighted language, requiring SACWSD's concurrence in the water supply selection. This omission appears to allow the Army and Shell to unilaterally decide what constitutes an acceptable water supply for the community. This is clearly contrary to the Conceptual Agreement and unacceptable to the Coalition.

2. <u>A SATISFACTORY SCHEDULE OF IMPLEMENTATION THAT PRIORITIZES ACTIVITIES ON THE BASIS OF PUBLIC HEALTH AND ACTUAL RISK.</u>

Another key concern of the NCC was timely implementation of the remedy. To be acceptable, the cleanup must be expedited to ensure that it is completed within 10 to 15 years. Further, the cleanup must proceed in a fashion that addresses public health protection first. With this in mind, the Proposed Plan should ensure that the remedy proceeds in the following sequence:

a. Alternate water supply -- The first priority should be to finalize the agreement to provide drinking water to South Adams County Water and Sanitation District. Protection of the drinking water through an alternate supply provides the necessary safety factor in assuring that the exposure pathway from contaminated groundwater to drinking water cannot be completed. The groundwater is currently the most significant direct threat to public health offpost of the RMA.

b. Hazardous Waste Disposal Site -- The design and construction of the hazardous waste disposal site should also be commenced as

soon as feasible as it is key to much of the other planned remediation.

c. Small High Risk Projects -- The smaller high risk projects with less complexity and uncertainty should then be implemented to gain the most benefit for the cost and to gain experience with oversight, monitoring and other issues before undertaking the major projects.

d. Larger High Risk Projects -- Once experience is gained on the small high risk projects, clean up of areas of higher risk with few uncertainties (e.g., the South Plants area) should be implemented. This will help ensure that funds are available to reduce the real risks presented by the RMA.

e. Other Projects -- The low risk, high cost projects should be deferred to the end. The Basin F wastepile is a good example of this type of project. It clearly involves the most complex and costly remediation strategy -- and likely poses the greatest potential cleanup risk to workers and adjacent residents, but is currently stable with a fully effective liner and cap. The Coalition has stated previously that, with enhanced containment, the Basin F wastepile could be left in place. The NCC does not believe that the benefits of excavating the wastepile and redisposing the material in a new RCRA compliant landfill are commensurate with the health and safety risks and the costs of such excavation and redisposal. Furthermore, the Coalition is concerned about the cost growth of such an operation, particularly in the context of materials handling and emissions/odor control. Consequently, if the wastepile is not designated as a low cleanup priority then uncertainties of cost growth and the lack of actual experience to define effective oversight and monitoring of other onpost remediation projects could result in a significant investment of limited funds for little value added in terms of risk reduction.

The NCC is currently engaging in a priority ranking exercise for RMA. The results of that exercise will enable us to present a more specific proposal to the Parties concerning a balance between funding anticipated to be available and individual cleanup project priorities.

3. <u>A SATISFACTORY REMEDIATION OVERSIGHT AND MONITORING PROGRAM.</u>

The long term permanence of the remedy will depend, in large part, upon the quality of engineering and construction of structures such as the landfill and the caps that are proposed. To ensure the necessary high quality of these activities, the Northern Community Coalition insists upon adequate and effective project oversight by qualified

individuals who are responsive to community concerns about the cleanup. It is the Coalition's position that Tri-County Health Department must be closely involved in oversight activities as the community's representative for technical and health and safety issues.

Further, the NCC will insist on offsite ambient monitoring where materials might be excavated that could release noxious and/or hazardous RMA contaminants into the air. The specifics of offsite monitoring should be addressed with the community's input. Additionally, the medical monitoring committee that has been established must be involved in the continuing evaluation of monitoring needs during the cleanup process. The basis and effectiveness of all planned medical monitoring in providing a clear cause-effect relationship between RMA contamination and health effects or changes in biomarkers should be clearly described prior to performing the monitoring.

4. A SATISFACTORY COMMUNITY IMPACT ASSISTANCE PROGRAM.

The Coalition believes that the past activities at the RMA have stigmatized the local community. As a result real estate property values have declined, economic and community growth and development opportunities have been lost and the financial burden for infrastructure, services and education has increased as a result of the presence of RMA. To complete the remedy, the Proposed Plan must address these issues with a satisfactory community assistance program. Such a program is particularly compelling in this instance given the racial, ethnic, and income makeup of the local community and the President's Executive Order on environmental justice (E.O. 12898, February 11, 1994).

Furthermore, it must be remembered that the NCC played a key role in getting the parties to even consider a mutually acceptable Conceptual Agreement. In the process, the NCC backed away from firmly held beliefs in order to encourage compromise among the parties and the stakeholders. Put another way, the NCC elevated the "common good" above its particular special interests. Now that the conceptual agreement has been achieved, the parties should not turn a blind eye to these efforts. Rather, like the NCC, the parties should ensure that the final remedy actually achieves the "common good." It is not enough to simply clean up the contamination and ignore the stigma damages which have clearly been caused by the RMA. Damages to the community have not been addressed. The remedy simply is not complete without including a program for community impact assistance. That program must include:

a. A public outreach program that educates the public on the cleanup activities and the potential risks during cleanup;

b. The joint preparation (by the Army and the NCC) of a written contingency plan including appropriate evacuation procedures;

c. A committment for the parties to work with School District 14 to address the long-term impact to the District of lost property tax revenue from the RMA land.

d. A commitment to hire local labor where qualified individuals are available to fulfill contract labor needs.

5. A SATISFACTORY TRUST FUND.

The trust fund was specifically discussed in the Conceptual Agreement. This fund is necessary to address potential future failures and/or deficiencies in the Proposed Plan and to allow for further cleanup, as appropriate, with the development of new technologies. In short, this fund is critical to the long-term permanence of the remedy.

6. A BASIN A GROUNDWATER DEWATERING CONTINGENCY PLAN.

The "containment" of contaminants in the Basin A area will be partially achieved by dewatering the aquifer underlying Basin A. It is not clear to the NCC that total dewatering will ever occur. As a result, the Proposed Plan should include a contingency plan. If the aquifer underlying Basin A is not dewatered within 10 years, then the remedy must be modified to include a slurry wall to bedrock around the entire Basin A area.

7. THE EXCAVATION OF ALL OF THE WASTE IN THE WESTERN TIER LANDFILLS.

The NCC believes that the waste in the western tier landfills is acting as a continual source of pollution which is contaminating the South Adams County Water and Sanitation District's existing water supply. In order to be effective, the proposed remedy at these landfills must include the complete excavation of all of the waste in the landfills. At various times, the parties have indicated verbally that they intend to implement such a complete excavation. However, given that importance of this issue, the NCC requires that the complete excavation of waste in the western tier landfills be specifically described in the Proposed Plan.

8. BOUNDARY SYSTEMS

For the marginal extra cost relative to the overall strategy, the Army should give additional consideration to Alternative 3 instead of Alternative 4. The length of operation of the boundary systems is one of the more uncertain features of the remediation. Due to the extremely slow dispersal of contaminants, it may make sense to simply eliminate the source of the contamination (i.e., Basin A and South

Plants). Comparison of the cost of adding the treatment at these two sites with the cost of extending the operation of the boundary systems may demonstrate that it is more effective to do the localized treatment. In other words, elimination of the contaminant mass at the Basin A and South Plants shorten the time that the boundary systems will have to oporate?

Most of the contaminants of concern at the boundary systems have extremely low solubilities. The regulatory levels for these materials are, however, also very low. A relatively small amount of this material in contact with the groundwater could leach at a level requiring treatment action for a very long period of time. While the data indicate that there is a down trend of the contaminants reaching the systems, it may be that the contamination levels reach a steady state above that of the regulatory limit and continue for some time. If some major sources of contamination have been eliminated by IRAs, etc., there may indeed be a reason for the steady drop in contamination reaching the boundary. However, if there remain mass sources of low solubility contaminants in contact with the groundwater, the water reaching the treatment systems could remain contaminated for long periods of time. The failure of dieldrin levels in the groundwater to show a decrease over time could be an indication of this mechanism.

9. <u>STRUCTURES</u>

The alternative is worded such that structures with a history of agent use will be demolished, monitored, caustic washed if necessary and disposal in the hazardous waste landfill. It appears to indicate that if monitoring does not identify agent, the material will not be washed but will still be placed in the landfill. If material from these structures does not indicate the presence of agent it should be used as consolidation material for Basin A or disposed of offsite, if feasible, in exchange for clean fill that could be brought on site for Basin A fill. That remedy may also reduce resources necessary for the cap/cover to be constructed at Basin A.

FAX COVER MEMO

Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

Hugh Rohrer, M.D., M.P.H.
Director

DATE 1-19-96 Pgs. (includ. memo) 8

Deliver to: Colonel Bishop / Charlie Schaus Dept.

From: Chris Weiss Dept.

Comments:

Administrative Office □ 7000 East Belleview Avenue □ Suite 301 □ Englewood, Colorado 80111-1628
303/220-9200 □ FAX 303/220-9208

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

REPLY TO
ATTENTION OF:

June 11, 1996

Office of the Program Manager

Mr. Chris J. Wiant
Tri-County Health Department
7000 East Belleview Avenue, Suite 301
Englewood, Colorado 80111-1628

Dear Mr. Wiant:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

Your letter was emphatic in that the period for comments on the On-Post Proposed Plan should not be extended without good reason and that, if it were extended, no more than 30 days should be granted. In order to allow additional time for comment without excessively delaying the Record of Decision, the comment period was extended by 30 days.

Responses to the Northern Community Coalition's comments are enclosed.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosures

Readiness is our Profession

Copies Furnished:

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Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

U.S. ARMY RESPONSES TO COMMENTS OF THE NORTHERN COMMUNITY COALITION ON THE ROCKY MOUNTAIN ARSENAL ON-POST PROPOSED PLAN

1. Alternate Water Supply

The Army believes that the Agreement in Principle regarding a water supply satisfies the criteria identified by your comment. The Army and Shell have reached an Agreement in Principle, enclosed with this letter, with South Adams County Water and Sanitation District (SACWSD) that includes payment of $48.8 million to SACWSD and requires that SACWSD water be supplied to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. An independent qualified water resource expert will be selected by SACWSD to direct the selection, acquisition, and implementation of a water supply that can be operational by October 1, 2004. The parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

2. Schedule of Implementation that Prioritizes Activities on the Basis of Public Health and Actual Risk

The Army agrees with the basic outline of the Northern Community Coalition's (NCC) schedule, which is to clean up the higher risk areas first and proceed to the lower risk areas. The actual time required to complete the cleanup will depend in part on available funding from Congress as well as on developing and maintaining a cooperative working relationship with the regulatory agencies during design, construction, and operation of the remedy.

The water supply issue is a high priority, and the Army agrees that timely implementation is most important. Please refer to the response to Comment number 1 regarding the schedule for providing the water supply. Landfill design and construction is a prerequisite for accomplishing other remediation tasks and must be started as soon as possible. Moving the Basin F wastepile is a lower priority item because the waste is presently contained.

3. Remediation Oversight and Monitoring Program

It is the Army's policy to use the most qualified personnel to oversee both the construction and quality assurance/quality control of each project for the remediation, as well as to be responsive to community concerns. The U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) will provide regulatory oversight. The Tri-County Health Department will be provided opportunities to review remediation activity.

4. Community Impact Assessment Program

The Army is currently reviewing state proposals on air pathway analysis and will ensure that adequate onsite and offsite monitoring occurs during remedial actions that may release vapors or odors.

In addition, a Medical Monitoring Program has been established. The primary goals of the Medical Monitoring Program are to monitor any offpost impact on human health due to the RMA remediation and provide mechanisms for evaluation of health status on an individual and community basis. This Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group (MMAG) has been established to evaluate specific issues covered by the Medical Monitoring Program. The MMAG is composed of representatives of the Army, Shell, EPA, CDPHE, Tri-County Health Department, the Agency for Toxic Substances and Disease Registry (ATSDR), the U.S. Fish and Wildlife Service (USFWS), Denver Health and Hospitals, and the Site-Specific Advisory Board. The MMAG also includes community representatives from the communities of Commerce City, Henderson, Denver, Green Valley Ranch, and Montbello. If you would like more information on the Medical Monitoring Program or wish to participate as part of the Medical Monitoring Advisory Group, please call Ms. Mary Seawell of CDPHE at 303-692-3327.

The Army understands RMA has had both perceived and actual negative impacts on surrounding communities. The Army also believes RMA has made positive contributions to the surrounding communities. The goal of the Army at RMA is to provide for an environmentally safe National Wildlife Refuge that will continue to contribute to a positive image for surrounding communities. The Army has a very active public outreach program and will continue to work with the public on matters regarding the environmental cleanup program until RMA is fully transitioned to a Refuge. The USFWS also has a very aggressive public education program complementing the wildlife resources and future plans for RMA. The Army will continue to inform and seek input from elected officials, local chamber groups, schools, stakeholder groups, realtors, and local businesses regarding activities presently underway and those planned for the future.

As part of the Medical Monitoring Program, public outreach will be the MMAG's foremost objective. The Army believes that public education will provide a real understanding of the ongoing cleanup and its associated risks. Also, the Medical Monitoring Plan will include a contingency plan, which will be based on the RMA wide contingency plan already in effect.

Emergency Response Measures: The Army has maintained a contingency plan for emergencies for many years and continues to update it as needed. Emergency plans will be part of the post-ROD remedial design activities. The Parties and the public will be kept informed of these contingency plans as they are written.

Education and Vocational Training Opportunities: The Army and the USFWS provide educational opportunities through remediation and wildlife tours, and the Army has recently

received accreditation for its environmental education program through the Colorado School of Mines and the Denver Public Schools. These opportunities are expected to continue during the remedial activities. The Army also provides used computer equipment to the public schools in the local communities.

Local Labor: The Army has made and will continue to make a concerted effort, within federal contracting guidelines, to use local contractors and labor to support remediation activities.

5. Trust Fund

During the formulation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operation and maintenance of the remedy. The Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the ROD. Principal and interest from the Trust Fund would be used to cover the costs of long-term operations and maintenance throughout the lifetime of the remedial program. These costs are estimated to be approximately $5 million per year (in 1995 dollars).

It is the intent of the Parties that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remedial sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders and will be convened within 90 days of the signing of the ROD.

6. Basin A Groundwater Dewatering Contingency Plan

It appears that this comment refers to "total dewatering" as the dewatering of the saturated alluvium in Basin A. The partial dewatering resulting from construction of the soil cover will be a 10- to 13-foot lowering of the water table. As a result of dewatering, the water table will no longer be in contact with the most contaminated soils, and the groundwater flux out of the Basin A area will be substantially reduced. Groundwater migrating out of Basin A will be captured by the Basin A Neck Treatment System and the Section 36 Bedrock Ridge extraction system.

7. Excavation of All Waste in the Western Tier Landfills

The Western Tier landfills have never been demonstrated to be sources of groundwater contamination: however, complete excavation of these landfills is planned and is described in the ROD. Approximately 6630 bank cubic yards of human health exceedance materials in the landfills will be excavated and placed in the on-post hazardous waste landfill. The remainder of the Western Tier landfill materials have been characterized as nonhazardous debris and will be used as consolidation material in Basin A.

8. Boundary Systems

The Army believes that the Interim Response Actions (IRAs) implemented on-post to control sources and plumes of contamination, as well as the continued operation of the boundary containment systems, have been extremely effective in containing and treating contamination from sources and in treating the contamination that escaped before the IRAs were installed. Evaluation of Alternative 3 shows that active dewatering does not have a substantial impact on boundary system operation and that there is limited cost benefit associated with this alternative. The effectiveness of the selected passive dewatering approach for Basin A and South Plants, combined with boundary system treatment, will be evaluated during the five-year post-ROD remedy review. At that time, changes to the remedy will be made as necessary.

The containment and passive dewatering approach will limit the leaching of all soil chemicals, particularly those relatively low-solubility compounds that preferentially sorb to the soil. A primary factor in the decision to use soil containment as part of the on-post remedy was the presence of insoluble compounds in soil.

9. Structures

The NCC's interpretation of how structures materials will be handled is correct. This waste, even without confirmation of agent presence, falls into the "3X" category based on its history and must be landfilled in a Resource Conservation and Recovery Act-equivalent landfill, according to Army regulation.

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

2. PAYMENT OF THE ABOVE SUM IS CONDITIONED ON ADHERENCE TO THE FOLLOWING TERMS. OTHER TERMS AND CONDITIONS WILL BE THE SUBJECT OF FURTHER NEGOTIATION.

A. PAYMENTS WILL BE HELD IN TRUST FOR SACWSD. TRUSTEE TO BE CHOSEN BY THE ARMY & SHELL WITH SACWSD CONCURRENCE. ANY INTEREST THAT ACCRUES MUST BE RETURNED TO THE ARMY AND SHELL.

B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

C. SACWSD MUST CONTRACT FOR WATER RIGHTS OR SUPPLY BY NOT LATER THAN SIX MONTHS AFTER THE DATE OF THE FINAL PAYMENT.

D. PAYMENTS FROM THE TRUST TO SACWSD MUST BE TIED DIRECTLY TO THE ACQUISITION AND DELIVERY OF 4000 ACRE FEET OF

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WATER AND THE HOOK UP OF WELL OWNERS IN THE HENDERSON AREA. ALL EXPENDITURES BY SACWSD PAID FROM THE TRUST ACCOUNT WILL BE SUBJECT TO AUDIT BY THE ARMY AND SHELL. UP TO $43 MILLION MAY BE SPENT ACQUIRING AND DELIVERING THE 4000 ACRE FEET OF WATER AND UP TO $4.65 MILLION MAY BE SPENT ON HOOK UPS IN THE HENDERSON AREA. THE REMAINING $1.15 MILLION IS TO OFFSET INFLATION OR CONTINGENCIES. ANY EXPENDITURES CHALLENGED BY THE ARMY, SHELL, OR THE TRUSTEE WILL BE SUBMITTED TO THE ALTERNATIVE DISPUTE RESOLUTION (ADR) METHOD DESCRIBED IN E, BELOW.

E. AN INDEPENDENT QUALIFIED AGENT, WHO IS A SENIOR WATER RESOURCE EXPERT WITH EXPERIENCE IN ACQUIRING AND DELIVERING WATER, WILL BE SELECTED BY SACWSD, WITH THE CONCURRENCE OF THE ARMY AND SHELL, TO DIRECT THE SELECTION, ACQUISITION, AND IMPLEMENTATION OF A WATER SUPPLY ON BEHALF OF SACWSD THAT CAN BE OPERATIONAL BY 1 OCTOBER 2004. THE TERMS OF THE AGENCY WILL BE AGREED UPON SACWSD, THE ARMY AND SHELL. THE ARMY AND SHELL WILL CONCUR WITH THE DESIGN OF AND SUBSEQUENT BID PACKAGES FOR THE WATER DELIVERY SYSTEM. THE CONSTRUCTION FIRM OR FIRMS TO CONSTRUCT THE PROJECT OR PROJECTS WILL BE SELECTED BY COMPETITIVE BID BASED ON A SOLICITATION PROCESS CONCURRED IN BY THE ARMY AND SHELL. THE COSTS ASSOCIATED WITH IMPLEMENTING THIS SECTION WILL BE PAID FROM THE TRUST ACCOUNT. ANY DISAGREEMENT ARISING REGARDING THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO A FORM OF ADR CONSISTING OF SUBMISSION OF THE DISPUTE TO THREE WATER RESOURCE EXPERTS; ONE SELECTED BY THE ARMY AND SHELL; ONE SELECTED BY SACWSD; AND ONE SELECTED BY THE INDEPENDENT AGENT OR BY THE AGREEMENT OF THE TWO SIDES IF THERE IS NO INDEPENDENT AGENT. THE COST OF ADR WILL BE BORNE BY THE PARTIES WITH EACH SIDE PAYING FOR ITS EXPERT AND EACH SIDE PAYING 50% OF THE COST OF THE EXPERT FOR THE INDEPENDENT AGENT.

F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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G. SACWSD AGREES TO SATISFY THE OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 OF THE AGREEMENT ON A CONCEPTUAL REMEDY FOR THE CLEAN UP OF ROCKY MOUNTAIN ARSENAL. THE PAYMENTS TO SACWSD WILL CONSTITUTE COMPLETE SATISFACTION OF THE ARMY AND SHELL'S OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 AND COMPLETE SATISFACTION OF ALL COSTS ASSOCIATED WITH THE TERMS AND CONDITIONS NECESSARY TO EXECUTE THESE OBLIGATIONS. ALL COSTS NECESSARY TO EXECUTE THE REQUIREMENTS OF THIS AGREEMENT, UNLESS OTHERWISE EXPRESSLY STATED, WILL BE PAID OUT OF THE TRUST ACCOUNT. SACWSD WILL NOT BE RESPONSIBLE FOR MONITORING REQUIREMENTS TO BE PERFORMED BY THE ARMY AND SHELL IN ACCORDANCE WITH ITEM 17 AND SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN THE FIRST 130 WELL OWNERS. ANY ADDITIONAL HOOK UPS REQUIRED UNDER THE TERMS OF ITEM 17 WILL BE THE RESPONSIBILITY OF THE ARMY AND SHELL.

H. SACWSD WAIVES AND RELEASES THE ARMY AND SHELL FROM ALL RESPONSE COSTS AND CLAIMS FOR DAMAGES FOR ALL RMA CONTAMINANTS AND POLLUTANTS IN THE SACWSD WATER THAT ARE KNOWN OR DETECTED PRIOR TO, OR AT THE TIME OF, THE SIGNING OF THE ON-POST RECORD OF DECISION (ROD). PAYMENT OF RESPONSE COSTS, IF ANY, OWED TO SACWSD AT THE TIME OF THE SIGNING OF THE ON-POST ROD WILL BE DETERMINED BY AGREEMENT OF THE PARTIES PRIOR TO SIGNING THE FINAL AGREEMENT CONTEMPLATED BY THIS AGREEMENT IN PRINCIPLE..

I. ANY REUSABLE RETURN FLOWS ASSOCIATED WITH ANY WATER SOURCE ACQUIRED WILL BE MADE AVAILABLE TO SACWSD FOR REPLACEMENT OF DEPLETIONS UNDER ITS EXISTING AUGMENTATION PLAN FOR THE FIRST THREE YEARS FOLLOWING THE INITIAL DELIVERY OF WATER FROM THE NEW WATER SOURCE IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED, OTHERWISE RETURN FLOWS ASSOCIATED WITH THE NEW WATER SOURCE, AND ANY WATER UNUSED BY SACWSD FROM THE WATER SOURCE ITSELF, SHALL BE MADE AVAILABLE AT ARMY AND SHELL EXPENSE FOR THE REMEDIATION OF RMA FOR NOT LESS THAN 10 YEARS, IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED. THE FINAL PERIOD TO BE AGREED UPON. AFTER REMEDIATION, ALL RETURN FLOWS WILL RETURN TO THE USE OF SACWSD. EACH PARTY WILL BE RESPONSIBLE FOR ANY NECESSARY APPROVALS. DISPUTES ARISING OVER THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO ADR AS DESCRIBED IN E, ABOVE.

J. SACWSD WILL WARRANT AND OTHERWISE DEMONSTRATE IT IS AUTHORIZED AND QUALIFIED TO ENTER INTO THIS AGREEMENT, ACQUIRE

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AND PROVIDE WATER AND HOOK UP WELL OWNERS, SUBJECT TO THOSE WELL OWNERS' CONSENT TO INCLUSION WITHIN THE DISTRICT. SACWSD WILL BE RESPONSIBLE FOR PERMITTING, ADJUDICATION, AND OTHER REQUIREMENTS OF STATE AND FEDERAL LAW.

K. PARTICIPATION BY THE ARMY AND SHELL, OR BY THEIR REPRESENTATIVES, IN OVERSIGHT IN NO WAY CONSTITUTES AN EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE ADEQUACY, SUITABILITY, OR LEGALITY OF SACWSD OR THE INDEPENDENT AGENT'S ACTIONS TO OBTAIN OR PROVIDE WATER.

L. ALL PARTIES RESERVE ANY RIGHTS THEY MAY HAVE REGARDING NONPERFORMANCE BY THE OTHER PARTIES.

M. THIS AGREEMENT IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE LAWS AND WILL BECOME EFFECTIVE AND BINDING WHEN INCORPORATED BY REFERENCE IN THE ON-POST ROD.

N. THE AMOUNT AGREED UPON IS SUBJECT TO APPROPRIATE CREDITS FOR ANY ARMY AND SHELL CONTRIBUTIONS TO WATER OR INFRASTRUCTURE, SUBJECT TO SACWSD APPROVAL. APPROVAL WILL NOT BE WITHHELD UNREASONABLY. DISPUTES WILL BE SUBMITTED TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

O. ALL PARTIES WILL PUBLICLY SUPPORT THIS AGREEMENT.

P. ALL O&M COSTS ASSOCIATED WITH THE ACQUISITION AND DELIVERY OF WATER AND WITH THE HOOK UP OF WELL OWNERS WILL BE SACWSD'S RESPONSIBILITY. THE ARMY WILL SUPPORT ANY NECESSARY AMENDMENTS TO ALLOW THE KLEIN FUND ALSO TO BE USED FOR O&M COSTS FOR THE NEW WATER SYSTEM.

Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

R. THE ARMY OR SHELL WILL PAY, IF NECESSARY, WITHIN 30 DAYS AFTER SIGNATURE OF THE ROD, A SUM NOT TO EXCEED $1 MILLION TO PURCHASE AN OPTION ON WATER AGREED TO BY SACWSD, THE ARMY AND SHELL. THIS SUM WILL BE CREDITED AGAINST THE FIRST ANNUAL PAYMENT UNDER SECTION 1, ABOVE.

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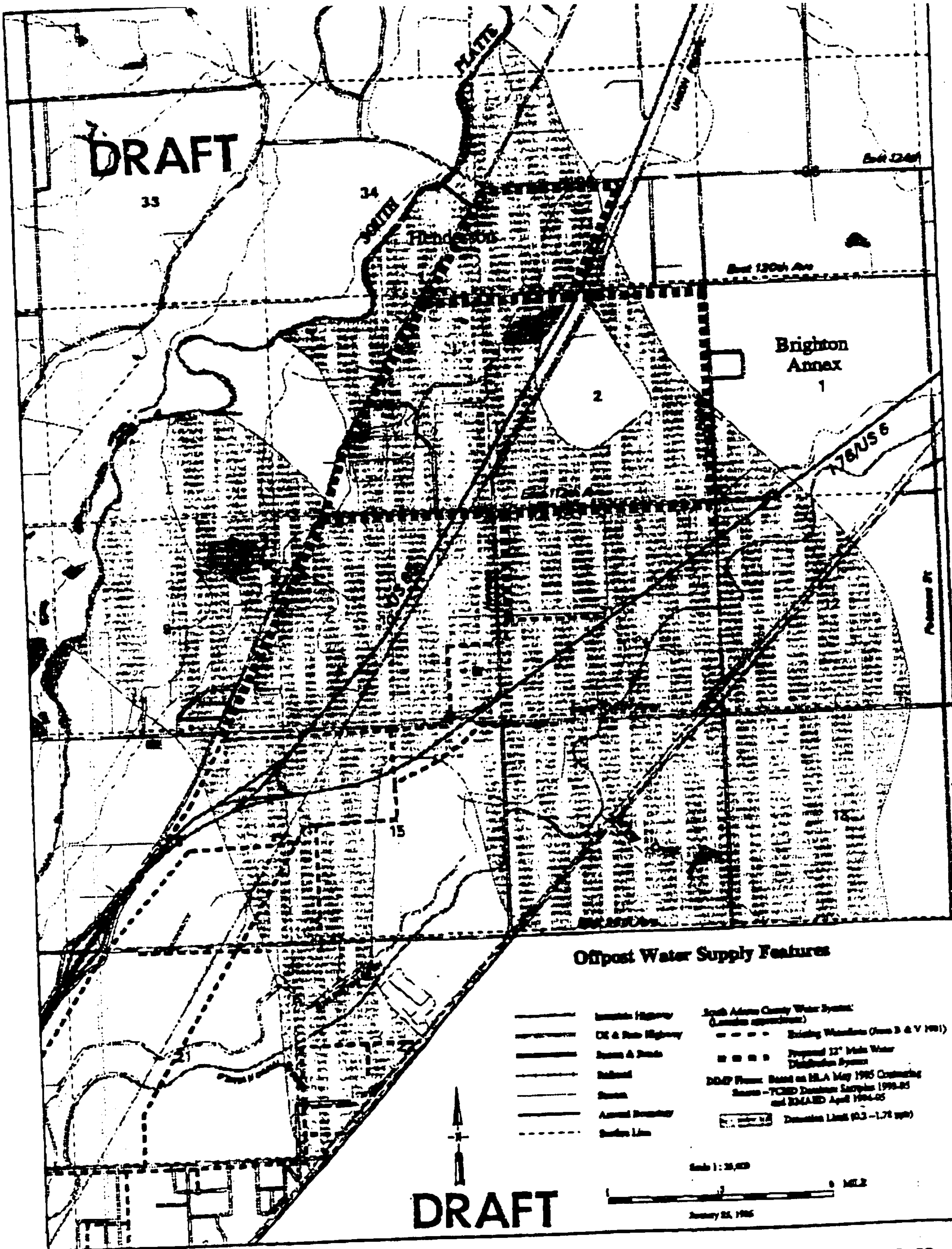
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Offpost Water Supply Features
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Responses to Environmental Action Group Comments

League of Women Voters

THE LEAGUE
OF WOMEN VOTERS
OF COLORADO

1410 Grant, B-204
Denver, Colorado 80203
303•863•0437

rec'd 18 Dec 95

On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Attn: AMCPM-PM/Col. Eugene H. Bishop
Building 111 --- RMA
Commerce City, CO 80022-1748

Colonel Bishop,

The League of Women Voters of Colorado must congratulate you on your efforts to engage the public in the decision-making process which has led to the On-Post Proposed Plan. Rocky Mountain Arsenal has moved from a facility which refused public admission even to Technical Review Meetings to one which now pays for newspaper advertising in order to encourage participation. Issues under discussion have been brought out into the public whereas in the past they were kept under wraps until resolved by the Parties.

Hopefully, the final decisions will be more acceptable to the public because their concerns have been answered in the process.

Our comments have taken the form of questions which we feel must be answered in the Record of Decision (ROD). Specific contingency and review plans must be built into the ROD in order to demonstrate that these important steps have been carefully planned.

1. If "Placement of hazardous wastes into the Corrective Action Management Unit will not constitute 'land disposal' as defined by RCRA" (page 9) what criteria will be used?

2. Will 4,000 acre feet of water completely replace lost sources of well water? How much money will be paid if water is not available? Will it include costs of water systems or only the water? Who will be parties to the agreement? Will there be payment for economic loss is adequate safe water is not available?

3. One of the more reassuring aspects of the Proposed Plan is the establishment of a trust fund for future expenses. However we feel that the tentative nature of the trust fund wording offers little promise of future commitment. What if proceeds are inadequate to cover costs of future operation, maintenance and/or contamination in spite of remediation? If a trust fund cannot be established, how will this be paid for?

4. If in-situ solidification or any other technology doesn't work and contamination plumes continue to move or to increase in contamination levels, what are the back-up plans?

5. How can medical and biological monitoring be designed to catch early signs of system failure? What steps are to be taken in case of future impact?

6. If innovative technologies are used what is the back-up procedure? How will the public be involved in selection of technology and back-up plans?

We again congratulate you for your impressive public involvement effort during the past year or so. We cannot overstate the importance of continuing that involvement throughout the selection, implementation, monitoring and evaluation processes.

Thank you,

Marilyn Shuey

Marilyn Shuey, President

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Ms. Marilyn Shuey
The League of Women Voters
of Colorado
1410 Grant, B-204
Denver, Colorado 80203

Dear Ms. Shuey:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

Responses to your specific comments are provided below.

1. U.S. Environmental Protection Agency (EPA's) goal in establishing the Corrective Action Management Unit (CAMU) Rule, which has been adopted by the State of Colorado in the Colorado Hazardous Waste Management Act (CHWMA), was to "provide remedial decision makers with an added measure of flexibility in order to expedite and improve remedial decisions" while "existing closure regulations and requirements for [Resource Conservation and Recovery Act] RCRA-regulated units, which require closure to occur in a manner that is protective of human health and the environment, remain in effect." Purpose and context of the CAMU Rule 58 Fed. Reg. 8659 (1993) (to be codified at 40 C.F.R. Parts 260, 263, 264, 265, 268, 270 and 271). The on-site landfill that is central to the CAMU will meet all CHWMA landfill siting, construction, monitoring, and closure requirements.

2. The Parties to the On-Post Record of Decision (ROD) have determined that the 4,000 acre-feet water supply is adequate to serve as an additional layer of protection to people north of RMA in the unlikely event that all the caps/covers, liners, and multiple groundwater treatment systems were to fail. The Army and Shell Oil Company (Shell) have reached an Agreement in Principle, enclosed with this letter, with South Adams County Water and Sanitation District (SACWSD) that includes payment by the Army and Shell to SACWSD in the amount of $48.8 million and requires that SACWSD provide the water to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume footprint by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The payment will cover the water distribution system as well as acquisition of the water supply. The Army, Shell, and SACWSD believe that the settlement is fair and will permit SACWSD to secure an adequate

water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

3. During the formulation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operation and maintenance of the remedy. The Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the On-Post ROD. Principal and interest from the Trust Fund would be used to cover the costs of long-term operation and maintenance throughout the lifetime of the remedial program. These costs are estimated to be approximately $5 million per year (in 1995 dollars).

It is the intent of the Parties that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remedial sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The Strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders and will be convened within 90 days of the signing of the ROD.

4. The extensive site-wide monitoring program that is planned will provide early detection of any problems with either soil or groundwater remediation. Additionally, the required periodic five-year review of the remedy will evaluate whether the remediation is effective and remains protective of human health and the environment. Alternate remediation technologies will be substituted or systems will be added if soil or water problems are discovered.

5. Environmental rather than medical and biological monitoring will be used to detect early signs of system failure. The environmental monitoring program includes soil, groundwater, and air monitoring.

A Medical Monitoring Program for the surrounding communities has also been identified as part of the Proposed Plan to measure health effects, if any, during the remediation. The primary goals of the Medical Monitoring Program are to monitor any off-post impact on human health due to

the RMA remediation and provide mechanisms for evaluation of human health status on an individual and community basis. This Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group (MMAG) has been established to evaluate specific issues covered by the Medical Monitoring Program. The MMAG is composed of representatives from the Army, Shell, U.S. Environmental Protection Agency, Colorado Department of Public Health and Environment, Tri-County Health Department, U.S. Agency for Toxic Substance and Disease Registry, U.S. Fish and Wildlife Service, Denver Health and Hospitals, and the Site Specific Advisory Board. The MMAG includes representatives from the communities of Commerce City, Henderson, Denver, Montbello, and Green Valley Ranch. The League of Women Voters is also represented on the MMAG.

6. Innovative technologies will go through necessary tests prior to implementation. The public (stakeholders) has been included in discussions of the selected remedy. If it became necessary to modify the selected remedy, an Explanation of Significant Difference or Amendment to the ROD would be issued and would be available for public review and comment.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

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B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

C. SACWSD MUST CONTRACT FOR WATER RIGHTS OR SUPPLY BY NOT LATER THAN SIX MONTHS AFTER THE DATE OF THE FINAL PAYMENT.

D. PAYMENTS FROM THE TRUST TO SACWSD MUST BE TIED DIRECTLY TO THE ACQUISITION AND DELIVERY OF 4000 ACRE FEET OF

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F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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G. SACWSD AGREES TO SATISFY THE OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 OF THE AGREEMENT ON A CONCEPTUAL REMEDY FOR THE CLEAN UP OF ROCKY MOUNTAIN ARSENAL. THE PAYMENTS TO SACWSD WILL CONSTITUTE COMPLETE SATISFACTION OF THE ARMY AND SHELL'S OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 AND COMPLETE SATISFACTION OF ALL COSTS ASSOCIATED WITH THE TERMS AND CONDITIONS NECESSARY TO EXECUTE THESE OBLIGATIONS. ALL COSTS NECESSARY TO EXECUTE THE REQUIREMENTS OF THIS AGREEMENT, UNLESS OTHERWISE EXPRESSLY STATED, WILL BE PAID OUT OF THE TRUST ACCOUNT. SACWSD WILL NOT BE RESPONSIBLE FOR MONITORING REQUIREMENTS TO BE PERFORMED BY THE ARMY AND SHELL IN ACCORDANCE WITH ITEM 17 AND SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN THE FIRST 130 WELL OWNERS. ANY ADDITIONAL HOOK UPS REQUIRED UNDER THE TERMS OF ITEM 17 WILL BE THE RESPONSIBILITY OF THE ARMY AND SHELL.

H. SACWSD WAIVES AND RELEASES THE ARMY AND SHELL FROM ALL RESPONSE COSTS AND CLAIMS FOR DAMAGES FOR ALL RMA CONTAMINANTS AND POLLUTANTS IN THE SACWSD WATER THAT ARE KNOWN OR DETECTED PRIOR TO, OR AT THE TIME OF, THE SIGNING OF THE ON-POST RECORD OF DECISION (ROD). PAYMENT OF RESPONSE COSTS, IF ANY, OWED TO SACWSD AT THE TIME OF THE SIGNING OF THE ON-POST ROD WILL BE DETERMINED BY AGREEMENT OF THE PARTIES PRIOR TO SIGNING THE FINAL AGREEMENT CONTEMPLATED BY THIS AGREEMENT IN PRINCIPLE..

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J. SACWSD WILL WARRANT AND OTHERWISE DEMONSTRATE IT IS AUTHORIZED AND QUALIFIED TO ENTER INTO THIS AGREEMENT, ACQUIRE

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AND PROVIDE WATER AND HOOK UP WELL OWNERS, SUBJECT TO THOSE WELL OWNERS' CONSENT TO INCLUSION WITHIN THE DISTRICT. SACWSD WILL BE RESPONSIBLE FOR PERMITTING, ADJUDICATION, AND OTHER REQUIREMENTS OF STATE AND FEDERAL LAW.

K. PARTICIPATION BY THE ARMY AND SHELL, OR BY THEIR REPRESENTATIVES, IN OVERSIGHT IN NO WAY CONSTITUTES AN EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE ADEQUACY, SUITABILITY, OR LEGALITY OF SACWSD OR THE INDEPENDENT AGENT'S ACTIONS TO OBTAIN OR PROVIDE WATER.

L. ALL PARTIES RESERVE ANY RIGHTS THEY MAY HAVE REGARDING NONPERFORMANCE BY THE OTHER PARTIES.

M. THIS AGREEMENT IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE LAWS AND WILL BECOME EFFECTIVE AND BINDING WHEN INCORPORATED BY REFERENCE IN THE ON-POST ROD.

N. THE AMOUNT AGREED UPON IS SUBJECT TO APPROPRIATE CREDITS FOR ANY ARMY AND SHELL CONTRIBUTIONS TO WATER OR INFRASTRUCTURE, SUBJECT TO SACWSD APPROVAL. APPROVAL WILL NOT BE WITHHELD UNREASONABLY. DISPUTES WILL BE SUBMITTED TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

O. ALL PARTIES WILL PUBLICLY SUPPORT THIS AGREEMENT.

P. ALL O&M COSTS ASSOCIATED WITH THE ACQUISITION AND DELIVERY OF WATER AND WITH THE HOOK UP OF WELL OWNERS WILL BE SACWSD'S RESPONSIBILITY. THE ARMY WILL SUPPORT ANY NECESSARY AMENDMENTS TO ALLOW THE KLEIN FUND ALSO TO BE USED FOR O&M COSTS FOR THE NEW WATER SYSTEM.

Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

R. THE ARMY OR SHELL WILL PAY, IF NECESSARY, WITHIN 30 DAYS AFTER SIGNATURE OF THE ROD, A SUM NOT TO EXCEED $1 MILLION TO PURCHASE AN OPTION ON WATER AGREED TO BY SACWSD, THE ARMY AND SHELL. THIS SUM WILL BE CREDITED AGAINST THE FIRST ANNUAL PAYMENT UNDER SECTION 1, ABOVE.

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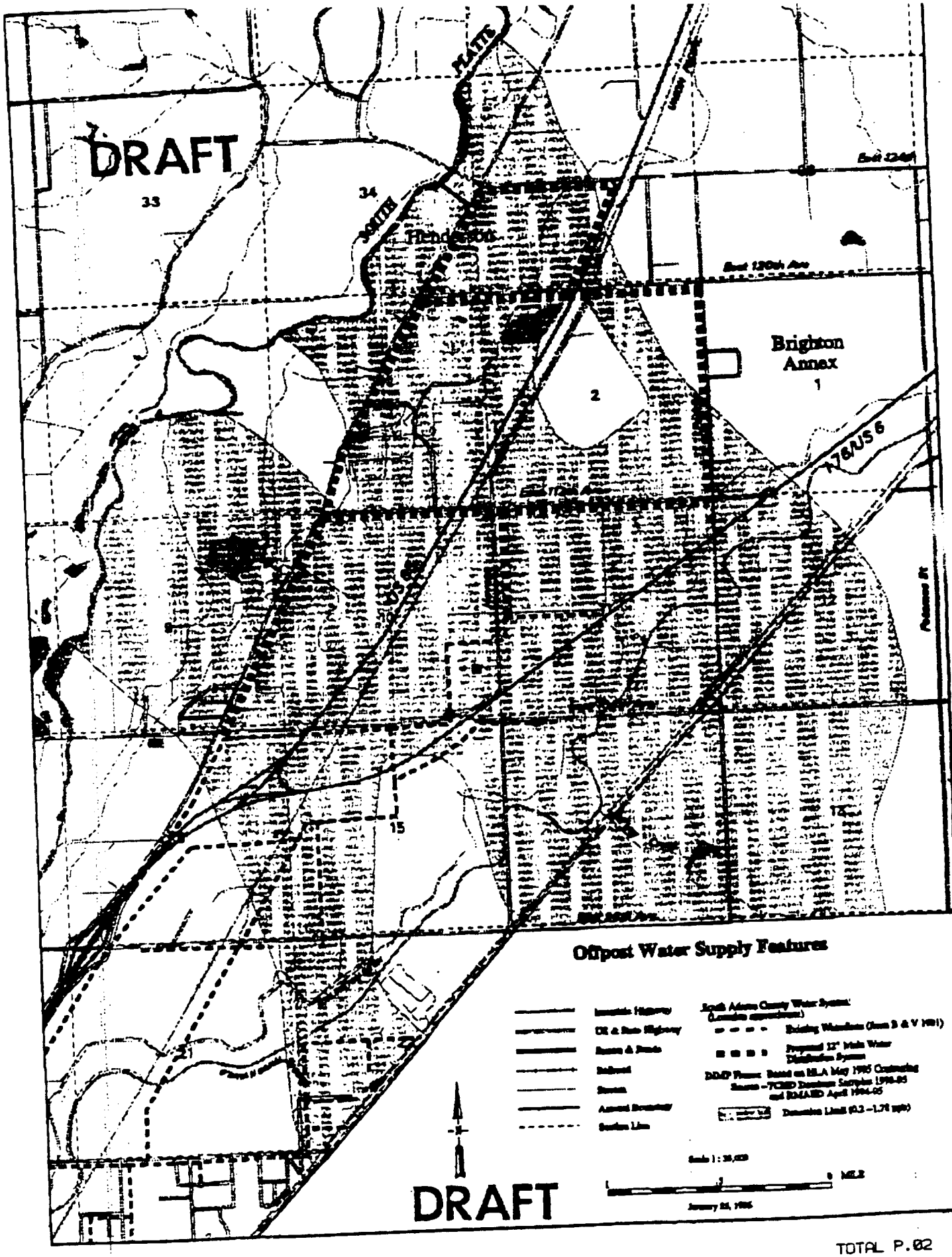
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Offpost Water Supply Features
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rec'd 18 Dec 95

League of Women Voters
Adams County
Colorado

On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Attn:AMCPM-PM/Col. Eugene H. Bishop
Building 111 - RMA
Commerce City, CO 80022-1748

Gentlemen,

Thank you for the opportunity to provide comment regarding the proposed remediation of the Rocky Mountain Arsenal.

As you review the options before you, we urge you to consider affected community appeals for adequate water supplies and delivery systems so those stakeholders can plan for their futures with confidence.

We support a medical monitoring program that not only seeks to anticipate and identify problems but also makes such information readily available to the public in a timely manner.

We ask that all parties be vigilant in their duties, meeting or exceeding those requirements regarding the disposal of hazardous waste. And that the remediation of all contaminants be accomplished with the welfare of our citizens as your uppermost consideration.

Finally, we encourage ongoing dialogue between the parties and stakeholders as a way to build a mutual respect and consideration that ultimately translates into a shared vision for the peoples, land and natural resources impacted by the activities at the Rocky Mountain Arsenal.

Respectfully,

Jerry Sarconi
President

9535302-1/1

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Ms. Gerry Sarconi
League of Women Voters
Adams County Chapter
2681 E. 98th Avenue
Thornton, Colorado 80229

Dear Ms. Sarconi:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

The Army and Shell Oil Company (Shell) have reached an Agreement in Principle, enclosed with this letter, with South Adams County Water and Sanitation District (SACWSD) that includes payment of $48.8 million to SACWSD and requires that SACWSD water be supplied to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The Parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

A Medical Monitoring Program for the surrounding communities has also been identified as part of the Proposed Plan to measure health affects, if any, during the remediation. Elements of the Medical Monitoring Program may include medical monitoring, environmental monitoring, or health/community education. Environmental monitoring will be used to evaluate the effectiveness of the remedy. The primary goals of the Medical Monitoring Program are to monitor any off-post impact on human health due to the RMA remediation and provide mechanisms for evaluation of human health status on an individual and community basis. This Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group (MMAG) has been established to evaluate specific issues covered by the Medical Monitoring Program. The MMAG is composed of representatives from the Army, Shell, U.S. Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment, Tri-County Health Department, Agency for Toxic Substances and Disease Registry.

U.S. Fish and Wildlife Service (USFWS), Denver Health and Hospital, and the Site-Specific Advisory Board. The MMAG also includes representatives from the communities to Commerce City, Henderson, Denver, Montbello, and Green Valley Ranch. The League of Women Voters is also represented on the MMAG.

The Biological Advisory Subcommittee is currently deciding which chemicals to use to evaluate wildlife health at RMA.

The Army is proud of its success in cooperating with the State of Colorado, Shell, EPA, USFWS, and local stakeholders to arrive at a Record of Decision to remediate RMA, and we look forward to working with the stakeholders during the remediation as well. As you know, the ultimate goal of this process is to establish a National Wildlife Refuge at RMA, and the Army intends to maintain the land and natural resources so that the Refuge may flourish.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

2. PAYMENT OF THE ABOVE SUM IS CONDITIONED ON ADHERENCE TO THE FOLLOWING TERMS. OTHER TERMS AND CONDITIONS WILL BE THE SUBJECT OF FURTHER NEGOTIATION.

A. PAYMENTS WILL BE HELD IN TRUST FOR SACWSD. TRUSTEE TO BE CHOSEN BY THE ARMY & SHELL WITH SACWSD CONCURRENCE. ANY INTEREST THAT ACCRUES MUST BE RETURNED TO THE ARMY AND SHELL.

B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

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F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

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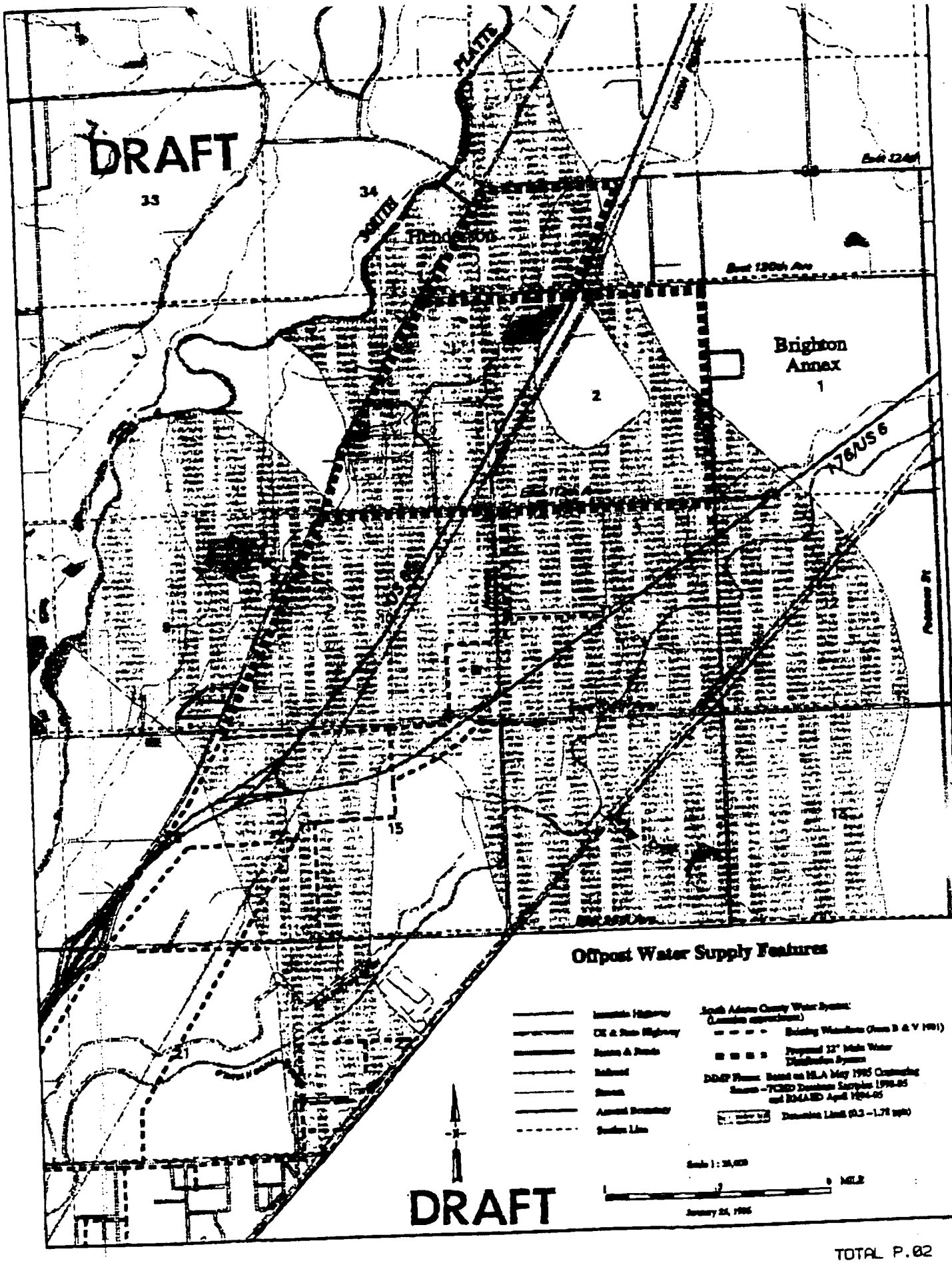
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Offpost Water Supply Features
Interstate Highway
Oil & State Highway
Roads & Streets
Railroad
Streams
Approximate Boundary
Section Line
South Adams County Water System
Existing Waterlines
Proposed 12" Main Water Distribution System
Detection Limit
Scale 1:
MILE
January 25, 1996
DRAFT

TOTAL P.02

Sierra Club

December 7, 1995
Rocky Mountain Arsenal Subcommittee
Rocky Mountain Chapter Sierra Club
1452 Northcrest Dr.
Highlands Ranch, CO 80126

Colonel Eugene H.Bishop
Building 111 - Rocky Mountain Arsenal
Commerce City, CO 80022

Sir:

The Rocky Mountain Subcommittee of the Rocky Mountain Chapter of the Sierra Club requests that an extension be granted for the submission of comments regarding the Proposed Plan for the Rocky Mountain Arsenal On-Post Operable Unit. We ask that this extension be for no less that 60 days. This will greatly aid us in our research on this important document.

Thank you for your consideration in this matter.

Sincerely,

Sandra A. Horrocks

Sandra A. Horrocks

RMA Subcommittee Chairperson

9534502-1/1

SIERRA CLUB

Rocky Mountain Chapter
777 Grant Street Suite 606 Denver, Colorado 80203 303 • 861 • 8819

December 18, 1995
Colonel Eugene H.Bishop
Building 111 - Rocky Mountain Arsenal
Commerce City, CO 80022

Sir:

It has become apparent to the Rocky Mountain Chapter of the Sierra Club that replacement water for the Off-Post area of the arsenal should be dealt with in the Off-Post ROD and not the On-Post ROD. This was not how the Off-Post area was approached initially. However, problems have arisen which are causing us to call into question the direction given to us to consider Off-Post replacement water part of the On-Post ROD.

To begin, we are not quite sure why replacement water in contaminated areas Off-Post has taken this long to resolve. It was proven many years ago that wells were contaminated, and it should have been a matter of integrity for the U.S.Army and Shell Oil Company to insure that these areas had a permanent alternate water source at that time. The amount of water replaced should have been equal to the amount of water contaminated.

Secondly, in hindsight, we do not understand why replacement water, left to be taken care of during the ROD process, should not have been handled in the Off-Post ROD. After all, the areas where this water is needed is in the Off-Post area. Also, the Off-Post Plan was considering what to do about contaminated underground water. It only makes sense that these problems should have been considered as one, which they are.

Additionally, given the fact that the replacement water is being handled as a part of the On-Post ROD, specific details regarding this water should at least be given. Merely stating that 4000 A. ft. of water will be supplied for this purpose is not enough. This is not equal to the amount of water available to the surrounding communities which has been damaged. It also does not include any detail of how this water would be divided thus opening up all kinds of possibilities for back-room deals to be made perhaps resulting in an unfair percentage of water being given to one community over another.

Finally, making replacement water a part of the On-Post ROD has resulted in the appearance that it is being used as a trading piece for the amount of clean-up that should be taking place on the Rocky Mountain Arsenal (RMA). In otherwords, it seems that if community leaders want enough water to supply their constituents then they must be willing to lower their voices in asking for RMA to be properly cleaned.

The Rocky Mountain Chapter of the Sierra Club is only asking for what is fair following the use and subsequent contamination of one of the most basic rights of all mankind...an

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adequate and clean water supply. We ask that the signing of the Off-Post ROD be delayed until it can be revised to include the Off-Post replacement water supply. We also ask that this revision include specific information such as the communities which will receive replacement water and a detail description of how much each community will receive. We see this as the only fair and rational way in which to handle this matter.

We trust that you will give your utmost attention to these concerns, and that we will receive a response to this letter.

Yours truly,

Heidi Arbury

Heidi Arbury

Chairperson - Rocky Mountain Chapter Sierra Club

Brian Andreja

Brian Andreja

Chairperson - Social Justice Committee

Kirk Cunningham

Kirk Cunningham

Chairperson - Water Quality Committee

Sue Maret

Sue Maret

Chairperson - Hazard Waste Committee

Angela Medbury

Angela Medbury

Chairperson - Pesticides Committee

Sandra Horrocks

Sandra Horrocks

Chairperson - RMA Subcommittee

cc: Bill Yellowtail, Regional Administrator, Reg. VIII, Environmental Protection Agency
Roy Romer, Governor, State of Colorado
Gail Schoettler, Lieutenant Governor, State of Colorado
Judge Dana, Judiciary Arbitration Group

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Rocky Mountain Chapter
777 Grant Street Suite 606 Denver, Colorado 80203 303 • 861 • 8819

January 18, 1996
On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Attn.: AMCPM-PM/ Col. Eugene H. Bishop
Building 111---RMA
Commerce City, CO 80022-1748

Sir:

The Rocky Mountain Arsenal Subcommittee of the Rocky Mountain Chapter of the Sierra Club has reviewed the Proposed Plan for the Rocky Mountain Arsenal On-Post Operable Unit. The following points represent our comments regarding this document. Each area of concern is preceeded with a descriptive subtitle of that area.

Water, Structures and Soil

a. Water

Our viewpoint regarding the alternatives presented for water is most in line with that presented by Alternative 3. We would add that additional treatment, besides carbon filtering at the boundaries and other processing plants, needs to be added due to those chemicals which are not currently being treated such as NDMA and inorganic compounds. Also, there is no mention of the hazardous plume which has recently been identified moving southward off the Arsenal. Remediation of this plume should be a part of the ROD.

Also, we feel that the resolution of community water replacement should have been rectified many years ago. The current amount of water offered for replacement is neither adequate nor acceptable. The water replaced should be equal to the amount which was contaminated by the Arsenal over the last 54 years. The amount for each affected community should be stated up front so there is no possibility of one community making side deals for additional water at another community's expense. The amount of water should also be taken out of any negotiations for remediation at RMA since it is not a negotiable commodity.

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b. Structures

Alternative 3 best meets our expectations for removal of structures. We are concerned that remediation of Basin A will not be satisfied by adding additional contaminated soils and structures to help provide a cap for that area. Acceptance of Alternative 2 would mean supporting the capping of Basin A which we are unable to do. We do support the recycling of as much building material as possible after appropriate detoxification. Those building materials remaining should then be placed in the on-site landfill.

We do have a question regarding the number of structures that will be left standing following remediation. What will 47 structures be used for on a wildlife refuge and which structures are they?

c. Soil

We cannot fully support any alternative proposed for soil remediation. Most of the remediation types proposed do not include treatment. If soils are not detoxified, we presume that remediation of this site will be revisited in the future thus causing further problems for residents in the vicinity of RMA. We see this as an unnecessary expense to taxpayers.

During the winter of 1995, we participated in the instruction on alternative cleanup technologies. We saw several methods that could be applied at the Arsenal, in particualar the Eco-Logic process. It would seem more cost effective to do a slower cleanup (due to the additional initial cost) that would be permanent and not have to be funded again in the future.

Trust Fund

The only guarantee we have that there may be any money for any lingering future problems at RMA is a trust fund. We have been asking that this be guaranteed for several years. Although the Proposed Plan does mention this trust fund, it does not guarantee that it could be implemented. We want to see a guarantee that it will be a reality.

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Health Monitoring

We are concerned that monitoring of the populace surrounding RMA has not been carried out in the most scientific manner. We have been unhappy with the studies which have been conducted by ATSDR. We feel that studies of this type could be carried out better by the state health department of Colorado in collaboration with a volunteer advisory board. We do believe that the populace in that area deserves some type of assurance that Off-Post medical monitoring will be long-term and so be maintained both during and after remediation.

Additionally, medical monitoring should be designed to satisfy apprehensions about the remediation itself and confirm that the health of the surrounding populace is not being compromised by residence adjacent to RMA. Community trust in this program is essential for medical monitoring to be successful. In otherwards, we wish to see a more thorough and scientifically accurate monitoring program than what we have seen ATSDR provide so far.

Wildlife

Wildlife health and welfare is of particular interest to us, especially when considering that RMA has been designated as a wildlife refuge. We are pleased to see that wildlife monitoring is progressing at RMA after a very slow initial start. We would have thought that some progress on those studies would have been included in this plan to inform the public of the type of research being conducted regarding the effects of the toxic wastes on the wildlife. An explanation of what will be done to protect the wildlife during the remediation should also have been included. We will be interested in reviewing reports of animal health during and after the remedial period to evaluate any differences in health.

Additionally, the Proposed Plan does not mention which chemicals of concern will be used to determine animal health. We anticipate that this means all possible contaminants will be reviewed for wildlife health effects. For example, recent studies indicate elevated levels of the 2,3,7,8-TCDD dioxin were detected in wildlife residing in the South Plants area. This dioxin testing along with testing for other chemicals of concern should be continued in order to provide an ongoing evaluation of overall wildlife health. How can this be guaranteed?

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Overall Plan

There is one very great disappointment with this document. It seems that once again the public is being spoken to out of two sides of the government's mouth. From one side we are being told that the purpose of the Proposed Plan is 'so that the public can participate in the alternative selection process.' However, as we read further, the other side of the mouth mentions a 'Conceptual Remedy' that has already been agreed upon. It seems somewhat odd that we, the public, are being invited to join in a selection process that has already been completed. This Conceptual Agreement should have been explained in greater detail. We are including our comments dated May 30, 1995 regarding that agreement as an attachment. We want them to be included in the ROD along with this document.

Also, the alternatives presented did not include the many types of technologies reviewed for possible use. These techniques were not presented as the viable considerations that they became in the alternatives summarized in this document.

We thank you for your attention to our comments.

Sincerely,

Sandra A. Horrocks

Sandra A. Horrocks

RMA Subcommittee Chairperson

attachment

cc EPA
CDPHE
Shell Oil Company
USFWS

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777 Grant Street Suite 606 Denver, Colorado 80203 303 • 861 • 8819

May 30, 1995

To The United States Army, Shell Oil Company, The Environmental Protection Agency, and the State of Colorado,

The Sierra Club has received the Conceptual Agreement Components document generated from the RMA remedy negotiations (5/9 - 5/11/95). We would like to address the following concerns with the agreement:

Global Issues

1) Lack of Detoxification: After spending numerous months reviewing documents and technology alternatives, we are discouraged to see a plan which primarily utilizes containment as the lead remediation technique, rather than treatment of the chemicals of concern. We are of the opinion that innovative technologies show potential utility for clean-up at several of the areas currently slated for proposed landfilling and/or capping. We are concerned that chemicals manufactured on RMA have the potential to contaminate soil and water for many generations.

2) Landfill Utilization: During the clean-up alternatives public comment period, several of our committee members recommended a landfill be sited on the RMA *in lieu* of effective treatment remedies. However, an important component of our recommendation appears to have been overlooked. It was proposed that the landfill serve as an interim measure until an effective technology became available in the future. The current proposal indicates that the landfill would serve as a permanent remedy. This is not acceptable to the Sierra Club. While we see the need to build a landfill, we would like to see it utilized only until adequate technology becomes available for detoxification of the chemicals of concern.

In addition, we believe the current sanitary landfill should be remediated and all waste placed into the new state-of-the-art landfill. In order to guarantee the safety of our future generations, we believe these requests must be addressed.

3) Trust Fund: To guarantee adequate financial resources will be available for the completion of the clean-up, a trust fund must be established. The Sierra Club sees the creation of this fund as a commitment from the responsible parties that they are seriously committed to the surrounding community and to the remediation of this Superfund site.

4) Research and Development: The concept of research being conducted on the RMA is very important to the Sierra Club. We envision the

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Arsenal serving as a national site for innovative technologies to be pilot tested. It is obvious from the lack of detoxifying technologies in the Agreement Components Document that much additional research is needed for effective and safe remediation of chemicals such as Dieldrin. We are pleased to learn that the Hex Pits may serve as a site for technology evaluation and we fully support this idea.

5) Arsenal Tours: We believe it would be prudent of the principle parties to request a halt to public tours on RMA during the clean-up process. As this site clean-up involves movement of hazardous chemicals, the only safeguard against visitor exposure is stoppage of tours during the remediation period.

6) Wildlife Habitat: We would like to advocate protection of wildlife habitats during the remediation efforts. As the Arsenal will become a Wildlife Refuge upon clean-up completion, an assurance of adequate and un-contaminated habitat zones during the process must be provided.

7) Dioxin Testing: The issue of dioxin contamination on the Arsenal has to date not been effectively addressed. The generation of dioxins is possible from incomplete combustion processes or as by-products of chemical manufacturing. Both of these scenarios occurred on RMA. To improve public credibility, it is essential that the PRPs initiate soil sampling for dioxins.

Site Specific Issues

1) Basin A: Foremost, we are concerned that no treatment of soils will take place in this basin prior to capping the area. The potential for ground water contamination might be possible for an indefinite period of time. In all previous proposals, a de-watering and/or slurry wall barrier was recommended. We would advocate dewatering of Basin-A prior to capping. Also, many yards of soil will be placed into Basin A without prior treatment, we would like to see solidification of all soils before adding to this basin to ensure lack of chemical migration.

2) Former Basin F: Although a treatment technology is proposed for this site, we question the effectiveness of soil solidification. This method was not previously discussed during the innovative technology meetings. Also, because only the first ten feet will be treated, the potential for ground water contamination is possible from chemical movement in the lower soil depths.

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3) Basin F Wastepile: We are pleased that the wastepile will be stored in a celled landfill. however, we have two areas of concern: (1) lack of detoxification; and (2) odor abatement. The detoxification issue was previously addressed in global issues #1. Odor generation during excavation of the wastepile is a topic which must be addressed. We would like to see air emission monitoring devices in place for the duration of the wastepile excavation. For the protection of the surrounding communities, an enclosure surrounding the excavation sites is advocated.

4) South Plants: The proposed excavation to 5 feet should be increased to ten feet to be fully protective of human health.

5) North Plants: In the Conceptual Agecement Document there is no indication of the depth of soil which will be excavated for placement in the landfill. We would encourage the parties to adhere to a depth no less than 10 feet.

6) Pits/Trenches: The Army and Shell trenches may contain extremely hazardous materials. We would agree with the proposal of expanding the slurry walls prior to capping the sites.

The proposal of utilizing an innovative technology for the remediation of the Hex Pits is supported by the Sierra Club. We would like to see more information as to the options for technologies considered.

M-1 pits: What solidification technology will be used to stabilize the chemicalas ?

7) Chemical Sewers: In the South Plants region, no treatment of chemicals or movement of soil is proposed. We are concerned about continued groundwater contamination if the suggested actions are followed.

8) Groundwater: There are several issues we would like to see addressed in the groundwater proposal.

(a.) Why isn't de-watering still a viable option for the basins ?

(b.) Appropriation of water from alternative sources-what is the current status of this proposal ?

(c.) Boundary system-We would like some written assurance as to the length of time the system will be operational.

(d.) The proposed 4,000 acre feet is inadequate to meet the growing needs of the surrounding communities. We would like to see this allocation increased. Also, we would like some clarification as to who would be responsible for hook-up fees once the main system is installed.

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(9) Surficial Soils: We would like to see a proposal for soil contamination not equivalent to biota exceedance levels. This is a relevant issue in regard to wildlife health on the Arsenal. A provision should be included to account for future data generated from animal studies if lower chemical exposure is shown to cause adverse effects.

(10) Off-post: This is an issue not yet addressed: We would advocate treatment of contaminated soils or landfilling them as an interim action.

(11) Montbello: This is an issue not yet addressed: We would strongly recommend soil and health screening be conducted in this community. It is critical to the PRPs for maintaining community relations.

As we have worked diligently as volunteers on numerous issues relating to the RMA, we hope you will keep us informed as to any modifications of the Conceptual Agreement. We look forward to receiving your written responses addressing these issues. Thank-you.

Sincerely,

Sandy Horrocks

Sandy Horrocks
Sierra Club Rocky Mountain Arsenal Subcommittee Chairperson

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GALILEO INTERNATIONAL

To:	Ruthie
Company:	U.S. Army
Phone:	
Fax:	289-0582
From:	Sandy Horrocks
Company:	GALILEO International
Phone:	
Fax:	(303)397-5299 or 5296
Date:	1/19/96
Pages Incl. this cover page:	9

Comments:

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF:
Office of the Program Manager

Ms. Sandra Horrocks
Chairperson, RMA Subcommittee
Sierra Club
Rocky Mountain Chapter
777 Grant Street, Suite 606
Denver, Colorado 80203

Dear Ms. Horrocks and Sierra Club Members:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component in the remediation process, and your participation helps maintain the dialogue between the Army and the public.

Your letter dated December 7, 1995, requested that the comment period for the On-Post Proposed Plan be extended by no less than 60 days; other parties requested that there be no extension whatsoever so that the Record of Decision (ROD) would not be delayed. In order to allow additional time for comment without excessively delaying the ROD, the comment period was extended by 30 days.

Your letter dated December 18, 1995, stated your belief that the replacement water for the off-post area of RMA should be dealt within the Off-Post ROD. The alternative water supply is addressed in the On-Post ROD because it is part of the overall on-post remedy, not the off-post remedy. The containment portion of the on-post remedy requires leaving some waste in place under a cap or in a hazardous waste landfill. For that reason, the Army decided to provide a separate water supply to alleviate any concerns the public may have about leaving the waste in place. The Off-Post ROD was signed by the Army and the U.S. Environmental Protection Agency (EPA), and the State of Colorado concurred on December 19, 1995.

In response to your comment requesting details about an alternative water supply, the Army and Shell have reached an Agreement in Principle, enclosed with this letter, with the South Adams County Water and Sanitation District (SACWSD) that includes payment of $48.8 million by the Army and Shell to SACWSD and requires that SACWSD water be supplied to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs.

If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at (303) 289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

Your letter of January 18, 1996, contained several additional comments on the On-Post Proposed Plan, and the Army's responses are contained in the enclosure to this letter. Also enclosed are responses to your letter dated May 30, 1995.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosures

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

U.S. ARMY RESPONSES TO COMMENTS ON THE ON-POST PROPOSED PLAN FROM THE SIERRA CLUB, ROCKY MOUNTAIN CHAPTER, DATED JANUARY 18, 1996

1. Water, Structures, and Soil

a. Water

The Army believes Alternative 4 is superior to the other groundwater remedial alternatives for the On-Post Operable Unit for the following principal reasons:

- Alternative 4 is preferable to Alternatives 1 and 2 because it provides additional reduction of toxicity, mobility, or volume of contaminated groundwater at a reasonable cost and with minimal short-term effects. It is also readily implementable.

- Although Alternative 3 provides greater reduction of toxicity, mobility, and volume than Alternative 4, it is less readily implementable than Alternative 4. Furthermore, when considered in conjunction with the preferred soil alternative and the continued operation of the boundary groundwater containment and treatment systems, Alternative 3 provides limited added benefit compared to Alternative 4 at a significantly higher cost.

The Army is currently conducting N-nitrosodimethylamine (NDMA) treatment studies in water and taking steps to lower the analytical detection limit as required by the Agreement for a Conceptual Remedy for the Cleanup of the Rocky Mountain Arsenal (RMA Conceptual Remedy), which was signed by the Parties on June 13, 1995. The Army is continuing to work with its laboratory on this issue. If additional treatment is warranted at the boundary systems, the Army is committed to implementing the appropriate treatment system to meet the Remediation Goals set forth in the Record of Decision (ROD).

Regarding your comment about the "hazardous plume moving southward off the Arsenal", no such groundwater plume has been identified by the extensive groundwater monitoring programs the Army conducts annually. The water table elevation in the southeast corner of RMA is approximately 5,300 feet above mean sea level (ft M S L), and the elevation of the water table at the South Platte River is approximately 5,000 ft M.S L Therefore, groundwater flows downhill generally from the southeast corner of RMA toward the South Platte River. Superimposed on the regional gradient is a groundwater mound in South Plants The mound is created by leaking pipes, increased recharge from unlined ditches and ponded areas, and may also be the result of natural variations in the permeability of the alluvium and bedrock in the area. Groundwater in the area of the mound flows radially out from the mound in all directions. A groundwater divide occurs at the confluence of the regional flow system and the mound. As a result, groundwater

entering RMA from the southeast is forced to turn either east or west around the South Plants area. Water flowing south from the mound area is forced to change direction and join the regional flow system. The groundwater flow direction in the confined Denver Formation is also from southeast to northwest. Groundwater flow upgradient (southward) from the southern boundary of RMA is physically impossible.

In response to your comment requesting details about an alternative water supply, please see Paragraph 4 of the cover letter attached to these responses.

b. Structures

The Army realizes that there are remaining issues involving the selected remedy for RMA. The concerns about the short-term risks and effects of excavation and treatment were weighed against the potential long-term effects of containing the waste in place. The public has also been concerned about thermal processes such as incineration because of potential emissions. The Army's chosen remedy minimizes the short-term risks of exposure to workers and the community because soil-borne contaminants are left in place. The cap/cover and landfill designs will comply with applicable federal, state, and local regulations. Please see also the response for Comment number 1c below.

The future-use structures are those necessary for operation of the Refuge and for continued operation and maintenance of the selected remedy. The structures generally are warehouses, bunkers, the firehouse, a new Visitor's Center, a farmhouse, operations and maintenance (O&M) facilities in the vicinity of the present administration building, treatment system structures, and cap and landfill O&M structures. The structures will be used for the purposes of remediation, interpretive tours, and refuge management, including the U.S. Fish and Wildlife Service (USFWS) repositories. The USFWS is still in the process of determining the actual number of structures that will be necessary for Refuge management. These structures are indicated in Section 5 of the ROD.

c. Soil

The Army understands your concern that the soil be remediated properly, and believes that the approach of placing the nonhazardous material under the Basin A cover will adequately immobilize contaminants, will be protective of human health and the environment for the long term, and will provide a cost-effective method for disposal of nonhazardous materials. The principal threat and human health exceedance soil will be disposed in the on-post hazardous waste facility at RMA. In addition, a large volume of fill material will be required to construct the Basin A Consolidation Area, and the RMA nonhazardous material will satisfy that need. Furthermore, by using this nonhazardous material onsite, there will be no negative impact from a very large number of trucks moving through the surrounding community to transport nonhazardous waste and potential new fill material.

Your comment references the presentation on alternative remediation technologies during the winter of 1995, and you express concern that some of those technologies could have been used in the selected remedy, as well as expressing a desire for a slower remediation in order to use those technologies. The Army has received numerous public comments regarding both these issues through various avenues. Concerns were expressed by the public about many innovative technologies during the public process; many participants preferred proven technologies and minimal disturbance of the site. The Army has considered those concerns in choosing what it believes to be the best remedy for protection of human health and the environment, as well as one that is timely and cost-effective.

2. Trust Fund

During the formulation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operation and maintenance of the remedy. The Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the ROD. Principal and interest from the Trust Fund would be used to cover the costs of long-term operation and maintenance throughout the lifetime of the remedial program. These costs are estimated to be approximately $5 million per year (in 1995 dollars).

The Parties intend that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remediation sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representatives of the Parties (subject to restrictions on federal agency participation), local governments, affected communities, and other interested stakeholders and will be convened within 90 days of the signing of the ROD.

3. Health Monitoring

The effects on human and wildlife health of many of the compounds produced at RMA have been studied for many years, and this information is available at the Joint Administrative Record Document Facility (JARDF). Studies have been completed by the Agency for Toxic Substances and Disease Registry (ATSDR) independently and in conjunction with the Colorado Department

of Public Health and Environment (CDPHE). These studies showed no conclusive health impact on the communities surrounding RMA. Also, the final Public Health Assessment, produced by ATSDR, should be complete in the summer of 1996.

A Medical Monitoring Program for the surrounding communities has also been identified as part of the On-Post Proposed Plan. The primary goal of the Medical Monitoring Program is to monitor any off-post impact on human health due to the RMA remediation. Elements of the Program could include medical monitoring, environmental monitoring, or health/community education. This Program will continue until the on-post soil remediation is completed. A Medical Monitoring Advisory Group has been established to evaluate specific issues covered by the Medical Monitoring Program. The Group is composed of representatives of the Army, Shell Oil Company, the U.S. Environmental Protection Agency (EPA), CDPHE, Tri-County Health Department, ATSDR, the USFWS, Denver Health and Hospitals, and the Site-Specific Advisory Board. The Group also includes representatives from the communities of Montbello, Commerce City, Henderson, Green Valley Ranch, and Denver. The Army and Shell will fund ATSDR to conduct this effort in coordination with CDPHE. If you would like more information on the Medical Monitoring Program or wish to participate as part of the Medical Monitoring Advisory Group, please call Ms. Mary Seawell of CDPHE at 303-692-3327.

4. Wildlife

Your comment regarding the need for an explanation of what will be done to protect the wildlife during remediation is noted. During the remedial design and implementation phase after the ROD is signed, each project will include measures to minimize the impact on wildlife during implementation; these measures will vary according to the response action being taken. In addition, the USFWS will manage the wildlife populations and, in coordination with the Army and other Parties, monitor the protectiveness of the implementation measures taken.

The Biological Advisory Subcommittee (BAS) is currently evaluating which chemicals to use to evaluate wildlife health at RMA. Dioxin and furan sampling was undertaken by the CDPHE, and these results are currently being evaluated by the BAS.

5. Overall Plan

The Army is interested in public comments and concerns and has made a substantial effort to hear those concerns through the Restoration Advisory Board, the Site-Specific Advisory Board, stakeholder meetings, and also through avenues of public comment such as the comments on the On-Post Proposed Plan. The Army believes it has been consistent in representing the progress of the remedy to the public. In fact, the Army has held more than 20 public meetings and workshops in order to facilitate public input. Regarding your statement that the public was not invited to participate in the drafting of the Agreement for a Conceptual Remedy, the Army and other Parties

considered the public concerns and incorporated many as they drafted the Agreement. The Army believes the selected remedy is responsive to the public's concerns and is protective of human health and the environment.

In response to your last comment regarding the types of technologies reviewed, many technologies including those previously advanced by your organization were reviewed and considered before the selected alternative was chosen.

The May 30, 1995, letter you enclosed was also available and considered in the discussions leading to the June 13, 1995, Agreement for a Conceptual Remedy. Responses to those comments are attached.

U.S. ARMY RESPONSES TO COMMENTS ON THE CONCEPTUAL AGREEMENT COMPONENTS FROM THE SIERRA CLUB, ROCKY MOUNTAIN CHAPTER, DATED MAY 30, 1995

Global Issues

1. Lack of Detoxification

The RMA remedy was selected after considering issues such as short-term versus long-term effects and the preferences of the Parties and stakeholders involved in the process. The remedy includes continued water treatment at the boundaries and at existing internal systems, in situ solidification of Former Basin F, and, subject to the results of treatability testing and technology evaluation, use of innovative thermal technology for treatment of part of the Hex Pit material in addition to landfilling and containment. Extensive monitoring of soil, water, and air will ensure the safety of the public and indicate whether additional action is necessary.

2. Landfill Utilization

The new state-of-the-art, hazardous waste landfill will safely and permanently contain the waste. Monitoring will ensure that operational requirements are met. Please refer to the response to Comment 1 regarding treatment.

The sanitary landfills will be excavated. Human health exceedance material will be disposed in the new landfill. The remaining debris and soil will be consolidated under the Basin A cover.

3. Trust Fund

Please see the response to Comment 2 in your January 18, 1996, letter.

4. Research and Development

Treatability studies will be conducted as part of the remedial design phase for the innovative thermal technology selected for a portion of the Hex Pit materials. RMA will not serve as a national site for pilot testing of innovative technologies. It should be noted that several treatability studies have been completed for or at RMA, including enhanced soil vapor extraction, radio frequency heating, oxidation, sorption, and in situ biological treatment.

5. Arsenal Tours

RMA tours will continue during the remediation process, but will not be conducted in areas under remediation. Visitor safety will be ensured through controlled access and monitoring.

6. **Wildlife Habitat**

Please see the response to Comment 4 in your January 18, 1996, letter.

7. **Dioxin Testing**

Dioxin and furan sampling was undertaken by CDPHE, and the analytical results are presently being evaluated by the Biological Advisory Subcommittee. Although the Army believes that the currently identified contaminants of concern include all contaminants representing the greatest potential for risk, other contaminants may become a concern in the future (e.g., dioxin). In such an instance, the contaminant will be evaluated with respect to the remedy selected, designed, or implemented to ensure that the remedy remains protective of human health and the environment.

Site-Specific Issues

1. **Basin A:** The Army believes that the Basin A remedy will safely contain the waste without the risks associated with removal. You are correct that slurry walls and active dewatering (through) pumping have been proposed. However, groundwater modeling of the area showed that a slurry wall would add only minimal benefit because of the low-permeability soil in the area. It should be noted that groundwater migration out of Basin A is very slow. Migration rates will be further reduced through installation of the Basin A cover, which will passively dewater the area. Solidification of soil before placing it in Basin A would not reduce the risk further than containment and passive dewatering will.

2. **Former Basin F**

Treatability tests will be conducted to ensure that adequate solidification can be achieved. Solidification, combined with capping of the entire Former Basin F site (including the Basin F wastepile footprint), and therefore passive dewatering, will minimize contaminant migration. Due to past and expected future lowering of the water table in this area, chemical movement is not expected to be a problem.

3. **Basin F Wastepile**

Excavation will be conducted using vapor- and odor-suppression measures as necessary. In the event that the wastepile soil fails EPA's paint filter test, moisture content will be reduced to acceptable levels by using a dryer in an enclosed structure. Volatile organic compounds (and possibly semivolatile organic compounds) released from the soil during the drying process will be captured and treated; however, the main objective of this process is drying. Prior to excavation of the wastepile, overburden from the existing cover will be removed and set aside. The excavated area will be backfilled with on-post borrow material and stockpiled overburden.

4. **South Plants**

The excavation of 5 feet of principal threat and human health exceedance soil in the South Plants Central Processing Area is protective of human health and the environment. Excavation to a greater depth would cause problems such as interferences with sewer lines. The excavated area will be backfilled and protected with an additional 5 feet of soil cover.

5. **North Plants**

Human health exceedance soil will be excavated to a 1-foot depth in North Plants. The entire North Plants area will be contained under a 2-foot soil cover.

6. **Pits/Trenches**

Subject to the results of treatability testing and technology evaluation, approximately 1,000 bank cubic yards (BCY) of principal threat material from the Hex Pit will be treated using an innovative thermal technology. Solidification will become the selected remedy if evaluation criteria for the innovative technology are not met. The remaining 2,300 BCY will be excavated and disposed in the on-post hazardous waste landfill.

The mixture of solidification/stabilization agent to be used for the M-1 Pits will be determined through treatability testing during remedial design.

7. **Chemical Sewers**

For sewers located within the South Plants Central Processing Area and Complex Trenches area, the sewer void space will be plugged with a concrete mixture to prohibit access to these lines and to eliminate them as a potential migration pathway for contaminated groundwater. The plugged sewers will be contained beneath the soil cover or cap in their respective sites.

8. **Groundwater**

(a) The containment actions in Basin A and Basin F will result in passive dewatering (lowering of the water table through minimized infiltration). No further dewatering is necessary to achieve the required groundwater levels.

(b) Please refer to the response to Comment 1a in the January 18, 1996, letter.

(c) Shutoff criteria have been developed for the boundary systems to ensure that the systems will operate until water at the boundary has met these very specific criteria.

(d) Please refer to the response to Comment 1a in the January 18, 1996, letter.

9. Surficial Soils

The Biological Advisory Subcommittee (BAS) will continue to evaluate potential impacts on biota and recommend additional areas for remediation if necessary. In the event additional remediation is necessary, only the areas would change, not the remedies.

10. Off-Post Operable Unit

The 160 acres of soil off-post that you refer to were tilled to a depth of approximately 12 inches and were revegetated. A final inspection of the site will be conducted in late 1996.

11. Montbello

The Army and Shell will fund ATSDR to conduct an RMA Medical Monitoring Program in coordination with CDPHE. The program's nature and scope will include baseline health assessments and be determined by the on-post monitoring of remedial activities to identify possible exposure pathways to off-post communities, including Montbello.

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

2. PAYMENT OF THE ABOVE SUM IS CONDITIONED ON ADHERENCE TO THE FOLLOWING TERMS. OTHER TERMS AND CONDITIONS WILL BE THE SUBJECT OF FURTHER NEGOTIATION.

A. PAYMENTS WILL BE HELD IN TRUST FOR SACWSD. TRUSTEE TO BE CHOSEN BY THE ARMY & SHELL WITH SACWSD CONCURRENCE. ANY INTEREST THAT ACCRUES MUST BE RETURNED TO THE ARMY AND SHELL.

B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

C. SACWSD MUST CONTRACT FOR WATER RIGHTS OR SUPPLY BY NOT LATER THAN SIX MONTHS AFTER THE DATE OF THE FINAL PAYMENT.

D. PAYMENTS FROM THE TRUST TO SACWSD MUST BE TIED DIRECTLY TO THE ACQUISITION AND DELIVERY OF 4000 ACRE FEET OF

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WATER AND THE HOOK UP OF WELL OWNERS IN THE HENDERSON AREA. ALL EXPENDITURES BY SACWSD PAID FROM THE TRUST ACCOUNT WILL BE SUBJECT TO AUDIT BY THE ARMY AND SHELL. UP TO $43 MILLION MAY BE SPENT ACQUIRING AND DELIVERING THE 4000 ACRE FEET OF WATER AND UP TO $4.65 MILLION MAY BE SPENT ON HOOK UPS IN THE HENDERSON AREA. THE REMAINING $1.15 MILLION IS TO OFFSET INFLATION OR CONTINGENCIES. ANY EXPENDITURES CHALLENGED BY THE ARMY, SHELL, OR THE TRUSTEE WILL BE SUBMITTED TO THE ALTERNATIVE DISPUTE RESOLUTION (ADR) METHOD DESCRIBED IN E, BELOW.

E. AN INDEPENDENT QUALIFIED AGENT, WHO IS A SENIOR WATER RESOURCE EXPERT WITH EXPERIENCE IN ACQUIRING AND DELIVERING WATER, WILL BE SELECTED BY SACWSD, WITH THE CONCURRENCE OF THE ARMY AND SHELL, TO DIRECT THE SELECTION, ACQUISITION, AND IMPLEMENTATION OF A WATER SUPPLY ON BEHALF OF SACWSD THAT CAN BE OPERATIONAL BY 1 OCTOBER 2004. THE TERMS OF THE AGENCY WILL BE AGREED UPON SACWSD, THE ARMY AND SHELL. THE ARMY AND SHELL WILL CONCUR WITH THE DESIGN OF AND SUBSEQUENT BID PACKAGES FOR THE WATER DELIVERY SYSTEM. THE CONSTRUCTION FIRM OR FIRMS TO CONSTRUCT THE PROJECT OR PROJECTS WILL BE SELECTED BY COMPETITIVE BID BASED ON A SOLICITATION PROCESS CONCURRED IN BY THE ARMY AND SHELL. THE COSTS ASSOCIATED WITH IMPLEMENTING THIS SECTION WILL BE PAID FROM THE TRUST ACCOUNT. ANY DISAGREEMENT ARISING REGARDING THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO A FORM OF ADR CONSISTING OF SUBMISSION OF THE DISPUTE TO THREE WATER RESOURCE EXPERTS; ONE SELECTED BY THE ARMY AND SHELL; ONE SELECTED BY SACWSD; AND ONE SELECTED BY THE INDEPENDENT AGENT OR BY THE AGREEMENT OF THE TWO SIDES IF THERE IS NO INDEPENDENT AGENT. THE COST OF ADR WILL BE BORNE BY THE PARTIES WITH EACH SIDE PAYING FOR ITS EXPERT AND EACH SIDE PAYING 50% OF THE COST OF THE EXPERT FOR THE INDEPENDENT AGENT.

F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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G. SACWSD AGREES TO SATISFY THE OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 OF THE AGREEMENT ON A CONCEPTUAL REMEDY FOR THE CLEAN UP OF ROCKY MOUNTAIN ARSENAL. THE PAYMENTS TO SACWSD WILL CONSTITUTE COMPLETE SATISFACTION OF THE ARMY AND SHELL'S OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 AND COMPLETE SATISFACTION OF ALL COSTS ASSOCIATED WITH THE TERMS AND CONDITIONS NECESSARY TO EXECUTE THESE OBLIGATIONS. ALL COSTS NECESSARY TO EXECUTE THE REQUIREMENTS OF THIS AGREEMENT, UNLESS OTHERWISE EXPRESSLY STATED, WILL BE PAID OUT OF THE TRUST ACCOUNT. SACWSD WILL NOT BE RESPONSIBLE FOR MONITORING REQUIREMENTS TO BE PERFORMED BY THE ARMY AND SHELL IN ACCORDANCE WITH ITEM 17 AND SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN THE FIRST 130 WELL OWNERS. ANY ADDITIONAL HOOK UPS REQUIRED UNDER THE TERMS OF ITEM 17 WILL BE THE RESPONSIBILITY OF THE ARMY AND SHELL.

H. SACWSD WAIVES AND RELEASES THE ARMY AND SHELL FROM ALL RESPONSE COSTS AND CLAIMS FOR DAMAGES FOR ALL RMA CONTAMINANTS AND POLLUTANTS IN THE SACWSD WATER THAT ARE KNOWN OR DETECTED PRIOR TO, OR AT THE TIME OF, THE SIGNING OF THE ON-POST RECORD OF DECISION (ROD). PAYMENT OF RESPONSE COSTS, IF ANY, OWED TO SACWSD AT THE TIME OF THE SIGNING OF THE ON-POST ROD WILL BE DETERMINED BY AGREEMENT OF THE PARTIES PRIOR TO SIGNING THE FINAL AGREEMENT CONTEMPLATED BY THIS AGREEMENT IN PRINCIPLE..

I. ANY REUSABLE RETURN FLOWS ASSOCIATED WITH ANY WATER SOURCE ACQUIRED WILL BE MADE AVAILABLE TO SACWSD FOR REPLACEMENT OF DEPLETIONS UNDER ITS EXISTING AUGMENTATION PLAN FOR THE FIRST THREE YEARS FOLLOWING THE INITIAL DELIVERY OF WATER FROM THE NEW WATER SOURCE IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED, OTHERWISE RETURN FLOWS ASSOCIATED WITH THE NEW WATER SOURCE, AND ANY WATER UNUSED BY SACWSD FROM THE WATER SOURCE ITSELF, SHALL BE MADE AVAILABLE AT ARMY AND SHELL EXPENSE FOR THE REMEDIATION OF RMA FOR NOT LESS THAN 10 YEARS, IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED. THE FINAL PERIOD TO BE AGREED UPON. AFTER REMEDIATION, ALL RETURN FLOWS WILL RETURN TO THE USE OF SACWSD. EACH PARTY WILL BE RESPONSIBLE FOR ANY NECESSARY APPROVALS. DISPUTES ARISING OVER THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO ADR AS DESCRIBED IN E, ABOVE.

J. SACWSD WILL WARRANT AND OTHERWISE DEMONSTRATE IT IS AUTHORIZED AND QUALIFIED TO ENTER INTO THIS AGREEMENT, ACQUIRE

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AND PROVIDE WATER AND HOOK UP WELL OWNERS, SUBJECT TO THOSE WELL OWNERS' CONSENT TO INCLUSION WITHIN THE DISTRICT. SACWSD WILL BE RESPONSIBLE FOR PERMITTING, ADJUDICATION, AND OTHER REQUIREMENTS OF STATE AND FEDERAL LAW.

K. PARTICIPATION BY THE ARMY AND SHELL, OR BY THEIR REPRESENTATIVES, IN OVERSIGHT IN NO WAY CONSTITUTES AN EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE ADEQUACY, SUITABILITY, OR LEGALITY OF SACWSD OR THE INDEPENDENT AGENT'S ACTIONS TO OBTAIN OR PROVIDE WATER.

L. ALL PARTIES RESERVE ANY RIGHTS THEY MAY HAVE REGARDING NONPERFORMANCE BY THE OTHER PARTIES.

M. THIS AGREEMENT IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE LAWS AND WILL BECOME EFFECTIVE AND BINDING WHEN INCORPORATED BY REFERENCE IN THE ON-POST ROD.

N. THE AMOUNT AGREED UPON IS SUBJECT TO APPROPRIATE CREDITS FOR ANY ARMY AND SHELL CONTRIBUTIONS TO WATER OR INFRASTRUCTURE, SUBJECT TO SACWSD APPROVAL. APPROVAL WILL NOT BE WITHHELD UNREASONABLY. .DISPUTES WILL BE SUBMITTED TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

O. ALL PARTIES WILL PUBLICLY SUPPORT THIS AGREEMENT.

P. ALL O&M COSTS ASSOCIATED WITH THE ACQUISITION AND DELIVERY OF WATER AND WITH THE HOOK UP OF WELL OWNERS WILL BE SACWSD'S RESPONSIBILITY. THE ARMY WILL SUPPORT ANY NECESSARY AMENDMENTS TO ALLOW THE KLEIN FUND ALSO TO BE USED FOR O&M COSTS FOR THE NEW WATER SYSTEM.

Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

R. THE ARMY OR SHELL WILL PAY, IF NECESSARY, WITHIN 30 DAYS AFTER SIGNATURE OF THE ROD, A SUM NOT TO EXCEED $1 MILLION TO PURCHASE AN OPTION ON WATER AGREED TO BY SACWSD, THE ARMY AND SHELL. THIS SUM WILL BE CREDITED AGAINST THE FIRST ANNUAL PAYMENT UNDER SECTION 1, ABOVE.

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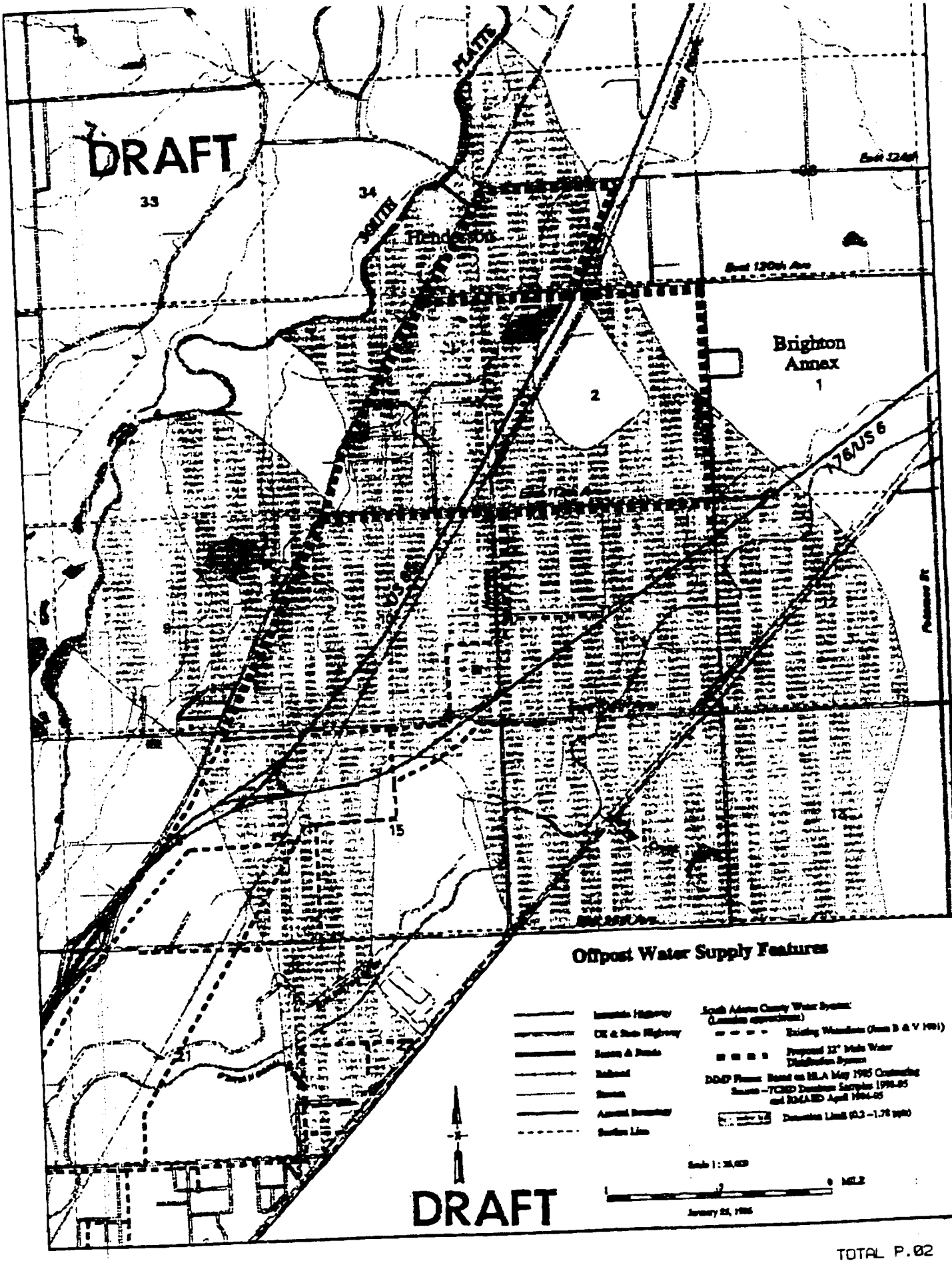
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Offpost Water Supply Features
Interstate Highway
Oil & State Highway
Rivers & Ponds
Railroad
Streets
Approx. Boundary
Section Line
South Adams County Water System
Existing Waterlines (from B & V 1991)
Proposed 12" Main Water Distribution System
DDMP Plume: Based on HLA May 1985 Contouring
Source - TCHD Downtown Samples 1984-85
and RMAHD April 1984-85
Detection Limit (0.3 - 1.76 ppb)
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Public Meeting Transcript

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ROCKY MOUNTAIN ARSENAL PUBLIC MEETING

ON THE PROPOSED PLAN FOR FINAL CLEANUP

November 18, 1995

Held at the Rocky Mountain Arsenal, Building 111-A, commencing at 9:10 a.m., November 18, 1995, before Melanie L. Humphrey-Watkins, Registered Diplomate Reporter and a Notary Public of the State of Colorado.

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PROCEEDINGS

(Meeting proceedings convened 9:10 a.m., November 18, 1995.)

MR. ZEIK SAIDMAN: Let me introduce myself. My name is Zeik Saidman. I've been asked to facilitate this meeting today, this public meeting. I work for the University of Colorado-Denver at the graduate school of public affairs. And I'll explain a little bit more my role in a couple minutes.

I want to turn it over to Patricio, who is the interpreter, and he has a few minutes.

(Discussion in Spanish off the record.)

MR. ZEIK SAIDMAN: Thanks, Patricio.

The participants felt that it was -- the -- that it was important to have a translator here, and we appreciate Patricio coming by.

I'm going to go over a proposed agenda and desired outcomes for today's meeting and talk, also, about the ground rules about how to conduct a successful meeting.

And this is a -- the desired outcomes and proposed agenda I'm going to go over. And we have -- before we do that, we want to have a welcome from Colonel Bishop.

COLONEL BISHOP: Good morning, ladies and

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gentlemen.

In spite of the government shutdown, we felt that this meeting was important enough to make special funding arrangements for my people to be able to come out here and interact with you all on the proposed plan. And we were able to do that, thanks to some special financial arrangements that we do have and a special fund.

We feel that your input is critical and has been. This is not the first time we have gone into the public arena seeking your input and comments on the final remedy of the Rocky Mountain Arsenal. And that's really what we're here to address today. Your input is important to us and has been over the past two years that we've been in the public forum.

This is the official public meeting for the Rocky Mountain Arsenal proposed plan under the CERCLA process. And we would like to welcome you here this morning. We hope you have an enjoyable experience.

Let's see. I guess about two years ago I took you out and showed you my incinerator. I can't do that today, folks. It's gone. I promised you I'd start it up and operate it safely and shut it down, and I'd tear it down. And it's torn down. So one less thing on the landscape for you to see.

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And usually, these prairie critters generally put on a pretty good show, in spite of the rest of it.

So please enjoy your day, give us your comments. Thank you for coming out.

Zeik, it's all yours.

MR. ZEIK SAIDMAN: Thank you, Colonel.

Again, let me go through the desired outcomes for today's meeting, make sure you're in the right meeting and what we are planning to do today.

Desired outcomes for today's meeting is to present to the community a proposed plan to remedy the situation, answer questions about the proposed plan, and listen to and officially record community comments about the proposed plan. And we have a court reporter over here.

How does that sound? And I need some kind of feedback from you. Does that sound like the desired outcomes for today's meetings? Is that your expectations for today? Give me a few nods out there if that's okay.

Okay.

All right. To get to that -- we're starting a few minutes late. We'll go -- I think we started about five, seven minutes late. We'll honor

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1 that and go on the other side of the time. But we're
2 going through the agenda right now. We had the
3 interpreter's comment, welcome from Colonel Bishop.
4 I will explain my role, going through the proposed
5 agenda, desired outcome.
6 We have ground rules for successful
7 meetings. I want to share with -- that with you in
8 a minute, an introduction of the panel. They'll
9 introduce themselves in a few minutes. We think
10 that will take about 15 minutes or so. Then
11 Charlie Scharmann has a video that maybe a few of you
12 have seen but probably many of you haven't, and that
13 runs about 15 minutes.
14 Then Charlie will go over the highlights of
15 preferred alternatives around water, structures,
16 soil, clarification period. We look at that lasting
17 about a half an hour.
18 Then we have a break, and I saw the
19 wonderful cookies and everything on the other side,
20 so we will take about a ten-minute break. And then
21 we have an hour for formal public comment period.
22 And if we need to take longer, we're willing to take
23 longer. But we've talked to people, and they like
24 the time agenda. They like to know that there's an
25 ending time for this. But again, the panel and the

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1 court reporter are willing to stay here till
2 everybody has a chance to be heard.
3 Okay? How does that agenda look? Does
4 that make sense to people?
5 Okay. All right. Let me talk about my
6 role a little bit.
7 I was asked to come in. Again, I work with
8 UCD, the graduate school of public affairs at the
9 university. And I'm a neutral. I don't have any
10 interest in the substantive matters of this -- of
11 these issues.
12 My job is to make the meeting run smoothly
13 and keep everything on track and focused. And if
14 it's okay with you, I'll act as a timekeeper so we
15 have a sense of how we're moving along. Is that
16 okay, that I be the timekeeper for today's meeting?
17 Again, your job is to say, "Okay. That
18 makes sense to me." Okay. All right.
19 AUDIENCE SPEAKER: What if we say no?
20 MR. ZEIK SAIDMAN: No? Do you have a
21 problem with that?
22 AUDIENCE SPEAKER: No. I say, what if we
23 say no?
24 MR. ZEIK SAIDMAN: Just say no. Just say
25 no and I'll ask you why.

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1 Thank you. Yeah, you can say no or say, "I
2 have a problem with that."
3 AUDIENCE SPEAKER: Because you've got a
4 watch.
5 MR. ZEIK SAIDMAN: I have a watch. And
6 I'm -- my job is to help enforce ground rules about
7 this meeting. And simply, our experience is that
8 certain meetings run better than others if people
9 follow these rules. And let me share them with you.
10 This is a graphic representation.
11 Respect each other's time. We want
12 everybody to have a chance to be heard. And maybe
13 you've been at or viewed a meeting where people will
14 go on and on and on, and other people that want to be
15 heard don't have a chance. When we have the formal
16 comment time, my suggestion is we run about
17 three minutes apiece. And if people have to speak
18 longer, they can come back around again.
19 But I think we can make -- everybody can
20 make cogent comments in three minutes. And of
21 course, there's public comment cards here -- are
22 they over there, Cathy?
23 MS. CATHY COFFEY-WEBER: Yes.
24 MR. ZEIK SAIDMAN: Public comments cards.
25 You can send in -- if you have something written out,

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1 you can send that in until December 15th, I believe.
2 So there's opportunities. And we would
3 just suggest that you highlight your comments in
4 those three minutes. Does that make sense to
5 people --
6 AUDIENCE SPEAKER: Yes.
7 AUDIENCE SPEAKER: Yes.
8 MR. ZEIK SAIDMAN: -- in terms of time?
9 Okay. Because I know that -- again, we
10 will stay here as long as we need to, but there are
11 some bus tours scheduled and those kind of things.
12 No shaggy dog stories. And that simply --
13 that doesn't mean that you couldn't bring your pet;
14 that just means that we're trying to stay on the
15 topic. We're trying to stay on the topic, which is
16 the proposed final plan. And I will occasionally
17 intervene if we feel that you're off on some other
18 topic that we can put in what we call a bin, we can
19 get to come back to that. And some people may want
20 to talk to you; I'm sure some of the panelists
21 would. But this is on the proposed final plan. I
22 would definitely come back.
23 This is a cowboy with a gun. And
24 basically, it's hard on the issues, easy on the
25 people. These are complicated problems. They're

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1 not -- there's not very -- there's not a lot of
2 easy answers to this thing. So hard on the issues,
3 easy on the people. You know, personal attacks, I
4 will try to intervene on those kind of things.
5 The colonel -- I didn't think it was
6 proper for me to interrupt the colonel, but we're
7 trying -- at least probably for the facilitator.
8 When we use acronyms and jargon -- help me out, too.
9 I might miss them but we'll try to have people
10 explain to us. Especially when you're in the
11 culture, you start using them, and people don't
12 know -- the public doesn't know what you're talking
13 about sometimes.
14 Keep side conversations to a minimum. It's
15 distracting to your neighbors and people up front if
16 you're talking and having long conversations.
17 Listen -- this is an ear. Can you see
18 that now? I want to put this up a little higher.
19 Listen for understanding. Listen, panelists,
20 audience. Listen for understanding.
21 In our society we tend to think about
22 reloading versus listening. Okay. Well, let's try
23 to listen to each other.
24 And take care of your personal needs. We
25 rent coffee so you don't need a hall pass from me or

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1 anything like that.
2 Okay. So does that make sense in terms of
3 running a successful meeting? Is there anything else
4 that we should add? Does everybody agree with that?
5 Again, nods. Let me ask you this: Whose
6 responsibility is it to enforce these ground rules?
7 AUDIENCE SPEAKER: You.
8 AUDIENCE SPEAKER: Yours.
9 MR. ZEIK SAIDMAN: And everyone. It's all
10 of our responsibility. So if that's okay with
11 everybody, let's try to honor those.
12 MR. RICK WARNER: Could I make a request?
13 MR. ZEIK SAIDMAN: Yeah.
14 MR. RICK WARNER: Those ground rules are
15 fine with me if you allow this meeting to go on for
16 as long as it takes, even if that's several days.
17 MR. ZEIK SAIDMAN: Did you come in late?
18 MR. RICK WARNER: Yes.
19 MR. ZEIK SAIDMAN: Because I mentioned that
20 several times, that anybody --
21 MR. RICK WARNER: Okay.
22 MR. ZEIK SAIDMAN: -- who needs to be heard
23 and feels they didn't have the chance to be heard, we
24 are going to take that opportunity. The panel is
25 willing to stay here, and so is the court reporter.

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1 But we are asking people to limit their
2 comments up front to about three minutes apiece, and
3 then the next person can speak so everybody has an
4 opportunity to speak. And that person can come back
5 and speak again and speak as long as they want.
6 Is that okay with everybody?
7 Okay. All right. And I think -- let's
8 see. Now we're at the point right now where I
9 introduce the panel, and the panel will give their
10 name and organizations. And when you speak, also
11 just give your name, too, and if you're with an
12 organization.
13 Charlie?
14 MR. CHARLES SCHARMANN: I'm Charlie
15 Scharmann. I'm the technical director out here for
16 the Army. I coordinate the technical aspects of the
17 cleanup program for Colonel Bishop, and I'll be
18 taking about some of those things this morning.
19 MR. ZEIK SAIDMAN: Okay. Barbara.
20 MS. BARBARA NABORS: Good morning. I'm
21 Barbara Nabors. I'm an engineer with the State, and
22 I serve as the coordinator for our staff at the
23 Colorado Department of Public Health and
24 Environment. I'm really pleased to see a lot of new
25 faces out here than we have had at some of the

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1 previous meetings. This meeting represents kind of a
2 culmination of years of work between all of the
3 parties, and so it's really important that you take
4 this opportunity to give us your comments, either
5 verbally today or later, through the mail.
6 The world at stake here at the Arsenal is
7 one of watchdog. We have to make sure that the broad
8 spectrum of environmental laws of the State are
9 followed and represent the citizens of Colorado.
10 MR. ZEIK SAIDMAN: Thank you, Barbara.
11 Can everybody hear the panelists?
12 AUDIENCE SPEAKER: Yes. Yes.
13 MR. ZEIK SAIDMAN: We had a -- Murphy's
14 law. We had a little technical difficulty with the
15 mics this morning. And so just put your hand up if
16 you have trouble hearing any of the people speaking.
17 Laura?
18 MS. LAURA WILLIAMS: Good morning. I'm
19 Laura Williams. I'm the team leader for the
20 Environmental Protection Agency here at the Arsenal.
21 And I first would like to personally acknowledge the
22 commitment and energy that each one of you
23 demonstrates just by being here this morning. I know
24 it takes time and effort to actually come out to one
25 of these meetings.

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1 Public involvement and comment process for
2 EPA -- I'm sorry, that's Environmental Protection
3 Agency -- is very important to me, as well as the
4 Agency, and so I strongly encourage each and every
5 one of you to make use of this time and to provide
6 your comments to us.
7 In fact, I know it's not fashionable to
8 support the government, but if you actually like the
9 remedy, it's all right to say so here, as well, and
10 none of us will hold it against you. So please feel
11 free.
12 The remedy that results from this proposed
13 plan that we're discussing today is a commitment that
14 the parties you see up here today are making to clean
15 up the Arsenal. But I want you to know that it
16 doesn't end the public comment process. You're
17 welcome to provide more input as the designs continue
18 and as cleanup continues. And in fact, we would
19 welcome that partnership with the community.
20 Thank you.
21 MR. ZEIK SAIDMAN: Thank you, Laura.
22 Ray?
23 MR. RAY RAUCH: My name's Ray Rauch. I'm
24 the project leader for the Fish and Wildlife Service
25 out here at the Arsenal. I do like to thank you for

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1 coming out on this very nice day. I think we'd all
2 like to be outside somewhere. But this is very
3 important. It's kind of a milestone here. And I'd
4 also like to tell you why the Service is involved
5 out here.
6 We have two concerns out here. One, we're
7 a co-trustee for natural resources here at the
8 Arsenal. And secondly, with the refuge act passed
9 in '92, this will be a national wildlife refuge, and
10 the Service has been charged with managing as if it
11 was a national wildlife refuge now, subject to the
12 cleanup.
13 Again, thank you for coming out.
14 MR. ZEIK SAIDMAN: Thank you, Ray.
15 Michael?
16 MR. MICHAEL ANDERSON: Good morning. My
17 name is Mike Anderson. I'm the project manager with
18 Shell Oil Company. Shell has been active in the
19 actions that have taken place out here at the Arsenal
20 over the last ten years or so. And we are committed
21 to follow through on the safe and effective cleanup
22 of the Arsenal.
23 We have very much appreciated the
24 participation by stakeholders in participating in
25 giving us your thoughts on where the remedy for the

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1 Rocky Mountain Arsenal ought to be, and we appreciate
2 you all coming out this morning so we can hear any
3 additional concerns that will help us move forward
4 with the remediation.
5 MR. ZEIK SAIDMAN: Thank you, panel.
6 I think now we're about on time for showing
7 the video. How many -- just curious. How many of
8 you have seen the video?
9 Oh. Okay. About a third of the room.
10 Well, Charlie, I'm going to turn it over to
11 you for your presentation.
12 MR. CHARLES SCHARMANN: Okay.
13 MR. ZEIK SAIDMAN: We have to hand off the
14 mic here.
15 MR. CHARLES SCHARMANN: Okay.
16 Good morning again and welcome. I see some
17 familiar faces. I'm glad to see you back out here.
18 I see some new faces. I welcome you and hope you
19 continue to stay interested in the Arsenal program.
20 We have monthly meetings with what we call
21 our Restoration Advisory Board the first Thursday of
22 every month, and that's another opportunity for folks
23 to come out and just check on the status of things.
24 But this is a big milestone for us here at the
25 Arsenal for the cleanup program and, again,

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1 appreciate your time this morning.
2 One of the things that we're trying to do
3 today is make sure that everyone understands what
4 we're proposing to do at the Arsenal. And we're
5 going to do a couple things, try not to spend too
6 much time. I know some of you have seen the video
7 before, but I want to go over it, and I'll spend some
8 time hitting the highlights of it. And we're just
9 trying to do our best to make sure that you
10 understand the details -- or the proposal that we
11 have so that you can make informed comment, either
12 today or in writing by December 15th.
13 So again, to reemphasize, the goal is to
14 try to make sure that you do understand, you know,
15 what we're proposing.
16 In addition to myself, we have the other
17 parties here to answer questions, clarify what we're
18 proposing. We also have various technical experts
19 from the different agencies and the Army who prepared
20 the documentation that supports this decision or this
21 proposal.
22 I point out that a lot of the technical
23 work behind it -- an example of that is the report
24 sitting over on this table. I know many of you would
25 say you don't want anything to do with that level of

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1 paperwork, so we prepared a proposed plan, and it is
2 a summary of all the studies that have been done --
3 done out here.
4 So what we're going to do -- let me just
5 spend a minute on where we've been and kind of where
6 we're going as a form of introduction to the video.
7 This lays out the steps of how we get toward a
8 decision and where we move once we make a decision.
9 Some of you may have seen the poster out
10 front here that's entitled "The Road to the Record of
11 Decision." And this is the same steps are shown here
12 on this slide.
13 What we have, basically, up in this area
14 here, are the -- is the study phase. We do studies
15 to find out where contamination is, we do a risk
16 assessment to see what effect the chemicals may have
17 on people or on the environment, and then we do a
18 feasibility study to look at different options.
19 And this is where we are right now. We're
20 at the proposed plan, where we have a recommended
21 preferred alternative. And if we stay on schedule,
22 we will have a final record of decision by June of
23 next year. So that kind of gives you an idea of
24 where we are in the program.
25 During -- and while we've been doing

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1 studies, we've also been doing some interim response
2 actions, as we refer to them, and these are cleanup
3 actions that everyone has decided needs to happen
4 before a final remedy.
5 After June of next year we would move into
6 design and cleanup. And then where we go from there,
7 in, hopefully, about ten years, we have the
8 Rocky Mountain Arsenal National Wildlife Refuge. So
9 that's kind of long term. That is our goal. I
10 apologize for the handwriting.
11 There we go.
12 AUDIENCE SPEAKER: Charlie, would you mind
13 slipping that up a little bit on the screen?
14 MR. CHARLES SCHARMANN: Sure. And you can
15 see I'm not a . . .
16 So that is our long-term goal. And we keep
17 that in mind, that once we're finished with the
18 cleanup program out here, we will have, hopefully, an
19 asset for the community, one that the local community
20 can enjoy and, hopefully, will be of national pride,
21 as well.
22 With that as a form of introduction, some
23 of this will be covered in the video probably a
24 little more clearly, and after that I'll take some
25 time to just go through some of the highlights of the

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1 proposed plan, and we'll give you an opportunity to
2 ask questions to clarify and make sure we all
3 understand what the proposed plan is.
4 So with that, Steve, we can . . .
5 (Following is the text of the
6 videotape shown.)
7 FEMALE COMMENTATOR: There are many
8 chapters in the past, present, and future of the
9 Rocky Mountain Arsenal, from native prairie to ranch
10 and farmland, to manufacturing site of chemical
11 weapons and pesticides, to Superfund sites, to the
12 national wildlife refuge. The Arsenal is now
13 returning to its roots. This video focuses on an
14 important milestone, the Army's proposed plan for the
15 Arsenal's cleanup and the key role you play in the
16 Arsenal's future.
17 Following years of study, litigation, and
18 months of meetings, the Army, Shell Oil Company, the
19 State of Colorado, the U.S. Environmental Protection
20 Agency, and the U.S. Fish and Wildlife Service have
21 finalized and support an agreement for the preferred
22 remedy for the Arsenal.
23 Extensive public involvement helped shape
24 this agreement by making the parties aware of key
25 community issues. Public input ensured, among other

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1 things, that there will be no incineration of soil;
2 that there will be development of a medical
3 monitoring program to ensure that community health is
4 not affected by cleanup; that water would be supplied
5 to the South Adams County Water and Sanitation
6 District; and that people whose wells are affected by
7 the chemical DIMP have access to a new drinking water
8 supply.
9 Also, to avoid excavating dangerous waste,
10 trenches used by the Army for hazardous waste
11 disposal will be covered with concrete and capped.
12 This agreement serves as the basis for the Army's
13 on-post proposed plan for cleanup of the Arsenal.
14 You'll see how this critical juncture was
15 reached through a brief history of the Arsenal and
16 its role in our community and a recap of cleanup
17 activities that have been completed or are ongoing.
18 The Arsenal is a 27-square-mile site
19 located 10 miles northeast of downtown Denver and
20 adjacent to Commerce City and Denver's Montbello
21 community. Buffalo herds and native Americans once
22 shared its wild prairie. Settlers and farmers moved
23 in and worked the soil until the U.S. Government
24 acquired the land so the Army could produce chemical
25 weapons during World War II.

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1 Following the war private industry leased
2 Arsenal facilities. The largest of these, Shell
3 Chemical Company, produced pesticides from 1952 to
4 1982 at the Arsenal.
5 Waste generated by military and industrial
6 manufacturing were disposed of by commonly used
7 practices of the time. This led to contamination of
8 ground and surface water and soil from the burying of
9 toxic waste and the use of open basins, A through F,
10 for the evaporation of liquid waste. Contamination
11 also occurred from wind dispersion, sewer line leaks,
12 and accidental spills.
13 The first sign of contamination was
14 discovered north of the Arsenal in the mid-1950s,
15 when groundwater caused crop damage on nearby farms.
16 Since the 1970s the Army and Shell have
17 systematically investigated the contamination sources
18 and have dealt with areas of major concern. Today
19 there are no chemicals or weapons produced at the
20 Arsenal, and the final cleanup plan is now proposed.
21 The Army has the lead role and is
22 responsible for the safe, effective cleanup of the
23 Arsenal. Shell assists the Army in a variety of
24 studies and projects and shares remediation costs.
25 The State of Colorado and EPA ensure that

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1 State and Federal regulations are met and that public
2 health and the environment are protected. EPA makes
3 the final decision if there is a dispute.
4 The Fish and Wildlife Service manages the
5 more than 300 species of animals living at the
6 Arsenal, which will become a national wildlife
7 refuge, as mandated by Congress, when cleanup is
8 complete.
9 What is the status of the Arsenal today?
10 COLONEL BISHOP (on video): Today all the
11 parties are working together to try to finalize the
12 final remedy selection for Rocky Mountain Arsenal. I
13 would like to point out that a significant amount of
14 reduction of risk to both wildlife and people has
15 already occurred through the outstanding success of
16 our interim response action program.
17 FEMALE COMMENTATOR: Interim response
18 actions have been used to contain or eliminate some
19 of the contamination problems while the final cleanup
20 solutions were being determined. Examples are the
21 excavation of the waste disposal basin, Basin F, and
22 destruction of its liquid waste through the submerged
23 incinerator.
24 Sludge from the basin was excavated and
25 stored in a fully enclosed waste pile, which will be

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1 dealt with as part of the final remedial actions.
2 The more contaminated soil remaining in Basin F will
3 be solidified in place and capped.
4 In June 1995, after two years of operation,
5 the incinerator completed the destruction of more
6 than 11 million gallons of hazardous liquid drained
7 from Basin F. The incinerator has been sold and is
8 in the process of being cleaned and dismantled.
9 Other interim response actions at the
10 Arsenal include improvement of the groundwater
11 treatment systems, the closure of the hydrazine
12 rocket fuel facility, dust control, asbestos removal,
13 wastewater treatment, covering and revegetation of
14 disposal areas, and the removal of chemical- and
15 weapons-manufacturing equipment.
16 The groundwater treatment facilities
17 continue to treat contaminated groundwater before it
18 leaves the Arsenal. More than 1 billion gallons of
19 water are treated each year. These systems will
20 continue to be an important part of treating
21 contamination at the Arsenal in the proposed plan.
22 To understand the cleanup process, it's
23 important to look at the systematic investigation
24 that the Army has undertaken.
25 The first questions the Army had to answer

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1 about contamination at the Arsenal were, "What and
2 where is it?"
3 More than 50,000 samples were taken in
4 ground and surface water, air, soil, and structures
5 on the Arsenal. The findings have been summarized in
6 more than 230 reports. The air quality is
7 continually monitored on the Arsenal. Today test
8 results show air quality is superior to that of
9 nearby urban areas.
10 Contaminants are found in water,
11 structures, and soil. More than 320 locations of
12 suspected contamination were examined, and of those,
13 178 sites containing measurable levels of
14 contamination were identified. Most of the sites are
15 in the central sections of the Arsenal, in and around
16 manufacturing complexes and in solid and liquid waste
17 disposal areas, basins, and sewer lines. The
18 contaminants of greatest concern at the Arsenal
19 include pesticides, chemical munitions by-products,
20 heavy metals, and solvents.
21 Samples taken at the Arsenal indicate that
22 some wildlife also were affected by contamination in
23 the water and soil. The current and future cleanup
24 will eliminate ways people and wildlife can be
25 exposed to contamination.

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1 MR. RAY RAUCH (on video): The overall
2 health of most wildlife at the Arsenal is very good.
3 The best thing now for the refuge and the wildlife is
4 to move forward with the cleanup.
5 FEMALE COMMENTATOR: What will be done
6 about the contamination of water, structures, and
7 soil at the Arsenal?
8 Army experts have explored many possible
9 alternatives, which are discussed in the Army's
10 detailed analysis of alternatives. Their proposed
11 plan summarizes the Army's findings and reflects the
12 agreement of the parties on the preferred method of
13 cleaning up the Arsenal.
14 Each alternative is evaluated by these
15 criteria: Will it protect human health and the
16 environment? Does it comply with laws and
17 regulations? Will it be effective long term? Will
18 it reduce contamination? Will workers, the
19 community, and the environment be affected during
20 implementation? How reliable and doable is the
21 alternative? Is it cost-effective? How is the
22 cleanup recommendation accepted by regulatory
23 agencies and the public?
24 EPA takes its oversight responsibilities
25 very seriously. These criteria ensure that a

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1 cost-effective yet protective remedy is located.
2 Different areas will need different cleanup
3 approaches, and some might be a combination of
4 methods. Here is a brief overview of the way the
5 proposed plan deals with water, structures, and
6 soil:
7 For water the proposed plan recommends
8 continued operation of the boundary and other
9 groundwater treatment systems well into the future,
10 installation of a new groundwater system for a
11 contamination plume northeast of the Army disposal
12 trenches near Basin A.
13 The Army and Shell will provide or arrange
14 for 4,000 acre-feet of water for the South Adams
15 County Water and Sanitation District. The off-post
16 DIMP chemical plume will continue to be monitored.
17 And, in addition to those who were provided
18 new drinking water initially, well owners who in the
19 future detect concentrations exceeding the State
20 standard will be provided an alternative water
21 supply.
22 Continued operation of the off-post
23 groundwater treatment system and maintaining high
24 lake levels on-post to keep contamination from moving
25 into them.

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1 MS. BARBARA NABORS (on video): Water
2 issues have been a very important part of these
3 cleanup decisions, and this remedy addresses
4 citizens' concerns for a safe drinking water supply.
5 FEMALE COMMENTATOR: In the proposed plan
6 the term "structures" includes buildings,
7 foundations, basements, tanks, pipelines, and other
8 man-made items.
9 Almost all of the structures will be
10 demolished. All structures contaminated with warfare
11 chemicals and significant levels of other
12 contamination will be demolished and placed in the
13 on-site hazardous waste landfill.
14 Other structures will be demolished and
15 used in Basin A as part of the fill needed to
16 construct a large cap over the basin. This cap
17 consists of multiple layers, topped by a grassy
18 cover.
19 Caps over more contaminated materials will
20 be further enhanced, and if buildings are found to be
21 contaminated with certain levels of warfare
22 chemicals, they will undergo a special caustic
23 washing treatment before being placed in the new
24 on-site hazardous waste landfill.
25 The major task facing the Army and Shell is

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1 the soil remediation. The proposed plan recommends
2 building a state-of-the-art hazardous waste landfill
3 for soil and debris that will meet or exceed Federal
4 and State regulations.
5 The landfill, which will accept material
6 only from the Arsenal, will include a double-liner
7 system, liquid leak detection and collection systems,
8 and a permanent groundwater monitoring program. In
9 addition, specially constructed triple-lined cells
10 will be included to hold the most contaminated soil.
11 The landfill will have a protective cover that meets
12 regulations.
13 Dirt from the Basin F waste pile and highly
14 contaminated soil from the lime basins will be placed
15 in triple-lined landfill cells. Some of the dirt in
16 the waste pile is wet and will need to be dried
17 before placement in the landfill.
18 Contaminated soil from such areas as the
19 weapon and pesticide manufacturing areas, chemical
20 sewers, and other landfills will be excavated and
21 placed in the landfill.
22 Soil from the waste disposal basin known as
23 the M-1 basin will be treated, then placed in the
24 landfill. Treatment for the Hex pits has yet to be
25 determined. The excavated areas will be covered with

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1 soil varying in thickness.
2 The Shell and Army disposal trenches will
3 have underground walls built around them and will
4 have a cap or cover meeting or exceeding Federal and
5 State regulations.
6 Areas where concentrations of contaminants
7 in soil may not present much of a threat to animals,
8 such as in the secondary basins and surficial soil,
9 along with debris from former sanitary landfills,
10 will be placed in Basin A as fill.
11 Munitions debris will be excavated and
12 placed in the hazardous waste landfill. If munitions
13 containing explosives are found and can be moved
14 safely, they will be shipped off-site for
15 detonation. If not, they will be detonated on-site
16 by Army specialists. The basin will then be covered
17 with concrete and a soil cap to protect wildlife.
18 The cost of the proposed cleanup, including
19 money spent to date by the Army and Shell, is
20 approximately $2 billion. Cleanup could take ten
21 years or more, depending on the manner in which
22 Congress allocates funds to the Army. Final cleanup
23 will ensure a healthy future for the Rocky Mountain
24 Arsenal.
25 In 1992 Congress directed the U.S. Fish and

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1 Wildlife Service to manage the Arsenal as a national
2 wildlife refuge.
3 The Rocky Mountain Arsenal National
4 Wildlife Refuge provides important habitats – food,
5 water, and shelter -- for a diversity of wildlife,
6 including threatened species. It also presents
7 educational and recreational opportunities for refuge
8 visitors.
9 The public plays an important role in the
10 ongoing cleanup process. Public meetings,
11 discussions with individuals, and tours of the
12 Arsenal all provide information for the public and
13 allow them to take part in the ongoing public comment
14 process.
15 The Army, Shell, EPA, the State, and
16 Fish and Wildlife Service would like your comments on
17 the proposed plan and encourage you to take an active
18 role in the cleanup activities at the Rocky Mountain
19 Arsenal.
20 A series of informational meetings and
21 workshops will continue to allow public involvement
22 as we move toward the final record of decision, which
23 is expected in mid-1996.
24 Decisions made in the coming days will help
25 shape the future of the Arsenal and its neighbors for

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1 years to come. A safe, successful cleanup will
2 provide yet another chapter in the long history of
3 the Arsenal. This next chapter will allow the
4 Arsenal to return to its roots as a place where
5 wildlife finds safe water, while affording neighbors
6 an opportunity to discover the joys of wildlife and
7 nature.
8 (Conclusion of videotape.)
9 MR. ZEIK SAIDMAN: Several -- where's
10 Bill? Several thousand of those videos have gone out
11 and are available.
12 MS. CATHY COFFEY-WEBER: One thousand.
13 MR. ZEIK SAIDMAN: One thousand. Okay.
14 And there's a -- are videos available for people.
15 MS. CATHY COFFEY-WEBER: Videos are
16 available at local grocery stores and video stores in
17 Commerce City and those stores close to the Montbello
18 community and they're free. Just ask at the video
19 counters, and they'll be made available to you.
20 MR. ZEIK SAIDMAN: And I want to point out
21 that people appearing in the film have not received
22 any royalties for their parts in the video.
23 Okay. Charlie's going to talk a little bit
24 more about preferred alternatives, water, structure,
25 and soil, and then we'll have a time period for

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1 clarifying questions about what he said or anything
2 on the video.
3 Charlie?
4 MR. CHARLES SCHARMANN: Okay. Actually,
5 I'd just like to take a couple minutes and go over
6 with you some of the thinking behind the preferred
7 alternatives. Some of the discussions that have gone
8 on over the past couple years with the parties and
9 the community, I think, are fairly important, and I'd
10 like to take a chance to just go through, for each of
11 the water, structures, and soil, just recap it
12 quickly and give you an idea of what some of the
13 discussions and thinking behind the cleanup
14 options is.
15 I would ask you, if you -- something just
16 doesn't make sense, you need to clarify it, please
17 raise your hand. I'm going to stop after each
18 segment and see if there are any questions.
19 If you have comments, you don't like
20 something, you do like something, you have a concern,
21 I would ask that those type of comments be delayed
22 until the next section after the break; we'll have a
23 period of time just to go through comments.
24 So that -- I'm going to start with
25 water -- and I know this overhead is not the

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1 best -- and just point out to you where you are.
2 This is 56th Avenue down here, 96th Avenue
3 to the north, Buckley Road to the east, Quebec Street,
4 and Highway 2. You either came in the Arsenal on
5 Havana, down here, or 72d Avenue, here. And we are
6 roughly right here.
7 So the idea for groundwater is to build,
8 basically, layers of protection. We have several
9 groundwater treatment systems already operating, both
10 on the Arsenal and off the Arsenal, and the idea is
11 to get layers of redundancy, if you will.
12 Most of the source areas are in the center
13 of the Arsenal, and we have a series of groundwater
14 treatment systems already in place. Basin A neck is
15 located here. Northwest boundary, north boundary,
16 and our Irondale water treatment system. We also
17 have a well that pumps water north of the Basin F --
18 this is Basin F. We have a well that pumps water
19 back to the Basin A neck area.
20 So the idea there is to go back and treat
21 groundwater, in some cases, very close to the sources
22 but, at a minimum, keep contaminated groundwater from
23 leaving the Arsenal. Our boundary systems have been
24 doing that for several years. And again, we treat
25 over a billion gallons of groundwater each year.

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1 In addition to what we have on-site -- I
2 should mention, in addition to what systems we
3 already have installed, we are planning to install
4 another one in this location, and that's by our Army
5 trenches area. And that's an additional system
6 that's part of this final remedy.
7 In addition to what we have on-site, many
8 of you may have seen our groundwater treatment system
9 off-site. It's located north of the Arsenal about a
10 half a mile, on Peoria, and it was installed in
11 1991. And its objective is to treat groundwater that
12 went off the Arsenal prior to our boundary systems
13 being installed.
14 So what we have, again, are layers of
15 protection there, as far as groundwater and
16 contaminated groundwater migration. If -- we want to
17 capture it before it gets out into the community.
18 The video mentioned -- and a very important
19 aspect of it -- was the provision of a water supply
20 to South Adams County. Many of you are aware of
21 this, making arrangements for provision of
22 4,000 acre-feet to South Adams County, and South
23 Adams County, the Army, and Shell are in detailed
24 discussions right now. They will be ongoing over the
25 next several months and beyond to work out the

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1 solution as to what supply may be available to
2 provide that 4,000 acre-feet to South Adams County.
3 There are South Adams County
4 representatives here this morning, I believe, so if
5 you have questions, you not only get the Army's
6 perspective or Shell's perspective; South Adams
7 County, I believe, will be available to talk about
8 that, as well.
9 The other aspect of the water remedy deals
10 with the hookup or the provision of an alternate
11 supply to folks in an area that is defined by where
12 the chemical DIMP has migrated off the Arsenal
13 historically.
14 And I put up this map. This is the general
15 area. What we have -- again, this is Highway 2.
16 This is 96th Avenue, 104th, 112th, 120th. Hopefully,
17 that gives you an idea as to where the area is.
18 We will be doing additional sampling out in
19 this area to better define the geographic limitations
20 as to where we are going to provide an alternate
21 supply. But this is a -- gives you a general idea
22 of where it is that we're looking at. And the idea
23 there is, because this area has DIMP in it -- and
24 you may be aware that the State of Colorado and the
25 Army have had disagreements over the years as to what

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1 a cleanup level would be for DIMP.
2 Because of some of that, we have made
3 arrangements to make an alternative water supply
4 available to the folks in that area. And it may
5 consist of a hookup to a municipality, whether it be
6 South Adams County or Brighton -- they both service
7 that -- those areas -- or the installation of a new
8 drinking water well. Again, that would be a safe
9 supply for folks out in that area.
10 So that --
11 MR. ZEIK SAIDMAN: Charlie, would you say
12 what DIMP was again.
13 MR. CHARLES SCHARMANN: DIMP is an Army --
14 the by-product of Army chemical production. It's
15 diisopropyl methylaphosphonape, if that means anything
16 to you. Doesn't mean anything to me. But it is not
17 a chemical agent. It is a by-product of those -- of
18 the production, operation of that, by the Army.
19 And we've had probably some meetings with
20 many of you on that particular issue.
21 MR. ZEIK SAIDMAN: Okay.
22 MR. CHARLES SCHARMANN: That covers the
23 water. Are there any questions of clarification on
24 what we're proposing for water?
25 MS. CHERYL SHIMICH: My name is

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1 Cheryl Shimich. I'm from Thornton. And on page 2 of
2 that --
3 THE COURT REPORTER: I can't hear you.
4 MS. CHERYL SHIMICH: Yes. I was just
5 wondering if you'd help me understand something.
6 On page 2 of the proposal that you handed
7 out and in your video you mentioned like a billion
8 gallons of water a year is treated on those -- the
9 boundary.
10 Could you help put that in perspective for
11 me? Is that billion gallons a percentage of total
12 contaminated groundwater that you're dealing with?
13 Or do you deal with 100 percent of the contaminated
14 groundwater? Could you give me some percentages,
15 please.
16 MR. CHARLES SCHARMANN: Sure. I'll give it
17 a shot.
18 Again, what we have -- that's not only our
19 boundary systems, which included Irondale, northwest,
20 and north, but it also includes our off-post system,
21 which is not on this map. But again, it's about a
22 half mile north of the Arsenal, is our treatment
23 system.
24 What we have is, starting at the source
25 areas on the Arsenal, we have groundwater plumes with

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1 contamination flowing to the -- toward the Arsenal
2 boundaries. And these boundary systems are located
3 in areas to make sure they capture all the
4 contamination before it leaves the Arsenal. So we do
5 have effective capture. We don't have groundwater
6 contamination moving off the Arsenal.
7 So that -- as far as 100 percent, those
8 systems were designed and improved over time to make
9 sure that we don't have additional groundwater
10 contamination moving off the Arsenal.
11 Our off-post system is located in an area
12 where we are again capturing groundwater
13 contamination. It does not capture every portion of
14 the off-post area. They're located in a significant
15 area where we have contamination above health
16 standards, and we want to make sure that the
17 contamination in groundwater that is above health
18 standards doesn't move any further than where it is
19 right now.
20 So as far as on the Arsenal, what we have,
21 we have a couple of systems -- I failed to mention
22 it. We have another system down in this area where
23 we have a historical source, and we have our Basin A
24 neck system, which is in the vicinity of -- of
25 Basin A, and our South Plants areas here.

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1 Those systems -- the purpose of those is
2 to go back closer to the sources. What you have is a
3 lower amount of groundwater at that location. So
4 instead of having several hundred gallons a minute,
5 you have 10 to 20 gallons a minute, and that amount
6 of water is more highly concentrated. So you can
7 treat a more highly concentrated water in a lower
8 amount, and it's a lot more effective to do that, to
9 go back toward the sources.
10 Okay? But as it moves toward the boundary,
11 it may become more dilute. You have an additional
12 volume of water to deal with, and it's a little less
13 efficient, but at the same time, it's very important
14 that we have those boundary systems operate to make
15 sure contamination doesn't move off the Arsenal.
16 And the nature of the groundwater cleanup
17 is that it doesn't happen very quickly. And many of
18 these systems will be operating tens -- if not a
19 hundred years or more -- before we actually could
20 clean the groundwater.
21 MR. ZEIK SAIDMAN: Okay. Does that answer
22 your question?
23 MS. CHERYL SHIMICH: Yes, thanks.
24 MR. ZEIK SAIDMAN: Any other
25 clarifying questions to Charlie? This is the

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1 clarifying-questions period. Over here.
2 AUDIENCE SPEAKER: Charlie --
3 MR. ZEIK SAIDMAN: Can you use the mic.
4 AUDIENCE SPEAKER: Well, just a quick
5 question.
6 Charlie, I've got a two-page comment that
7 I'm formally going to read and some other stuff. Do
8 you want me to wait till the formal -- joke.
9 MR. ZEIK SAIDMAN: Yeah.
10 AUDIENCE SPEAKER: As opposed to -- and
11 this addresses the Henderson area that I feel has
12 been totally let out of the negotiations.
13 MR. CHARLES SCHARMANN: Yes. And I know
14 there's some strong feelings out there as to the
15 various aspects of the -- of the remedy. And if you
16 could bring that up during the comment period, that
17 would be good.
18 AUDIENCE SPEAKER: Do you pump that water
19 back into the ground? What do you do? You treat it
20 and pump it back?
21 AUDIENCE SPEAKER: Yes.
22 MR. ZEIK SAIDMAN: Can everybody hear the
23 question?
24 MR. CHARLES SCHARMANN: I'll repeat it.
25 MR. ZEIK SAIDMAN: Repeat the question.

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1 MR. CHARLES SCHARMANN: The question was,
2 do we put the water back into the ground after we're
3 finished treating it.
4 AUDIENCE SPEAKER: Is that how you did when
5 you created the earthquakes in the '60s?
6 MR. CHARLES SCHARMANN: And the follow-on
7 was, is it like when we created the earthquakes back
8 in the '60s. Let me address that.
9 As far as -- after treatment of the
10 groundwater, we put the clean water back in the
11 ground so it then continues to flow off-post.
12 AUDIENCE SPEAKER: Pumped underground, high
13 pressure or --
14 MR. CHARLES SCHARMANN: It is put in the
15 ground in a very shallow -- to very shallow depths,
16 less than a hundred feet.
17 The deep disposal well that was used back
18 in the '60s was 12,000 feet deep. So it's really a
19 totally different situation. That was injected way
20 below any useful water supply.
21 AUDIENCE SPEAKER: Are you retrieving that
22 contamination?
23 MR. CHARLES SCHARMANN: No, we are not.
24 That well was closed in 1985, following EPA
25 procedures. We basically pulled up much of the

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1 casing and grouted the well up with a
2 cement-bentonite grout.
3 MR. ZEIK SAIDMAN: Over there. And then
4 over here and then there. Go ahead.
5 AUDIENCE SPEAKER: My question deals with
6 the article that was in the newspaper this week about
7 bringing the water from Fitzsimons over here, that
8 they need so much more water over to this area for
9 the cleanup process.
10 And they said -- they weren't clear about
11 how that water was going to get over here. I was
12 wondering if they're going to use a high canal
13 lateral coming across 56th Avenue there at Chambers.
14 And if they do do that, could it be reopened like it
15 is in the Denver area, access for people in the
16 Montbello area?
17 MR. ZEIK SAIDMAN: Can everybody hear that
18 question?
19 Okay. Charlie, maybe repeat it.
20 MR. CHARLES SCHARMANN: I guess that
21 question is very specific to the additional needs for
22 water in the future, not only the needs that Rocky
23 Mountain Arsenal has. We need to keep water in our
24 lakes; we need water for irrigating areas that we
25 were revegetating. That's already in the -- in the

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1 future.
2 We also are evaluating options to provide
3 the 4,000 acre-feet to South Adams County. There are
4 a lot of different sources of water being evaluated,
5 and we have asked questions as to what water rights
6 are available.
7 Fitzsimons may be one of those that --
8 that -- it's possible but I wouldn't really want to
9 get into the specifics as to, if that happens, how
10 would it be implemented. That -- that whole
11 evaluation process is in the very early stages. It
12 could be that that is not even used as an option to
13 provide water for either the Arsenal or South Adams
14 County. So . . .
15 AUDIENCE SPEAKER: Thank you.
16 MR. ZEIK SAIDMAN: More?
17 AUDIENCE SPEAKER: At this point has any
18 kind of determination been made whether there's going
19 to be a Stapleton contamination factor involved in
20 the cleanup on the Arsenal?
21 MR. ZEIK SAIDMAN: Norm, stand up and why
22 don't you use the microphone. People in the back
23 can't hear you.
24 AUDIENCE SPEAKER: At this point has any
25 determination been made whether or not there will be

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1 a Stapleton factor involved in the cleanup of the
2 Arsenal, whether there's anything coming off of
3 Stapleton or whatever that could affect the cleanup?
4 MR. CHARLES SCHARMANN: Good point.
5 What Norm's talking about is some of you
6 may be familiar that this is -- again, 56th Avenue --
7 going to be extended, is in the process of being
8 extended across this area.
9 But we have some contamination in
10 groundwater moving onto the Arsenal along the western
11 side of the Arsenal, and we have had discussions and
12 continue discussions with EPA, with various sources
13 south of the Arsenal, including Stapleton, including
14 some other industrial sites. In some cases EPA and
15 the Army have recovered some money from some of those
16 Superfund sites down there.
17 We will continue to do that, continue those
18 discussions to try to find out where sources there
19 are and try to recover any resources that we've
20 expended on that contamination.
21 I can tell you that South Adams County also
22 is getting active -- or is actively talking to folks
23 down in that area and doing some tests of their own
24 to determine who, in fact, may be contributing to
25 that plume that flows in that area.

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1 MR. ZEIK SAIDMAN: Okay. Any other
2 questions, clarifying questions? Over here. Stand
3 up so we can see if we can hear you back there.
4 THE COURT REPORTER: I can't hear anything.
5 MR. ZEIK SAIDMAN: Sorry for the audio
6 problem here.
7 MS. CATHY COFFEY-WEBER: Excuse me. The
8 reporter can't hear questions from the floor. We
9 need people to come forward.
10 MR. ZEIK SAIDMAN: Do you have a clarifying
11 question?
12 AUDIENCE SPEAKER: Yeah. I was just
13 wondering if, in the proposed plan of choice,
14 approximately how many of the sources of the
15 groundwater contamination is going to be cleaned up,
16 percentage-wise.
17 MR. CHARLES SCHARMANN: Did everybody hear
18 the question?
19 Okay. Anyway, how many sources will be
20 cleaned up. I'm going to be covering that under the
21 soils portion of the remedy. So if I could, I'd like
22 to defer that to that portion. If I don't answer the
23 question sufficiently, let me know and we'll address
24 it again.
25 Because the cleanup remedies between soils,

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1 structures, and water are very much interrelated, and
2 it's important to understand those connections. So
3 I'll try to address that when I talk about the soils,
4 which are the primary sources of contamination out
5 here.
6 MR. ZEIK SAIDMAN: Any other water
7 questions? Maybe that's the way to do it, if -- any
8 other related to water?
9 MR. ROLAND RUSSELL: Is there agreement
10 that the 4,000 feet is adequate?
11 MR. CHARLES SCHARMANN: Thanks, Roland.
12 MR. ROLAND RUSSELL: I'm sorry, I had to go
13 on record.
14 MR. ZEIK SAIDMAN: Did everybody hear the
15 question?
16 MR. CHARLES SCHARMANN: Is there agreement
17 that the 4,000 acre-feet for South Adams County is
18 adequate?
19 You know, there isn't, as far as between
20 South Adams County and the parties. The role of that
21 whole issue in the discussions on remedy was very
22 important. That figure was arrived at throughout the
23 discussions. Whether it was sufficient for all
24 parties, I can tell you probably that's -- that's
25 not the case. There's disagreement on that.

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1 But at this -- at this day we're moving
2 forward to acquire the -- evaluate options for
3 4,000 acre-feet. And I guess I'd open that up to
4 South Adams County to give their view as to, you
5 know, whether that's sufficient or not.
6 But clearly, I think it's -- it's not in
7 their view. So . . .
8 MR. ZEIK SAIDMAN: Any other water
9 questions? Okay.
10 Your next piece is on soil?
11 MR. CHARLES SCHARMANN: On structures real
12 quickly.
13 Just to let you know the major areas on the
14 Arsenal where we have structures, this area here is
15 the South Plants. This area here is our North
16 Plants. And that's where the major industrial
17 activities took place over time.
18 They also have what we call our rail yard
19 area, where we had materials coming in the Arsenal
20 and materials being shipped off the Arsenal, and we
21 have various warehouses over in this area.
22 That's kind of where most of the buildings are
23 located, out here.
24 And what we're planning to do is, in these
25 areas, there's a mixture of fairly clean buildings,

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1 those that were used for administrative purposes,
2 didn't have a lot of contamination history, and those
3 structures will go into Basin A. We need a lot of
4 material that -- to fill up Basin A before it is
5 eventually capped so the -- that's where those
6 administrative or clean buildings will go.
7 The other categories that we have, we have
8 some buildings that were used that had a pesticide
9 history. And then there are some that the Army
10 used in its chemical agent production. In those
11 two categories -- both buildings from those
12 two categories will go into our landfill, which is
13 located roughly -- will be located roughly in this
14 area here.
15 So fairly straightforward. There will be a
16 few buildings left out here. But by and large, the
17 plan is to take down most of the structures and put
18 them either into Basin A or into our new hazardous
19 waste landfill.
20 MR. ZEIK SAIDMAN: Okay. Any questions
21 about structures?
22 MR. CHARLES SCHARMANN: Any questions on
23 structures?
24 Yes, sir.
25 MR. ZEIK SAIDMAN: You've got to get up to

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1 the -- I'm sorry. You and then you. You've got to
2 come to the mic so the court reporter can hear you.
3 Let me suggest this in terms of time:
4 We -- a lot more clarifying questions than we
5 expected. Let's go to 10:30, check in with you then,
6 and then take a break at 10:30, and then give us a
7 full hour for public comments, and I think we can
8 delay the bus for half an hour or so.
9 Is that okay with everybody? So we'll go
10 to 10:30, then we'll check in, see if everybody got
11 their clarifying questions.
12 Okay. This is on structure.
13 AUDIENCE SPEAKER: Just a quick question
14 for you, Charlie. In your proposal that you have
15 that you passed out, you described structural
16 disposal of asbestos and other contaminants as
17 ongoing. What is presently happening to that
18 material now?
19 MR. CHARLES SCHARMANN: Okay. We are --
20 as part of our interim response action program, we
21 are taking down tanks and piping and, also, removing
22 asbestos from buildings and along pipelines. All
23 that material is going -- currently going off-site
24 to a -- an approved landfill. And I believe
25 currently we are using CSI's -- I think that's the

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1 Conservation Services, Incorporated -- landfill east
2 of here. And -- for that asbestos material.
3 The metal from tanks and piping and things
4 such as that is being recycled. That which can be
5 recycled is being recycled. That which cannot is
6 being -- it's either being held here on-site or
7 being taken to a hazardous waste landfill, and we use
8 Highway 36.
9 MR. ZEIK SAIDMAN: Does that answer your
10 question?
11 AUDIENCE SPEAKER: Yes, it does.
12 MR. ZEIK SAIDMAN: This gentleman over
13 here. Did you have a question?
14 AUDIENCE SPEAKER: Well, I think he
15 answered part of it.
16 MR. ZEIK SAIDMAN: Okay. Try him on the
17 part you don't think he answered.
18 AUDIENCE SPEAKER: I will.
19 MR. ZEIK SAIDMAN: Clarifying question on
20 structure.
21 AUDIENCE SPEAKER: You mentioned how
22 some of the metals are being hauled away to the
23 landfill and other metals are being recycled. What
24 percentage is being recycled and what percentage is
25 being hauled away?

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1 MR. CHARLES SCHARMANN: The majority is
2 being recycled. It's only that metal piping and
3 tanks that cannot be decontaminated that is being
4 disposed of. Everything that can be decontaminated
5 is being -- and can be recycled -- is being taken
6 to a smelter for recycling.
7 I think -- Gary Anderson, do you have an
8 idea of what percentage -- I mean, 90-some percent
9 probably is being recycled.
10 MR. GARY ANDERSON: I'd guess approximately
11 95 percent of the metal materials are being recycled,
12 and the other 5 percent would be composed of pumps
13 and motors and things that, as you said, can be
14 decontaminated in the internal working parts.
15 MR. CHARLES SCHARMANN: This is
16 Gary Anderson, one of the project engineers that --
17 senior engineer.
18 You're here managing the various interim
19 cleanup actions that are ongoing.
20 AUDIENCE SPEAKER: Okay. Another
21 question. You said they are being recycled. How are
22 you recycling it? Are you generating additional
23 waste as you are cleaning it up and deconning it?
24 MR. CHARLES SCHARMANN: Do you want to go
25 ahead?

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1 MR. GARY ANDERSON: Do I have to come to
2 the mic?
3 MR. ZEIK SAIDMAN: Yeah, come on up here.
4 AUDIENCE SPEAKER: I'm staying. I might
5 think of another question.
6 MR. ZEIK SAIDMAN: Okay.
7 MR. GARY ANDERSON: The materials that
8 we're recycling here would be going through a defense
9 utilization marketing contract, the DRMO. The defense
10 reutilization marketing office is the military's
11 utilization office for recycling and, also, for the
12 disposal of hazardous materials and other kinds of
13 materials.
14 They have a contract in turn with Duwald
15 and Gahagen, and we send our scrap metal to them.
16 They in turn send it to a smelter. And I believe
17 they're using one of the foundries down in Pueblo.
18 AUDIENCE SPEAKER: The other part of the
19 question was, that percentage of the metal --
20 MR. ZEIK SAIDMAN: You've got to come up.
21 I'm sorry.
22 AUDIENCE SPEAKER: -- that is being
23 deconned or cleaned up, which is about 95 percent,
24 how are you cleaning it? Are you using solvents?
25 Are you using -- what?

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1 MR. GARY ANDERSON: The -- our decon
2 efforts are a little bit dependent on what kind of
3 processes the tanks were used for. In some instances
4 we're using a hot water wash with a detergent to
5 decontaminate the surfaces.
6 We're -- after we decontaminated it, we do
7 a visual inspection, according to the regulations, and
8 look for any kind of gross contamination that might
9 be left behind. Once the -- it's -- we also use a
10 triple rinse so the surface is washed three times.
11 Once it passes a visual inspection, it's
12 sent off for recycling. We make sure that we're
13 complying with the EPA -- the Federal laws, as well
14 as the State laws, for the contamination process.
15 AUDIENCE SPEAKER: Okay.
16 MR. GARY ANDERSON: The extra material that
17 we generate is the wash waters that we generate from
18 this --
19 AUDIENCE SPEAKER: Secondary waste.
20 MR. GARY ANDERSON: Correct. And those
21 wash waters are treated here on post at a wastewater
22 treatment plant that we have on post, operated by the
23 Army and its contractors.
24 So we don't really generate any additional
25 waste treating except for some suspended solids that

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1 we would get out of the wash water or metals that we
2 might generate after we've done the treatment of that
3 wash water.
4 AUDIENCE SPEAKER: Okay.
5 MR. ZEIK SAIDMAN: Thank you.
6 Okay. Any other structural questions?
7 Any other structural questions?
8 Okay, Charlie. Now your soil.
9 MR. CHARLES SCHARMANN: Okay. The last
10 piece to talk about here is our soil remedy, and it's
11 certainly the most complex. I don't want to spend a
12 lot of time on it, but if you have questions, you
13 know, please do ask.
14 In general, the thinking behind our soil
15 remedy is to, basically, shrink the area that is
16 going to be managed long term by the Army and,
17 basically, move waste in outlying areas into either a
18 new state-of-the-art landfill or into Basin A or some
19 of the surrounding areas.
20 What we have, the high-level material is
21 shown in red on this map. And that material would be
22 excavated and put into our new hazardous waste
23 landfill.
24 What's shown on green on this map is -- is
25 generally low-level soil contamination that we will

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1 be, in some cases, pushing into the excavation that
2 has occurred of the high-level material in each
3 area. So this -- let's take, for example, the South
4 Plants. We excavate this red area. We then push in
5 the area around it that is low-level material into
6 the excavation, and then that area will be capped.
7 And the same type of thing will occur in Basin A and
8 around the Basin F area.
9 When we're done, what we'll end up having
10 is a few areas -- and I'll show you on another
11 map -- where we will have a cap, which, in some --
12 will be different designs in different areas but may
13 consist of concrete, may consist of clay, soil, other
14 materials that -- basically, the intent of that is
15 to keep water from moving through that material and
16 taking contamination and moving it in groundwater.
17 And that's what we're trying to prevent.
18 So we're trying to consolidate things into
19 the middle of the Arsenal, shrink the area that will
20 be managed long term as a containment area, and open
21 as much area to be used as the refuge -- open up as
22 much area as possible.
23 In addition to just excavating and moving
24 soil into containment facilities, we will be doing
25 some treatment of soil in a couple key areas. One is

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1 the former Basin F area, which is shown in brown
2 here. We also have a couple sites down in the South
3 Plants area where we will either be doing treatment
4 in place or excavation and treatment of some of that
5 material.
6 The treatment at former Basin F will be
7 done in place, and that will be in-place
8 solidification, where we will drill into that area
9 and inject cement, grout, a solidifying agent to make
10 sure contaminants are bound up and not moving away
11 from that site.
12 And that -- I should mention again that
13 Basin F site will have a cap over it when we're
14 done.
15 To address the question about source
16 areas -- so we have a mixture. I mean, we have some
17 where we're improving the containment at the site to
18 make sure that contaminants don't move away from that
19 site or we reduce the potential for that to occur.
20 In other cases we are doing some active treatment
21 either, in some cases, to destroy the chemical or to
22 tie it up and solidify it, make sure it doesn't move
23 away from the site itself.
24 Does that address the question about source
25 areas? We are taking actions -- to let you know

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1 that -- how contamination occurred in the past is
2 that you had liquid, in many cases, in disposal
3 basins that leaked down into the groundwater and then
4 moved. Okay. What's left behind on soils in many
5 cases are contaminants on the soil, and you want to
6 keep water from moving through that to take
7 contaminants into the groundwater and move them out.
8 So actions are being taken to address the source
9 areas and make sure they don't impact the groundwater
10 long term.
11 I can tell you, since the time that we have
12 no longer had actual liquid in the disposal lagoons,
13 we have seen a drop-off in the amount of
14 contamination getting into the groundwater, even
15 without taking actions on any sites.
16 Certainly, by taking additional action to
17 contain the material there, we hope to see even a
18 further drop-off, as far as the level of
19 contamination in groundwater on the Arsenal itself.
20 MR. ZEIK SAIDMAN: Clarifying questions
21 around soil? And then again, we have the public
22 comment, where we go on the record. But any
23 clarifying questions around soil?
24 Over here and here. Come up.
25 AUDIENCE SPEAKER: Charlie, how much soil

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1 is planned to be excavated and moved? And also, what
2 measures will be taken for dust abatement?
3 MR. ZEIK SAIDMAN: Did everybody hear that?
4 MR. CHARLES SCHARMANN: Exact volume I
5 don't have off the top of my head, Rick.
6 I believe the amount of material to go
7 into our hazardous waste landfill is on the order
8 of 1.5 million to 2 million yards, cubic yards, of
9 material.
10 And we have a more precise figure in --
11 probably in the proposed plan. If not there, then in
12 other reports. We also have some experts here that
13 may have that.
14 And that's what -- that's what goes into
15 the landfill. Other material will be, as I
16 mentioned, excavated and put into either Basin A or
17 into the South Plants area or into the Basin F area.
18 I don't have a figure off the top of my head.
19 It's probably several million yards. I
20 just don't have that figure.
21 But regarding dust abatement, that is a big
22 concern of ours, as well as the community and the
23 parties. Conventional methods would be to wet the
24 material before you do large-scale excavations. We
25 will need to go through a detailed evaluation process

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1 to know exactly what measures we need to take to keep
2 dust from -- from moving away from the site.
3 And not only the dust but, also, potential
4 odors and vapors that may come from an excavation all
5 need to be addressed as part of the design of -- of
6 the remedy. So I can't really get specific as to
7 exactly the measures, but that's certainly going to
8 be a concern of ours as we work through the design.
9 MR. ZEIK SAIDMAN: Roland?
10 MR. ROLAND RUSSELL: To what degree are you
11 going to follow regulations in addition to the
12 Federal? Are you going to comply with State and
13 local?
14 MR. ZEIK SAIDMAN: Did everybody hear that?
15 AUDIENCE SPEAKER: Uh-huh.
16 MR. ZEIK SAIDMAN: Okay. Thank you.
17 MR. CHARLES SCHARMANN: Roland, that is our
18 intent. And we certainly want to work closely with
19 not only the State and Federal regulators but, also,
20 local authorities, as well, to make sure everyone is
21 comfortable with the way we are proceeding with the
22 cleanup. That's very much a priority for us.
23 MR. ZEIK SAIDMAN: A question back
24 there, sir.
25 AUDIENCE SPEAKER: Is there any direct

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1 compensation for the surrounding area, other than to
2 clean up their water and the 4,000 acre-feet, which
3 doesn't seem to be enough? But are there any other
4 compensations that are being considered?
5 MR. CHARLES SCHARMANN: There have been a
6 number of things raised throughout the discussions.
7 I can't say that there's any -- you're asking for
8 monetary --
9 AUDIENCE SPEAKER: Well, that would be
10 one thing.
11 MR. CHARLES SCHARMANN: -- issues? Okay.
12 Well, there aren't any --
13 AUDIENCE SPEAKER: The way it affects the
14 property values and things like that. That's the
15 most affected area.
16 MR. CHARLES SCHARMANN: There are a couple
17 of things that I might want to highlight, also, that
18 are being done to address that concern. It doesn't
19 necessarily result in a monetary payment. But one of
20 the concerns we heard from the community was a -- to
21 have a medical monitoring program during the cleanup
22 activities and make sure that the actions that we're
23 taking don't affect the surrounding communities.
24 And the State is taking the lead on that
25 with the Federal agency, the agency for toxic

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1 substances and disease registry. You may not be
2 familiar with them, but they are basically the
3 Federal entity charged with that area of medical
4 monitoring.
5 So we have ongoing dialogue to talk about
6 what medical monitoring is necessary during the
7 clean --
8 AUDIENCE SPEAKER: Is that for all of
9 the people in the surrounding area, immediately
10 surrounding area?
11 MR. CHARLES SCHARMANN: That's right.
12 That's to address issues of the surrounding
13 communities to the south, to the west.
14 AUDIENCE SPEAKER: I've lived in that area
15 for quite a while, and nobody -- I haven't heard
16 anybody address me about some medical benefits
17 possibly or anything like that.
18 MR. CHARLES SCHARMANN: Let me --
19 AUDIENCE SPEAKER: Then the other thing I
20 want to bring out is I think it impacts that
21 whole -- the whole area, especially in the
22 Commerce City to Quebec Street area and the northern
23 area, towards the schools.
24 But I had -- I had no compensation for
25 those sort of things. And people in all of these

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1 films that I've seen or slides that I've seen, there
2 was always some sort of compensation. And I feel
3 that this hasn't been addressed. And I don't know
4 if this is the right forum to bring this up, but this
5 is the ROD. I think this is the right time to bring
6 it up, myself, personally. So -- I want to throw
7 that out.
8 MR. CHARLES SCHARMANN: It may be good to
9 go ahead and -- and put that on the record during
10 the comment period. That was raised by different
11 entities, and some of them are here this morning, and
12 they can speak about what they raised as issues.
13 But certainly, I think you recognize the
14 difficulty of trying to sort that out and put figures
15 on things and then determine whether impact has
16 occurred and what level of impact and things such
17 as that.
18 But there are some steps built into this
19 remedy to make sure that, during the implementation
20 of it, that we all can stand up and say, "This site
21 is not affecting the community," that actions are
22 being taken safely. And when we're done with the
23 cleanup action, everyone can say, "It's a safe site.
24 It's now an asset to the community."
25 So regarding what happened in the past,

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1 that was a very difficult issue to deal with and
2 it was raised. But it did not result in any type
3 of agreement on a monetary payment or anything
4 like that.
5 But the other thing I wanted to mention
6 that is being explored is the establishment of a
7 trust fund. And this is another difficult issue.
8 But there is a lot of concern by the community that,
9 10 years from now or 15 years from now, there may not
10 be money to deal with the long-term operation of the
11 containment sites and the groundwater treatment
12 systems that we leave behind.
13 And there was an agreement to try to set up
14 a trust fund where the interest and, potentially,
15 principal from that trust fund would be used to
16 continue the long-term operation and maintenance of
17 the facilities.
18 AUDIENCE SPEAKER: Will the cities in the
19 surrounding communities have access to that trust
20 fund to . . . to improve the neighborhood? Or do
21 I -- the health and welfare of the neighborhood?
22 MR. CHARLES SCHARMANN: The intent of that
23 trust fund was solely for the purpose of operation
24 and maintenance of the cleanup of structures or
25 facilities.

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1 AUDIENCE SPEAKER: So in essence, there's
2 no -- nothing for the community, though.
3 MR. CHARLES SCHARMANN: That's right. That
4 wasn't part of that trust fund.
5 AUDIENCE SPEAKER: Thank you.
6 MR. ZEIK SAIDMAN: I would think those kind
7 of comments are part of the public record comments.
8 But let's focus just in on the clarifying questions.
9 But thank you.
10 MS. LAURA WILLIAMS: Zeik, you have a
11 question up front.
12 MR. ZEIK SAIDMAN: I'm sorry, Mark.
13 Thank you.
14 AUDIENCE SPEAKER: Two questions, kind of
15 related both to the water and the soil.
16 Do we have a good estimate on how much
17 acreage will be needed for these managed areas once
18 the cleanup is completed and -- let's stick with that
19 one for now.
20 MR. CHARLES SCHARMANN: Okay. Let me --
21 actually, that leads into the last slide I was
22 planning to use, which is here, to show you the areas
23 or the facilities that will be operated long term.
24 And what we have long term to manage are
25 the areas that are to be capped, the South Plants

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1 area, area called the Shell trenches, area called the
2 Army complex trenches, Basin A, and Basin F. All
3 those areas will have some type of cap over top of
4 them that need to be -- that would need to be
5 maintained long term.
6 In addition to those sites, we'll have a
7 new hazardous waste landfill in this area, which
8 will, again, need to be maintained long term.
9 That's from a soil remedy standpoint. From
10 water, we have our northwest boundary system, our
11 north boundary system, our Basin A neck groundwater
12 system. And the reason some of the groundwater
13 treatment systems have disappeared on this map is
14 that we feel a few of them may be able to be shut
15 down in the next several years because they have
16 accomplished the objective that we constructed them
17 for. And in the case of the Irondale area, we have
18 contamination that is being more rapidly cleaned
19 up -- contamination the Army has contributed to that
20 is being more rapidly cleaned up in that area -- and
21 that is a system we expect to shut down probably in
22 the next four years or so.
23 Does that address your point, Norm, as far
24 as areas?
25 AUDIENCE SPEAKER: So it's maybe

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1 not 1 1/2 square miles or -- if you were to come up
2 with an estimate that way?
3 MR. CHARLES SCHARMANN: Sounds reasonable,
4 you know. Which --
5 MR. ZEIK SAIDMAN: What was the comment,
6 Norm?
7 MR. CHARLES SCHARMANN: -- there are
8 640 acres for a square mile so -- you know, roughly
9 a thousand.
10 MR. ZEIK SAIDMAN: All right. A question
11 here?
12 AUDIENCE SPEAKER: This is a general
13 question.
14 When you worked out your program, were
15 there historical precedents for this? And could you
16 tell us where they were and how successful they were?
17 MR. CHARLES SCHARMANN: As far as, I
18 guess -- any particular aspect of the remedy? The
19 soils portion or the water portion or --
20 AUDIENCE SPEAKER: No, the general problem
21 that you have with a contaminated site. What other
22 geographical sites throughout the world have been
23 faced with this same kind of a problem?
24 MR. CHARLES SCHARMANN: We certainly have
25 some folks that have some more broad-based experience

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1 that you may be able to ask during a break. But I
2 can tell you, in general, that across the country
3 there is a mixture of actions that are being taken.
4 And I can't say that we have found one that is
5 identical or very similar to Rocky Mountain Arsenal.
6 This is a very complex site, a very large site. So
7 trying to apply something that may have been done in
8 another site that is smaller, had different problems,
9 is sometimes difficult.
10 But clearly, across the country there have
11 been many sites that have put containment structures
12 there, caps. Lowry Landfill here locally is an
13 example of that, where they're using a combination of
14 capping, containment, and treatment.
15 And if you look across the country, there
16 will be some sites where, if they had a small amount
17 of material, they have used, you know, aggressive
18 treatment measures to get rid of that completely,
19 where they can.
20 But we really have seen a mixture across
21 the country, as far as doing aggressive treatment and
22 containment measures like landfills and caps.
23 With regard to water, I can tell you that
24 the Rocky Mountain Arsenal is one of the first sites,
25 if not the first site, where we installed a

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1 groundwater treatment system. Our north boundary
2 system was installed as a pilot system in 1979. We
3 expanded it in 1981, and that was one of the first
4 systems of its type in the country. So in many cases
5 Rocky Mountain Arsenal is precedent setting, and
6 we're on the leading edge of cleanup actions.
7 MR. ZEIK SAIDMAN: Let me check in with the
8 group before we take a break.
9 How many people have more clarifying
10 questions before public comment? How many people --
11 one, two -- one, two, three. Let's take those
12 three more questions, and let's try to wrap it up in
13 five to ten minutes, and then we'll take a break.
14 Okay. You and who's next? Who else raised
15 their hand? You. And you over there.
16 Okay. So let's . . .
17 AUDIENCE SPEAKER: My question is, you said
18 that you're going to cap the chemicals and everything
19 in these landfills and everything, and then you say
20 that you're checking on the water and some of the
21 water systems you're closing down because they're
22 okay.
23 Is there an ongoing project that would
24 check this over a period of time to see that the
25 water doesn't leak through the cement or leak through

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1 the clay or anything like that?
2 MR. CHARLES SCHARMANN: Can everybody hear
3 the question?
4 Okay. The question about monitoring. And
5 we have had an aggressive monitoring program, an
6 extensive monitoring program, out here since the
7 mid-'70s. And that's been expanded and approved and
8 in some cases cut back at times.
9 But we look at groundwater; we also do air
10 monitoring. We take a look at -- through the
11 Fish and Wildlife Service -- the animals out here.
12 So a lot of very complex monitoring program ongoing.
13 That will continue in the future. It
14 will -- we will monitor around sites such as our
15 landfill to try to determine whether, in fact,
16 chemicals are -- that are in that facility -- are
17 getting out of that and into groundwater. So that
18 will be a key part of that landfill monitoring
19 program.
20 In addition to that, our groundwater
21 plumes, we are monitoring them extensively to track
22 movement. We have a very good handle on where they
23 are and how they're moving. The interest there is to
24 monitor them long term, to go ahead and document that
25 we are seeing improvements to groundwater quality.

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1 And certainly, we need to do that before we're able
2 to shut a system down like we did out in Irondale.
3 You need to go through a monitoring program to make
4 sure you achieve what you hoped to achieve, you know,
5 before you can shut a system down.
6 So there will be -- and EPA can probably
7 speak more about this -- a compliance monitoring
8 program -- the State can, as well -- with the
9 landfill. There are set programs that will need to
10 take place to monitor the effectiveness of the
11 remedy.
12 MS. LAURA WILLIAMS: In fact, I'd like to
13 add, Charlie, that under Superfund there's -- a
14 containment remedy like this, it's a requirement
15 every five years that all that data that's being
16 collected be reevaluated just to make sure that not
17 only is it protective against the standards that were
18 in effect at the time the remedy took effect but,
19 also, is it still protective, according to new
20 regulations that may have been implemented since.
21 And if it's not, then there could be some additional
22 work that could be done.
23 MR. ZEIK SAIDMAN: Thank you.
24 Barbara?
25 MS. BARBARA NABORS: You covered it very

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1 well, Laura.
2 MR. ZEIK SAIDMAN: All right. And next
3 question?
4 AUDIENCE SPEAKER: I keep wondering, when
5 we hear about this ongoing cost and so forth and --
6 and the cost -- why was an incinerator such as a
7 kiln, cement kiln, that type of thing -- why can't
8 that be used in the cleanup once and for all, and you
9 don't have to keep coming back and monitoring what
10 was -- what is still there?
11 MR. CHARLES SCHARMANN: Regarding where the
12 evaluation of treatment technologies fit in this
13 whole remedy, that was a concern that was raised
14 early on. Many people had that view, that "Let's go
15 ahead and treat it and get it done once and for all."
16 The problem we have at many of the sites
17 out here, the large sites, such as Basin A and the
18 South Plants area, is that you cannot get all the
19 contamination that is there. And in many cases
20 implementing a treatment scenario like incineration
21 of soil is very complex, very complicated, and in
22 some cases, very expensive and would take a lot
23 of time.
24 And we heard throughout the last couple
25 years some concerns about having emissions continue,

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1 too, which potentially would affect the community.
2 In general, I think folks were not interested in
3 having incineration occur out here long term.
4 And regardless of how much treatment you
5 do, you still need to rely on some type of
6 containment portion of your remedy in the form of
7 caps or landfills because you just cannot physically
8 treat all the material that's out here and render
9 it -- this a pristine site. You need to take some
10 of these -- these containment strategies or
11 measures, no matter what you do. And what we ended
12 up with was a mixture. We have some sites where
13 we're doing some treatment, and we -- we're using
14 treatment techniques that seem to be popular or ones
15 that the community and the parties were comfortable
16 with that could -- they could be done safely, and
17 they could be done timely, and they could be done in
18 a cost-effective manner.
19 So to go back to history, that's kind of
20 how it evolved, that -- early on, I think we all
21 looked seriously at whether we could aggressively
22 treat, you know, the whole site. But it --
23 practically speaking, it's not possible.
24 MR. ZEIK SAIDMAN: Next?
25 AUDIENCE SPEAKER: I was just curious if

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1 you could explain how putting the cap on is going to
2 reduce the amount of water contamination since, to
3 me, it seems like it would just redirect it and let
4 the water just go underneath and through
5 horizontally. So --
6 MR. CHARLES SCHARMANN: Did everyone hear
7 that question?
8 Okay. What we have, the cap -- it's a
9 combination of things that address the total
10 contamination, whether it's in the soil or in --
11 already in the groundwater.
12 The intent is to stop water from
13 percolating through the material and continuing to
14 carry chemicals down. Okay. That we can effectively
15 stop with caps. The groundwater that's already there
16 that's contaminated, that is flowing to our
17 groundwater treatment systems, and we will capture
18 and treat that material.
19 In some areas, such as the South Plants and
20 Basin A area, by stopping water from percolating
21 down, you're going to lower the level of groundwater,
22 where that is. So you're going to reduce the amount
23 of migration that is occurring right now. You know,
24 right now there may be a certain amount of
25 groundwater contamination. As you lower the water,

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1 the level of that groundwater, you're drying up
2 another area and, effectively, immobilizing more
3 contamination.
4 So a combination of cap, which cuts water
5 from going through the soil and taking more
6 chemicals, along with the groundwater treatment
7 systems, which treat groundwater that is already
8 mi -- flowing toward them. You know, the
9 combination is what you're using to deal with that
10 total contamination issue.
11 MR. ZEIK SAIDMAN: Let me suggest this:
12 We've gone about 40 -- we've gone 40 minutes past
13 our break. The people that have questions, my
14 suggestion is to come up and ask the panel or Charlie
15 during the break. If you don't feel they've answered
16 your question as well as they could have, make that a
17 part of your public comment. Because I think people
18 have patiently been sitting here.
19 So let's take a break for ten minutes, ask
20 these guys your questions. If they don't answer them
21 satisfactorily, come back and make a public comment.
22 MR. CHARLES SCHARMANN: I would like to
23 mention one more thing. In addition to the panel
24 members and myself, we have some folks on the Army
25 technical staff that have name tags who are experts

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1 in the various areas, so feel free to, you know,
2 address the questions to them, as well.
3 MR. ZEIK SAIDMAN: There are materials
4 around here. So let's take a ten-minute break.
5 (Meeting proceedings recessed
6 10:35 a.m., reconvened 10:50 a.m.)
7 MR. ZEIK SAIDMAN: Everybody get their
8 cookies and coffee?
9 What we say about an agenda, it's a road
10 map to follow. And we'll adjust to go down the blue
11 routes if we have to.
12 But what we're recommending right now is to
13 go to 11:30 for public comments, and then, at 11:30,
14 those people who want to take a tour of the bus -- a
15 bus tour -- because there are some people, I
16 understand, here who are invited out -- who came out
17 to the Arsenal to see the wildlife and be a part of
18 this, but they said they would also want to sit in on
19 the public hearings.
20 So the first bus would be available at
21 11:30, but we will continue public comments -- we
22 have two more buses. So if you miss the first bus,
23 you can take the third -- second or third bus if you
24 want to do it.
25 MR. BILL THOMAS: Zeik, if I may, for those

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1 who have to leave at 11:30, we have public comment
2 cards on this table here and the front table. So
3 their comments will still get recorded, okay, if they
4 want to leave at 11:30 to catch that bus.
5 MR. ZEIK SAIDMAN: Okay.
6 Sir.
7 AUDIENCE SPEAKER: How long, about, will
8 the bus tour last?
9 MR. BILL THOMAS: It's planned
10 approximately 30 to 45 minutes, depending on what
11 kind of questions that may come up on the bus. We'll
12 have some technical folks on the bus that can answer
13 questions that you've heard here this morning. So 30
14 to 45 minutes, approximately.
15 MR. ZEIK SAIDMAN: Okay? So the first bus
16 would be taking off around 11:30.
17 And, Bill, you just want them to go back to
18 the back?
19 MR. BILL THOMAS: Just come right out here,
20 and I'll take care of you.
21 MR. ZEIK SAIDMAN: Thank you.
22 We're now beginning the formal public
23 comment period. As we said in the beginning, we
24 thought, to give everybody an opportunity to speak at
25 least the first time turn around, we would try to

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1 keep it around three minutes. I will time that.
2 Again, those comments can be submitted in
3 writing till December 15th. As Bill mentioned, there
4 is the -- the Arsenal reply card, plus you can send a
5 document in, also, and it's all on the front page of
6 the proposed plan.
7 So is that okay with everybody? So would
8 you come up to the mic --
9 AUDIENCE SPEAKER: Move that mic back.
10 MR. ZEIK SAIDMAN: And there's a suggestion
11 to move it back so you can address both the table and
12 the audience.
13 How's that, about that angle? I'm sorry?
14 Okay. And I just -- I think the floor is
15 open for public comments and let's begin. And I will
16 flag you around three minutes when the time has
17 come.
18 Okay. Who wants to --
19 AUDIENCE SPEAKER: Can I just make a
20 suggestion to speed things up a little bit?
21 At other public meetings I've been to,
22 people have kind of lined up so that each time you
23 don't recognize somebody and then everybody moves
24 away --
25 MR. ZEIK SAIDMAN: Okay. Queue one up.

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1 Queue one up. Okay.
2 (Discussion off the record.)
3 MR. ZEIK SAIDMAN: Thanks, Bill. Please
4 give your name, if you're with an organization, and
5 the city of residence. You don't -- on the sign-up
6 sheet people put addresses but not city of
7 residence. Okay. So name, organization, city of
8 residence.
9 Mayor Busby.
10 MAYOR DAVID BUSBY: What if I said
11 "Brighton"? What would you say?
12 I'm David Busby. I'm the mayor of
13 Commerce City. As far as organizations, I'm a member
14 of the coalition, which is Adams County, Commerce
15 City, School District 14, Citizens Against
16 Contamination, and one other one. R A -- no, the
17 R A B isn't on the coalition.
18 AUDIENCE SPEAKER: Reeser --
19 MAYOR DAVID BUSBY: Jeannie Reeser'
20 office -- Tri-County. That's the other one. And I
21 also am a member of the Restoration Advisory Board,
22 which meets every other month.
23 The comments I have is, first, I want to
24 thank the parties for hosting this meeting,
25 especially since, supposedly, the Federal government

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1 is shut down. I haven't noticed it. Maybe some of
2 you have. But it hasn't had any effect on me. And
3 maybe it saved us some money on our debt, also.
4 I speak not personally but on behalf of the
5 citizens of Commerce City and not necessarily all of
6 them but the majority of them because we've held some
7 public hearings in the city itself with regard to the
8 proposed plan and the eventual record of decision
9 that will be reached, hopefully, in May or June
10 of 1996.
11 We listened very carefully. Initially we
12 had thought that destruction of most of the
13 contaminants out here would be the best way to go.
14 However, a number of the people in our community and
15 Montbello and Green Valley, Brighton, and Henderson
16 area voiced their concern about the emissions from
17 the incineration of the soils and the contaminants
18 within those soils, so we relooked at that with
19 information provided by Tri-County, mostly, since
20 they were somewhat an unbiased group. They had the
21 information available, but they weren't a direct
22 party in the Rocky Mountain Arsenal.
23 With that we came to the conclusion that
24 the proposed plan is a good direction to go in;
25 however, we have some concerns. The concerns are

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1 some of the remedies that have been chosen under the
2 proposed plan, such as Basin A without a liner under
3 it. Hopefully, that the eventual plan will have a
4 slurry wall to bedrock all the way around it. That's
5 just a suggestion. So that we get containment that
6 we can rely on.
7 Also, the Shell trenches, the complex
8 trenches, the Hex pits, similar-type remedies that
9 have been chosen under the proposed plan we have
10 concerns with.
11 One of the others we mentioned was
12 mentioned by Roland Russell regarding the
13 4,000 acre-feet. We have a tremendous amount of
14 concern over that because the South Adams County
15 Water and Sanitation District has approximately
16 13,000 acre-feet adjudicated or have rights to access
17 in the years in the future. So 4,000 we see as a
18 very low amount that was agreed upon without our
19 input.
20 Last statement, we do support the new
21 state-of-the-art, triple-lined landfill that's going
22 to be used. That will give us triple protection
23 versus the present double protection that we have in
24 landfills. And hopefully, this will minimize the
25 cost to us taxpayers -- and that's each and every

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1 one of us -- for the eventual proposed plan, while
2 still protecting us and the habitat here at the
3 communities surrounding the Rocky Mountain Arsenal.
4 And that's all the comments I have. And we
5 will be putting it in writing officially from the
6 City of Commerce City before December 15th.
7 MR. ZEIK SAIDMAN: Thank you, Mayor.
8 Does the panel have any comments to make on
9 anything?
10 Okay.
11 MS. BARBARA NABORS: You might just mention
12 that all of these public comments that are being
13 recorded and that are received in writing will be --
14 appear in the record of decision in a responsiveness
15 summary, and there will be a response from the Army
16 to each and every comment. And that will be
17 available in the libraries.
18 MR. ZEIK SAIDMAN: Okay. Did everyone hear
19 that? A response -- there will be a response in
20 writing to these --
21 AUDIENCE SPEAKER: Time frame?
22 MR. ZEIK SAIDMAN: Time frame, Barb?
23 MS. BARBARA NABORS: Well, let's see. It's
24 this spring. June.
25 MR. ZEIK SAIDMAN: June.

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1 MS. LAURA WILLIAMS: June '96 is the
2 current schedule, but it may drop off a little bit
3 because of the government shutdown. So . . . whether
4 or not we're up in business.
5 MR. ZEIK SAIDMAN: All right. Okay.
6 Thank you.
7 Roland?
8 MR. ROLAND RUSSELL: Once again, thank you
9 very much for holding this meeting on a Saturday when
10 many, many people could come out. It's not always
11 advisable to hold it in the evening, nor on a
12 weekday. I do appreciate everybody coming out.
13 My comments are made in behalf of myself
14 and, also, in behalf of State Representative
15 Jeannie Reeser, who I have represented on the RAB and
16 other committees, such as the Northern Coalition.
17 We were not completely happy with the
18 conceptual agreement. We feel that there are many
19 things that have been left out and that the
20 contamination has occurred over a tremendous period
21 of time since the Arsenal opened in the early 1940s.
22 We feel that the solutions should go beyond Superfund
23 and CERCLA law. I would request that the comments or
24 minutes that were arrived at in the citizen meetings
25 with the principals over the past year, year and a

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1 half also be included in the considerations of
2 reaching the ROD.
3 Thank you.
4 MR. ZEIK SAIDMAN: Did you give -- Roland,
5 did you give your last name, also?
6 MS. CATHY COFFEY-WEBER: Roland Russell.
7 MR. ROLAND RUSSELL: Get it?
8 MR. ZEIK SAIDMAN: Did they get it?
9 Thank you. All right.
10 Any comments from the panel? Okay.
11 Next?
12 Thank you, Roland.
13 MR. JIM ERGER: My name is Jim Erger. I've
14 lived in the Henderson area for a long, long time.
15 I'm a member of the RAB and the SSAB, so the last two
16 years or so I've sat in on lots and lots of
17 meetings.
18 I have a prepared statement that I'm going
19 to read, and then I will make some additional
20 comments afterwards. And this is addressed to
21 Kevin Blose and William J. McKinney with Shell Oil.
22 "Dear sirs: I'm an actual stockholder of
23 the Rocky Mountain Arsenal pollution, having lived in
24 the Henderson area since 1933. Our family farm is
25 located at 112th and Peoria, which is in the heart of

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1 the off-post pollution area of the Rocky Mountain
2 Arsenal.
3 "In my neighborhood in the 1950s I've seen
4 the pollution of our water from our irrigation wells,
5 alluvial aquifer, so bad it contaminated my
6 neighbor's land, killing all growing crops for
7 years. In these same years, in the early-dawn hours,
8 a blue haze could be seen originating from the Rocky
9 Mountain Arsenal, staying close to the ground,
10 drifting from the southeast to the northwest, towards
11 the South Platte Valley. We had to breathe this
12 horrible, smelly, contaminated air.
13 "The Arsenal has not been a good
14 neighbor. It is my opinion that the U.S. Army and
15 Shell Chemical did a first-class job of polluting the
16 Rocky Mountain Arsenal and the surrounding water and
17 lands, and they should be required to do a
18 first-class job of cleaning up their mess. This
19 cleanup must be satisfactory to the majority of the
20 stakeholders.
21 "In farming communities farmers buy a farm
22 to grow crops to make a daily living. As the years
23 go by, they are paying for the farm. When they
24 retire, the farm which they bought and paid for is
25 their retirement program. However, due to the Rocky

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1 Mountain pollution and together with the stigma it
2 has caused for our neighbors, the value of our
3 property -- farm property -- and that of my
4 neighbors has declined drastically.
5 "I am a member of the Site Specific
6 Advisory Board and a member of the RAB. I have been
7 a member since both -- since they've started and
8 have missed very few meetings. During all the
9 negotiations by the parties on the cleanup of the
10 Arsenal, on-post and off-post, at no time was the
11 Henderson area ever represented by anyone. We were
12 completely left out.
13 "We have received all the off-post plume
14 that contains DIMP. There are over 100 citizens
15 receiving bottled water, thanks to the Colorado
16 Health Department, which spares these citizens from
17 drinking the well water that had been polluted with
18 DIMP. This has been a horrible situation for all of
19 us in the Henderson area.
20 "The water, land pollution has gone on
21 for 53 years, from 1942 to 1995. You would think
22 that the U.S. Government, via the U.S. Army, knowing
23 they caused great damage to its own citizens, would
24 lean over backwards to right the wrongs they have
25 caused. Instead, we have to get on our knees, beg

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1 for safe water, hoping they will give us a little
2 something.
3 "As you know, the Shell Oil Chemical did
4 their share of polluting our air. I will give them
5 credit that they bought four to five houses just
6 north of the Arsenal on Peoria Street. I know they
7 paid market prices or above for these properties, as
8 two of these families are lifelong friends of mine
9 and were happy with the sale of them. I am hoping
10 that the Shell Chemical will give the same
11 consideration for the rest of the Henderson area.
12 "Therefore, it seems the solution to
13 correct the problem is to have a totally new supply
14 of water, perhaps from the city of Denver or mountain
15 water, brought to the polluted area. This new water
16 supply, along with the necessary pipelines and
17 distribution lines, should be paid for by the U.S.
18 Army and Shell.
19 "In other areas of the Arsenal of minor
20 pollution, I would agree with the U.S. Army that,
21 were it possible, capping and containment will
22 suffice. I would recommend the smallest amount of
23 soil you have to move the better and the smallest
24 amount of burning and thermal dispersions you do the
25 better.

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1 "I know the Rocky Mountain Arsenal can
2 never be returned to the pristine state it was in
3 1942; however, if it is capped and contained areas
4 are fenced away from the public, the remaining 85
5 to 95 percent of the Arsenal will become the Central
6 Park of the Denver-metropolitan area, as Central Park
7 is to New York City."
8 And so that is my formal comments, but the
9 comments that I have that -- I have been totally
10 frustrated the last few days, trying to -- we're
11 going to set up a large meeting in the Henderson
12 area, hopefully at the buildings down there with --
13 the County buildings and stuff. I've got a whole
14 bunch of the ladies involved.
15 We're going to circulate petitions; we're
16 going to -- instead of being sent back, run over --
17 we've taken all the polluted water that has come off
18 of the Rocky Mountain Arsenal, yet no one has come to
19 us and said, "Well, what are you going to get?" I
20 say, what part of that 4,000 acre-foot belongs to
21 Henderson?
22 You know, nobody says nothing. Where are
23 the pipelines going to go? What size? At one time
24 they were talking 3-, 2-inch, 6-inch pipelines.
25 We're saying, "We want 12-inch pipelines out there."

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1 We want a surface supply of water that either comes
2 from -- like over at Rocky Flats, they're getting
3 Carter Lake water. We want either mountain water,
4 Denver water, or, say, Thornton water or Aurora
5 water.
6 We will not accept any more underground
7 water such as they've been trying to propose to bring
8 out of the Prospect Valley -- hell, it's got radon
9 beyond the regular stuff that's in the -- in the
10 water over in this area.
11 So that's my comments.
12 MR. ZEIK SAIDMAN: Thank you.
13 (Applause.)
14 MR. ZEIK SAIDMAN: Next?
15 Try to -- again, try to be conscious of
16 other people having an opportunity to speak, and
17 those will be put into the record.
18 MR. RICK WARNER: My name is Rick Warner.
19 I live in Broomfield. I'm with the Site Specific
20 Advisory Board. If that wasn't mentioned earlier,
21 it's another board that people can come out and
22 become involved in and get information from. It's an
23 informal board. It's held the last Thursday of each
24 month in the Commerce City municipal building, and
25 sometimes we have intervening work group meetings.

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1 It's a -- anyone can come. Anyone can participate.
2 Anyone can sit in if they want.
3 I will probably run over three minutes so
4 please feel free to interrupt me.
5 I'd just like to say, to begin with, that
6 over the course of the last three years, some
7 progress that I would like to say that has been made
8 is meetings of this sort. This meeting I thought
9 went a whole lot better than past presentations;
10 fewer acronyms, less propaganda, less spinning
11 towards one way or the other, a lot of clarity. I
12 think we're on our way.
13 Certainly, in the last year or so,
14 documentation and help from the various parties is a
15 lot better than it ever has been before. There's a
16 lot more openness.
17 So the -- they've agreed that the public
18 needs to be involved. I'm afraid what I worry about
19 is that they still don't embrace the public role.
20 They still don't respect the public. I think you've
21 heard a little bit about that from Jim. This happens
22 in many areas.
23 I'd like to read -- there's a group called
24 the Federal Facilities Environmental Restoration
25 Dialogue Committee. It's a long name. This is a

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1 committee of Federal agencies, environmental groups,
2 industry, local and city governments, health
3 departments that have gotten together and said,
4 "Things aren't working in Federal facilities. How
5 do we make them better?"
6 And what they've come up with is a series
7 of reports which, one, helped contribute to the
8 establishment of things like Site Specific Advisory
9 Boards, administration advisory boards. But recently
10 they've released -- I always forget the name of
11 this; I'll look it up -- Principles for
12 Environmental Cleanup of Federal Facilities.
13 And I -- there's 14 of them. I have no
14 intention of reading all of them, but I would like to
15 read you the first one and the third one, the nature
16 of the obligation. "The Federal government has
17 caused or permitted environmental contamination.
18 They are, in fact, the largest in the country.
19 Therefore, it has not only a legal but an ethical and
20 moral obligation to clean up that contamination in a
21 manner that, at a minimum, protects human health and
22 the environment and minimizes burden on future
23 generations." I think that's an important part right
24 there, future generations.
25 "In many instances the environmental

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1 contamination has contributed to the degradation of
2 human health, the environment, the economic vitality
3 in local communities. The Federal government must
4 not comply with -- must not only comply with the
5 law; it should strive to be a leader in the area of
6 environmental cleanup, including environmental
7 concerns, ecological concerns, and health
8 requirements."
9 I can heartily agree with the statement.
10 That's -- I think that's certainly on track.
11 That's exactly what I would like to see at the
12 Rocky Mountain Arsenal. I don't think we are
13 approaching that.
14 The third item here is an item they call
15 environmental justice. This is a -- not only
16 theirs, but the president of the United States has
17 issued an executive order on environmental dust for
18 all Federal agencies to follow.
19 It says simply here the Federal government
20 has an obligation to make certain efforts to reduce
21 the negative impacts of environmental contamination
22 related to Federal facility activities on affected
23 communities that have historically lacked economic
24 and political power, adequate health services, and
25 other resources.

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1 I mention this because of the sort of
2 things that Jim's talking about here. What has
3 happened out here is, over the course of the last few
4 months, we have seen that the citizens have come and
5 said, "We want this contamination treated. We want a
6 system where it will go away, but we don't want
7 further emissions; we don't want more odors and
8 vapors to come up; we want this site cleaned up. We
9 want to feel good about the area we live in. We want
10 our water to be safe; we want our water to be safe;
11 we want our water to be safe." They say that all the
12 time. I guess for a reason.
13 Instead, what the Federal government and
14 Shell Oil Company have done here is they have used
15 water to extort a lesser cleanup of this site and
16 still have not provided nearly enough water to
17 satisfy the needs of Commerce City and Henderson.
18 And we are now playing games with the distribution
19 system, limiting the amount of water that can be sent
20 out there. We don't really know where the plumes
21 lie, what -- who exactly is going to be covered, who
22 isn't going to be covered.
23 The very reason there's a proposed plan
24 today is because of water out there, because they
25 agreed to water. There are no details to that

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1 agreement. You're agreeing to a pig in a poke if you
2 think this proposed plan has gone far enough along to
3 get what people need out of this.
4 MR. ZEIK SAIDMAN: Rich, how close are you
5 to wrap-up?
6 MR. RICK WARNER: Hours. Is that
7 three minutes?
8 MR. ZEIK SAIDMAN: Can you give us a
9 couple -- yeah, it's more than three minutes. Can
10 you wrap up in a couple minutes, and then other
11 people -- and then you can come back.
12 MR. RICK WARNER: Just simply, I think what
13 you want here is you want a cleanup that's going to
14 be protective now; people are involved with water
15 because the water's bad.
16 You want people -- you want a cleanup
17 that's going to be protective for your children and
18 your grandchildren and my children and my
19 grandchildren. And anybody else's children and
20 grandchildren that come here.
21 This area is developing rapidly. There's
22 going to be more people here in a very short period
23 of time. They need to know the ground they live
24 on is safe, that the winds that blow their way are
25 safe, and that the water that they're going to be

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1 using is safe.
2 (Applause.)
3 MR. ZEIK SAIDMAN: Other comments on the
4 plan?
5 MR. WALDO SMITH: I'd like to make a
6 comment.
7 MR. ZEIK SAIDMAN: Okay. Come up.
8 MR. WALDO SMITH: My name is
9 Waldo G. Smith. I'm a member of the SSAB and the
10 RAB. I'm also an aide to Councilman Dennis Gallager
11 of the First District of the City and County of
12 Denver.
13 MR. ZEIK SAIDMAN: Is that -- does
14 everybody know what SSAB is?
15 MR. WALDO SMITH: What's that?
16 MR. ZEIK SAIDMAN: Do people know what SSAB
17 is and the two things you mentioned? I may be the
18 only person that doesn't.
19 MR. WALDO SMITH: SSAB is the Site Specific
20 Advisory Board to the Rocky Mountain Arsenal.
21 MR. ZEIK SAIDMAN: And the other thing you
22 mentioned was?
23 MR. WALDO SMITH: And the RAB is the
24 Restoration Advisory Board.
25 MR. ZEIK SAIDMAN: Okay. Thank you.

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1 MR. WALDO SMITH: At the beginning of this
2 discussion I didn't feel like I should be saying
3 anything, but as a result of what I've heard, I would
4 like to introduce into the record part of my comments
5 on this cleanup exercise. And it all starts out with
6 a letter from the acting deputy assistant secretary
7 of the Army from Washington. It's addressed to my
8 colleague, Dennis Gallager.
9 "I would like to thank you and Mr. Smith
10 for your letter of August 29th to President Clinton
11 concerning a trust fund provision in the agreement as
12 a conceptual remedy for the cleanup of the Rocky
13 Mountain Arsenal."
14 And I go further in my comments by saying,
15 with specific reference to a possible trust fund, a
16 little research by a naive layman indicates some
17 interesting facets and financial aspects of the Rocky
18 Mountain Arsenal cleanup. And what I've found was
19 that, over the years, our United States Government
20 has misused the term "trust" specifically in
21 connection with Social Security. They have taken the
22 word "trust" to mean "slush." And as a result, we
23 have concern over our trust funds.
24 This is very unfortunate, that we should
25 allow this to continue. And if I have any breath

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1 left in me at the end of this year, I'll continue to
2 pursue this problem.
3 I go on by saying that the trust fund --
4 I'm not going into the details because that's
5 annoying.
6 Please notice that at the beginning of this
7 discussion, under Item 4, I mention escrow. The
8 scheme would not be effective in the present fiscal
9 year. The Army has been assured of its
10 appropriations for this fiscal year. This situation
11 would, hopefully, give a public-private partnership
12 an opportunity to bolster the trust fund with
13 individual or corporate tax-exempt donations. This
14 will give the general public a direct chance to
15 rehabilitate the environment we need to protect for
16 our survival and -- in parentheses -- and
17 politicians. The fiscal control of the trust fund
18 should be overseen by the General Accounting Office
19 as an independent, unbiased government agency.
20 Thank you very much.
21 (Applause.)
22 MR. ZEIK SAIDMAN: Any comments from the
23 panel? Okay.
24 All right. Any other comments?
25 MS. CATHY COFFEY-WEBER: Zeik, right there.

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1 MR. ZEIK SAIDMAN: I'm sorry. Okay.
2 Again, state your name, organization, if
3 you're with one, and your city of residence.
4 MR. SRINADH IYENGAR: My name is
5 Srinadh Iyengar; I come from the Highlands Ranch.
6 Myself and my son were visitors. We just came to see
7 the wildlife but got our program canceled but have
8 sat here listening to what was happening.
9 Just to tell you two bad experiences that
10 we did have -- we're now in the beginning of this
11 process. Just two weeks back I was going through the
12 Merritt Island Wildlife Preserve, and I was very sad
13 to read the story of one songbird that would appear
14 ten years, people watched it diminish in numbers
15 slowly and finally it died. But today we say we're a
16 thriving wildlife national preserve. And I hope
17 that, in years to come, that you will come to see
18 that similar suggestion here but not hear the same
19 sad story.
20 The second thing is I moved from San Diego,
21 from an area called Tierrasannta, where one of the
22 first things we heard when I went there was there
23 were unexploded shells in that area and two children
24 were killed picking up -- picking those up.
25 And even today the discussion is still going on,

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1 after 40 years. And people are still trying to find
2 out how they can get rid of these shells. And I hope
3 that we won't be able to hear or see those problems
4 come back.
5 Thank you.
6 MR. ZEIK SAIDMAN: Thank you.
7 (Applause.)
8 MR. ZEIK SAIDMAN: Any comments?
9 All right. Anybody else?
10 Okay.
11 MS. SANDRA JAQUITH: My name is
12 Sandra Jaquith, and I've been involved in this
13 process for about 12 years. I started off as a
14 member of Citizens Against Contamination, an
15 organization based in Commerce City. We got involved
16 because there was TCE in the water in the Commerce
17 City area, and we started fighting for cleanup of
18 water, and our group continued then into a monitoring
19 process of the cleanup of the Rocky Mountain
20 Arsenal.
21 For the last year and a half I've been a
22 member of the SSAB, which is the Site Specific
23 Advisory Board, and I'm community cochairperson of
24 the RAB, which is the Restoration Advisory Board,
25 for the cleanup of the Rocky Mountain Arsenal. As

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1 many of you already know, we have written comments
2 that are due by December 15th, and I'll be doing
3 detailed written comments at that time.
4 MR. ZEIK SAIDMAN: Sandra, what city of
5 residence did you mention?
6 MS. SANDRA JAQUITH: I'm sorry, Denver --
7 I'm a citizen of Denver, Colorado. Grew up in
8 Commerce City and lived here until -- well, lived
9 here for about 30 years before I moved into Denver,
10 which is how I got involved in this process.
11 There are just a couple of things that I
12 wanted to make a point of this morning on the
13 record.
14 As some of you probably realize, there are
15 many of us here who could probably go on for hours
16 about our comments about the cleanup of the Rocky
17 Mountain Arsenal, and that brings me to the way this
18 whole thing is structured.
19 One of the comments I've made in public in
20 the past I would like to make for the record today is
21 that I'm very much opposed to the way this whole
22 document was structured. For those of you who aren't
23 involved in this process, as you read this document
24 you would think that there are actually
25 five alternatives that are being considered for

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1 treatment or a remediation of the Rocky Mountain
2 Arsenal.
3 And the truth is that what they describe on
4 the second page as the agreement that they reached,
5 the parties reached back in June, really does make a
6 definite agreement about what course they are going
7 to pursue for the remedy as -- at the Rocky Mountain
8 Arsenal.
9 Now, what we've been told is that in the
10 process -- this is a legal process that they have to
11 follow, the meeting they have here today, and they'll
12 listen to all of our comments. But unless there's
13 something that really will derail their agreement,
14 the agreement is also set pretty much in stone. And
15 so the alternatives that you're reviewing and
16 commenting on I think are really a misnomer. I think
17 it's really an illusion about public comment about
18 the cleanup or the remediation of the Rocky Mountain
19 Arsenal.
20 My second comment about this process is the
21 use of the word "cleanup." And I've used it a couple
22 times this morning. And I'm sorry to have that be
23 such an easy phrase to use because there's no cleanup
24 at this site. At this point there's nothing about
25 a -- "cover-up" is the word I use for it. And I

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1 don't mean that just to be sarcastic about it.
2 It's simply a matter of landfilling
3 contamination, some of the contamination, and putting
4 a -- sometimes a very thin soil cap or cement cap
5 over the rest of it.
6 One of the concerns we have is the
7 long-term monitoring and maintenance of those caps.
8 In our processes of discussion about maintenance,
9 they are talking about a 30-year program, and we
10 think this is a -- this is contamination that will
11 last for hundreds -- if not thousands -- of years,
12 and we're very concerned that, if they're not going
13 to clean this up, that there be an adequate process
14 for monitoring and maintaining the remedy that they
15 have in place, which goes back to Waldo's comments
16 about a trust fund.
17 One of the things that was raised earlier
18 today by Roland Russell from Commerce City is the
19 SAPC process that we were involved in. And that was
20 the discussion that we describe on page 2 when they
21 cited their alternatives.
22 The public was -- there were several of us
23 or many of us who were involved in discussion leading
24 up to the decision of their remedy. But when the
25 parties actually decided their remedy, they went

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1 behind closed doors with their own discussions and
2 decided what the remedy would be.
3 One of the things that I would ask is that
4 all of the citizens' comments throughout that period
5 of the SAPC negotiations be included as part of the
6 official record so that those are also considered as
7 comments in the process of the decision of
8 remediation of the Rocky Mountain Arsenal.
9 And last but not least and one of the most
10 important issues today ties into the whole issue of
11 the cleanup or the nonclean-up of the Rocky Mountain
12 Arsenal, and that is that the argument for doing
13 covers, rather than any other kind of treatment --
14 well, there are many, money being one of them.
15 And one of the others is those
16 contaminations aren't reaching anybody. But those
17 contaminants will still be going into groundwater,
18 and we have major groundwater problems out here. And
19 with that in mind, one of the big fights that you
20 heard Jim Erger talk about earlier is how much water
21 will be available for the citizens of the surrounding
22 communities whose water has been affected by these
23 contaminants, contaminants that they didn't put in
24 place and that they had no control over.
25 It's a travesty if Henderson, which lies

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1 directly to the north, northwest of the Rocky
2 Mountain Arsenal, does not have an alternative water
3 supply. We're very concerned about all of the issues
4 of water, including the amount of water that is given
5 to SACWSD – which is the South Adams County Water
6 and Sanitation District -- how many homes in the
7 plume above the Rocky Mountain Arsenal or north of
8 the Rocky Mountain Arsenal will be hooked up, how big
9 the pipes will be that connect the alternative water
10 supplies with those homes, and whether or not there
11 will be any water available and any process available
12 for expansion by Commerce City or the other
13 communities into the north and northwest area once
14 the remediation has taken place.
15 So as an outline of my major concerns, you
16 can probably see that I'm not very happy with the
17 decisions that they've come to concerning the
18 remedies of the Rocky Mountain Arsenal. I think that
19 they leave a great deal to be desired. They're
20 minimal at best.
21 And I hope that all of you who are here
22 today for the first time, with these kinds of
23 comments in mind, will take some time to reexamine
24 the document they've given you and call some of the
25 agencies on here, particularly including the State

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1 and the EPA. I tend to think of the State as here to
2 protect your interests. And though I have
3 disagreements with them occasionally, I believe that
4 they're here for us.
5 Call somebody from Commerce City or South
6 Adams County Water District or ask to get a hold of
7 me or somebody from SSAB or RAB, and we'll be happy
8 to talk to you about some of our concerns and the
9 processes that we have had or the involvement that we
10 have had in this process.
11 MR. ZEIK SAIDMAN: Thank you.
12 MS. SANDRA JAQUITH: Thank you.
13 (Applause.)
14 MR. ZEIK SAIDMAN: Before the next person
15 makes a comment, I'd promised that the tour group who
16 wanted to take a bus could leave at 11:30. And,
17 Bill, maybe they'd go through that exit down there.
18 MR. BILL THOMAS: If they would, please.
19 Whoever wants to go on the bus tour this
20 time should, for right now, just exit through there.
21 Thank you.
22 MR. ZEIK SAIDMAN: They've been patiently
23 waiting. But we have other business, and we will
24 again continue with the comments that people want
25 to make.

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1 MS. LAURA WILLIAMS: Zeik, I'd like to just
2 respond a little bit to what Sandy said before we
3 start again.
4 MR. ZEIK SAIDMAN: Okay. Can we
5 reconvene.
6 Laura wanted to respond -- Sandra --
7 Sandra, Laura wanted to respond to something in your
8 comments.
9 MS. LAURA WILLIAMS: I just wanted to
10 reiterate again that EPA very much wants to hear
11 public input in the process. We don't consider it
12 just a little process that we go through. We take it
13 very seriously.
14 And I think that to come to a conclusion
15 that somehow there was a cover-up, as it's been
16 discussed, unfairly characterizes what's been going
17 on at the Arsenal. We've had a very contentious
18 nature with all the stakeholders involved, lawsuits
19 between the parties going on, and so it makes sense
20 that we do have to come to some kind of agreement
21 amongst ourselves before we can even come to the
22 public with any kind of a meaningful proposal on how
23 to clean up the site.
24 So I believe very strongly that we have
25 come to that agreement; we have commitment from all

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1 the stakeholders saying, "Yes, we believe this is the
2 right way to go." And this meeting, even though it
3 is part of the formal process, is our way of coming
4 to the community and saying, "Please tell us what you
5 think of this."
6 So at least from the Environmental
7 Protection Agency's viewpoint, this is a very
8 important part of selecting that remedy. It's not
9 just going through the motions of pretending that
10 we're hearing what you have to say and then just
11 coming up with our own decision. And I feel that --
12 I've been involved at a lot of other Superfund sites,
13 and this is a very typical process for all Superfund
14 sites. It is not something just specific to the
15 Arsenal.
16 MR. ZEIK SAIDMAN: Thank you.
17 Comment? For the record. And name --
18 MR. LARRY FORD: Okay. My name is
19 Larry Ford. I'm the manager of the South Adams
20 County Water and Sanitation District in the Commerce
21 City area. I live at 12388 Leevy Circle in
22 Henderson, Colorado.
23 I thought maybe I ought to get up and say a
24 few words so that you do know that the water district
25 is very interested in what's happening. We've worked

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1 with the Army for many, many years, and we've got the
2 Klien treatment plant built at the Army's expense and
3 EPA. They did a very good job, and they worked very
4 closely with us.
5 The problem is is the Klien treatment plant
6 doesn't deal with some of the future contamination
7 that we see coming at us, and that's why we felt that
8 the only way to put this community back is to -- to
9 have a new water supply.
10 It's probably the most critical thing for
11 the Commerce City area and the Henderson area, is
12 that the water supply be replaced. We've -- we've
13 got the rights to -- I believe it's around
14 12,000 acre-feet of water. The Army and Shell are
15 saying, "We'll replace 4 of it, 4,000 acre-feet."
16 But we don't think that's enough, especially with the
17 Henderson area.
18 The main reason is, if you have
19 4,000 acre-feet of very pristine water that you can
20 mix with the Klien treatment plant water, it would
21 probably -- we'd end up with something that would be
22 acceptable to the citizens. But we've got to make
23 sure that it's a -- it's very high-quality water,
24 and we've got to make sure that Henderson is
25 dealt with.

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1 The citizens -- there's a lot of you
2 sitting in this room -- we went forward, we got the
3 coalition formed and several other committees. We
4 got to sit at the table in the negotiations. We feel
5 we were a friend of the Army and EPA -- Army and --
6 and Shell. I think they got by with a lot less than
7 they would have got by with if they -- we hadn't
8 have been at the table.
9 I think the State and EPA wanted much more,
10 as far as the cleanup. But we knew we had to get it
11 done. We couldn't sit here for another ten years
12 before we made a decision. We couldn't end up in
13 court.
14 But I think the main thing was that we
15 expected that we would end up with a water supply for
16 the community that would help put our lives back
17 together, that we would -- that we could see growth,
18 we could see things happening that hasn't happened
19 now. Maybe our property values would come back. We
20 live out here, we can't get any development, and it's
21 all because of the water.
22 We're not saying the Army's totally
23 responsible. We know they're not in our present
24 area. So maybe the 4,000 acre-feet doesn't look bad
25 for our area, if it's good water, but -- but what

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1 about Henderson? Henderson's very important because
2 the contamination in Henderson is directly related to
3 the Army and the Rocky Mountain Arsenal.
4 So I guess I play on the Army and Shell's
5 sympathy, that -- you want the citizens behind you,
6 you want to get this thing wrapped up. You know,
7 look at -- look at Henderson, look at some more
8 -water, and look at a good quality water so that our
9 community can be put back together.
10 Thank you.
11 MR. ZEIK SAIDMAN: Thanks.
12 (Applause.)
13 MR. ZEIK SAIDMAN: Okay. Additional
14 comments?
15 Okay. Name, organization if you're with
16 one, and the city.
17 MR. DAN MULQUEEN: My name is
18 Dan Mulqueen. I'm a resident of Denver. I'm a
19 member of the Site Specific Advisory Board and the
20 Restoration Advisory Board.
21 And as a result of the -- a lot of people
22 have referred to the fact that some organizations of
23 people were involved in the SAPC steering and policy
24 committee -- subcommittee -- or committee
25 negotiations. And when that came to an end and we

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1 were finally invited out of the negotiations, we
2 did 10 or 15 minutes of a round on the 20 different
3 sites or so, what objections and what concerns we had
4 about those sites.
5 But one issue came up for every one of
6 those sites and one issue only, and that was dioxin,
7 which is a contaminant that citizens have suspected
8 out here for a long time due to the haphazard and
9 uncontrolled burning, and it's a great health
10 concern, worldwide and locally.
11 And we still haven't seen any information
12 or any approach to dioxin as a contaminant. That's
13 something we think might be a serious mistake, due to
14 the fact that this will be a wildlife refuge; the
15 wildlife might be impacted by it if it's here without
16 testing for it anywhere. I think there's a great
17 risk that the wildlife refuge might be
18 nonsustainable, nonsupported, and might become a
19 problem in the future. And I just -- I really think
20 we need an answer to that before we go too much
21 further.
22 We have another problem -- I personally
23 have a real problem with the fact that land disposal
24 restrictions -- which is something that Congress
25 instituted in 1984 in the Reagan administration,

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1 which -- very strong law against burying hazardous
2 waste without treatment. There's no document that
3 containment of waste is, in the public perception,
4 far superior to dispersal through incineration.
5 But I don't think that the matrix goes far
6 enough, in that there are alternatives to just
7 untreated land disposal. I think there's
8 alternatives to incineration. I think those have to
9 be considered at greater length than has been
10 considered here.
11 Right now I think what's being considered
12 for -- as waivers against land ban are things that
13 may or may not be legal, and I think they should be
14 looked at really seriously. I think just an
15 agreement, the conceptual remedy -- agreement on a
16 conceptual remedy made by the parties is kind of an
17 agreement not to sue each other over these things.
18 And I think a Judge ought to look at this
19 and see whether or not RCRA is in -- kind of being
20 sidestepped by what's called the CAMU rule, which is
21 a rule that they're -- it's already been sued under
22 by the Environmental Defense Fund in Washington, and
23 there's some kind of a settlement working on that,
24 where the EPA has agreed to either rewrite or do away
25 with CAMU.

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1 Now, if this whole remedy is built on
2 supposed exemption from the land ban and that
3 exemption goes away before the remedy's even begun to
4 be implemented, where are we then? Well, let's see a
5 contingency for that.
6 Let's see some contingencies for seeing if
7 keeping the lakes full doesn't -- if that
8 doesn't -- it's theoretical. They say, if they find
9 enough water to keep the lakes full, then the plumes
10 won't move around. Well, what if that's not true?
11 I mean, these are the kind of things we're
12 going to find out when they're performed. You know,
13 hopefully, it will be good enough monitoring that
14 we'll know whether or not this is successful. If
15 it's not successful, then what? I think we have the
16 right and the obligation to consider these things,
17 and the public should be able to comment on these
18 things, not just comment on what we've already seen.
19 I think we -- we need to see the
20 contingencies. What happens if these things don't
21 work? What happens if the rules change? What
22 happens if the laws and the exemptions to the laws
23 change or are found illegal? Then what?
24 There's a lot of money here. There should
25 be more money. Poor -- the Federal government

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1 poor-mouth and -- about cleaning up their own mess
2 infuriates me. When they need a B-1 bomber, there's
3 no poor-mouthing. They just go get the damn money.
4 The whole government's supposedly shut down today,
5 nonessentials shut down today. Well, they found a
6 way to put this together. They found a way to carry
7 it out. Shell came up with the money to pay the
8 salaries of the people who came today.
9 Let's -- you know, let's get one way or
10 the other. We either don't have the money or we do
11 have the money, but I think it should be
12 generalized.
13 And the issue of water is -- is critical.
14 I think we should see the water before we see the
15 decision.
16 Thank you.
17 MR. ZEIK SAIDMAN: Thank you.
18 Comments from --
19 MS. BARBARA NABORS: I wanted to respond to
20 part of Dan's comment.
21 In response to the dioxin issues, that's
22 been a concern that's been expressed by Dan and other
23 stakeholders. The State went ahead and embarked on a
24 small-scale study to look at the dioxin in the tissue
25 of animals and soils here at the Arsenal, and I've

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1 been frustrated because that data isn't available
2 yet. And I know that you've been asking me
3 frequently about the whereabouts of it.
4 Part of the reason for the delay is that
5 our wildlife toxicologist, who's performing the
6 study, decided that we needed to expand the scope of
7 the analysis, and that is the reason that we haven't
8 gotten the information out yet. But I can commit to
9 you that, when we get it available, we will make that
10 available to the other -- to the stakeholders.
11 MR. DAN MULQUEEN: Thank you.
12 MS. LAURA WILLIAMS: I also have a small
13 comment --
14 MR. ZEIK SAIDMAN: Laura.
15 MS. LAURA WILLIAMS: -- just in terms of
16 the Superfund process.
17 If there are changes in the remedy that are
18 made, if they're small changes -- such as, "Well,
19 let's move the building over 1 foot" -- that
20 generally does not go out to the public for
21 additional comment. However, if it is a large change
22 which says, "We can no longer landfill" or "The cap
23 is going to be changed so significantly that it's
24 totally revised," that will go out to the public for
25 additional comment, and it will go through this

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1 formal public comment process that you're seeing here
2 for the proposed plan.
3 MR. DAN MULQUEEN: Can you name that
4 process? Is that significant -- the planning a
5 significant difference? Is that what --
6 MS. LAURA WILLIAMS: It's just called
7 post-record of decision changes, and there are
8 two different documents that can be produced as a
9 result of that. One is the explanation of
10 significant differences, and the other one is called
11 a ROD amendment, literally amends the entire remedy.
12 MR. DAN MULQUEEN: And can you tell us
13 which of those are open to public comment?
14 MS. LAURA WILLIAMS: Sure. The ROD
15 amendment 100 percent is. The explanation of
16 significant differences is made available to the
17 public, does not incorporate public comment, quote,
18 unquote, as part of its selection, but it can be
19 developed that way.
20 AUDIENCE SPEAKER: And that's up to
21 the EPA?
22 MS. LAURA WILLIAMS: Up to the parties
23 as -- as things are being developed. I would think
24 it's more a reflection of community involvement and
25 community concern, more than it is does EPA want to

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1 do it.
2 MR. ZEIK SAIDMAN: Okay.
3 MR. RAY RAUCH: Comments, Zeik.
4 MR. ZEIK SAIDMAN: Michael, Ray. Okay.
5 MR. MICHAEL ANDERSON: I'd just like to
6 comment that Shell, as well as the other parties here
7 at the table, except the Colorado Department of
8 Health, are all signatories to a Federal facility
9 agreement in 1979 which had a settlement agreement
10 associated with it on how Shell would help pay for
11 cleanup activities.
12 Shell is not paying the Army while they're
13 on furlough. That is an incorrect statement, Dan. I
14 don't know where you got your information.
15 MR. ZEIK SAIDMAN: Ray, did you have
16 something?
17 MR. RAY RAUCH: Yes. To date the service
18 has found no wildlife that attributes the death to
19 dioxin. We provided specimens to the State to look
20 for dioxin residues there. So to date we don't have
21 any evidence of any wildlife that's been affected.
22 MR. DAN MULQUEEN: But you say that you --
23 you haven't found anything that you've attributed
24 dioxin as a cause of death.
25 MR. RAY RAUCH: Cause of death.

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1 AUDIENCE SPEAKER: But have you found
2 wildlife with tissue concentrations of dioxin?
3 MR. RAY RAUCH: No. That's what's provided
4 to the State, to look for those. But we found
5 other -- the contaminants and if it's another
6 wildlife disease or trauma, hit by a car or
7 something.
8 MR. DAN MULQUEEN: Okay. Do you know what
9 the -- what the -- what kind of pathology results
10 from dioxin poisoning?
11 MR. RAY RAUCH: We didn't look for dioxins
12 on those things. We were looking for the chemicals
13 of concern.
14 MR. DAN MULQUEEN: Why are not the --
15 Charlie, why are not the dioxin, PCBs, MDMA, and --
16 one more -- are not in the human health risk
17 characterization? There's -- there are four
18 chemicals that seem to be drivers that aren't listed
19 here. Do you remember what -- when -- what are we
20 going to do about that?
21 MR. CHARLES SCHARMANN: Well, let me first
22 explain how we went about developing that list that's
23 in the proposed plan.
24 The contaminants of concern, that list
25 resulted from an exhaustive review of all the

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1 chemicals that were used on Rocky Mountain Arsenal
2 and a database that -- we had to figure out exactly
3 what we expected to find out here. That's a very
4 extensive list of chemicals. Okay.
5 We did some screening analyses as part of
6 our investigations to find out exactly what may be
7 there, and we used that information to tell us how
8 frequently some things were detected and -- in order
9 to get us a smaller list. That's not a list of every
10 single compound that may be at a site, but it's a
11 list of chemicals that would drive you and your
12 decisions of what remedy you pick between a -- to
13 clean a site up.
14 In the case of the animals, a smaller list
15 was developed because those are the chemicals most
16 likely to be found in animals out here. Based on
17 historical analysis, our view was that dioxin, if --
18 we do not have a likelihood that dioxin would be out
19 here in levels that would be of concern. And in
20 fact, much of the remedy that we've already developed
21 for other chemicals also would address dioxin or
22 other chemicals that are in that area.
23 So because there was not a specific program
24 for it, you know, does not mean that it's not being
25 addressed by our remedy. The State is doing some

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1 additional work, and based on that, there may be
2 something identified to say, "Hey, maybe you need to
3 do some additional work for dioxin." But our view is
4 that that is not the case, and -- but we're open, as
5 studies go on, to take a look at that.
6 MR. DAN MULQUEEN: Wasn't that -- isn't
7 the part of the beauty of a burying solution, in that
8 it doesn't really matter what's there; you're just
9 burying it anyway?
10 MR. CHARLES SCHARMANN: Well, you certainly
11 have to have a material characterized to the point to
12 know what containment measures to use, and you want
13 to make sure liners -- to the extent that you're
14 using liners -- are compatible with the waste that
15 you're putting in touch with those liners.
16 So certainly, you know, you need to have
17 some level of characterization done. We feel we have
18 extensive soil data to know, you know, what we're
19 putting in our landfill. And yes, in the case of --
20 if dioxin were there, it would be contained by the
21 facilities we're putting in, that's right.
22 MR. ZEIK SAIDMAN: Let me give some
23 other -- thank you.
24 Anybody else? I mean -- opportunity to
25 ask a question.

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1 And let me -- Bill was asking me if
2 there's anybody else interested in the tour bus. Is
3 anybody else? Okay.
4 Bill, do we have a bus available? Do you
5 want to go now, or do you want to stay --
6 AUDIENCE SPEAKER: We want to stay.
7 MR. ZEIK SAIDMAN: You want to stay.
8 Okay.
9 MR. BILL THOMAS: So can I get a show of
10 hands how many people are interested in a tour?
11 That's fine. We have plenty of room.
12 Thank you.
13 MR. ZEIK SAIDMAN: Okay. And about a half
14 dozen, Bill, raised their hand.
15 Do you want to stay till the end of the
16 hearing? Okay.
17 All right. Let me just also get a show of
18 people who want to make comments. How many more
19 people want to make -- this gentleman does over
20 here. Anybody else besides this gentleman in terms
21 of comments? Okay.
22 Go ahead.
23 Name and organization, if you would.
24 MR. RON PACE: My name is Ron Pace. I'm a
25 citizen of Commerce City, and I have been for life.

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1 First of all, I want to thank the board for
2 at least coming out. And you have been very
3 informational, and I thank you for that.
4 But to the citizens, I -- I thank you for
5 your concern. As you know -- as you see me, I'm a
6 very young person, and I am very concerned about the
7 water situations and the soil that is here at the
8 Arsenal. I've lived here my whole life, and the
9 biggest complaint that I hear, just from friends that
10 I have over, is "What's this smell? What's the
11 water?" Well, I agree with them. What is the
12 smell? What is the water?
13 And one thing I ask -- and that I want to
14 take part of -- is let's unite, let's get this thing
15 fixed. I want to know the organizations that I can
16 stand behind that is going to watch people like this
17 and say, "Hey, let's get this thing fixed. We can
18 work together, that's fine, but let's get it fixed."
19 I want to thank everybody for their
20 concerns, and I appreciate it from one young person
21 to everybody else.
22 (Applause.)
23 MR. ZEIK SAIDMAN: Okay. Final comments?
24 Rich, you had some more comments?
25 Okay. Does anybody -- has anybody not had

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1 a chance to speak who would want to speak?
2 MR. ROGER BAIN: I think I want to say
3 something.
4 MR. ZEIK SAIDMAN: Do you want to say
5 something?
6 If you don't mind, Richard.
7 MR. RICK WARNER: No.
8 MR. ZEIK SAIDMAN: Anybody else who wants
9 to speak before we repeat again?
10 Okay. You want to speak.
11 Okay. Anybody else?
12 All right. And then we'll go back
13 through people who had a chance to speak already,
14 to be fair.
15 MR. ROGER BAIN: My name's Roger Bain. I
16 live in Henderson.
17 And one of the things -- this whole
18 situation has been frustration to me. Part of
19 it's -- I didn't understand how they came up with
20 the conclusion to not clean up anything off-site. I
21 read the materials at the library, and I did not --
22 was not happy with the fact that they did their
23 tests, were short -- let's see, how do I want to say
24 this? They tested their like unknown pesticides on
25 dogs. They fed them to them for a month to determine

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1 long-term effects over a short-term period. And I
2 don't think that's reasonable.
3 And also, when they did the background
4 tests for what's north of the Arsenal, what
5 contaminants there are there, they didn't do anything
6 from the south. There are no test sites from the
7 south of the Arsenal. All of them were north.
8 There's one east, one west. Where in the hell's the
9 south?
10 That doesn't make any sense, logically, for
11 scientific conclusions.
12 MR. ZEIK SAIDMAN: Panel, do you want to
13 respond to that point?
14 Charlie?
15 MR. CHARLES SCHARMANN: Yeah. I guess I'd
16 like to question whether you're referring to water or
17 soil tests first.
18 MR. ROGER BAIN: Both.
19 MR. CHARLES SCHARMANN: Okay. With regard
20 to the soil tests that were done, we did a lot of
21 soil sampling on the Arsenal. And based on those
22 results, we were able to see where soil possibly had
23 blown off the Arsenal. And the trends, based on wind
24 patterns -- basically, the prominent winds are to the
25 north and to the east. And so that's where surface

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1 soil was blowing, and that's where we concentrated
2 our tests.
3 We did take soil samples on the south edge
4 of the Arsenal, and . . .
5 AUDIENCE SPEAKER: Not off.
6 MR. CHARLES SCHARMANN: Right. Not off
7 because, based on the results that were on the
8 Arsenal, we did not see results that were high enough
9 to say that it would go any further south.
10 I believe EPA, in response to some concerns
11 of some citizens down in the Montbello area, has
12 taken some samples, but that's -- to address the
13 specific concerns of folks in that area.
14 But based on the data we have on-site, I
15 think that the parties are in agreement that we've
16 looked at the areas where there was a chance that our
17 chemicals could have migrated.
18 With regard to groundwater, groundwater
19 flows from the south to the north to the northwest.
20 So that's -- that's the reason why we concentrated
21 our efforts in groundwater, you know, to the north,
22 because those are the areas that could have been
23 impacted by our Arsenal operation.
24 MR. ROGER BAIN: I understand that part but
25 I'm thinking of like a blank. You know, what's not

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1 there is in the south or south -- on the southern
2 side. So anything that you do on the north side, you
3 do have contamination, you have a level that's
4 already there, you're not seeing that -- well, maybe
5 before anything was here to the south -- you're not
6 seeing what wasn't there.
7 Does that make any sense?
8 MR. CHARLES SCHARMANN: As a -- like a
9 background sample? Is that --
10 MR. ROGER BAIN: Yeah. I mean like
11 blank --
12 MR. CHARLES SCHARMANN: Okay. We did test
13 some areas totally removed from Rocky Mountain
14 Arsenal. And in some cases we went north and east of
15 Brighton, you know, areas that would not be impacted
16 by, say, wind transport of soils and things such as
17 that. And we took some samples to try to establish
18 what the ground ought to be, and in an agricultural
19 community you do have some pesticides in your
20 background samples.
21 MR. ROGER BAIN: I understand that.
22 MR. CHARLIE SCHARMANN: And we used that
23 information to see whether the Arsenal has impacted
24 the areas above what we would call background
25 levels.

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1 So we did try to address that. Taking
2 samples south of the Arsenal, you know, wouldn't
3 necessarily be background, necessarily. You know,
4 north of the Arsenal it's highly agricultural so we
5 went into areas like -- again, I said north and east
6 of Brighton where -- that are similar but unaffected
7 by the Arsenal. So we did try to address that very
8 issue.
9 MS. BARBARA NABORS: You might also mention
10 that the State was concerned with the soil off of
11 those, as well. And as part of the conceptual remedy
12 and the off-post RAB, there's going to be 160 acres
13 of surficial soil tilled to try and remove it from
14 the surface in the off-post area.
15 And I'm thinking that perhaps your comments
16 about short-term versus long-term tests had to do
17 with DIMP and water and the mink studies and that
18 sort of thing. That -- you probably know that that
19 was a major, major concern of the State.
20 And the Army is using our State groundwater
21 standard of 8 parts per billion so we are -- feel
22 comfortable that that issue has been resolved.
23 MR. CHARLES SCHARMANN: I guess one further
24 thing, address your concern and then Jim's comment
25 regarding being left out. And I apologize. You

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1 know, we try to make ourselves available to address
2 questions. Some folks have been involved in
3 discussions over the past year, year and a half. We
4 always can do a better job of that.
5 And you know, we'll be committed to work
6 with you, whatever meetings that you want to attend
7 where we talk about the water supply issue, who gets
8 hooked up, who doesn't, you know, where pipelines go
9 and things like that.
10 A lot of that has not been even discussed
11 yet. The commitment is there to address that area.
12 How we go about doing that in terms of where the
13 waterlines are -- is it South Adams County? Is it
14 Brighton? There are new wells that need to be
15 installed, things such as that. Those discussions
16 need to take place.
17 We've been working with Tri-County to try
18 to survey the area to see what some of the concerns
19 are that people want to know. There's -- we've heard
20 there were some concerns of some folks who saw that
21 survey.
22 So I guess we'd like to work with whoever's
23 interested in that, but we need to get out in that
24 area and hear some of the concerns, and that was the
25 purpose of this survey that was developed by

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1 Tri-County, was to use that as a vehicle to get out
2 there and find out, you know, what the people had on
3 their mind, what they want. Do they want to be
4 hooked up to a municipal water supply? You know, do
5 they want a monthly water bill? Things like that.
6 I mean, we don't want to force something on
7 somebody, so we need to definitely get in touch with
8 the community.
9 And, Jim, we'd like to work with you and
10 anybody else, really, who wants to get involved in
11 that. We need help on it.
12 MR. ROGER BAIN: Okay. I don't have other
13 questions.
14 MR. ZEIK SAIDMAN: Okay. Back there, this
15 gentleman. Comment on the proposed plan, name, and
16 organization.
17 MR. MIKE WALTENBURG: My name is
18 Mike Waltenburg. I live in Commerce City. I've been
19 a 30-year resident of the area. I was stationed at
20 the Arsenal for 4 1/2 years, and I have several
21 questions about carcinogenics.
22 The thing that I had some questions about
23 is, right now I've asked several questions, and I
24 have not received any direct answer on any of them.
25 I've had disturbing questions. For one, I have --

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1 right now I don't believe any of the people on the
2 board can sit there and give -- have a list of all
3 the names of the people that worked on the Arsenal,
4 what happened to -- up to this time -- on health
5 issues.
6 MS. LAURA WILLIAMS: I think EPA can.
7 MR. MIKE WALTENBURG: Do you have it
8 with you?
9 MS. LAURA WILLIAMS: I don't have it
10 with me.
11 MR. MIKE WALTENBURG: How long would it
12 take you to give me this information?
13 MS. LAURA WILLIAMS: I don't know. I'd
14 have to check.
15 MR. MIKE WALTENBURG: The other one -- the
16 other thing is the carcinogenics that the Arsenal had
17 at the time, from the inception until now, that --
18 the waterborne, the movement of the water. What
19 happened to all the little particles of dust every
20 time the wind blew out here and it picked up and went
21 to the south, went to the north, went into Commerce
22 City, and even went down into Denver?
23 And I -- you know, I don't hear any --
24 anyone saying that we have a medical program or --
25 or even an organization or even a -- something to

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1 fall back on for skin cancers, for any of the number
2 of things that can come up with these carcinogenics.
3 I don't think anybody really thinks about,
4 you know, this stuff could have happened -- you
5 could have driven by the Arsenal in a dust storm in
6 the '60s and die tomorrow from it.
7 And this stuff is continuing to go on.
8 Right now they're talking about putting caps on
9 them. What happened to the caps right now? Are
10 there exposed areas right now? They're talking about
11 surface. I asked a question here about a year ago
12 about -- I watched them killing off the prairie dogs
13 out here. They said that they were doing that
14 because they were getting rid of the prairie dogs
15 because there was ground pollution. Excuse me. They
16 were within 200 yards of the edge of the Arsenal. If
17 there was ground pollution there, why weren't they on
18 the other side of the road?
19 A prairie dog, to me, does not burrow more
20 than about 18 to 20-some inches. Maybe I'm wrong.
21 That means that he is in the top area where I live.
22 The dust that is what he breathes I breathe.
23 You know, how far are they going to go with
24 the -- with this extermination thing? It's us that
25 are being exterminated. Very slowly. They send

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1 millions of dollars overseas every year, but we live
2 in this area. I think some of this money that's
3 being spent ought to be spent at home. What we're
4 doing right now is killing ourselves talking
5 about it.
6 That's all I have to say. I -- my family
7 is what I'm interested in.
8 MR. ZEIK SAIDMAN: Comments from the
9 panel?
10 MR. RAY RAUCH: On -- the prairie dogs I'd
11 like to address.
12 We didn't kill them off on the south. We
13 sprayed for fleas; we killed the fleas. Prairie dogs
14 were dying from the plague. That's why you saw it.
15 And we was outside the fence so . . . excuse me.
16 MR. MIKE WALTENBURG: Well, I was in the
17 program at the Arsenal back in the '60s when the
18 plague was in, and we trapped some of the animals
19 that were here then. And I don't ever remember
20 putting flea powder on the hole and then closing it
21 with my foot.
22 MR. RAY RAUCH: In the '60s the Service
23 wasn't here. So I'm talking about now, what we've
24 done.
25 MR. MIKE WALTENBURG: Yes. I watched the

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1 individuals. That's fine. This is not going
2 anywhere.
3 But I watched them putting powder upon the
4 ground -- no, they weren't spreading it around; they
5 weren't putting it tracking to kill the fleas. They
6 were putting it in the holes and closing it. When --
7 usually when you're going to take and destroy a
8 burrowing animal, that's how you do it.
9 And I noticed shortly after that there
10 wasn't hardly -- back on Highway 2, there isn't that
11 many prairie dogs left. Two or three years ago we
12 had thousands up through there. Now, perhaps maybe
13 something has come through there.
14 But if you want to get rid of the base food
15 for the -- for the eagles and stuff, I think the
16 prairie dogs are right where you want to start. I'm
17 possibly mistaken on it.
18 MR. RAY RAUCH: No. Prairie dogs is one of
19 the main prey species. '50s, '60s, I can't address
20 that, but I can address what the Fish and Wildlife
21 has done since the middle '80s out here, and it has
22 been spraying for fleas. So -- and we are losing
23 prairie dogs. We lost 98 percent of the prairie dogs
24 to plague this year.
25 MR. MIKE WALTENBURG: All right.

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1 MR. ZEIK SAIDMAN: Michael, do you have
2 something you want to comment?
3 MR. MICHAEL ANDERSON: I'd just like to
4 comment there have been a number of health studies
5 done by ATSDR, by the Colorado Department of Health,
6 and most of those studies are available to indicate
7 whether or not there have been issues in terms of
8 health impacts by contaminants at the Arsenal.
9 I'd be glad to talk with you after the
10 meeting and make some of those studies available to
11 you; we can work that out through the Army. You'll
12 have a chance to look at some of these studies.
13 In addition, Shell has done some studies
14 over time in terms of looking at workers at
15 pesticides plants, both in Europe and here in the
16 United States, and results of those studies are also
17 available. We'd be glad to make those results
18 available to you if you haven't seen them before.
19 MR. MIKE WALTENBURG: No, I haven't. But I
20 do have a comment to make about the pesticide and
21 the -- the -- what is it in Europe and whatever. I
22 understand -- we ought to have a base with that.
23 But what happened to the study right here? I -- the
24 reason I -- I don't want to --
25 MR. MICHAEL ANDERSON: There's information

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1 available.
2 MR. MIKE WALTENBURG: One of the questions
3 I do have is how much of the stuff that was on the
4 Arsenal that was -- how do I want to say this? --
5 that was classified information -- how much of this
6 has been unclassified now, up to this date?
7 The reason I ask is because I was stationed
8 here, and I used to mow the grass around the F lake.
9 I used to work over here in the GB -- or in the GB
10 area -- make sure I point my finger in the right
11 direction -- up here in the mustard area. I had
12 access to all of that.
13 And that's why I was -- I was wondering.
14 Because I know what was spilt. I know what was
15 shoveled off to the side and everything. And you
16 know -- and almost all of that material was
17 carcinogenic.
18 MR. CHARLES SCHARMANN: Well --
19 MR. MICHAEL ANDERSON: That needs to be
20 brought up.
21 MR. CHARLES SCHARMANN: I can address the
22 classification issue.
23 Much of what was classified on here -- and
24 I can't tell you exactly what information is
25 available and what's not. But much of that had to do

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1 with the amount of chemical agents that we produced,
2 stored, et cetera. And for -- again, as part of
3 national security, that information was not made
4 available to the general public.
5 Regarding the chemicals handled, where they
6 were spilled, how much was disposed of, all that
7 information I think you may be referring to as the
8 way we handled wastes out here. All that was opened
9 and reresearched as part of our studies to find out
10 exactly where, in fact, we could have chemicals here
11 on-site.
12 So -- but with regard to much of the
13 chemical agent production and storage information, I
14 just don't know off -- off the top of my head. We
15 could find that information out for you, if there is
16 still some information classified.
17 But I wanted to address your issue with
18 regard to ongoing, say, blowing of contamination,
19 things like that. And we do have an active
20 monitoring program now to try to measure exactly what
21 is going on now. And we will continue that in the
22 future to make sure that our actions don't adversely
23 affect the community.
24 Historically, if you go back years, you
25 know, it was a totally different climate or

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1 environment at that time. And maybe the records
2 aren't as good.
3 But Mike mentioned some of the studies, the
4 health studies or epidemiological studies, that were
5 done to try to determine -- make a determination on
6 whether there's been a high incidence of cancer or
7 what type of cancer, things like that, in this
8 community. And again, I believe their conclusions
9 were that they could not find that where there has
10 been high incidences of cancer above what they would
11 expect background to be.
12 In the future it's something we can do
13 something about. Unfortunately, we can't go
14 back 30 years and have the records. But in the
15 future we are not only monitoring the air, we will be
16 monitoring the workers, and that was the whole intent
17 of the medical monitoring program, is to use the
18 information contained on-site, as well as deal with
19 some off-site issues with the local community, to
20 make sure that we can make statements to you,
21 hopefully, that you're not being affected by the
22 actions being taken at Rocky Mountain Arsenal in the
23 future.
24 So that's something we can do something
25 about. In the past I -- unfortunately, you know,

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1 recordkeeping, monitoring was not as good as it is
2 today so . . .
3 MR. ZEIK SAIDMAN: Okay.
4 MS. BARBARA NABORS: I have a summary, a
5 citizen summary, of two of the studies that the
6 Colorado Department of Public Health was involved in.
7 And if you'd like to take this, you can have it. And
8 I believe there's a couple comments, people that you
9 could call at the health department if you have
10 questions, Mike Wilson.
11 MR. ZEIK SAIDMAN: Barb, are there more
12 copies of that?
13 MS. BARBARA NABORS: That is the only one I
14 brought, but we could probably have copies made
15 if . . .
16 MR. ZEIK SAIDMAN: Do you want to -- how
17 do you want to have that get out to people?
18 Norm, do you want a copy?
19 AUDIENCE SPEAKER: Yes.
20 MR. ZEIK SAIDMAN: Can you get their --
21 can you go up to --
22 MS. BARBARA NABORS: I can send one to
23 Norm. I'd be happy to do that.
24 MR. ZEIK SAIDMAN: If you want to get
25 additional copies, you can keep that -- you can

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1 contact Barb and get those copies.
2 AUDIENCE SPEAKER: Fax it to me.
3 MR. ZEIK SAIDMAN: Can you do that, fax it
4 to him?
5 All right. Thank you.
6 Anybody again who hasn't had a chance to
7 make a first comment? And again, trying to focus on
8 the proposed plan for the final cleanup, as much as
9 anything, in terms of discussion. That's what the
10 hearing's about. Anybody else who hasn't had a
11 chance to speak?
12 Okay. So Rich, did you -- do you want to
13 make another comment?
14 THE COURT REPORTER: Excuse me.
15 (Discussion off the record.)
16 MR. ZEIK SAIDMAN: The court reporter's
17 ready. Rich, do you . . .
18 Okay. Again, let's try to focus on the
19 proposed plan.
20 MR. RICK WARNER: Okay. First I'd like to
21 say that -- and it hasn't even been mentioned here.
22 I suppose if this was one of the largest bomb
23 manufacturers in America, it would be mentioned, but
24 this is the largest military Superfund site in
25 America. It is -- it -- there's none bigger.

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1 And what we have here is over here on this
2 table you see seven volumes of dated alternative
3 analysis that you can use to judge from. And if you
4 go through that, you'll see that that references
5 about -- I don't know -- 50 or 60 other volumes.
6 Some of them meant multiple volumes. It's a lot of
7 paper to go through.
8 This just came out. What they did here is
9 they took 181 sites, and they consolidated them
10 into 25 median groups, and all of that got
11 consolidated into one large operable unit. And it's
12 incredible that -- the reason, I guess, for that is
13 so people can't look at it too close. I don't know.
14 Anyway, for that reason I would like to
15 request that the public comment period be
16 extended 180 days so that those not well-versed in
17 this would have a reasonable chance of making
18 pertinent comments and having pertinent input into
19 this.
20 It has been explained to members of the
21 board that they really don't expect the public --
22 any sort of public comment to affect the decision
23 one way or another, but it does go on the
24 administrative record, and it's only fair that people
25 get pertinent and real comments on the administrative

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1 record.
2 Next point I'd like to make is that this
3 couple to the south -- last time I talked to you
4 about Commerce City and Henderson; this time I'd like
5 to talk about Montbello and Green Valley Ranch and
6 Aurora and -- and Park Hill.
7 These are not part of the off-post study
8 areas. They are not a consideration of anything that
9 happens out here. If you lived out here -- as you
10 have, probably, for years and years -- you know that
11 the tumbleweeds don't pile up on your north fence;
12 they pile up on your south fence. The wind blows
13 that way.
14 If you take a tour here, if you just drive
15 around, you'll see many, many smokestacks out here.
16 That smoke and the debris that came out of these
17 stacks and the contaminants and pollution went to the
18 south, went to the southwest. If you were watching
19 the SQI while it was burning on almost any given day,
20 you could see that plume glow all the way around, all
21 the way around.
22 It's true of living in the Front Range. We
23 kind of live in a vortex here, a -- of circulating
24 winds. Not enough has been looked at in the off-post
25 area. It's for that reason -- the off-post came to

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1 comment two or three years ago. We still don't have
2 a record of decision out. I've requested copies of
3 it. I still have not seen the record of decision.
4 But it should have addressed things like
5 this. There were a lot of comments that were not
6 supportive of it. I think that there should not be
7 an on-post decision until the off-post decision has
8 been decided. The reason for that is because, in the
9 off-post, people live. People's issues need to be
10 addressed first, rather than the blank prairie.
11 But that's that.
12 MR. ZEIK SAIDMAN: Any additional comments
13 you want to make? Just . . .
14 MR. RICK WARNER: I do have one other --
15 MR. ZEIK SAIDMAN: Okay.
16 MR. RICK WARNER: -- at this particular
17 three-minute stance.
18 The trust fund was mentioned. The reason
19 the trust fund was mentioned is because this cleanup
20 does not end in nine or ten years. This is a
21 thousand-year treatment. These chemicals are going
22 to be toxic and in that ground for a thousand years.
23 If you happen to know of a landfill anywhere in the
24 history of mankind that has been good for a
25 thousand years -- 500 years, a hundred years --

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1 please let me know. I'd be -- I'd love to have that
2 information. I don't think that one exists.
3 The history is not something we deal with
4 here. We deal with fantasy science, which we call
5 risk analysis and modeling. In that particular
6 instance along the south, one of our own members
7 looked at their modeling data, went outside, got
8 other information, and believes he has
9 incontrovertible evidence -- that's probably not a
10 real good word in science anyway -- that the waters
11 did flow to the south. He is in the process of
12 preparing that report now. And hopefully, it will be
13 available to the parties as soon as he is done.
14 But definite groundwaters and -- and
15 contamination, vertical contamination, of the
16 aquifers in the south, too.
17 So that's it for now. Thanks.
18 MR. ZEIK SAIDMAN: Thank you.
19 Comments from the panel?
20 MR. CHARLES SCHARMANN: Just -- I would
21 like to address the issue as far as the off-post RAB.
22 Rick's right. That originally came out in
23 1994 as a draft final or proposed final. It has
24 taken us this time to work out the issues and prepare
25 a final. We have prepared one that went to the

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1 parties for review. We also made it available to
2 some individuals on the Restoration Advisory Board.
3 If we have not gotten that to the Site Specific
4 Advisory Board, anyone who would like a copy -- we
5 can get you a copy of, Rick, in a minute.
6 MR. RICK WARNER: Great.
7 MR. CHARLES SCHARMANN: Our hope is that
8 that will be finalized and signed in the next month
9 or so. And we were scheduled to have a signing on
10 November 29th for that document, but due to the
11 furloughs and whatnot, that will be delayed.
12 MR. RICK WARNER: There is no additional
13 public comment on that document; is that right?
14 MR. CHARLES SCHARMANN: That's right. We
15 went through a public review process on that, and we
16 received a fair amount of public comment, and I think
17 some of those comments we received were -- were
18 incorporated, obviously, or else we explained why
19 they could not be incorporated.
20 But we've gone through the public process
21 on that particular record of decision.
22 MR. RICK WARNER: That was about
23 three years -- two years ago?
24 MR. CHARLES SCHARMANN: The proposed final
25 came out in December of -- of 1993, actually. I'm

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1 sorry. Is that right, Tim?
2 MR. TIM KILAGANNON: Yeah.
3 MR. CHARLES SCHARMANN: 1993. So the
4 public process on that -- you're stretching my memory
5 here, but I think it was in the spring of '93 that we
6 had our public meeting on that.
7 MR. TIM KILAGANNON: April of '93.
8 MR. CHARLES SCHARMANN: April of '93 is
9 when we had our public meeting. And we have had, I
10 believe, either a 60- or 90-day public review period
11 for that document.
12 MR. RICK WARNER: So about 2 1/2 years.
13 MR. CHARLES SCHARMANN: Yes.
14 MR. RICK WARNER: Okay.
15 MR. CHARLES SCHARMANN: I stated correctly
16 before.
17 With regard to the study area -- and a lot
18 of the rationale for why it was set up the way it was
19 is presented in that off-post documentation. But
20 again, I was not saying that the wind does not blow
21 to the south. And I apologize if I inferred that.
22 But the data that we have on-site of where
23 soil has blown, where it -- chemicals may be found in
24 surface soils, is mostly to the north and to the
25 east, the higher levels. There was some detected to

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1 the south. But again, it's a lower level, and it was
2 below health standards on-site so no further study
3 was done off-site.
4 Again, that supports the -- why we set the
5 study area up the way we did.
6 MR. RICK WARNER: In the 30 or 40 years
7 that this was here, were those soils to the south
8 ever tilled, moved around, replanted, revegetated?
9 Was there any sort of activity that changed -- could
10 have changed the depth of those contaminations, could
11 have moved them to other site places on the Rocky
12 Mountain Arsenal? I understand from people who
13 worked here that that did happen quite often down
14 there on flooding.
15 MR. CHARLIE SCHARMANN: Those activities
16 occurred across the Arsenal, not just to the south.
17 You know, I don't have -- our facilities folks may
18 have a better feel for exactly where those activities
19 occurred. But again, we did not target any one part
20 of the Arsenal that I'm aware of. And certainly, the
21 areas to the south I don't believe that -- were
22 targeted any more for those kinds of activities.
23 MR. RICK WARNER: Nor, also, the areas east
24 of First Creek where all the new hotels and houses
25 are being built or where those oil wells have been

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1 dug -- or new developments have been planned to be
2 built. Nothing that be done there, either, right?
3 MR. CHARLES SCHARMANN: Not that I'm aware
4 of, Rich.
5 MR. ZEIK SAIDMAN: Okay. Other comments
6 from the panel?
7 Okay. Any other comments from people in
8 terms of the proposed plan?
9 Any -- I'll ask it again. Any other
10 comments from people for the proposed plan?
11 Those who want to take a bus tour --
12 another bus tour, out by the exit sign. And we thank
13 you for your public comments.
14 This meeting is adjourned.
15 (Meeting proceedings concluded
16 12:17 p.m., November 18, 1995.)
17 * * * * *
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Page 147

1 CERTIFICATE
2
3 I, MELANIE L. HUMPHREY-WATKINS, a
4 Registered Diplomate Reporter and Certified Realtime
5 Reporter, do hereby certify that I reported by
6 machine shorthand the proceedings contained herein
7 and that the foregoing 146 pages constitute a full,
8 true and correct transcript.
9 Dated this 10th day of December, 1995.
10
11
12 MELANIE L. HUMPHREY-WATKINS
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RESPONSES TO COMMENTS MADE AT THE PUBLIC MEETING ON THE ROCKY MOUNTAIN ARSENAL ON-POST PROPOSED PLAN NOVEMBER 18, 1995

The transcript from the public meeting on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan is included in the Responsiveness Summary in its entirety. Individual comments from the transcript of the public meeting are summarized in brief below, with responses immediately following each comment. The appropriate page and line number of the transcript are indicated for reference, as is the commentor's name. Comments that were answered during the public meeting, where the transcript reflects a response, are not repeated here.

Comment 1 (page 80, line 2), Mayor David Busby: Suggests that, because Basin A has no liner under it, a slurry wall to bedrock be installed all the way around Basin A for containment.

Response: Computer modeling of the groundwater flow in the Basin A area revealed that installation of a slurry wall would not significantly enhance the control that can be achieved by covering the soil and other material placed in the Basin A Consolidation Area and by extracting and treating groundwater at the Basin A Neck system. Slurry walls have been selected for the Shell Trenches and Complex Trenches as part of the remedy, and treatment is planned for the Hex Pit. A new groundwater extraction system for the Section 36 Bedrock Ridge Plume will be installed to prevent migration of contaminants into the First Creek alluvial aquifer.

Comment 2 (page 80, line 13), Mayor David Busby: States that the 4,000 acre-feet agreed upon in the Agreement for a Conceptual Remedy for the Cleanup of the Rocky Mountain Arsenal (Conceptual Remedy) is not sufficient for South Adams County Water and Sanitation District (SACWSD).

Response: The Army and Shell have reached an Agreement in Principle with SACWSD that includes payment of $48.8 million by the Army and Shell to SACWSD and requires SACWSD to supply water to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide the 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon at RMA at 303- 289-0259.

Comment 3 (page 80, line 20), Mayor David Busby: Commerce City supports the new state-of-the-art, triple-lined landfill.

Response: Comment noted.

Comment 4 (page 82, line 17), Mr. Roland Russell: On behalf of Mr. Russell and State Representative Jeannie Reeser, states that many things were left out of the Conceptual Remedy. Requests that comments or minutes from citizen meetings with the Parties be included in the remedy selection.

Response: The Army believes the public has provided significant input to the Conceptual Remedy and the remediation process at RMA. Prior to the Conceptual Remedy, the Parties were at a standstill and heading into litigation over the major differences seen as a basis for RMA remediation. The Conceptual Remedy, with the help of the Colorado Lieutenant Governor and a seasoned mediator, helped the Parties base an agreement on compromise without affecting the protectiveness of the selected remedy. The Conceptual Remedy does not contain specifics about the remediation process that will soon begin. The Parties are working hard to resolve the many questions that remain, and the public has an important role in that process. In addition, the Army has included more public participation in the selection process (more than 20 workshops and public meetings) than what is required under the Comprehensive Environmental Response, Conservation and Liability Act (CERCLA) by encouraging everyone to participate in the review and selection process over the past years. Again, the Army emphasizes that the Conceptual Remedy was not the product of one party dictating its agenda to the other parties. The Conceptual Remedy was a compromise for all parties involved in order to provide a safe, cost-effective, and implementable remedy. Many comments were reviewed and considered during the process. While no one will agree on every aspect of the Conceptual Remedy, the Army believes that the selected remedy will be fully protective of human health and the environment.

Comment 5 (page 86, line 12), Mr. Jim Erger: The solution to correct the problems caused by the Army and Shell is to have a totally new supply of water, along with pipelines and distribution lines, paid for by the Army and Shell.

Response: With regard to compensating homeowners and providing a new water supply, please see the response to **Comment 2**, above.

Comment 6 (page 86, line 19), Mr. Jim Erger: In areas of the Arsenal with minor pollution, capping and containment will suffice. The smallest amount of soil you have to move, the better, and the smallest amount of burning and thermal treatment, the better.

Response: Comment noted.

Comment 7 (page 87, line 19), Mr. Jim Erger: What part of the 4,000 acre-feet of water belongs to Henderson? Where are the pipelines going to go? What size? We want 12-inch pipelines. We want a surface supply of water, not underground water.

Response: With regard to water for the Henderson area, please see the response to **Comment 2**, above. SACWSD will be responsible for placing and designing the pipelines.

Comment 8 (page 91, line 9), Mr. Rick Warner: The federal government must not only comply with law but should strive to be a leader in the area of environmental cleanup.

Response: The Army is committed to seeing that RMA is a leader in environmental remediation. Lessons learned at RMA will be shared throughout the United States; this leadership image reflects not just on the success of the remediation but especially on the public involvement process.

Comment 9 (page 92, line 25), Mr. Rick Warner: There are no details regarding the water supply.

Response: Please see the response to **Comment 2**, above, regarding the water supply. Further information will be provided as it becomes available.

Comment 10 (page 95, line 14), Mr. Waldo Smith: The public wants a Trust Fund as provided in the Conceptual Remedy.

Response: During the formulation and selection of the remedy, members of the public and some local governmental organizations expressed keen interest in the creation of a Trust Fund, as you do in your comment, to help ensure the long-term operation and maintenance of the remedy. The Parties have committed to good-faith best efforts to establish such a Trust Fund, as described in the On-Post Record of Decision (ROD). Principal and interest from the Trust Fund would be used to cover the costs of long-term operations and maintenance throughout the lifetime of the remedial program. These costs are estimated to be approximately $5 million per year (in 1995 dollars).

It is the intent of the Parties that if the Trust Fund is created it will include a statement containing the reasons for the creation of the Trust Fund, a time frame for establishing and funding the Trust Fund, and an appropriate means to manage and disburse money from the Trust Fund. The Parties are also examining possible options that may be adapted from trust funds involving federal funds that exist at other remedial sites. The Parties recognize that establishing a Trust Fund may require special congressional legislation and that there are restrictions on the actions federal agencies can take with respect to such legislation. Because of the uncertainty of possible legislative requirements and other options, the precise terms of the Trust Fund cannot now be stated.

A Trust Fund group will be formed to develop a strategy to establish the Trust Fund. The strategy group may include representative of the Parties (subject to restrictions on federal agency participation), local governments, affected communities and other interested stakeholders and will be convened with in 90 days of the signing of the ROD. According to the U.S. Government Manual, "The General Accounting Office [GAO] is charged with examining all matters relating to

the receipt and disbursement of public funds." The existence of a trust fund containing government funds and the use of such a fund is subject to GAO audit. Fiscal control of such a such is not considered within GAO's delegated authority.

Comment 11 (page 97, line 16), Mr. Srinadh Iyengar: Hopes that stories of wildlife extinction and children being hurt or killed will not happen at RMA.

Response: The Army is firmly committed to ensuring the safety of people and wildlife during remediation activities at RMA.

Comment 12 (page 99, line 19), Ms. Sandra Jaquith: Questions whether five alternatives were really considered in the Feasibility Study (FS) as presented in the Proposed Plan. Also questions the public involvement in selecting the remedy.

Response: The purpose of the FS was to generate a number of possible remediation alternatives from the universe of alternatives and then narrow those down to select the one that could best address the site based on the proscribed FS selection criteria. In the Detailed Analysis of Alternatives (DAA), a component of the FS, five primary alternatives were developed, compared to each other, and compared to the selection criteria prescribed by CERCLA. The selected alternative was the one agreed upon in the Conceptual Remedy and described in the On-Post Proposed Plan. Please see also the response to **Comment 4**, above.

Comment 13 (page 100, line 20), Ms. Sandra Jaquith: Questions the use of the word "cleanup." Expresses concern about long-term monitoring and maintenance of the caps.

Response: Please see the response by Ms. Laura Williams, EPA, on page 105, line 9, of the public meeting transcript, regarding public input and the use of the term "cleanup." Regarding long-term monitoring, a 30-year monitoring program for the caps is mentioned in the Proposed Plan and the Record of Decision (ROD) because it follows U.S. Environmental Protection Agency (EPA) cost-estimating guidelines. However, the Army and Shell are committed to maintaining the integrity of the remedy in perpetuity and will conduct monitoring to ensure the protectiveness of the caps and landfills as long as necessary.

Comment 14 (page 102, line 3), Ms. Sandra Jaquith: Requests that all citizens' comments throughout the period of Steering and Policy Committee negotiations, leading up to the Conceptual Remedy, be included as part of the official record.

Response: The Responsiveness Summary of the ROD follows EPA guidance and includes only the written comments and oral comments from the public meeting. All comments were reviewed and considered in the selection of the remedy. In addition, written minutes from meetings during the settlement process are part of the On-Post Administrative Record and can be found at the Joint Administrative Record Document Facility.

Comment 15 (page 102, line 25), Ms. Sandra Jaquith: Questions the amount of water to be provided to SACWSD, how many homes will be connected to SACWSD, how large the pipelines will be, and whether there will be water available for community expansion to the north and northwest of RMA after remediation.

Response: Please see the response to **Comment 2**, above.

Comment 16 (page 107, line 5), Mr. Larry Ford: States that the Klein treatment plant does not deal with some of the contamination expected to reach the plant in the future. States need for water supply to be replaced. Asks what about Henderson?

Response: Please see the response to **Comment 2**, above.

Comment 17 (page 110, line 5), Mr. Dan Mulqueen: Requests an answer to whether dioxin is present and what will be done if it is found.

Response: Dioxin and furan sampling was undertaken by the Colorado Department of Public Health and Environment, and these results are currently being evaluated by the Biological Advisory Subcommittee. Please see also the response in the public meeting transcript by Mr. Ray Rauch, U.S. Fish and Wildlife Service (USFWS), beginning on page 116, line 17.

Comment 18 (page 110, line 22), Mr. Dan Mulqueen: Questions the selection of landfilling soil without treatment.

Response: Many alternatives to land disposal were considered in the DAA, including innovative and conventional treatment technologies. However, because of the large volume of contaminated soil and the wide variety of contaminants, a combination of containment and limited treatment was selected as a remedy because it ensured protection of human health and the environment, as well as being implementable and cost-effective. EPA's goal in establishing the Corrective Action Management Unit (CAMU) Rule, which was adopted by the State of Colorado in the Colorado Hazardous Waste Management Act (CHWMA), was to "provide remedial decision makers with an added measure of flexibility in order to expedite and improve remedial decisions" while "existing closure regulations and requirements for [Resource Conservation and Recovery Act] RCRA-regulated units, which require closure to occur in a manner that is protective of human health and the environment, remain in effect." Purpose and Context of the CAMU Rule, 58 Fed. Reg. 8659 (1993) (to be codified at 40 C.F.R Parts 260, 264, 265, 268, 270 and 271) . The onsite landfill that is central to the CAMU will meet applicable CHWMA requirements. Also, when the ROD is signed and final, the CAMU will be in place and its application to the RMA remediation would only be revised subject to court ruling or if it were found not to be protective of human health and the environment.

Comment 19 (page 112, line 6), Mr. Dan Mulqueen: Questions what will happen if the plan for keeping the lakes full is not successful.

Response: Monitoring is ongoing to address the potential need for additional action in the lakes area. If necessary, the remedial design will address the required actions.

Comment 20 (page 113, line 13), Mr. Dan Mulqueen: States that the issue of water is critical.

Response: Please see the response to **Comment 2**, above.

Comment 21 (page 121, line 4), Mr. Ron Pace: States concern about water and soil. Questions "What is the smell?" and "What is the water?"

Response: Some odors were generated during previous RMA operations and during the Basin F Interim Response Action, but the Army is not aware of any odors being generated onsite at this time. Air monitoring at RMA does not indicate the presence of contaminants that could migrate off-post. The off-post groundwater has been and will continue to be monitored, and those results are available to the public. Please see also the response to **Comment 2**, above.

Comment 22 (page 129, line 23), Mr. Mike Waltenburg: Questions whether there is a medical program or organization looking at cancer in people living near RMA.

Response: Studies on human health have been completed by the Agency for Toxic Substances and Disease Registry (ATSDR) independently and in conjunction with CDPHE. The studies showed no conclusive health impact on the communities surrounding RMA. Also, the final Public Health Assessment, produced by ATSDR, will be complete in the summer of 1996. A Medical Monitoring Program has been established to monitor any off-post impact on human health due to the RMA remediation. This Program will continue until the soil remediation is completed. A Medical Monitoring Advisory Group has been established to evaluate specific issues covered by the Medical Monitoring Program. The Group is composed of representatives of the Army, Shell Oil Company, EPA, Colorado Department of Public Health and Environment (CDPHE), Tri-County Health Department, ATSDR, USFWS, Denver Health and Hospitals, and the Site-Specific Advisory Board. The Group also includes representatives from the communities of Montbello, Commerce City, Henderson, and Denver. If you would like more information on the Medical Monitoring Program or wish to participate as part of the Medical Monitoring Advisory Group, please call Ms. Mary Seawell of CDPHE at 303-692-3327. Please see also the responses in the public meeting transcript by Mr. Michael Anderson, Shell, beginning on page 133, line 3, and Ms. Barbara Nabors, CDPHE, beginning on page 137, line 4, regarding medical monitoring.

Comment 23 (page 139, line 14), Mr. Rick Warner: Requests that the public comment period be extended 180 days.

Response: The comment period for the On-Post Proposed Plan was extended by 30 days to balance the concerns of those who wanted more time to comment and those who wanted no more delays to the ROD.

Comment 24 (page 139, line 20), Mr. Rick Warner: States that public comment will not affect the decision one way or another.

Response: The Army is interested in public comments and concerns and has made substantial effort to hear those concerns through the Restoration Advisory Board, the Site-Specific Advisory Board, stakeholder meetings, and avenues of public comment such as the comments on the On-Post Proposed Plan. The Army has included more public participation than what is required by under the CERCLA, such as conducting more than 20 open houses and public meetings to enable those interested to voice their concerns. The Army believes the public has provided valuable input to the remediation process at RMA and all comments were reviewed and considered in the selection of the remedy.

Comment 25 (page 141, line 1), Mr. Rick Warner: States that there is no final Off-Post ROD.

Response: The Off-Post ROD was signed and became final on December 19, 1995.

Comment 26 (page 141, line 18), Mr. Rick Warner: Reiterates the earlier comment regarding a Trust Fund.

Response: Please see the response to **Comment 10**, above.

Comment 27 (page 142, line 10), Mr. Rick Warner: Believes that groundwater does flow to the south from RMA.

Response: For a more detailed response regarding groundwater flow patterns at RMA, please see the Army letter responding to Mr. John Yelenick's written comments. In summary, no such groundwater plume has been identified by the extensive groundwater monitoring programs the Army conducts annually. Groundwater flows generally downgradient from the southeast corner of RMA toward the South Platte River. Superimposed on the regional gradient is a groundwater mound in the RMA South Plants. The mound is created by leaking pipes, increased recharge from unlined ditches and ponded areas, and may also be the result of natural variations in the permeability of the alluvium and the bedrock in the area. Groundwater in the area of the mound flows radially out from the mound in all directions. A groundwater divide occurs at the confluence of the regional flow system and the mound. As a result, groundwater entering RMA from the southeast is forced to turn either east or west around the South Plants area. Water flowing south from the mound area is forced to change direction and join the regional flow system. The groundwater flow direction in the confined Denver Formation is also from southeast to northwest. It is physically impossible for groundwater or contamination from RMA to flow southward from the RMA boundary.

12–8

Responses to Citizen Comments

Rocky Mountain Arsenal
Reply Card

Proposed Plan Comment

Please add my name to the Army's mailing list of upcoming public meetings:

Name Bob + Kathy Bailey.

Address 8681 E. 104th Ave

City Henderson State CO Zip 80640

Phone 303/288-4132

Please list any questions and/or comments you have.

The water supply for Henderson needs to be part of the Cleanup.

9535308-1/1

k You

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Mr. Bob and Ms. Kathy Bailey
8681 E. 104th Avenue
Henderson, Colorado 80640

Dear Mr. and Ms. Bailey:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

In response to your comment about a water supply for Henderson, the Army and Shell Oil Company (Shell) have reached an Agreement in Principle, enclosed with this letter, with South Adams County Water and Sanitation District (SACWSD) that includes payment of $48.8 million by the Army and Shell and requires that SACWSD water be supplied to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply to satisfy Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Readiness is our Profession

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

2. PAYMENT OF THE ABOVE SUM IS CONDITIONED ON ADHERENCE TO THE FOLLOWING TERMS. OTHER TERMS AND CONDITIONS WILL BE THE SUBJECT OF FURTHER NEGOTIATION.

A. PAYMENTS WILL BE HELD IN TRUST FOR SACWSD. TRUSTEE TO BE CHOSEN BY THE ARMY & SHELL WITH SACWSD CONCURRENCE. ANY INTEREST THAT ACCRUES MUST BE RETURNED TO THE ARMY AND SHELL.

B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

C. SACWSD MUST CONTRACT FOR WATER RIGHTS OR SUPPLY BY NOT LATER THAN SIX MONTHS AFTER THE DATE OF THE FINAL PAYMENT.

D. PAYMENTS FROM THE TRUST TO SACWSD MUST BE TIED DIRECTLY TO THE ACQUISITION AND DELIVERY OF 4000 ACRE FEET OF

01/26/96 FRI 13:54 FAX 703 6962940 US ARMY ENVIR LAW DIV →→ RMA COUNSEL 002

WATER AND THE HOOK UP OF WELL OWNERS IN THE HENDERSON AREA. ALL EXPENDITURES BY SACWSD PAID FROM THE TRUST ACCOUNT WILL BE SUBJECT TO AUDIT BY THE ARMY AND SHELL. UP TO $43 MILLION MAY BE SPENT ACQUIRING AND DELIVERING THE 4000 ACRE FEET OF WATER AND UP TO $4.65 MILLION MAY BE SPENT ON HOOK UPS IN THE HENDERSON AREA. THE REMAINING $1.15 MILLION IS TO OFFSET INFLATION OR CONTINGENCIES. ANY EXPENDITURES CHALLENGED BY THE ARMY, SHELL, OR THE TRUSTEE WILL BE SUBMITTED TO THE ALTERNATIVE DISPUTE RESOLUTION (ADR) METHOD DESCRIBED IN E, BELOW.

E. AN INDEPENDENT QUALIFIED AGENT, WHO IS A SENIOR WATER RESOURCE EXPERT WITH EXPERIENCE IN ACQUIRING AND DELIVERING WATER, WILL BE SELECTED BY SACWSD, WITH THE CONCURRENCE OF THE ARMY AND SHELL, TO DIRECT THE SELECTION, ACQUISITION, AND IMPLEMENTATION OF A WATER SUPPLY ON BEHALF OF SACWSD THAT CAN BE OPERATIONAL BY 1 OCTOBER 2004. THE TERMS OF THE AGENCY WILL BE AGREED UPON SACWSD, THE ARMY AND SHELL. THE ARMY AND SHELL WILL CONCUR WITH THE DESIGN OF AND SUBSEQUENT BID PACKAGES FOR THE WATER DELIVERY SYSTEM. THE CONSTRUCTION FIRM OR FIRMS TO CONSTRUCT THE PROJECT OR PROJECTS WILL BE SELECTED BY COMPETITIVE BID BASED ON A SOLICITATION PROCESS CONCURRED IN BY THE ARMY AND SHELL. THE COSTS ASSOCIATED WITH IMPLEMENTING THIS SECTION WILL BE PAID FROM THE TRUST ACCOUNT. ANY DISAGREEMENT ARISING REGARDING THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO A FORM OF ADR CONSISTING OF SUBMISSION OF THE DISPUTE TO THREE WATER RESOURCE EXPERTS; ONE SELECTED BY THE ARMY AND SHELL; ONE SELECTED BY SACWSD; AND ONE SELECTED BY THE INDEPENDENT AGENT OR BY THE AGREEMENT OF THE TWO SIDES IF THERE IS NO INDEPENDENT AGENT. THE COST OF ADR WILL BE BORNE BY THE PARTIES WITH EACH SIDE PAYING FOR ITS EXPERT AND EACH SIDE PAYING 50% OF THE COST OF THE EXPERT FOR THE INDEPENDENT AGENT.

F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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G. SACWSD AGREES TO SATISFY THE OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 OF THE AGREEMENT ON A CONCEPTUAL REMEDY FOR THE CLEAN UP OF ROCKY MOUNTAIN ARSENAL. THE PAYMENTS TO SACWSD WILL CONSTITUTE COMPLETE SATISFACTION OF THE ARMY AND SHELL'S OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 AND COMPLETE SATISFACTION OF ALL COSTS ASSOCIATED WITH THE TERMS AND CONDITIONS NECESSARY TO EXECUTE THESE OBLIGATIONS. ALL COSTS NECESSARY TO EXECUTE THE REQUIREMENTS OF THIS AGREEMENT, UNLESS OTHERWISE EXPRESSLY STATED, WILL BE PAID OUT OF THE TRUST ACCOUNT. SACWSD WILL NOT BE RESPONSIBLE FOR MONITORING REQUIREMENTS TO BE PERFORMED BY THE ARMY AND SHELL IN ACCORDANCE WITH ITEM 17 AND SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN THE FIRST 130 WELL OWNERS. ANY ADDITIONAL HOOK UPS REQUIRED UNDER THE TERMS OF ITEM 17 WILL BE THE RESPONSIBILITY OF THE ARMY AND SHELL.

H. SACWSD WAIVES AND RELEASES THE ARMY AND SHELL FROM ALL RESPONSE COSTS AND CLAIMS FOR DAMAGES FOR ALL RMA CONTAMINANTS AND POLLUTANTS IN THE SACWSD WATER THAT ARE KNOWN OR DETECTED PRIOR TO, OR AT THE TIME OF, THE SIGNING OF THE ON-POST RECORD OF DECISION (ROD). PAYMENT OF RESPONSE COSTS, IF ANY, OWED TO SACWSD AT THE TIME OF THE SIGNING OF THE ON-POST ROD WILL BE DETERMINED BY AGREEMENT OF THE PARTIES PRIOR TO SIGNING THE FINAL AGREEMENT CONTEMPLATED BY THIS AGREEMENT IN PRINCIPLE..

I. ANY REUSABLE RETURN FLOWS ASSOCIATED WITH ANY WATER SOURCE ACQUIRED WILL BE MADE AVAILABLE TO SACWSD FOR REPLACEMENT OF DEPLETIONS UNDER ITS EXISTING AUGMENTATION PLAN FOR THE FIRST THREE YEARS FOLLOWING THE INITIAL DELIVERY OF WATER FROM THE NEW WATER SOURCE IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED, OTHERWISE RETURN FLOWS ASSOCIATED WITH THE NEW WATER SOURCE, AND ANY WATER UNUSED BY SACWSD FROM THE WATER SOURCE ITSELF, SHALL BE MADE AVAILABLE AT ARMY AND SHELL EXPENSE FOR THE REMEDIATION OF RMA FOR NOT LESS THAN 10 YEARS, IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED. THE FINAL PERIOD TO BE AGREED UPON. AFTER REMEDIATION, ALL RETURN FLOWS WILL RETURN TO THE USE OF SACWSD. EACH PARTY WILL BE RESPONSIBLE FOR ANY NECESSARY APPROVALS. DISPUTES ARISING OVER THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO ADR AS DESCRIBED IN E, ABOVE.

J. SACWSD WILL WARRANT AND OTHERWISE DEMONSTRATE IT IS AUTHORIZED AND QUALIFIED TO ENTER INTO THIS AGREEMENT, ACQUIRE

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AND PROVIDE WATER AND HOOK UP WELL OWNERS, SUBJECT TO THOSE WELL OWNERS' CONSENT TO INCLUSION WITHIN THE DISTRICT. SACWSD WILL BE RESPONSIBLE FOR PERMITTING, ADJUDICATION, AND OTHER REQUIREMENTS OF STATE AND FEDERAL LAW.

K. PARTICIPATION BY THE ARMY AND SHELL, OR BY THEIR REPRESENTATIVES, IN OVERSIGHT IN NO WAY CONSTITUTES AN EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE ADEQUACY, SUITABILITY, OR LEGALITY OF SACWSD OR THE INDEPENDENT AGENT'S ACTIONS TO OBTAIN OR PROVIDE WATER.

L. ALL PARTIES RESERVE ANY RIGHTS THEY MAY HAVE REGARDING NONPERFORMANCE BY THE OTHER PARTIES.

M. THIS AGREEMENT IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE LAWS AND WILL BECOME EFFECTIVE AND BINDING WHEN INCORPORATED BY REFERENCE IN THE ON-POST ROD.

N. THE AMOUNT AGREED UPON IS SUBJECT TO APPROPRIATE CREDITS FOR ANY ARMY AND SHELL CONTRIBUTIONS TO WATER OR INFRASTRUCTURE, SUBJECT TO SACWSD APPROVAL. APPROVAL WILL NOT BE WITHHELD UNREASONABLY. DISPUTES WILL BE SUBMITTED TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

O. ALL PARTIES WILL PUBLICLY SUPPORT THIS AGREEMENT.

P. ALL O&M COSTS ASSOCIATED WITH THE ACQUISITION AND DELIVERY OF WATER AND WITH THE HOOK UP OF WELL OWNERS WILL BE SACWSD'S RESPONSIBILITY. THE ARMY WILL SUPPORT ANY NECESSARY AMENDMENTS TO ALLOW THE KLEIN FUND ALSO TO BE USED FOR O&M COSTS FOR THE NEW WATER SYSTEM.

Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

R. THE ARMY OR SHELL WILL PAY, IF NECESSARY, WITHIN 30 DAYS AFTER SIGNATURE OF THE ROD, A SUM NOT TO EXCEED $1 MILLION TO PURCHASE AN OPTION ON WATER AGREED TO BY SACWSD, THE ARMY AND SHELL. THIS SUM WILL BE CREDITED AGAINST THE FIRST ANNUAL PAYMENT UNDER SECTION 1, ABOVE.

version 10 - 26/01/96

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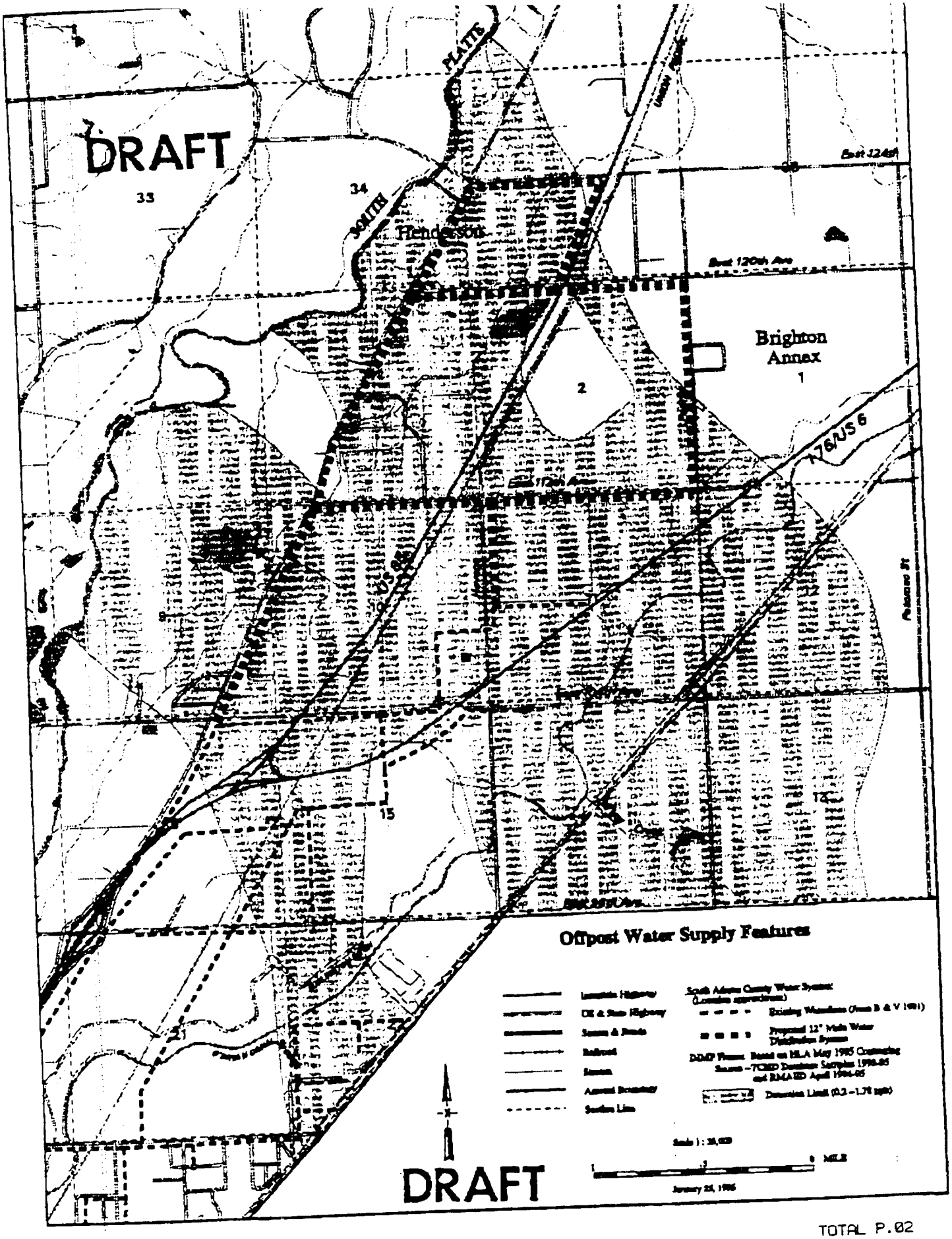
DRAFT
33
34
SOUTH
PLATTE
Henderson
East 124th
East 120th Ave
Brighton Annex
1
2
176/US 6
Pleasant St
15
Offpost Water Supply Features
Interstate Highway
Other State Highway
Streets & Roads
Railroad
Streams
Annexed Boundary
Section Line
South Adams County Water System
(Locations approximate)
Existing Waterlines (from B & V 1991)
Proposed 12" Main Water Distribution System
DDMP Phase: Based on HLA May 1995 Construction
Source - TCHD Database Samples 1994-95
and RMAED April 1994-95
Detection Limit (0.3 - 1.76 ppb)
Scale 1:
MILE
January 25, 1996
DRAFT

TOTAL P.02

RECEIVED
JAN 19 1995

The panel's (The EPA, CDPHE, U.S. Army, Shell Oil Co., and USF&WS) proposed Record of Decision (ROD) is not an effective solution. The proposed ROD (The great cover up) does not provide elimination of contaminates in Basins A and F. Covering Basins A and F make them a landfill! Is land filling hazardous material without a liner legal? Do federal regulations (CERCLA?) prohibit this type of action? The soils in Basins A and F must be treated and appropriately land filled. Full LDRs must be followed throughout RMA. Basins A and F must be decontaminated as much as possible! Not taking any treatment action for Basins A and F is unacceptable.

According to the DAA (4-15) regarding option IV, " . . . high short-term risks are posed to workers and the community during excavation, transportation, and treatment or land filling." Treatment of the soils in Basins A and F cannot be ruled out, since there are high short-term risks for any soil excavation! On Nov. 18, 1995 Mr. Anderson of Shell Oil Company mentioned water was going to be used to control release of vapors during excavations. Why isn't a foam agent designed to capture vapors during excavation being used? The foam is safer than water. Option V is reasonable because the long-term results are the most effective at maintaining cleaner groundwater. Option V should be modified; so soils can be treated by thermal desorption and not be incinerated.

The water treatment system at the boundaries is not doing a satisfactory job. Toluene is still crossing the RMA boundary. This is unacceptable. What other chemical agents are crossing the RMA boundary in treated water? Another activated carbon filter or better form of water treatment should be installed. Clean water is essential for a healthy life style.

Clean water is priceless! The extra cost for the added treatment of soil and water is worth it. Remember Basin A is considered the most contaminated square mile in the U.S.A. We must

pay the price for 53 years of neglect to insure safe drinking water for wildlife, and communities surrounding RMA.

SINCERELY

ROGER BAIN
DEBRA BAIN
8300 E 104th WAY
HENDERSON CO 80640

JAN 19 1996

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Mr. Roger and Ms. Debra Bain
8300 E. 104th Way
Henderson, Colorado 80640

Dear Mr. and Ms. Bain:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

Hazardous materials from the Basin F wastepile will be properly disposed in the on-post hazardous waste landfill. Highly contaminated materials from the Former Basin F will be treated by in situ solidification. A Resource Conservation and Recovery Act-equivalent cap will then be placed over this site. Capping is a form of waste containment, and is a remedy different from landfilling. A cap is designed to limit rainfall infiltration and to minimize contaminant migration from the site. Capping is not a viable solution for containment in all remediation situations, but, for the remaining wastes in Former Basin F, capping will safely and cost-effectively contain the waste materials. The remediation technology planned for Basin A is a cover that provides containment of waste and minimizes rainfall infiltration. In Basin A, a soil cover consisting of 6 inches of concrete and 4 feet of soil will protect people and the environment. The cap/cover technology minimizes the short-term risks of exposure to workers and the community because soil-borne contaminants are left in place and not excavated and exposed to the environment. The landfill and the cap/cover designs for Basins A and F comply with federal, state, and local regulations (including the Comprehensive Environmental Response, Compensation, and Liability Act). Concerns about the short-term impacts of excavation and treatment were evaluated against the potential long-term effects of containing the waste in place, and the Army believes that a protective remedy was selected.

Water spraying is a common method used to control the spread of dust during excavation operations. In addition, odor and vapor suppression methods such as foams or enclosures are planned for use at those sites where odors and/or vapors may be released. Furthermore, air monitoring will be conducted during remediation activities, and, if necessary, the excavation plan will be modified to ensure worker and community safety.

Clean water for the public is one of the Army's primary goals that will be met by continued operation of groundwater treatment/containment systems and by providing a supplemental water supply to meet community needs. The Army believes that the continued treatment of groundwater at RMA is an important part of the remediation. The RMA groundwater treatment

systems currently treat about one billion gallons of water per year to meet all state and federal standards. Toluene has not been found in RMA groundwater at levels of concern and is not detected in the treated water from the North, Northwest, or Irondale boundary containment systems.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

Commerce City Business & Professional Association, Inc.

P.O. Box 303 • Commerce City, CO 80037-0303

"Bringing Business Together"

Officers

President	Lois Litsey	289-4586
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Board of Directors

Dr. Jerome Cheney	286-8600
Wes Wilson	288-4857
J. Harlow Leonard	829-2121
[illegible]	288-6600

RECEIVED
JAN 16 1996

January 12, 1996

Charles Scharmann
Office of the Program Manager
Attn: AMXRM-RP/C. Scharmann
Rocky Mountain Arsenal
Commerce City, Colorado 80022

Dear Mr. Scharmann:

The Commerce City Business and Professional Association supports the Henderson Coalition in its efforts to force the U.S. Army and Shell Oil Company to replace their contaminated ground water supply. The blight of contamination has affected our community and that of our neighbor, Henderson. It is inconceivable that this community must fight so hard to right the wrongs committed by the Army and Shell.

Through attending various meetings it would seem that the Army and Shell would gladly replace the water supply in the amounts requested for Henderson and Commerce City, since no other financial concessions for the real damages done to our businesses, schools, and residents have been or will be made. That does not take into account the very negative public image we suffer from and the very real damages done. That does not take into account the numbers of people who have been supplied bottled drinking water by the Colorado Department of Public Health and Environment for the last several years.

It would seem that, as a very small part of the overall cleanup agreement, replacement of the contaminated supply would include a safe, permanent, good quality water supply for Henderson and Commerce City and would not be questioned. Instead, we have banded together to fight for what has been taken from us and from the generations to come.

We will continue to work to improve the image of our community, the image so badly damaged by our "neighbors" at the Rocky Mountain Arsenal. We will continue to plan for future growth, though our resources have been destroyed.

For successful consideration of the Record of Decision by our communities and our leaders, our future growth supply which was determined to be enough for 100,000 people for 100 years must be provided. Without a supply for the future, our growth will continue to be stifled and our businesses and residents will continue to suffer.

We implore you to restore our poisoned future water supply. We demand nothing more and will accept nothing less than replacement in the quantities and under the terms determined by our community leaders. It would seem that this is the very least, yet most important, course of action that our "neighbors" at the Rocky Mountain Arsenal can take.

Sincerely,

Lois Litsey, President

F.D. Chambers, Vice President

Cathy Russell, Secretary

M. Sue Kygar, Treasurer

Wes Wilson, Director

Dr. Jerome Cheney, Director

L. Harlow Leeper, Director

Joe Reilly, Director

/clr

Commerce City Business & Professional Association, Inc.

P.O. Box 303 • Commerce City, CO. 80037-0303

"Bringing Business Together"

80th Avenue Liquors....288-8566
88th Drive-In Theatre....288-5624
A B & T Shoppe, Inc....288-6103
A &R Industrial Service Company....287-5885
A-1 Auto Electric Co., Inc....287-3347
A-J Sales & Service Co....287-0223
Absolute Value Sales&Marketing....427-9484
Access Housing, Inc....289-7078
Ace Jewelry, Inc....288-4857
Acme Tree Service, Inc....288-8821
Adams City Liquor Store....287-8620
Adams County Library System....287-2515
Adams County School District 14....289-3941
Adams County School District 14....289-3940
ALCO Discount Store #73....287-3309
Allied Insulation Co. Of Colo, Inc....289-3326
Allstate Rent-A-Fence, Inc....287-7200
Aspen Mortuary....287-0495
B & B Auction....289-7253
Bee Bee Que.,Inc....287-2856
BFI of Colorado, Inc....287-8043
Big 'E' Concrete....288-8428
Big Ed's Tavern....288-9965
Blanchard, Thomas J., MD....288-2615
Challenge Sport & Spine Center....287-0393
Chambers & Son's Towing....288-3154
Charlotte's Web Restaurant....287-7544
City of Commerce City Parks Div....289-3713
City of Commerce City....289-3612
Clearview Motel & Apts....286-0386
Colographic, Inc....288-4796
Color Decorating....289-2880
Colorado Asphalt Services, Inc....292-3434
Colorado Auto Auction, Inc....287-8077
Colorado National Bank Northeast....399-0655
Colorado Brake & Supply, Inc....399-2934
Colorado Charter Lines, Inc....287-0239
Colorado Computer Products....289-6213
Colorado Denver Express....289-5577
Colorado Down & Feather, Inc....287-2831
Commerce City Dental Center....288-6877
Commerce City Express....288-7987
Commerce City Floral, Inc....288-6859
Commerce City: Mission Possible!....289-4497
Commerce City Post Office....288-2100
Commerce City Tire & Auto....289-5662
Community Health Services....289-1086
Cordova's Tire Repair, Inc....288-3238
Cummins Rocky Mountain, Inc....287-0201
Dairy Queen #33....289-1650
Del's Liquors....659-7439
Denver Pet Cemetery, Inc....288-0177
Denver Windustrial Co....287-2884
Derby Bicycle Shop & Screen Printing....288-4100
Derby Lanes....288-2225
Derby Tire Service, Inc....287-1808
Digital Solutions Group, Inc....740-8776
Direct Flooring Brokers....287-2233
Dollar General Store....289-3192
Donner Diesel, Inc....287-3481

Dr. Jerome F. Cheney, DO....286-8600
Drive Line Service of Denver, Inc....287-5538
DSP Builders, Inc....289-0666
Dychem International, Inc....288-1972
Earl F. Douglass Roofing Co....288-2635
Electric Power Equipment Co....288-0751
Elite Auto Glass....287-5000
Empire Tarps....288-4704
Ethanol Management Company....286-9408
First Federal Savings Bank....289-2931
Foothills Mill & Supply, Inc....287-2069
Fraternal Order of Eagles #3461....288-0861
Frontier Truck Eqpt & Parts Co....289-4311
G & B Truck Leasing, Inc....287-4302
Gahagen Iron & Metal Co....288-6867
Gala Gardens....288-3383
Gehler & Merrigan....287-2563
General Air Service & Supply....892-7003
Grif-Fab Corp....287-2552
Ground Engineering Consultants, Inc....289-1989
H & H Tire Sales & Service....289-2856
H & H Transformer, Inc....289-2802
H_2O Power Equipment, Inc....287-7561
Hast Lumber Company....288-1515
Hi Lo Market....288-1747
Holiday Inn DIA....371-9494
Honnen Equipment Company....287-7506
Intermountain Lift Trucks, Inc....289-2201
Interstate Trailer Sales & Service....287-0375
Ivy K Barber Stylists....287-5383
J & J Mailing Service, Inc....296-4842
JR's Hair Company, Inc....287-7118
Jayhawk Trailers....286-7923
Jean's Realty, Inc....289-4801
Jergensen Insurance Agency....288-6000
Joyce's Submarine Sandwiches....289-1101
K & K Surplus, Inc....287-7195
Katie's Restaurant....289-3253
Ken's Commerce City Drug, Inc....288-3784
Key Bank Commerce City North....287-7411
Key Bank Commerce City South....289-1178
L & B Produce Trucking....295-7084
La Casa Del Rey....287-7480
Larry's Lounge, Inc....288-9292
Latorin's, Inc....288-8888
Leeper & Co....289-5555
Manpower Temporary Services....457-3400
Manpower Temporary Services....758-2700
Marvin A. Pugh, CPA....451-5878
Max Air Trailer Sales....289-3264
McCoy Sales Corp. DBA Parker Store....762-8012
McDonalds Restaurant #5562....288-9418
Mid America Wrecker Sales, Inc....289-2836
Mile Hi Auto Repair, Inc....288-9000
Mile Hi Travel, Inc....288-8100
Mile High Greyhound Park....288-1591
Mile High Roofing & Exterior Supply, Inc....289-4586
Mountain States Industrial Svc, Inc....289-4511
Mountain States Crane Service, Inc....289-4511

Mr. Bill's Auto Service....289-73
Nativity Lutheran Church ELCA....289-22
Norm's Printing/C C Beacon....288-1
Northeast Assistance Center....287-11
One Stop Automotive....287-13
Our Lady Mother of the Church....289-6
Pawnbank, Incorporated....288-85
People's Choice Transportation, Inc....289-22
Perez Imports....287-85
Phillips 66 Propane Company....293-87
Poplar Grove Care Center....289-71
Professional Repair Service....288-94
R-Place....287-66
RAC Transport Co., Inc....289-55
Rainbo Bread Company....288-26
Rent-A-Heap Cheap....393-00
Riggi Oil Co., Inc....288-57
Rocky Mountain Fire & Safety....287-31
Rose Terrace Care Center....289-18
Roybal's Barber Shop....No Ph
Rusty's Cafe....288-81
Ruth Ann's Bookkeeping....252-14
S A C Fire Dept....288-08
S A C Water & Sanitation Disrict....288-26
Sand Creek Optimist Club....287-01
School District 14 Credit Union....287-80
Schroeder Auto Carriers, Inc....288-38
Security Key & Lock....286-13
Shady Lane Mobile Home Park....288-36
Shell Oil Company....861-70
Sheraton Inn Denver Airport....333-77
Shorty's Tree Service....659-73
Sir Speedy Printing Center, Inc....289-73
Stand By Power Service Co., Inc....289-51
Steven R. Gibson, P.C....980-01
Stewart & Stevenson Power, Inc....287-74
Stockyards Ranch Supply, Inc....287-80
Surplus Supply Co./Ace Hardware....288-66
Taxsavers....289-59
The Bank of Cherry Creek....394-55
The Greater Rocky Mountain Group....399-87
The Sewer & Plumbing Works, Inc....288-19
Timpte, Inc....289-62
Travel Time....286-37
Triple "J" Appliance Repair....288-66
True Vintage Sales....287-71
United Asphalt, Inc....287-54
United Parcel Service....430-31
United Power, Inc....659-05
Valley Glass Co., Inc....287-01
VFW Post #4444 Currie-Toles....286-84
Vi's Printing....288-30
W J Whatley, Inc....287-80
Waste Management of Colorado....289-22
Watersaver Company, Inc....289-11
Weaver Electric Co....288-07
Werthwhile Inn....289-64
Westurf Distributors, Inc....289-19
Younger Brothers Lumber....288-26

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Commerce City Business and Professional Association, Inc.
P.O. Box 303
Commerce City, Colorado 80037-0303

Dear Officers and Board of Directors:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

The Army believes that the Agreement in Principle that the Army and Shell Oil Company have reached with South Adams County Water and Sanitation District (SACWSD) ensures an adequate, safe, and permanent water supply for the community. The Agreement in Principle, enclosed with this letter, includes payment of $48.8 million to SACWSD and requires that SACWSD water be supplied to consenting drinking water well owners within the diisopropyl methylphosphonate (DIMP, an RMA byproduct) plume by January 1999. In addition, the Agreement in Principle requires SACWSD to provide 4,000 acre-feet of water to Commerce City and the Henderson area by 2004. The parties involved in the water negotiations believe that the settlement is fair and will permit SACWSD to secure an adequate water supply for Commerce City's and Henderson's water needs. If you have any further questions regarding the water supply, please contact Mr. Tim Kilgannon of this office at 303-289-0259 or Mr. Larry Ford of SACWSD at 303-288-2646.

The Army understands that there is a perception among the public that RMA contamination has had a negative effect on the image of the surrounding communities. However, the ongoing remediation and the future transition to a National Wildlife Refuge will continue to have a positive influence on that image. In addition, RMA has contributed to the communities in several other ways. The Army and the U.S. Fish and Wildlife Service provide educational opportunities through remediation or wildlife tours, and the Army has recently received accreditation for its environmental education program through the Colorado School of Mines and the Denver Public Schools. Economic contributions include hiring of local contractors and labor and providing used computer equipment to the public schools. The Army is committed to seeing that RMA is a leader in environmental remediation. Lessons learned at RMA will be shared throughout the United States; this leadership image reflects not just on the success of the remediation but especially on the public involvement process.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Enclosure

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

AGREEMENT IN PRINCIPLE REGARDING A WATER SUPPLY BETWEEN SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT (SACWSD), THE ARMY AND SHELL OIL COMPANY

1. PAYMENT BY THE ARMY AND SHELL WILL BE IN THREE ANNUAL INSTALLMENTS, $16 MILLION, $16 MILLION, AND $16.8 MILLION. THE FIRST PAYMENT TO BE MADE WITHIN 90 DAYS OF 1 OCTOBER 1996. SUBJECT TO THE AVAILABILITY OF FUNDS.

2. PAYMENT OF THE ABOVE SUM IS CONDITIONED ON ADHERENCE TO THE FOLLOWING TERMS. OTHER TERMS AND CONDITIONS WILL BE THE SUBJECT OF FURTHER NEGOTIATION.

A. PAYMENTS WILL BE HELD IN TRUST FOR SACWSD. TRUSTEE TO BE CHOSEN BY THE ARMY & SHELL WITH SACWSD CONCURRENCE. ANY INTEREST THAT ACCRUES MUST BE RETURNED TO THE ARMY AND SHELL.

B. SACWSD MUST HOOK UP OWNERS OF DOMESTIC WELLS IN THE DIMP FOOTPRINT WHO CONSENT TO BE INCLUDED IN THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT AND WHO CONSENT TO BE HOOKED UP; AND SUCH HOOK UPS WILL BE COMPLETED NOT LATER THAN THE 24TH MONTH AFTER THE DATE OF THE INITIAL PAYMENT FOR THOSE WHO CONSENT BY THE 20TH MONTH AFTER THE INITIAL PAYMENT. THOSE WHO REQUEST TO BE HOOKED UP AFTER THE 20TH MONTH WILL BE HOOKED UP WITHIN A REASONABLE TIME. AS NOTED IN G, BELOW, SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN 130 HOMES. SACWSD ALSO IS NOT RESPONSIBLE FOR EXTENDING THE MAIN WATER DISTRIBUTION SYSTEM BEYOND THE DIMP FOOTPRINT AS FINALLY DETERMINED IN THE ON-POST ROD. THE MAIN WATER DISTRIBUTION SYSTEM FOR THE HENDERSON AREA (12" DIAMETER PIPE SYSTEM) WILL BE COMPLETED BY THE 24TH MONTH AFTER THE INITIAL PAYMENT. SACWSD WILL RECEIVE FROM THE TRUST ACCOUNT $3,950 FOR EACH HOME CONNECTED IN THE NEW SERVICE AREA AND $2,265 FOR EACH HOME CONNECTED IN THE OLD SERVICE AREA, UP TO A TOTAL OF 130 HOMES. ATTACHED IS THE MAP THAT SHOWS THE LATEST DIMP PLUME WHICH IS TO BE UPDATED PRIOR TO THE FINALIZATION OF THE ON-POST ROD.

C. SACWSD MUST CONTRACT FOR WATER RIGHTS OR SUPPLY BY NOT LATER THAN SIX MONTHS AFTER THE DATE OF THE FINAL PAYMENT.

D. PAYMENTS FROM THE TRUST TO SACWSD MUST BE TIED DIRECTLY TO THE ACQUISITION AND DELIVERY OF 4000 ACRE FEET OF

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WATER AND THE HOOK UP OF WELL OWNERS IN THE HENDERSON AREA. ALL EXPENDITURES BY SACWSD PAID FROM THE TRUST ACCOUNT WILL BE SUBJECT TO AUDIT BY THE ARMY AND SHELL. UP TO $43 MILLION MAY BE SPENT ACQUIRING AND DELIVERING THE 4000 ACRE FEET OF WATER AND UP TO $4.65 MILLION MAY BE SPENT ON HOOK UPS IN THE HENDERSON AREA. THE REMAINING $1.15 MILLION IS TO OFFSET INFLATION OR CONTINGENCIES. ANY EXPENDITURES CHALLENGED BY THE ARMY, SHELL, OR THE TRUSTEE WILL BE SUBMITTED TO THE ALTERNATIVE DISPUTE RESOLUTION (ADR) METHOD DESCRIBED IN E, BELOW.

E. AN INDEPENDENT QUALIFIED AGENT, WHO IS A SENIOR WATER RESOURCE EXPERT WITH EXPERIENCE IN ACQUIRING AND DELIVERING WATER, WILL BE SELECTED BY SACWSD, WITH THE CONCURRENCE OF THE ARMY AND SHELL, TO DIRECT THE SELECTION, ACQUISITION, AND IMPLEMENTATION OF A WATER SUPPLY ON BEHALF OF SACWSD THAT CAN BE OPERATIONAL BY 1 OCTOBER 2004. THE TERMS OF THE AGENCY WILL BE AGREED UPON SACWSD, THE ARMY AND SHELL. THE ARMY AND SHELL WILL CONCUR WITH THE DESIGN OF AND SUBSEQUENT BID PACKAGES FOR THE WATER DELIVERY SYSTEM. THE CONSTRUCTION FIRM OR FIRMS TO CONSTRUCT THE PROJECT OR PROJECTS WILL BE SELECTED BY COMPETITIVE BID BASED ON A SOLICITATION PROCESS CONCURRED IN BY THE ARMY AND SHELL. THE COSTS ASSOCIATED WITH IMPLEMENTING THIS SECTION WILL BE PAID FROM THE TRUST ACCOUNT. ANY DISAGREEMENT ARISING REGARDING THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO A FORM OF ADR CONSISTING OF SUBMISSION OF THE DISPUTE TO THREE WATER RESOURCE EXPERTS; ONE SELECTED BY THE ARMY AND SHELL; ONE SELECTED BY SACWSD; AND ONE SELECTED BY THE INDEPENDENT AGENT OR BY THE AGREEMENT OF THE TWO SIDES IF THERE IS NO INDEPENDENT AGENT. THE COST OF ADR WILL BE BORNE BY THE PARTIES WITH EACH SIDE PAYING FOR ITS EXPERT AND EACH SIDE PAYING 50% OF THE COST OF THE EXPERT FOR THE INDEPENDENT AGENT.

F. ALL FUNDS REMAINING IN THE TRUST ACCOUNT AT THE COMPLETION OF THE WATER PROJECT OR ON 1 OCTOBER 2004, WHICHEVER OCCURS FIRST, WILL REVERT TO THE ARMY AND SHELL. REVERSION INCLUDES ANY SAVINGS REALIZED BY SACWSD FROM COST SHARING PROJECTS WITH OTHER ENTITIES. REVERSION MAY BE DELAYED WHERE UNKNOWN OR UNEXPECTED CONDITIONS OR CIRCUMSTANCES PREVENT COMPLETION OF THE PROJECT BY 1 OCTOBER 2004. WHETHER, AND FOR HOW LONG, REVERSION SHOULD BE DELAYED WILL BE SUBJECT TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

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G. SACWSD AGREES TO SATISFY THE OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 OF THE AGREEMENT ON A CONCEPTUAL REMEDY FOR THE CLEAN UP OF ROCKY MOUNTAIN ARSENAL. THE PAYMENTS TO SACWSD WILL CONSTITUTE COMPLETE SATISFACTION OF THE ARMY AND SHELL'S OBLIGATIONS CONTAINED IN ITEMS 16 AND 17 AND COMPLETE SATISFACTION OF ALL COSTS ASSOCIATED WITH THE TERMS AND CONDITIONS NECESSARY TO EXECUTE THESE OBLIGATIONS. ALL COSTS NECESSARY TO EXECUTE THE REQUIREMENTS OF THIS AGREEMENT, UNLESS OTHERWISE EXPRESSLY STATED, WILL BE PAID OUT OF THE TRUST ACCOUNT. SACWSD WILL NOT BE RESPONSIBLE FOR MONITORING REQUIREMENTS TO BE PERFORMED BY THE ARMY AND SHELL IN ACCORDANCE WITH ITEM 17 AND SACWSD WILL NOT BE RESPONSIBLE FOR HOOKING UP MORE THAN THE FIRST 130 WELL OWNERS. ANY ADDITIONAL HOOK UPS REQUIRED UNDER THE TERMS OF ITEM 17 WILL BE THE RESPONSIBILITY OF THE ARMY AND SHELL.

H. SACWSD WAIVES AND RELEASES THE ARMY AND SHELL FROM ALL RESPONSE COSTS AND CLAIMS FOR DAMAGES FOR ALL RMA CONTAMINANTS AND POLLUTANTS IN THE SACWSD WATER THAT ARE KNOWN OR DETECTED PRIOR TO, OR AT THE TIME OF, THE SIGNING OF THE ON-POST RECORD OF DECISION (ROD). PAYMENT OF RESPONSE COSTS, IF ANY, OWED TO SACWSD AT THE TIME OF THE SIGNING OF THE ON-POST ROD WILL BE DETERMINED BY AGREEMENT OF THE PARTIES PRIOR TO SIGNING THE FINAL AGREEMENT CONTEMPLATED BY THIS AGREEMENT IN PRINCIPLE..

I. ANY REUSABLE RETURN FLOWS ASSOCIATED WITH ANY WATER SOURCE ACQUIRED WILL BE MADE AVAILABLE TO SACWSD FOR REPLACEMENT OF DEPLETIONS UNDER ITS EXISTING AUGMENTATION PLAN FOR THE FIRST THREE YEARS FOLLOWING THE INITIAL DELIVERY OF WATER FROM THE NEW WATER SOURCE IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED, OTHERWISE RETURN FLOWS ASSOCIATED WITH THE NEW WATER SOURCE, AND ANY WATER UNUSED BY SACWSD FROM THE WATER SOURCE ITSELF, SHALL BE MADE AVAILABLE AT ARMY AND SHELL EXPENSE FOR THE REMEDIATION OF RMA FOR NOT LESS THAN 10 YEARS, IN ANNUAL AMOUNTS TO BE DETERMINED ACCORDING TO REASONABLE NEED. THE FINAL PERIOD TO BE AGREED UPON. AFTER REMEDIATION, ALL RETURN FLOWS WILL RETURN TO THE USE OF SACWSD. EACH PARTY WILL BE RESPONSIBLE FOR ANY NECESSARY APPROVALS. DISPUTES ARISING OVER THE IMPLEMENTATION OF THIS SECTION WILL BE SUBMITTED TO ADR AS DESCRIBED IN E, ABOVE.

J. SACWSD WILL WARRANT AND OTHERWISE DEMONSTRATE IT IS AUTHORIZED AND QUALIFIED TO ENTER INTO THIS AGREEMENT, ACQUIRE

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AND PROVIDE WATER AND HOOK UP WELL OWNERS, SUBJECT TO THOSE WELL OWNERS' CONSENT TO INCLUSION WITHIN THE DISTRICT. SACWSD WILL BE RESPONSIBLE FOR PERMITTING, ADJUDICATION, AND OTHER REQUIREMENTS OF STATE AND FEDERAL LAW.

K. PARTICIPATION BY THE ARMY AND SHELL, OR BY THEIR REPRESENTATIVES, IN OVERSIGHT IN NO WAY CONSTITUTES AN EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE ADEQUACY, SUITABILITY, OR LEGALITY OF SACWSD OR THE INDEPENDENT AGENT'S ACTIONS TO OBTAIN OR PROVIDE WATER.

L. ALL PARTIES RESERVE ANY RIGHTS THEY MAY HAVE REGARDING NONPERFORMANCE BY THE OTHER PARTIES.

M. THIS AGREEMENT IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE LAWS AND WILL BECOME EFFECTIVE AND BINDING WHEN INCORPORATED BY REFERENCE IN THE ON-POST ROD.

N. THE AMOUNT AGREED UPON IS SUBJECT TO APPROPRIATE CREDITS FOR ANY ARMY AND SHELL CONTRIBUTIONS TO WATER OR INFRASTRUCTURE, SUBJECT TO SACWSD APPROVAL. APPROVAL WILL NOT BE WITHHELD UNREASONABLY. DISPUTES WILL BE SUBMITTED TO THE METHOD OF ADR DESCRIBED IN E, ABOVE.

O. ALL PARTIES WILL PUBLICLY SUPPORT THIS AGREEMENT.

P. ALL O&M COSTS ASSOCIATED WITH THE ACQUISITION AND DELIVERY OF WATER AND WITH THE HOOK UP OF WELL OWNERS WILL BE SACWSD'S RESPONSIBILITY. THE ARMY WILL SUPPORT ANY NECESSARY AMENDMENTS TO ALLOW THE KLEIN FUND ALSO TO BE USED FOR O&M COSTS FOR THE NEW WATER SYSTEM.

Q. QUARTERLY PROGRESS REPORTS WILL BE MADE BY SACWSD, OR ITS REPRESENTATIVE, TO THE RMA COUNCIL.

R. THE ARMY OR SHELL WILL PAY, IF NECESSARY, WITHIN 30 DAYS AFTER SIGNATURE OF THE ROD, A SUM NOT TO EXCEED $1 MILLION TO PURCHASE AN OPTION ON WATER AGREED TO BY SACWSD, THE ARMY AND SHELL. THIS SUM WILL BE CREDITED AGAINST THE FIRST ANNUAL PAYMENT UNDER SECTION 1, ABOVE.

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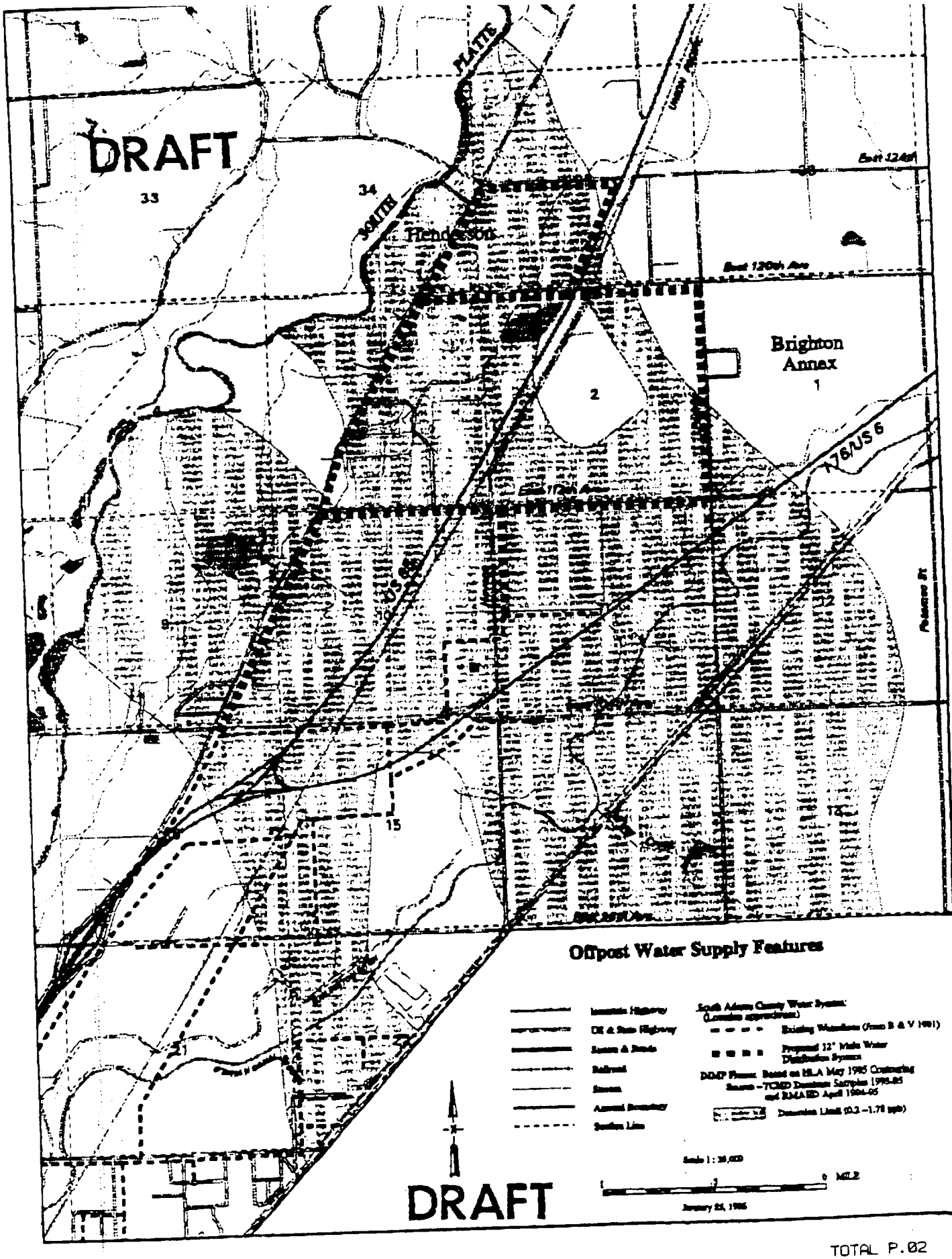
DRAFT
33
34
SOUTH
PLATTE
Henderson
East 124th
East 120th Ave
Brighton
Annex
1
2
76/US 6
Potomac St
15
Offpost Water Supply Features
Interstate Highway
Oil & State Highway
Streets & Roads
Railroad
Stream
Approved Boundary
Section Line
South Adams County Water System
(Locations approximate)
Existing Waterlines (from B & V 1991)
Proposed 12" Main Water
Distribution System
DDMP Phase: Based on HLA May 1995 Contouring
Source - TCMD Detection Samples 1995-96
and RMAED April 1994-95
Detection Limit (0.2 - 1.78 ppb)
Scale 1 : 30,000
MILE
January 25, 1996
DRAFT

TOTAL P.02

rec'd 16 Jan 96

January 14, 1996

On-Post Proposed Plan Comments
Program Manager
Rocky Mountain Arsenal
Att: AMCPM-PM/
Col. Eugene Bishop
Building 111-RMA
Commerce City, Colorado 80022-1748

Dear Col. Bishop:

Thank you for giving us the opportunity for making comments to the Rocky Mountain Arsenal On-Post Closure Plan.

This comment is from a concerned citizen and should be considered as my comments alone , eventhough, I am active in the Site Specific Advisory Board and Restoration Advisory Board for the Rocky Mountain Arsenal.

After rereading the past comments written by the public regarding the remediation plans, I am very disappointed that the Parties have not taken much consideration for what the public wants done at the Arsenal for clean up and remediation. The public has asked for remediated land and clean water. The public has asked that the contaminated soil and leachate remain on site and treated. The Parties are not going to remediate any portion, except the Hex Pits, maybe. The majority is being capped, some landfilled and other actually removed from the site taken elsewhere.

Burying the problem just leaves it for others to contend with later.

I wanted and was lead to believe that the Arsenal was going to be cleaned up--not just covered up.

My opinion on the Parties solution:

1. Capping:
   A. dumping dirt on top of explosives, nerve gases, mustard gases, pesticides, etc., then promoting public access is totally unacceptable.

   B. natural phenomina is not addressed such as: earthquakes, floods, ground water contamination

2. Landfill:
   A properly built and managed landfill seems to be a necessity coupled with reasearch to provide adequate solutions.

   A. site: should be near Basin A or F not near any earthquake fault and well above the water table.

   B. construction: the liners should be tested for the chemicals it is containing. Individual areas should be set aside for different chemicals and not all mixed together. Must be built to last. Also, must be built so that easy access for monitoring, as well as, removal when new technology exists for proper neutralization.

   C. monitoring: proper regulations maintained with the highest skill and technology for today and for the future generations.

3. Solidification:
   A. a medium that will not break down with age.
   B. a medium that the toxins will not leach.

My solution is to neutralize the chemicals that can be treated with todays technology, properly stored and managed. What is not known; reaserch at Rocky Mountain Arsenal for the answers to the currently unknown so that they can be correctly and harmlessly processed. Fence off Sections 1,26,25,31,36,2 from the public access with signs clearly labelling the hazardous conditions that are weather-worthy for hundreds of years. Specific research for Rocky Mountain Arsenal chemicals and conditions must be provided for on site immediately to reduce the cost of remediation and make the cleanup more effective and safer.

Lonna Fischer

Lonna Fischer
SSAB/RAB

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL
COMMERCE CITY, COLORADO 80022-1748

June 11, 1996

REPLY TO
ATTENTION OF
Office of the Program Manager

Ms. Lonna Fischer
4070 E. 129 Way
Thornton, Colorado 80241

Dear Ms. Fischer:

Thank you for your comments on the Rocky Mountain Arsenal (RMA) On-Post Proposed Plan. Public input is an important component of the remediation process, and your participation in the process helps maintain the dialogue between the U.S. Army and the public.

The Army realizes that there are remaining issues regarding the selected remedy for RMA. However, public concerns were definitely considered in the development of the alternatives. The concerns about the short-term risks and effects of excavation and treatment were weighed against the potential long-term effects of containing the waste in place. The public has also been concerned about thermal processes such as incineration because of potential emissions. The Army's selected remedy minimizes short-term risks of exposure to workers and the community because soil-borne contaminants are left in place. The landfill and cap/cover designs will comply with federal, state, and local regulations.

A common public concern during the selection process was the availability of a safe water supply. Clean water for the public is one of the Army's primary goals that will be met by continued boundary system operation and by providing a supplemental water supply. The Army believes that continued treatment of water at the RMA boundary is an important part of the remediation. The RMA boundary treatment systems currently treat about one billion gallons of water per year to meet all state and federal standards.

Responses to your specific comments are provided below.

1. Capping:

The capping process is significantly more complex than your comment suggests. Multiple protective layers (Resource Conservation and Recovery Act [RCRA] caps or RCRA-equivalent caps that meet all federal, state, and local regulations) will be constructed over the more contaminated sites, and soil covers of 1 foot or more of clean soil will be constructed over the less contaminated sites. The cap/cover structures will be designed to minimize rainfall infiltration and the potential for human or animal exposure. All caps/covers will be maintained regularly and repaired if necessary. Public access to capped

areas will be very limited. Natural phenomena, such as earthquakes and floods, and introduced phenomena such as contamination, must be and are considered in siting, design, construction, and operation of hazardous waste containment and treatment systems.

2. Landfill:

The hazardous waste landfill will be a state-of-the-art landfill that complies with or exceeds all federal and state siting, design, construction, operation, and closure requirements. Measures will be taken to ensure safe disposal, and all operations will be under the oversight of the Colorado Department of Public Health and Environment.

Siting studies have been conducted to identify the best possible location for the landfill, with regard to both geology (soil type and whether it is near a fault) and proximity to the water table.

The appropriate testing will be conducted for the liners. Several separate "cells" are planned so that waste can be segregated. The landfill design will satisfy all applicable siting and monitoring requirements.

The landfill is included in the periodic overall review of the remedy as required by the U.S Environmental Protection Agency (EPA). Also, extensive monitoring in and around the landfill itself will take place as part of the long-term landfill operation.

3. Solidification:

There has been significant technological development in the area of solidification/stabilization chemicals as well as in test methods over the past decade, much under EPA sponsorship. The Army agrees that tests must be conducted to ensure that stabilization chemicals used are compatible with the waste, that the products are stable, and that treatability goals can be met.

The Army believes that the capping/covering of much of the central portion of RMA (e.g., Basins A and F, South Plants) is protective of human health and the environment. In addition, the RMA National Wildlife Refuge planning efforts are considering which areas the public may access during and after the remediation.

Extensive testing and research already has been conducted for most of the RMA chemicals, and monitoring, feasibility studies, and treatability studies have been conducted during the past several years as part of the On-Post Remedial Investigation/Feasibility Study process leading up to the Record of Decision.

If you have any additional questions or concerns regarding the RMA On-Post Proposed Plan, please direct them to Mr. Brian Anderson of this office at 303-289-0248. Thank you again for your comments.

Sincerely,

Eugene H. Bishop
Colonel, U.S. Army
Program Manager

Copies Furnished:

Captain Thomas Cook, Litigation Attorney, Rocky Mountain Arsenal
Building 111, Commerce City, Colorado 80022-1748
Mr. Robert Foster, U.S. Department of Justice, 999-18th Street,
Suite 945, North Tower, Denver, Colorado 80202
Program Manager Rocky Mountain Arsenal, Attn: AMCPM-RMI-D, Document Tracking
Center, Commerce City, Colorado 80022-1748

rec'd 11 Dec 95

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Fuller East Partnership
Fuller 45 Partnership
Buffalo Estates Partnership
General Partnerships
John J. Vandemoer
John B. Villano
Managing and General Partners
8791 Circle Drive
Westminster, CO 80030
Ph. 427-7641, Fax 427-5167
Pager 687-1212

December 7, 1995

Program Manager for the Rocky Mountain Arsenal
Rocky Mountain Arsenal
Commerce City, Colorado 80022

Dear Program Manager for the Rocky Mountain Arsenal:

We are the General Managers of three general partnerships in the Henderson vicinity. The partnerships total 146 acres which have been subdivided into 2 to 2.5 acre home sites. We have the powers of attorney to sign for the General Partners in these partnerships. They all concure with us that the following statement is their wish.

We the undersigned, being property owners of the area known as Henderson, Colorado, Directly North of the Rocky Mountain Arsenal, request that the United States Army and Shell Oil CO pay for and install a water system to provide water to the existing homes and future and water needs due to the contamination of our water supply. The water provided to the area must replace the 2500 acre feet of contaminated water and be of excellent quality and quality and sufficient quantity to repair the damage to our area. Since 1942 the United States Army and Shell Oil Co. have been contaminating our land and water and must be held accountable for their actions.

Sincerely,

John J. Vandemoer
John B. Villano

Enclosures: *[Three General Partnership Lists of General Partners]*

9534503-1/1

EXHIBIT B

FUL23 **Fuller East Estates %JBV**

CLIENT			FIRST TAX ID	OTHER TAX ID	TYPE	AMOUNT
George M. Belme 6085 S. Chester Way Denver CO 80111	Work #:	(303) 291-8450			R	4.9
G. David Brown 9443 Jennings Rd. Morrison CO 80465	Work #:	(303)697-1339			R	4.9
Walter T. & E. Jean Bryson 1499 Kellogg Rd. Springfield OR 94777	Work #:				R	4.9
Trena Dale P.O. Box 38602 Colorado Springs CO 80937	Work #:	(501)855-0819			R	4.9
DeCola Partnership 790 Washington #1401 Denver CO 80203	Work #:	(303) 298-0202			R	4.9
Charles Hanavan Jr. 16500 Co.Rd.45, P.O.B.85 Cheyenne Wells CO 80810	Work #:				R	4.9
Mary Ann Hohs 6243 E. Peakview Ave. Englewood CO 80111	Work #:	(303) 982-7968			R	2.45
Scott Klune 3798 S. Ceylon Way Aurora CO 80013	Work #:	(303)693-9107			R	4.9
Beverly J. Mather- Malcala, Trstee P.O. Box 295297 Louisville AR 75029-5297	Work #:	(303)924-0180			R	4.9
Linda J. McAninch 673 Blake Ct. Carol Stream IL 60188	Work #:	(321)701-4495			R	2.45
James R. & Teresa B. Peay P.O. Box 1673 Denver CO 80201	Work #:	(303)893-0214			R	4.9

EXHIBIT B

FUL23 **Fuller East Estates %JBV**

CLIENT			FIRST TAX ID	OTHER TAX ID	TYPE	AMOUNT
James K. & Shirley F. Pelton 19544 County Road #46 Cheyenne Wells CO 80810	Work #:				R	4.9
Richard E. Pelletier 14217 Downing St. Brighton CO 80601	Work #:	(303)450-2222			R	9.8
Paul E. Raybin 673 Blake Ct. Carol Stream IL 60188	Work #:	(312)701-4495			R	2.45
Red Ink % Max E. Carlson 104 W. 6th St. Julesburg CO 80737	Work #:	(303)474-3331			R	4.9
Richard K. Riman 720 Harrington Rd. Rockville MD 20852-1029	Work #:	(301) 838-9898			R	4.9
Richard K. Riman 12351 N. Pine Vista Tr. Parker CO 80134-8219	Work #:	(303)733-9428			R	0
Thomas C. & Martha A. Roddam 3514 Edolin Drive Finksburg MD 21048	Work #:	(410) 358-3600			R	4.9
David D. Sparks 7976 S. Gaylord Way Littleton CO 80122	Work #:	(303) 446-7273			R	4.9
John J. Vandemoer 8791 Circle Drive Westminster CO 80030	Work #:	(303)687-1212			Option %	1
John J. Vandemoer III, Trustee Irrevocable Trust 2195 Egbert St. #123 Brighton CO 80218	Work #:	(303)427-7641			R	4.9
John B. Villano 2701 E. 112th Ave. Thornton CO 80233	Work #:	(303)280-0056			Option %	1

EXHIBIT B

FUL23 **Fuller East Estates %JBV**

CLIENT			FIRST TAX ID	OTHER TAX ID	TYPE	AMOUNT
Ralph Villano Jr. 13215 W.C. Road 8 Fort Lupton CO 80621	Work #:	(303)983-5252			R	2.45
Robert Lee Villano 1675 W. 113th Ave. Westminster CO 80234	Work #:	(303)893-5252			R	2.45
Robert P. Villano 1675 W. 113th Ave. Westminster CO 80234	Work #:	(303)893-5252			R	2.45
						100

EXHIBIT B

FUL22 **Fuller-45 Estates %JJV**

CLIENT			FIRST TAX ID	OTHER TAX ID	TYPE	AMOUNT
Randy Bussing & Kim Harrold 7975 W. 44th Ave. Wheat Ridge CO 80033	Work #:	(303)423-7142			R	4.9
Trena Dale P.O. Box 38602 Colorado Springs CO 80937	Work #:	(501)855-0819			R	4.9
M.C. DeCola Irrvcbl Trst for/Chldrn 790 Washington #1401 Denver CO 80203	Work #:	(303)759-2221			R	4.9
Phillip & Susan Evans & M. Erb 3443 S. Boston Ct. Denver CO 80231	Work #:				R	4.9
Edward L. & Carlyne K. Gerstner 12209 Brier St. Overland Park KS 66211	Work #:				R	4.9
Cecil J. Hallinan P.O. Box 2800 Corona CA 91720	Work #:	(909)277-1010			R	4.9
Mary Ann Hohs 6243 E. Peakview Ave. Englewood CO 80111	Work #:	(303) 962-7968			R	2.45
Loretta G. Iacovetta 221 S. Garfield #211 Denver CO 80209	Work #:	(303)322-4180			R	4.9
Eileen J. Ito 2870 Newland St. Denver CO 80214	Work #:				R	24.5
Scott Klune 3796 S. Ceylon Way Aurora CO 80013	Work #:	(303)693-9107			R	4.9
Truman C. Leuthouser 7206 S. Sundown Circle Littleton CO 80120	Work #:	(303)890-5457			R	4.9