PADUCAH GASEOUS DIFFUSION PLANT
SITE SPECIFIC ADVISORY BOARD

Chartered under the Federal Advisory Committee Act

CO-CHAIRS

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Bill Tanner
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Metropolis, Illinois 62960

Rev. Gregory Waldrop
4141 Buckner Lane
Paducah, Kentucky 42001

MEMORANDUM
SITE SPECIFIC ADVISORY BOARD

TO: SSAB Members
Ex Officio Members

FROM: Mark Donham
Vicki Jones

DATE: September 3, 1998

SUBJECT: **MEETING REMINDER**

The next meeting will be held September 17, 1998, at the Information Age Park Resource Center at 5:30 p.m.

Tentative agenda for the September 17, 1998, meeting:

- Minutes
- Information (Handouts)
- EMEF Project Updates
- Vortec Update
- Depleted UF_6 PEIS Update
- Northeast and Northwest Plumes Pump and Treat Facilities, Water Policy
- WAG 22, SWMUs 7 and 30
- Training Options for SSAB
- DOE Response to SSAB Recommendations
- Administrative Plans for the Board
  - Review of the SSAB Draft Work Plan
  - Financial Update
  - SSAB Membership

Action Items

- Dennis Hill provide Mark Donham with list of projects in Paducah for which funding has been requested in the Accelerating Cleanup Plan.
- Vicki Jones check on how much it would cost for someone from the Government Institutes' Environmental, Health & Safety training program to come to Paducah to describe training options to the SSAB.
- Send members not present at this meeting a training catalog so they can review training options before the next meeting.
- Bill Tanner check with people who are affected by the Water Policy and see who would like to present information to the SSAB on this topic.

recycled paper

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Meeting Minutes

September 17, 1998

The September 17, 1998, Site Specific Advisory Board (SSAB) meeting took place at the Information Age Park Resource Center in Paducah at 5:30 p.m.

The following board members were present: Nola Courtney, Mark Donham, Edward Duff, Vicki Jones, Ronald Lamb, Linda Long, Ray McLennan, Craig Rhodes, Bill Tanner, and Gregory Waldrop. The facilitator present was Steve Kay. The United States Department of Energy (DOE) federal coordinator present was Myrna Redfield. Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Joni Arends, Jeannie Brandstetter, Jacqueline Cabasso, Vina Colley, Shelley Hawkins, Dennis Hill, Pat Hopper, Marilea Kelly, Jim Key, Tom Marshall, Jimmy Massey, Don Moniak, Al Puckett, Harry Rogers, and Alice Slater.

Agenda

Steve Kay called the meeting to order and asked if there were any modifications to the agenda. Mark Donham said members from the Alliance for Nuclear Accountability (ANA) were visiting the meeting and proposed that comments from members of the group be added to the agenda. Dennis Hill suggested having a standing place in the agenda for public comments from guests visiting the SSAB meetings. It was proposed to add this before the meeting minutes. There were no objections to the agenda.

Minutes

The minutes from July 16, 1998, and August 20, 1998, were approved by the SSAB.

Environmental Management and Enrichment Facilities Project Updates

Members received a handout on the Environmental Management and Enrichment Facilities (EMEF) updates. Myrna Redfield said the DOE is working with the Kentucky Department for Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA) on lumping some projects together; therefore, the updates might look different in the future. She said the SSAB would be briefed on this during next month's meeting. Donham asked if this referred to a combined plan. Redfield said this relates to the comments received on the Accelerating Cleanup Plan. Donham asked if there was any chance the DOE would look at the cumulative effects of all the projects before remediation. Redfield said the DOE is trying to combine similar operable units (e.g., groundwater, surface water, etc.) and perform a comprehensive evaluation to make sure contamination is not present after remediation. Donham asked if the evaluations would be performed before remediation. Redfield said all the remedial actions taken come under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and will be evaluated to make sure nothing was missed. She said this would be discussed further under the Accelerating Cleanup Plan next month. Donham said if National Environmental Policy Act (NEPA) values were incorporated into CERCLA at the Paducah Gaseous Diffusion Plant (PGDP), the analysis should be done before remediation. Donham said he thinks the DOE is misinterpreting laws and regulations.

Alliance for Nuclear Accountability Comments

Marilea Kelly, member of Tri-Valley Cares in California, said her organization works on the cleanup of the Lawrence Livermore National Laboratory (LLNL). She said the LLNL has many of the same environmental problems as Paducah. Kelly said one of the things an SSAB can do is advocate for the best possible cleanup and insist that there be stable, long-term funding for that cleanup. Kelly said she was struck by the fact that the plume at the PGDP is moving one foot per day, which is faster than the migration at LLNL. She said Paducah also has fewer extraction wells than LLNL and stated that more wells for additional treatment would be good for Paducah. Kelly offered her assistance to the SSAB since her site is five years beyond the record of decision (ROD) stage. She said she has become a proponent for the ROD to state explicitly everything the community wants.

Mark D(?), from the Institute for Energy and Environmental Research in Maryland, said he has studied the problem of depleted uranium hexafluoride (UF_6). He said the number of cylinders at the PGDP should be a national problem, not just a local problem. He said the draft Programmatic Environmental Impact Statement (PEIS) for depleted UF_6 was very unsatisfactory and that the country and community deserve much better. He said part of his organization's job is to assist community groups in dealing with these problems.

Don Moniak of Amarillo, Texas, said the tour of the plant September 16, 1998, was very good. Moniak said the amount of waste, however, was unbelievable. He said that the pump and treat operation was very clean and organized compared to the one at Pantex. Moniak said he did observe a few safety violations, though. He said some low-level waste was being moved and it

looked like the waste was overflowing during transportation. He also said a criticality area was tagged as having "uncharacterized legacy equipment"; however, there was no equipment in this area and no one was able to account for the equipment.

Vina Colley of Portsmouth, Ohio, said she was concerned about the depleted UF_6 cylinders. She said her concern was about the uranium tails being recycled and that public input might be left out of the process.

Jacqueline Cabasso, executive director of Western States Legal Foundation in California, said it was shocking to see the extensive land taken by the cylinders. She also said she was concerned about the maintenance of the wildlife area. Cabasso said the paint on warning signs that were posted in 1992 was worn off. She asked how waste could continue to be produced when there is no disposal for the waste. Cabasso suggested that long-term institutional controls be placed on the PGDP's agenda.

Alice Slater from New York said she is concerned with the cleanup of the Brookhaven National Laboratory. She said during the tour of the PGDP, she also was shocked at the amount of waste. Slater said she hoped the waste in the scrap yards did not get recycled into everyday products such as frying pans, silverware, etc. Slater said there are rising cancer rates and statistics that these materials are very dangerous. She also said it was shocking how much the waste was getting moved around.

Tom Marshall, who works with the Rocky Mountain Peace and Justice Center in Boulder, Colorado, extended an invitation to the SSAB to visit the Rocky Flats SSAB. Marshall serves as the chair of the Rocky Flats SSAB.

Al Puckett, former PGDP worker and resident of Kevil, said he was very concerned about the depleted UF_6 cylinders at the plant. He said some of the cylinders are rusted and thin-walled and he did not think a coat of paint would hold the contents.

Vortec Update

Redfield said the project team still is working on addressing internal comments on the Vortec Environmental Assessment (EA). She recommended that Vortec be kept on the agenda. Craig Rhodes said he would like more information on the research and portions used in the Vortec flux. He said his questions from previous meetings were not answered satisfactorily. Donham asked where the glass frit produced would be disposed if Vortec does operate. Redfield said it would go to a disposal facility; however, it would have to meet the waste acceptance criteria of the facility chosen. Jimmy Massey said the DOE has shipped waste to EnviroCare in Hanford, the Idaho National Engineering Laboratory, and the Toxic Substances Control Act incinerator in Oak Ridge. Donham asked if any of the 50,000 barrels of legacy waste that Vortec had been proposed to treat were being shipped offsite. Redfield said some shipments have gone out and some are projected for shipment next year. She said Vortec originally was going to treat only about 80 percent of the waste and that there are treatment and disposal activities going on in waste management currently. Donham asked if there was a deadline for treatment of the barrels if

Vortec does not get built. Redfield said legacy waste is projected to be disposed of by the year 2006 according to the Accelerating Cleanup Plan. Ronald Lamb asked if there was some cap on how much waste can be contained at the facility or if there were deadlines on disposal. Massey said there are various federal facility compliance agreements that call for characterization of the waste by certain dates. Lamb said it seemed there was a driver for getting rid of a lot of waste quickly. Donham asked about the waste from filter sludges and said some levels were high in transuranic waste. He asked if this still was classified as low-level waste and said he thought there were considerably more barrels of filter sludge from the precipitation tanks in C-400. Donham said he was concerned about this waste being treated through Vortec. Massey said uranium precipitate, or filter cake, is generated by the United States Enrichment Corporation (USEC) and is not a wastestream the DOE manages. He said the characterization he saw on the barrels was not transuranic. Massey said he would bring information on characterization of the barrels at the next meeting.

Depleted Uranium Hexafluoride Programmatic Environmental Impact Statement Budget

Hill said the meeting date for the depleted UF_6 workshop has been changed to October 7, 1998, in Lexington, Kentucky. This meeting will be followed by the regulator meeting October 8, 1998. Donham asked about the bill introduced to Congress by Mitch McConnell on budget for the depleted UF_6 cylinders. He said that $385 million would not be enough to build full conversion facilities at Portsmouth and Paducah. Jim Key, representative of the Oil, Chemical and Atomic Workers International Union, said that he and David Fuller had been lobbying for the bill in June and additional funding was requested. Key said that if the $385 million was used, additional funding could be discussed with legislators. He said the House had already cut additional funding for the DOE the day he and Fuller requested additional funding. Lamb asked how many jobs the facilities would create. Key said about 125 to 200 jobs would be created for 10 or 15 years at Paducah and Portsmouth. He said this would lessen the economic impacts of layoffs. Redfield said Jimmie Hodges and Greg Bazzell are working on a plan that will be presented to Congress. Donham asked Key if the money designated in the bill would be used to convert the USEC cylinders created since 1992. Key said it is the laborer's opinion that it did not matter what waste would be converted because it all needs to go to conversion, starting with the oldest cylinders first. Kay asked if there was limitation to this funding. Massey said, yes, and that the funding does not address DOE legacy cylinders before 1993. Donham said the older cylinders may not be able to be heated to the degree needed for conversion. Massey said the life of the paint on the cylinders is 10 to 15 years. The member of ANA asked how long it would be until the community gets input on the construction plan. Redfield said she is not aware of the timeframe; however, it would be fairly soon. Donham asked Key if treatment was onsite for handling wastewater from the cylinder wash. Key said part of the conversion process will have some different wastewater treatment for that purpose. He said there are conceptual designs for treatment of the water. Donham asked what would happen with the actual cylinders. He said the PEIS states that the cylinders may not be marketable because of the uranium. Key said he did not think the issue had been addressed.

Northeast and Northwest Plume Pump and Treat Facilities

Bill Tanner said he contacted hydrogeologists who could review the pump and treat process. Tanner said he would bring extra copies of resumes from the hydrogeologists for the SSAB. He contacted Jeff Douthitt, former hydrogeologist of Bechtel Jacobs Company LLC, who was involved in the initial investigations of the remediation. Tanner said he also would like to contact someone who was not involved in the process to present an opposing view. Ray McLennan asked if anything would be accomplished by having an opposing opinion. He said he was not convinced that pump and treat has done anything substantial. He said the money might have been better spent for remediation of the source. Kay said the SSAB is empowered to provide advice to the regulators as well as to the DOE. Lamb asked why the Water Policy was part of the agenda. Tanner replied that he suggested bringing in people who were affected by the Water Policy to provide information and fresh ideas on things that needed to be presented to the DOE. Linda Long said the SSAB had been told previously that pump and treat was not very effective and wondered why it has continued. Gregory Waldrop said the CRESP group, which is funded by the DOE, made a presentation at the SSAB National Conference in Boulder, Colorado. He said the group has done extensive research on when to stop or when to continue pump and treat. Waldrop said the SSAB could probably request research from the group.

Waste Area Group 22, Solid Waste Management Units 7 and 30

Nola Courtney said she had reviewed the Feasibility Study (FS) comment response summary and the resolution meeting has been scheduled for October 14, 1998. She said the KDEP had commented that Alternatives 1, 2, and 3 were not acceptable. She said the EPA had questions on why no consideration was given to either full or limited removal of nonhazardous waste presently stored in the subsurface of the solid waste management units (SWMUs). She said the DOE maintains that what is hazardous at this point is exposure to workers. The KDEP believes the alternatives that decrease toxicity of the waste and provide permanent solutions should be carried throughout the process. The KDEP also recommends the DOE remove contaminated scrap metal from adjacent SWMUs because they are the source of surface contamination. Courtney said additional sampling had been conducted in June and July 1998 and should be available now. Massey said transmittal on the sampling was signed recently and results should be out next week. Courtney said the KDEP questions the practicality of the DOE trying to secure land and deed restrictions because of the longevity of some of the materials. Courtney said lateral subsurface migration was the main area of discussion during comment resolution. She said the basis of disagreement is the contamination from surface soil, subsurface soil, and groundwater. She said the DOE stated that migration from these areas was not a concern, but the KDEP is not convinced. Donham asked if excavation was not an alternative anymore. Redfield said, it was not, based on the data available. Donham said that at the FS stage, excavation needs to be considered. He said NEPA values are not being incorporated if this is not considered. Redfield said she would have to defer Donham's comments to the project team. She said excavation could have been screened out in the process when considering other technologies and would check on what happened to the alternative for Donham. Donham said the alternatives presented are driven by budget decisions based on the Accelerating Cleanup Plan. He said the PGDP has never gotten the money that other sites have. Donham requested that he be put back on the distribution list to

receive copies of all the documents. Donham made a proposal that the SSAB recommend to the DOE that excavation be considered as a fifth alternative and provide the SSAB with the costs and environmental effects of the alternative. Additionally, it was requested that the DOE investigate applicable or relevant and appropriate technologies to remediate hazardous waste. The recommendation was approved by consensus.

Training Options for the SSAB

This discussion was postponed until the next meeting so everyone would have a chance to review the options presented in the Government Institutes' Environmental, Health & Safety Training Opportunities Catalog which was received at the August 20, 1998, meeting and sent by mail to members who were not present at that meeting.

DOE Response to SSAB Recommendations

Redfield said the only pending response is on the Vortec EA which was addressed earlier in the meeting.

SSAB Work Plan

The SSAB Work Plan was updated. Courtney said membership issues should be placed on the work plan for next June so an advertisement for membership can be placed in the newspaper. Waldrop said one issue that came up at the SSAB National Conference was the importance of public involvement with the SSAB. Waldrop asked that a category be included in the work plan for public outreach. Waldrop also said that comments on the depleted UF_6 PEIS need to be sent in soon so the comment period will not be missed. Vicki Jones asked Waldrop about the status of wildlife survey conducted by Charlie Logsdon that was an effort for public outreach by the SSAB. Waldrop said Logsdon moved to Eastern Kentucky around the end of the study. Jones agreed to check on the status of the survey.

Financial Update

Hill said the total cost spent to date by the SSAB is $38,491. He said the closeout of the fiscal year (FY) is the end of September. The budget request for next year is $100,000. Hill said there also is money for Kay's contract and travel. Redfield said the travel money, which will stay in the budget, began at about $37,000 and only two trips were charged to that this year. McLennan asked if the money that was not spent by the SSAB would get turned back into the DOE. Redfield said the money comes out of the program for Paducah. Waldrop said every dollar the SSAB spends is a dollar that cannot be used for cleanup. McLennan asked about the level of funding and whether the money would be kept in Paducah. Redfield said the money would stay in Paducah if it were not used by the SSAB.

SSAB Membership

Courtney said the following four membership terms expire this month: Mark Donham, Ronald Lamb, Linda Long, and Connie Sykes. She said Lynn Lane recently resigned with possibly two years remaining on her term. Courtney proposed that everyone's membership term be carried through September so the terms would be consistent. Courtney said she knew Donham wanted to renew his membership, but was not sure about the others. She recommended writing Sykes a letter to see if she wanted to renew since she had not been attending the meetings for a while. She said policy states the SSAB may consider absenteeism in termination of memberships. Courtney asked for volunteers to be on the membership committee with her and Waldrop volunteered. It was proposed to renew all four memberships if the members up for renewal desired to do so. There were no objections to this proposal. For additional membership recruitment, Waldrop suggested contacting Ballard County officials, the Chamber of Commerce, retired plant workers, etc. It was also suggested that SSAB membership be offered to members of the Environmental Advisory Committee. Waldrop asked if a list of names from this committee could be provided to him. Courtney said an advertisement for membership needs to be placed in the newspaper. Hill said he would see about running the advertisement this month so it could be included in the FY 1998 budget.

The next meeting will be held October 15, 1998, at the Information Age Park Resource Center at 5:30 p.m. The meeting was adjourned.

Tentative agenda for the October 15, 1998, meeting:

- Public Comments from Guests
- Minutes
- Information (Handouts)
- EMEF Project Updates
- Vortec Update
- Depleted UF_6 PEIS Budget Update
- WAG 6 Remedial Investigation Report
- Federal Facilities Agreement Strategies
- Accelerating Cleanup Plan — Paths to Closure
- Northeast and Northwest Plumes Pump and Treat Facilities
- Training Options for SSAB
- DOE Response to SSAB Recommendations
- Administrative Plans for the Board
  - Review of the SSAB Draft Work Plan
  - Financial Update
  - SSAB Membership

Action Items

- Provide Craig Rhodes with information on the research and portions used in the Vortec flux.
- Provide SSAB with characterization on uranium precipitate or filter cake barrels generated by the USEC.
- Provide SSAB with results of additional sampling on SWMUs 7 and 30 of WAG 22.
- Provide Mark Donham with explanation of why excavation on SWMUs 7 and 30 of WAG 22 was not included as an alternative in the FS.
- Place Mark Donham back on the distribution list to receive copies of all deliverable documents. (done)
- SSAB members need to review or bring a copy of the Government Institutes' Environmental, Health & Safety Training Opportunities Catalog to the next meeting to discuss training options.
- Vicki Jones check on the status of the Charlie Logsdon hunter's survey.
- Provide membership committee with names of members from the Environmental Advisory Committee.
- Send media advisory to the newspaper concerning membership search for the SSAB. (done)

PLEASE SIGN IN

Paducah Gaseous Diffusion Plant
Site Specific Advisory Board

Name	Affiliation
Shelley Hawkins	Jacobs
Jeannie Brandstetter	En Safe
Dennis Hill	BJC
Linda Lang	SSAB
Vicki Jones	SSAB
Bill [illegible]	SSAB
Pat Hopper	Waste Management Nuclear Services
Nola Courtney	SSAB
Mark Donham	SSAB
Jon H. Bey	OCAW 3-550
Craig Rhodes	SSAB
Jim Massey	Bechtel Jacobs
Ronald Rauch	SSAB
Don Moniak	STAND of Amarillo
Vina Colley	Portsmouth Ohio
Alice Slater	New York, NY
[illegible]	ANA
A B Puckett	IPNT
Jacqueline Cabasso	Western States Legal Foundation
Joni Arends	Concerned Citizens for N-Safety
Harry Rogers	Carolina Peace Resource Center
Ray McLennan	SSAB

September 17, 1998

PADUCAH GASEOUS DIFFUSION PLANT
SITE SPECIFIC ADVISORY BOARD
RECOMMENDATION

DATE: Sept. 18, 1998

NUMBER: 98-3

RESPONSE REQUESTED BY (date): Oct. 15, 1998

REGARDING: Waste Area Group 22, Solid Waste Management Units 7 & 30 Feasibility Study

TO: Jimmie Hodges, DOE

CC: Carl Froede Jr., EPA
Tuss Taylor, KDEP
Dr. John Volpe, Radiation Control Branch
Wayne Davis, Kentucky Department of Fish & Wildlife Resources
Regular members — Nola Courtney, Edward Duff, David Fuller, Ronald Lamb, Linda Long, Ray McClennan, Craig Rhodes, Connie Sykes, Bill Tanner, Rev. Gregory Waldrop

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At a regular meeting of the Site Specific Advisory Board (SSAB) held Sept. 17, 1998, the board identified comments on the Feasibility Study for Waste Area Group 22, Solid Waste Management Unit 7 & 30 (the C-747-A Uranium Burial Ground and C-747-A Burn Area). The document, issued to regulatory agencies for review in March, proposes four remedial alternatives: 1) No action, 2) Limited action (installation of additional monitoring wells and long-term groundwater monitoring), 3) Soil cover and groundwater monitoring with additional monitoring wells, and 4) Surface soil removal and groundwater monitoring with additional monitoring wells.

With seven regular members present, the following comments were adopted.

RECOMMENDATIONS:

1. The U.S. Department of Energy should look at excavation as a fifth alternative and provide the SSAB with costs and any other findings.

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2. The U.S. Department of Energy should add investigation of applicable or relevant technologies to remediate hazardous waste.

Paducah Gaseous Diffusion Plant (PGDP)
Site Specific Advisory Board (SSAB)
1998/1999 Work Plan

ISSUE	EXPECTED ACTIONS	STATUS/APPROACH	Aug 98	Sep 98	Oct 98	Nov 98	Dec 98	Jan 99	Feb 99	Mar 99	Apr 99	May 99	Jun 99	Jul 99
Waste Management	Review documents	Monitor & provide suggestions as appropriate				XX								
Waste Minimization/ Pollution Prevention	Review documents	Monitor & provide suggestions as appropriate				XX								
Transportation of Wastes/ Hazardous Materials	Review documents	Monitor & provide suggestions as appropriate				XX								
Decontamination & Decommissioning	Review documents	Monitor & provide suggestions as appropriate								XX				
Economic Impact on Community	Monitor	Monitor & provide suggestions as appropriate												
Protection/Restoration of Natural Resources & Ecological Values	Review documents	Monitor & provide suggestions as appropriate												
Protection of Workers, Public Health and Safety	Monitor projects	Monitor & provide suggestions as appropriate												
Technology Development and Transfer	Review documents	Monitor & provide suggestions as appropriate												
Strategies for Effective and Meaningful Public Input	Work 2 DOE/ Community Relations Plan	Monitor & provide suggestions as appropriate												
Cost Effectiveness	Review documents	Monitor & provide suggestions as appropriate												
WAG 6	Review documents	Monitor & provide suggestions as appropriate			XX RI Rpt.									
WAG 22, SWMUs 7 and 30			XX	XX										
WAG 22, SWMUs 2 and 3	Comment on D2 PP		XX SWMU 2 only			XX SWMU 2 only								

August 28, 1998

Paducah Gaseous Diffusion Plant (PGDP)
Site Specific Advisory Board (SSAB)
1998/1999 Work Plan

ISSUE	EXPECTED ACTIONS	STATUS/APPROACH	Aug 98	Sep 98	Oct 98	Nov 98	Dec 98	Jan 99	Feb 99	Mar 99	Apr 99	May 99	Jun 99	Jul 99
WAGs 9 & 11 Preliminary Assessment/Site Inspection (PA/SI) Process Site Evaluation Report					XX									
WAG 17		Record of Decision (ROD) signed 9/29/97												
LASAGNA														
Drum Mountain (WAG 24)	Review documents	Monitor & provide suggestions as appropriate												
Site Treatment Plan Annual Report														
Federal Facilities Agreement (FFA)					XX									
Integrated Waste Management Plan (IWMP)		IWMP Yearly Update Completed 12/15/97												
Vortec	Receive Update			XX										
Board Evaluation														
Bechtel/Jacobs M&I Presentation														
National Environmental Protection Act (NEPA)														
Environmental Report														
Accelerating Cleanup Plan - Paths to Closure	Review Documents	Monitor & provide suggestions as appropriate	XX		XX									
Cylinder PEIS	Receive Update		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Northeast and Northwest Plumes Pump and Treat Facilities		Presentations on Water Policy		XX										
Training Options for SSAB	Review catalog		XX	XX										
DOE Rulemaking Process														

PADUCAH GASEOUS DIFFUSION PLANT SITE SPECIFIC ADVISORY BOARD
U.S. DEPARTMENT OF ENERGY
ENVIRONMENTAL MANAGEMENT & ENRICHMENT FACILITIES
PROJECT UPDATES
SEPTEMBER 17, 1998

Northwest Plume Interim Remedial Action Pilot Plant

More than 301 million gallons of water have been treated at the Northwest Plume Groundwater Treatment Facility since operations began Sept. 1, 1995. The facility operates to contain a high contamination zone of the degreaser trichloroethylene and the man-made radionuclide technetium-99.

Responses to public comments on the Northwest Plume Explanation of Significant are being prepared for placement in the administrative record. In addition, quarterly sampling of extraction wells for gross alpha and gross beta has been completed.

Northeast Plume Interim Containment System

The Northeast Plume project includes extraction wells in the northeast quadrant of DOE property with an underground pipeline running to the existing PGDP cooling towers as part of the containment system.

Routine operations began in March 1997, with more than 141 million gallons of groundwater treated to date. Quarterly sampling of extraction wells for gross alpha and gross beta has been completed.

Lasagna demonstration

With EPA's signature of the Record of Decision for Solid Waste Management Unit 91 (the former cylinder drop test site) the Paducah site will give the LasagnaTM soil remediation technology its first go at full-scale remediation. Kentucky Division of Environmental Protection has yet to concur.

Named for its layered structure of treatment zones, the Lasagna method offers a cost-effective, environmentally-compatible improvement over existing clean-up options. Developed in partnership with DOE by a consortium including Monsanto, DuPont and General Electric, the process works by using buried electrodes to move water through the soil. Applied current drives the water an inch a day from a positive to a negative electrode. Along the way, the water picks up contaminants from the soil. The contaminated water passes through buried treatment zones which trap or degrade the contaminants.

Currently, a procurement package is being compiled to contract design, construction, operations, sampling and associated documents.

Waste Area Groups 1 & 7/C-746-K Landfill, Kentucky Ordnance Works

The Environmental Protection Agency recently signed the final Record of Decision for Waste Area Groups 1 & 7/C-746-K Landfill and former Kentucky Ordnance Works sites. Controlled access and groundwater monitoring already in place at the site will be combined with deed restrictions to protect human health and the environment at several Solid Waste Management Units.

WAG 1 consists of a fire training area where institutional controls are in place, the plant sewage treatment facility and a known trichloroethylene spill site inside the PGDP security fence which will fall under deed restrictions. WAG 7 consists of five underground storage tanks at the plant water treatment facility which will be closed, and an inactive sanitary landfill outside the security fence which will continue to be monitored. Despite their location on the DOE reservation, three Solid Waste Management Units connected with the former Kentucky Ordnance Works — a sewage treatment facility, a known Toluene spill site and a burn area — are being managed by the Army

Corps of Engineers.

Waste Area Group 3/burial grounds
WAG 3 is composed of three burial grounds within the PGDP security fence — C-747 Contaminated Burial Yard (SWMU 4), C-746-F Classified Burial Yard (SWMU 5) and C-747-B Burial Yard (SWMU 6). The yards, located in the western section of PGDP, contain natural and slightly depleted uranium, Technetium-99, magnesium fluoride, uranium-contaminated solid waste, security-classified weapons components, radionuclide-contaminated scrap metal, and slag from nickel and aluminum smelters.

The Remedial Investigation/Work Plan was issued to regulatory agencies last November, and because significant changes were made following comment resolution meetings between DOE and the regulators, an extension was requested for the June 6 due date for the D2 version.

The D2 RI/FS Work Plan was mailed to EPA and KDEP on July 1, with approval due the first week of September. DOE received KDEP's approval letter on Sept. 10. On the current schedule, field work should begin sometime in late spring 1999.

Waste Area Group 6/Trichloroethylene spill site
The C-400 TCE spill site is a major source of TCE in the groundwater and soil. The Industrial Hydrogeologic Study focused on piping, utilities and building foundations in the C-400 building area to determine how these man-made structures and systems influence groundwater infiltration and flow.

The D1 Remedial Investigation report was submitted Aug. 14 and comments are due from regulators by Nov. 16. Following completion of the RI/FS, a Proposed Plan and Record of Decision for the preferred remedial action will be developed. The selected action will be designed and implemented following the signing of the ROD.

Waste Area Groups 8 & 28
WAG 8 includes SWMUs 82 (C-531 Electrical Switchyard), 83 (C-533 Electrical Switchyard), 84 (C-535 Electrical Switchyard), 85 (C-537 Electrical Switchyard) and the C-340 building area (reduction and metals facility).

WAG 28 includes SWMUs 99 (C-745 Kellogg Building site), 183 (McGraw Underground Storage Tank), 193 (McGraw construction facilities), 194 (McGraw Construction facilities) and Area of Concern 204.

The FY 98 scope for this project includes development of a combined D2 Work Plan and initiation of combined procurement activities for the Preliminary Assessment/Site Evaluation and Remedial Investigation activities.

Waste Area Groups 9 & 11
WAGs 9 and 11 are being investigated to determine if there have been contaminant releases from buried tanks, vaults and pits around the PGDP. This project is being combined with two petroleum underground storage tank (UST) investigations, and the collection of six groundwater samples from the C-747-A burial yards.

A funding shortfall temporarily delayed the project in early June, but that has been resolved and fieldwork has resumed.

WAG 9 consists of the C-722 acid neutralization tank, off the northeast corner of the C-720 maintenance facility; the C-712 acid neutralization tank, off the southwest corner of the C-710 laboratory; the C-616-L Pipeline and vault soil contamination area; and the C-729 Acetylene

building drain pits, just east of C-720.

WAG 11 consists of the C-410-B hydrofluoric acid (HF) neutralization sludge lagoon; the C-410-E HF emergency holding pond; and the C-410-C HF neutralization tank.

The shallow soil borings should be completed on or about Sept. 18, ahead of the Sept. 30 milestone. These borings have been conducted to collect soil samples to determine if there have been contaminant releases from the structures. If this information reveals there may have been a release, further investigation to determine the full nature and extent will be required later.

Initial cost estimates for fieldwork and the Site Evaluation are finished, and approval has been granted by KDEP. The Site Evaluation Report is scheduled for December 1998.

Current sampling activities are being conducted as part of the 698 Field Task. (SEE NEW ITEM)

Waste Area Group 16 & 19/PCB sites
WAGs 16 & 19 are considered low-risk PCB sites. WAG 16 includes a PCB spill site, inactive PCB transformer area, PCB soil contamination and an outfall ditch. WAG 19 includes a PCB spill sites and soil contamination.

FY 98 tasks include development of the Preliminary Assessment/Site Investigation Work Plans and implementation of the fieldwork addressed in the approved work plan. The Site Evaluation Report is currently scheduled for FY 99.

The D1 Work Plan issued to KDEP July 10 is still under review.

Waste Area Group 22/SWMU 2
This project includes the investigation of burial grounds in the west-central portion of the plant. Original plans included installation of a cap at SWMU 2, the C-749 Uranium Burial Ground, but investigation activities have determined that the buried material was saturated in the water table, indicating a cap would have limited effect. In addition, KDEP prefers excavation of the burial ground as the only acceptable alternative addressed in the D1 Feasibility Study.

The SWMU 2 D1/D2 Feasibility Study presents four potential remedial alternatives 1) No Action, 2) In-situ containment with soil cap and subsurface barriers, 3) In-situ containment utilizing low-pressure permeation grouting, and 4) Bulk waste excavation. Current issues between DOE and the regulators are associated with the pre-selection of alternative 4 (excavation) by regulators as the preferred remedial alternative. This issue will be addressed at the Aug. 20 comment resolution meeting.

RCRA certification of the D2 Feasibility Study Report was held Sept. 14, and that report is due to the regulatory agencies Sept. 21. The D1 Proposed Plan is due to the regulators 30 days after issuance of the D2 FS (about 10/20/98).

The Regulatory Agencies have 48 days to issue comments on the D1 PP. Following receipt of the Regulatory comments, the D1 PP will be revised and issued as D2 for approval by the Agencies, which then have 33 days to approve or reject the PP.

Public comment on the PP will be solicited following Regulatory Approval of the D2 PP. The public comment period is now projected to start in February 1999 and run for 45 days.

Waste Area Group 22/SWMU 7&30
This project includes the investigation of burial grounds in the northwest corner of the plant. The Feasibility Study for SWMUs 7 & 30 (the C-747-A Uranium Burial Ground and C-747-A

Burn Area), was issued to regulatory agencies for review in March, proposing four remedial alternatives: 1) No action, 2) Limited action (installation of additional monitoring wells and long-term groundwater monitoring), 3) Soil cover and groundwater monitoring with additional monitoring wells, and 4) Surface soil removal and groundwater monitoring with additional monitoring wells.

SWMU 7 & 30 waste pit sampling has been completed and the D0 Proposed Plan is now being developed. DOE has recently received comments from EPA and KDEP on the D1 FS. These comments are currently being addressed by DOE.

The D2 FS is due back to the Regulators by 10/16/98, and the D1 PP is due to the regulators 30 days after issuance of the D2 FS (about 11/15/98). The Regulatory Agencies have 48 days to issue comments on the D1 PP. Following receipt of the Regulatory comments, the D1 PP will be revised and issued as D2 for approval by the Agencies. The Agencies have 33 days to approve or reject the PP.

Public comment on the PP will be solicited following Regulatory Approval of the D2 PP. The public comment period is now projected to start in March 1999 and run for 45 days.

Waste Area Group 23/Polychlorinated Biphenyls (PCBs) Spill Sites
Excavation of approximately 175 cubic yards of contaminated soil at several PCB sites was completed earlier this year. The excavation and temporary on-site storage of the contaminated soil was necessary to eliminate risk to workers from contact with soil.

These sites include eight SWMUs inside the security fence, and one outside the fence, located near the C-611 Water Treatment Facility fence. One of the SWMUs is actually a part of WAG 27, but has been grouped with the WAG 23 SWMUs because it has similar physical characteristics and contamination present.

Past use of PCBs and subsequent accidental spills and leaks of oils that contain PCBs caused the surface soil contamination at the SWMUs.

Work has begun on a No Further Action Proposed Plan, with the initial draft due Oct. 5. Tentative public participation dates for 1999 follow.

Public notice of comment period — Sunday, Feb. 7
Public comment period — Feb. 8 - March 24
Public meeting/hearing (if requested) — Thursday, March 11, 7 p.m. Info Park Resource Center
Last day to request a public meeting/hearing (in writing) — March 5
Day cancellation notice will run in paper if no mtg — March 8

Waste Area Group 27/Potential trichloroethylene sources
Remaining field tasks on WAG 27 (demobilization and waste management) are wrapping up and Data Assessment is continuing. The RI Report is developing on schedule. The final version of the fieldwork and sample analysis report of the SWMU 196 septic tanks and the SWMU 1 oil landfarm test pits will be incorporated into the RI Report as an appendix. The D0 RI Report and Risk Assessment are on schedule for transmittal to DOE for review by November 5, 1998

WAG 27 consists of potential or known sources of TCE on the west side of PGDP suspected of contributing to groundwater contamination. WAG 27 includes the C-747-C Oil Land Farm, SWMU 91 (the cylinder drop test area), SWMU 196 (C-746-A Warehouse septic systems) and the C-720 maintenance facility. SWMU 1 is part of WAG 27, but excavation work was recently completed at this SWMU to remove dioxin contamination as part of the WAG 23 removal actions.

Shallow drilling, sampling and field analytical work was completed this summer. Waste Management operations were completed on Sept. 8. The D0 Remedial Investigation Report and Risk Assessment are on schedule for transmittal to DOE for review by November 5, 1998

Following the remedial investigation, a Feasibility Study will be completed prior to a Proposed Plan. It is in the Proposed Plan that DOE names the "preferred" alternative for remediation. Following a public comment period on this plan, DOE issues a Record of Decision, first internally, then to the regulatory agencies, then to the public.

698 Field Task

Full approval to proceed with fieldwork was granted July 22 in a Readiness Review for the 698 Multi-Project Field Task. The task consists of sub-projects that are being combined as one project due to logistics — WAGs 9 & 11 field sampling, excavation of contaminated soil at C-750 A&B Underground Storage Tanks and WAG 15 subsurface investigation.

Vortec Vitrification Project

DOE's Environmental Assessment (EA) of the potential impacts from construction and operation of the Vortec Corporation Cyclone Melting System technology at PGDP is still being updated.

Based on the impacts analysis of the EA, DOE will determine whether to issue a Finding of No Significant Impact (FONSI) for the proposed Vortec project or prepare an Environmental Impact Statement (EIS), which would further study the project's impact to human health and the environment.

DRAFT

AN EVALUATION OF THE EFFECTIVENESS OF SITE SPECIFIC ADVISORY BOARDS FOR DOE ENVIRONMENTAL RESTORATION PROGRAMS: AN OVERVIEW

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Preliminary working draft for discussion

EXECUTIVE SUMMARY

DOE initiated a detailed study of the performance of its Site Specific Advisory Boards (SSABs) as part of its annual evaluation of the SSAB Initiative. The purpose was to (1) identify key factors affecting SSAB performance, (2) describe each SSAB in terms of those factors, and (3) provide a basis for SSABs to learn about their own strengths and weaknesses and to benefit from information about each other's successes. The quality of board discourse at three levels (among board members; between board members and the broader public; and between board members and DOE/regulators) was used as the measure of board performance.

The data used to characterize board performance and identify these factors was obtained through observations of board and subcommittee meetings, in-person interviews with board members and staff, phone interviews with board members unavailable for in-person interviews, and review of documentation relating to each board.

Effective discourse and an effectively performing board require members who reflect the diversity of viewpoints in the community and who work with one another and with the DOE/regulators to set up internal processes and functions that provide focus, encourage consensus, and support internal and external communication. Five factors were found to affect the problems and issues encountered in attempting to achieve this goal.

Community Context: Existing conditions affect the challenges of recruiting a diverse board of members who can work together. For example, communities with a history of involvement in site issues are more likely to find recruits easily than those without such experience. Sites with a mission limited to cleanup are likely to have an easier time than those with controversial defense programs. Communities with longstanding social conflicts will have more difficulty than those with good social relations.

Board Composition: The composition of the board affects not only the quality of discourse but the credibility of the board. Boards without members who represent important viewpoints in the community jeopardize the validity and credibility of their recommendations while boards with too limited a diversity of viewpoints can easily become polarized. As mentioned above, community context can make it difficult or easy to recruit a diverse board.

Internal Process and Functions: Quality dialogue is more likely to occur (and member diversity be maintained) when leadership seeks agreement and sets a conducive atmosphere for work, encouraging development of a focused agenda, providing facilitation, team-building, and an open agenda-building and issues management process and encouraging networking within and outside the board. These internal process elements often represent the best opportunities for a board to initiate short-term changes.

Public Engagement. Obtaining input and providing feedback to the broader public are key responsibilities of the boards. Where this dialogue is weak or missing, DOE and the boards can take deliberate steps to improve it, for example, by conducting surveys to assess community views and conducting outreach activities such as newsletters, media coverage, and networking.

DOE and Regulator Engagement: An effective SSAB depends in part on high-level DOE and regulators to empower the board to make independent judgments and become sufficiently involved to understand and value board advice. Where these elements are missing, or where DOE does not provide positive feedback, board members may feel their contributions are not worthwhile and may become hostile, apathetic, or lose members.

AN EVALUATION OF THE EFFECTIVENESS OF SITE SPECIFIC ADVISORY BOARDS FOR DOE ENVIRONMENTAL RESTORATION PROGRAMS: AN OVERVIEW

INTRODUCTION

Site Specific Advisory Boards (SSABs), known in some locations as Community or Citizen Advisory Boards (CABs), were established at 12 DOE environmental restoration sites between 1993 and 1996. The purpose of the boards is to draw on the diversity of community views to advise DOE on issues of site remediation that have the potential to affect the surrounding community and to assist DOE in formulating policies that can be implemented with community consent.

The performance of the boards was evaluated in 1996 and 1997 through a mail survey that was administered to board members and others involved in the work of the board as DOE liaisons and federal and state regulators. The surveys revealed wide variation in the performance of the boards and provided much information of use to DOE as well as to the boards themselves. However, DOE wished to probe in detail behind the reported phenomena to gain a more finely textured picture of what works well and the lessons learned at each of the sites. Hence, in 1998 DOE initiated this study, which involved a series of site visits to the boards by researchers with extensive experience in public participation and program evaluation.

The purpose of the study is to:

- Identify key factors affecting SSAB performance
- Describe the ways in which each SSAB operates in relation to these factors
- Provide a basis for SSABs to learn from each other.

APPROACH

Nine of the 12 environmental remediation sites having a SSAB or CAB were selected for visits by a research team. These sites were Hanford, Idaho, Nevada, Oak Ridge, Paducah, Pantex, Rocky Flats, Sandia, and Savannah River. Because of scheduling constraints, three sites were not visited. These were Fernald, Los Alamos, and Monticello.

The researchers conducted extensive interviews of approximately 1-hour with board chairs and co-chairs and as many of the board's officers and members (including former members) as was possible in a 3-5 day site visit. Where professional facilitators and/or administrators were retained by the board, these were also interviewed. In several cases, additional interviews were conducted by telephone in an effort to speak with as many of the board members as could be reached. In addition, regulators and DOE and DOE contractor staff with responsibilities pertaining to the establishment and operation of the board were interviewed.

The site visits were scheduled to permit observation of at least one board meeting. At some sites, the schedule also allowed observation of subcommittee meetings. At Oak Ridge, a special administrative meeting of the board and an Executive Committee meeting were observed. The researchers also examined the documentation relating to each board, including meeting minutes and records of board recommendations and ex-officio responses.

In evaluating the performance of the boards, the researchers recognized that the context and specific challenges facing each board would vary. Similarly, the performance of all of the boards would be uneven. Some would excel in areas where others did not; all would have strengths and weaknesses. The goal of the study was not to encourage competition among the boards or single any out for remedial intervention. The goal of the study was rather to provide an opportunity for all to learn about their own strengths and weaknesses and to learn from each other's successes.

FACTORS AFFECTING SSAB PERFORMANCE ACROSS ALL SITES

This study of the factors that affect board effectiveness examined board dialogue at three overlapping levels: among board members, among the board and DOE and regulators; and between the board and the community. Five factors emerged as exerting a strong influence upon the effectiveness of the boards. These factors are:

- Community context
- Board composition
- Internal process
- Public engagement
- DOE and regulator engagement.

Community Context

Existing conditions affect the challenges of recruiting a diverse board of members who can work together. Thus, the composition and structure of the community, including DOE's past and present place in that structure appear to play a significant role in shaping both the development and impact of a SSAB. Sites with a mission limited to cleanup are likely to have an easier time than those with controversial defense program. Boards also have an easier time becoming effective if the issues of the site are already known and salient (i.e., of central importance) to the community, if a wide range of institutions and interest groups already exist, and if the community has a history of active citizen engagement.

Mission: The scope and nature of the DOE mission is a key factor affecting board functioning. At sites where production activities continue and site restoration is not the sole mission, SSABs face a specific challenge. Under these circumstances, a board's scope and agenda are more likely to be disputed and community controversy (support and opposition) over a continuing DOE mission may spill over into board discussions and relationships — especially if the continuing mission is weapons-related. Boards appear to be more likely to

agree on the scope and focus and to provide strong consensus advice when the mission is limited to or concentrated on site restoration. Disagreement appears to be more likely where the board must clarify and agree on how to address DOE activities that are split among different DOE divisions and where the restoration agenda is competing with other issues for the attention and resources of the DOE site office.

Salience: The SSABs seem to have an easier time defining their role and organizing effectively to fill it when they are confronted with issues that are already known and of central importance to the affected community. Some SSABs have been implemented where specific publicly recognized problems were not already established, but DOE desired to be proactive in soliciting community advice. In these cases, it has proven difficult to recruit and engage members and SSABs have tended to focus a greater proportion of their energy on matters of internal organization and agenda setting.

Diversity: A diverse economic base can moderate concerns that site restoration may adversely affect ongoing production activities to the detriment of the local economy. Where such concerns are present, they may give rise to polarization of views on the board, thus increasing the difficulties in reaching consensus. However, this is only one dimension of community diversity. When it is effectively represented on a board, civic diversity—the presence of a wide range of institutions and interest groups—and demographic diversity in the community seem to reduce the likelihood of the board becoming polarized around critical and defensive views of DOE and its restoration efforts. When a board becomes polarized, the search for areas of agreement becomes more difficult.

Prior civic activity: Communities that have a history of active citizen engagement in environmental, economic, and community development issues appear to be at an advantage in establishing and operating a SSAB. In part this may reflect social learning by the community about how to organize. Also, existing social networks may provide benefits for recruitment and transmission of information around the community that support the boards' operation and shape its choice of activities. Where past experience also includes public or stakeholder involvement in other DOE activities, the stakeholders may already have become knowledgeable about the policy implications of key technical issues, identified community values in relation to DOE issues, and forged a foundation for future relationships. A comparable experience among DOE personnel about the methods and benefits of public involvement may also enable them to interact effectively with the board and help it operate effectively.

Other aspects of community context may also be significant in particular locations. However, salience, mission, diversity, and prior civic activity seem to be influential across all of the SSABs that we studied.

Board Composition

The composition and structure of the community to be represented may constrain the composition of the board and the manner in which its members are recruited. Recruitment of board members should reflect concerns for diversity and accountability to the community, but this may be difficult if diverse civic groups do not exist.

Recruitment: Although all boards are designed to recruit according to specific categories to ensure diversity, considerable variation exists in the specific way this FACA requirement is implemented. A fair, open recruitment process that ensures representation of the diversity of community viewpoints provides the essential foundation for an effective board. Absence (through exclusion, refusal, or withdrawal) of particular viewpoints affects both board operations and the credibility of board recommendations to DOE, the regulators, and the public.

Analytically, recruitment approaches can be classified according to two cross-cutting dimensions:

- What viewpoint does the member represent? Representation may be by (1) individual viewpoint, (2) category viewpoint, (3) organizational viewpoint. In the first approach, individuals are selected from identified categories to represent their own viewpoint—the assumption is that the composition of the board will ensure diversity. In the second approach, members are selected to represent the views of people in the particular category from which they are drawn. In the final approach, members may be selected to represent particular organizations and institutions that speak for community interests. In practice, board recruitment approaches fall along a continuum from individual (e.g., Savannah River Site, where members are selected from various categories to reflect the demographic diversity of the community) to organizational (e.g., Hanford, where the majority are selected from existing community interest groups).

- Who selects the member? Three types of selection process occur, although in the final analysis, DOE is responsible for approving selected candidates. The board may choose; a third-party, independent body may choose; or organizations may be responsible for designating a candidate. Most boards use the first process, typically relying on a Membership Committee to solicit, screen, and recommend candidates for board approval. The Oak Ridge Board, which relies on an independent panel, provides an example of the second selection process. Hanford, an example of the third process, primarily requests organizations to designate their own representative (the board also includes some at-large members of the public). At-large members are screened and recommended by the State regulators.

The approach used by a board has particular implications for the relationship of the board to the community. Theoretically, board members who are recruited to explicitly represent

organizations and institutions in the community, particularly when these organizations have had prior experience in collaborative problem solving, may be better prepared for effective discourse within the board as well as for dialogue between the board and the community. Whether members are actually appointed by participating organizations, or invited to join the board because of their membership in other community organizations, their memberships in these organizations provide an existing channel for the exchange of information with the public.

Where civic organizations do not play a major role in community life, where certain constituency groups have declined to participate in the boards, or where there is a specific intent to enhance broad demographic representation, members have been recruited either to reflect the demographic profile of the community or through personal networking of existing board members. Personal networks, if used alone, may not reflect community diversity and may create particular problems where boards have become highly polarized. In these cases, each side may view the recruitment efforts of the other as a way to stack the board with supporters.

Diversity: However members are recruited, members report greatest satisfaction and sense of achievement when board membership includes a wide diversity of demographics and interest-based constituencies. Broad diversity seems to be the best insurance against a board becoming polarized into critical and defensive factions that find it very difficult to agree on an approach and agenda, and to develop consensual recommendations to expedite effective site remediation.

Ensuring that members are authentic representatives of community constituencies and increasing diversity of board membership may constitute an important means to enhance the performance of a board. However, such changes may have to be introduced over a number of years as present terms expire. Also, they may not be possible where the community itself does not have strong, diverse civic organizations and constituencies.

Internal Process

It is often difficult to say whether the processes and procedures that a board adopts for agenda building and decision making are the cause or the outcome of a board's performance. However, internal processes may represent the best opportunities for boards to initiate short-term changes. Our study indicated that boards have used a variety of approaches to ensure performance of the functions that facilitate an effective discourse. The specific approach is not the key; rather, the key is to ensure that the necessary functions are performed. Typically, the success with which these functions are performed—in combination with diversity of membership—is reflected in the quality of the discussion that occurs in board meetings. Important functions include:

- Open agenda-building and issues management processes that emphasize search for common areas of agreement among diverse views and that is informed by DOE and regulator needs

- Team-building processes, which may be formal or informal

- Leadership, particularly by the Chair and/or Executive Committee

- Facilitation, both for meeting planning and implementation and for brokering technical and interpersonal issues

- Administrative and technical support, including technical assistance to facilitate participation by non-technical members and reduce members' workload.

Agenda Building and Issues Management: SSABs that are seen as effective by both board members and DOE officials devote significant resources to building a consensual agenda for the board's operations and following that agenda in a sustained fashion. DOE and the regulators can help this process by providing information about problems and issues that are most important to them. Once an agenda and work plan are developed, boards require functional subcommittees and/or issue managers to prepare information for the rest of the board and provide continuity of focus on an issue over time. Boards have adopted a variety of ways to maintain focus: by adhering to a formal work plan (e.g., Hanford, Idaho, Oak Ridge, Rocky Flats, and Savannah River); by dividing issues into "awareness" categories for staff to monitor and "focus areas" for members to address as at Rocky Flats; and referring back to values and principles to guide their selection of priorities as at Hanford. This process demands considerable leadership activity and internal networking. A commitment to searching for common areas of agreement, rather than emphasizing differences among viewpoints, appears to be key.

Team Building: Self evaluation, group retreats, consensus training, and workshops are examples of the various formal techniques that boards have employed to promote reflexivity and team-building—facilitating the process of reflecting critically on successes and problems, providing self-correction and redirection where needed, and promoting a sense of shared identity and purpose. Even where time and distance cause difficulties for additional meetings, all boards should conduct a self-evaluation, which can help provide self-correction where needed. This process need not be complex. For example, the Idaho board allocates a short time on each meeting agenda for a flip-chart evaluation in which members discuss what went well or not well and where changes may be needed.

Other examples of more extensive team building efforts include: (1) the Oak Ridge board scheduled a one-day meeting to discuss decision-making approaches and is planning another retreat to focus on process issues; (2) Rocky Flats holds an annual retreat, which includes a self evaluation process as well as prioritization of issues, to reflect on past events and activities and establish future directions; and (3) the Hanford Board has scheduled several

special sessions, including a one-day workshop last year to discuss their agenda, focus, and workload. Cross-site seminars, such as the one recently hosted by Nevada on low-level waste, provide another opportunity for team building and networking.

These techniques seem to be effective when they reinforce informal networking that underlies formal board decisions and the search for agreement. Less formal approaches may also be effective. For example, meeting together for a meal, either before or after a meeting, also provides an opportunity for informal interaction. Where boards meet away from the site and stay overnight in a hotel (e.g., Idaho, Hanford, and Savannah River), using this as an opportunity to encourage interaction, especially across groups, may be very beneficial to the board's effectiveness.

Leadership: Leadership that focuses on enhancing the effectiveness of board discourse seems to be highly beneficial to the functioning of a board. Clearly, the Chairperson is the focal point for ensuring effective performance of the leadership function and promoting effective board discourse. Leadership support by other group leaders (who typically gravitate to leadership roles on the Executive Committee) is an added advantage. Effective leaders model desired behaviors. They may or may not be good meeting facilitators (see below), but they do:

- Emphasize values and the search for agreement, maintaining a balance between technical and policy orientations
- Encourage the development of a focused agenda
- Set a conducive atmosphere for work, orchestrating productive meetings, ensuring that other organizational functions are performed, and motivating and encouraging members
- Expend considerable effort networking with other members of the board outside of meetings to develop a sense of the group as well as maintaining an independent stance while interfacing with DOE

Sometimes, boards have adopted strategies to provide balance among different factions by appointing co-chairs with opposing viewpoints. While such measures may be intended to promote consensus by preventing individuals with strong views from dominating the group, there is little evidence from our study that this strategy works. Rather, such arrangements may preempt the emergence of an authentic consensus builder. Indeed, on the basis of our observation of the Savannah River board, which moved from a co-Chair to a single Chair structure, we concluded that the dialogue had improved considerably when a consensus-building Chairperson assumed the leadership role. In this instance, however, the board was not polarized between distinct caucuses or factions. For some boards with highly polarized factions, appointment of co-Chairs may be a necessary transition step.

Facilitation: Effective facilitation of meetings is essential to retaining membership. Board service is voluntary and unpaid. If members perceive that their time is not being well spent because discussions get bogged down or if they believe that they do not receive a fair hearing for their views, they are likely to become obstructive or withdraw. Attention to the facilitation function is particularly important when, as in the SSAB Initiative, diverse groups are expected to work in a consensus mode. Strong leaders, in the sense discussed above, do not necessarily have to be good meeting facilitators. In some instances, meeting facilitation by an impartial third party is essential, particularly when the board is polarized or when a Chairperson is strongly oriented toward particular solutions. However, where the roles are separated, effective coordination between leaders and the facilitator is needed to implement the goal of helping the board focus and move forward.

A broader interpretation of the facilitation function includes the mediator or broker role — addressing interpersonal issues and/or interpretations of technical and policy issues, both among board members and between the board and community, or board and DOE/regulators. In some boards, this function is performed by the facilitator. In others, the Chairperson and/or individual board members perform this function as part of their networking across different groups or interests. In yet others, administrative staff, including the technical coordinator/assistant, act as brokers. The key is effective performance of this function by one or a number of persons.

Administrative and Technical Support: A well-functioning administrative team provides the infrastructure essential for supporting board operations. The bottom line is: do the administrative staff make the board and Chairperson's job easier, or do they become just another problem to manage? Board members are volunteers and, as frequently observed in interviews, the workload is heavy; the more staff are able to lessen the load, the more effectively board members are able to function and the more effort they are able to apply to substantive issues facing the board.

Various administrative functions need to be fulfilled. They include, at a minimum, the day-to-day administrative and meeting-related tasks such a staffing the CAB office, distributing information, arranging meeting logistics and notes, and performing various types of record-keeping. Fulfilling more than these minimum requirements can help promote more effective board discourse. For example, providing executive-assistant help such as coordinating meetings and agendas, coaching members and also presenters, and acting as the eyes and ears of the Chair may reduce the workload on the Chair and Executive Committee. Some boards (e.g., Nevada) have appointed a technical assistant or coordinator to help synthesize, distill, and explain key technical issues and monitor emerging issues and activities. This type of support can be invaluable both for enhancing non-technical members' ability to contribute to substantive discussions and for simplifying and lightening the reading burden on all members.

Public Engagement

Ultimately, the effectiveness of the SSABs depends on their ability to represent the diversity of views among the public. An important function of the board is to let the public know that DOE is being advised by a citizen committee. Obtaining input and providing feedback to the broader public are key responsibilities of the boards.

Outreach: There is considerable variation in the extent to which boards commit resources to direct communication with the public and in the focus of the communication. Some boards do not believe that they have a responsibility to conduct public outreach. However, other boards are concerned that their communities are almost entirely unaware of the existence and operation of the SSAB. To address this problem, most boards prepare and circulate their own newsletter within their communities, advertise events in local newspapers, and seek to inform the local media about their activities. Others, e.g., Pantex and Rocky Flats, have engaged in specific information-gathering activities such as community surveys to assist in improving their understanding of their communities' views and needs.

Representation: One of the most straightforward methods of public outreach is available where board members actually represent constituencies and organizations within the community and can report back directly to those organizations about the SSAB's activities in the course of their normal organizational activities. Members who have been recruited through demographic profiling or personal networking, or who have the responsibility to represent a "category" of the public, frequently report difficulty in developing a strategy for linking to "the public."

Participation: Another way of fulfilling the board's responsibility of serving the public interest is to encourage members of the public to participate in board meetings and, as is the case with some boards, inviting nonmembers of the board to serve on subcommittees. Special attention needs to be paid to the possibility of bias in selecting and defining issues, however, if these extra participants result in over-representation of a particular viewpoint.

DOE and Regulator Engagement

Opportunities to enhance SSAB performance also lie with the DOE site offices and regulators who have an important influence on board performance and member satisfaction. The quality of DOE engagement and sense of responsibility for encouraging Board effectiveness as well as the view that the local site office takes of the potential value of the board's recommendations are important. Attitudes of DOE staff at the sites range across a spectrum from reluctant acceptance that begrudges the diversion of resources from technical activity to enthusiastic support that places a high value on the SSAB's discussions and recommendations.

DOE Level of participation: The extent of DOE participation in the work of the board and the level of DOE management that is actively engaged with the board seems to be a significant

factor for a variety of reasons. First, it affects the quality and timing of information the board receives from DOE. Second, it affects the benefit DOE receives, in terms of understanding stakeholder issues and viewpoints as well as the agency's ability to respond. Third, it signals to board members the value placed on their participation and effort. Generally, where a DOE site manager is an active advocate of the board, regularly attends and encourages staff to attend board meetings, and is personally responsive to information and resource requests, there is a beneficial impact on the board's operations.

Empowerment by DOE: Board members generally express the view that they should be able to operate and need to be seen by the public to operate at a high level of independence of DOE and contractor supervision. There is variation among the boards, however, in the emphasis placed on independence; at Rocky Flats, an example of one of the most independent boards, the board was established as a non-profit organization. Likewise, boards place differential emphasis on some of the indicators of independence such as having an independent office, control of their budget and hiring staff. Most, however, emphasize the need for access to independent technical review and/or assistance. Concern is voiced about being dependent on DOE and/or former site-related employees for technical information.

DOE Responsiveness: The responsiveness of DOE to SSAB recommendations provides an important source of feedback to the board about its effectiveness and the worth of its efforts. At some sites, DOE and the board make a determined effort to track recommendations and follow up with technical staff. Some boards keep elaborate tracking records showing the recommendation, date it was given, and the status of the response (Hanford, Savannah River). Others, for example Idaho and Pantex, allocate a time-slot at each board meeting for DOE to report verbally, in addition to its written responses. At Savannah River, DOE staff are assigned to follow up and coordinate meetings with technical staff within a specified time period. Some boards assign the tracking task to administrative staff, encouraging DOE to be more responsive.

The quality and timeliness of DOE feedback is identified as a key factor in board satisfaction and sense of effectiveness. If DOE is seen to act on SSAB recommendations and/or take time to explain the rationale for non-acceptance, the board members have an enhanced sense that their commitment of time and energy is worthwhile. However, if DOE responds in a perfunctory manner and merely records recommendations, this can have a demoralizing effect on the board.

Role of the Regulators: Tremendous variation occurs among sites in the role played by regulators, as illustrated by the extremes of Hanford and Nevada. At the former site, DOE is bound by the Tri-Party Agreement, and EPA and State regulators play a very active role, both in the formal meetings and informal networking that occurs outside of meetings. At that site also, the State regulators are responsible for screening and recommending candidates for DOE approval. At the latter site, in contrast, regulators play a very limited role: for example, DOE activities are not regulated by EPA, and EPA is not included in an ex-officio role.

Where they are active, regulators can play a very positive role in providing the perspective of a key player in environmental cleanup and in supporting and empowering the board. Factors that appear to be of particular importance in influencing the degree of engagement by regulators (and whether or not they regard the board as a joint enterprise or "DOE's Board") include their relationship with one another and with DOE; the existence of a written agreement that specifies the responsibilities of each agency in remediating the site; and whether or not the board's bylaws require recommendations to be provided to the regulators as well as to DOE. Additional factors include the importance of the site to the regulators and the local presence of regulators.

DRAFT

Introduction

This report details the results from the Paducah portion of a DOE study that was initiated to understand factors contributing to the effectiveness of the DOE Site Specific Advisory Boards (SSABs). The overview that is provided separately with this site report provides the background needed to understand the goals, methodology, and rationale for the framework used in the study; the overview also discusses findings across nine DOE sites.

The report is structured according to five factors that were found to be important in assessing SSAB effectiveness. It begins by highlighting key features of the site context that pose particular challenges facing the CAB. Subsequently, it discusses the board's composition, including diversity of viewpoints represented on the board, and the board's sense of identity and purpose. The next section examines the board's internal processes and functions, including how board members accomplish agenda building, issues management, and team building; how facilitation, brokering, and leadership roles are taken and performed; and how administrative and technical support is provided. The next section, on public engagement, details the board's effectiveness in providing opportunities for public participation and in outreach and information gathering. The next section discusses the relationship between the board and DOE, and between the board and site regulators. The final section lists issues and observations that, after discussion and revision, will be incorporated into the summary section that follows this introduction.

Summary of Issues and Observations

[Issues and observations, which are currently listed in bullet form at the end of the paper, will be incorporated into this section, following the discussion at the Chairs' meeting in Boulder.]

Context

The Paducah Gaseous Diffusion Plant (PGDP) is located approximately 15 miles west of the City of Paducah, which sits on the southern bank of the Ohio River in McCracken County, Western Kentucky. DOE property consists of 3,600 acres of which 750 sit inside the PGDP security fence. The area around the plant is fairly typical of the rural south. The population is predominantly blue collar, mostly employed in light industry and service jobs.

The uranium enrichment activities at Paducah have recently been privatized under the 1992 Energy Policy Act and are now the responsibility of the United States Enrichment Corporation (USEC) and its management contractor, Lockheed Martin Energy Systems, which employs 1,718 people in enrichment activities. An additional 491 Lockheed Martin employees work for DOE's Environmental Management and Enrichment Facilities Program. DOE itself maintains a small site office under Oak Ridge Operations. The Paducah office of DOE is responsible for stewardship of a large residue of uranium hexafluoride contained in what is referred to as the "drum mountain" (approximately 30,000 cylinders, more than at any other DOE site) and for supervision of site monitoring, decontamination, and restoration activities.

The Paducah SSAB faces several challenges in terms of the contextual factors that our study has shown to influence development of a SSAB (mission, salience of the issues, diversity, and previous civic engagement). Mission, to date does not appear to have posed problems such as those at other sites, where issues of concern to the community related to continuing production, yet not within the board's scope, have spilled over into board discussions and relationships. Other factors, however, do pose a challenge to the board's development. A particular problem is the relatively low salience of issues (i.e., of central importance) to the community that makes it difficult to recruit and maintain membership interest. In addition, previous community experience and knowledge of DOE issues and government procedures provide a limited foundation in collaborative problem solving.

The gaseous diffusion plant is a significant employer in the region, although its presence was largely unacknowledged from commencement of operations in 1952 until the 1970s. Site activities achieved salience for the local population in the 1980s when it was revealed that groundwater pollution from the plant was affecting the well-water supply of some local residents. This concern was assuaged by DOE providing alternative city water supplies to the affected properties. Attention was also focused on possible loss of jobs at the plant in the mid-1980s when it was under consideration for closure. The continuing operation of uranium enrichment activities provides valued employment to the community.

Current issues are the disposition of the drums containing enrichment residue and migration of the contaminated groundwater towards the Ohio River. However, board members, DOE staff and M&) contractor employees all agreed that these issues do not seem to have attracted very much attention in the surrounding communities at large.

Although business and philanthropic civic organizations function in the area, there is very little history of political or environmental activism in the community, particularly in relation to DOE activities. Most of the environmental interest that has occurred in the region seems to have been focused on industrial pollution at Calvert City and forest management issues.

Prior to formation of the SSAB, DOE at Paducah had established two organizations: a Neighborhood Council (established as a result of the well-water issues), to keep local residents informed of plant activities that could affect the local area, and a panel of regional academic advisors. Both were discontinued 2 years ago when DOE decided to establish the Paducah SSAB. These DOE/community interactions provided limited experience in collaborative problem solving. While the CAB provides an opportunity for individual and community learning, the learning process has started later than at some sites where a foundation of citizen organization has already been laid. In Paducah, the majority of members have had to become knowledgeable about the plant and government procedures and regulations as well as developing effective working relationships with other members, DOE, and the regulators.

SSAB Composition and Identity

Recruitment represents a hybrid of organizational, demographic, and individual approaches. The SSAB was set up using a working group (recruited largely through advertisements and a mailing list) and a paid facilitator hired by DOE for the purpose. This group generated a charter for the SSAB and invited volunteers to join the board. Initially it was proposed to recruit representatives from existing local area organizations; however, this proved to be impracticable as there were not many such organizations interested in the site management issues. It was therefore proposed that the board be recruited to be representative of 15 demographic and interest categories such as county public officials, business person, environmental activist, health professional, ethnic minority, an union member. The process of establishing the board took almost one and a half years, beginning in May of 1995. The board was chartered in September 1996 and held its first official meeting in October, 1996.

Recruitment proved to be—and remains—a challenge, and some working group members carried on as SSAB members (5 still serve). In particular, it has proven difficult to recruit an elected public official to the board (the sole public official who was a member at the time of our visit in July has now resigned) or to retain the participation of the local business community. Recent recruitment has mostly been through personal networking by current board members.

There is moderate diversity in demographics and viewpoints. The board currently consists of 12 members—three are associated with the plant (one is a union worker), eight are male, and two are black. There are two environmental activists, including one of the co-chairs. In addition, two members are "plant neighbors" who were personally affected by the well-water contamination that was discovered in the 1980's.

Both DOE and the board members emphasized that the board is in an early stage of development and has yet to generate a track record of shared achievements around which members can coalesce. Many of the participants emphasized similar goals for the board. These are largely individual and community consciousness raising and learning how to become an effective, independent advisor and watchdog for DOE. However, these goals are in no sense shared or arrived at by common process of deliberation or consensus.

Process/Functions

A number of functions must be fulfilled for a group of people to work together effectively, particularly when they are convened to represent different perspectives. These include agenda building and issues management processes that emphasize search for common areas of agreement among diverse views; team-building processes, which may be formal or informal; leadership, particularly by the Chair and/or Executive Committee; facilitation, both for meeting planning and implementation and for brokering technical and interpersonal issues; and administrative and technical support, including technical assistance to facilitate participation by non-technical members and reduce members' workload.

Agenda building and issues management: The development of an agenda that meets the priorities of the members and focuses the work of the board makes an essential contribution to effectiveness. The Paducah board's agenda is based on a 12-month rolling work plan that is developed at an annual planning meeting. The current work plan contains 28 items, for which a dozen items carry expected board actions of reviewing documents, monitoring, and advising "as appropriate." The agenda for future meetings is reviewed and modified by the board at each meeting. Board members described it as "mostly a hodgepodge." Members suggest issues for the agenda. Several issues proposed by one of the co-chairs have been adopted, but in the absence of agreed on criteria for prioritization and a committee structure to promote follow through, prioritization seems to be ad hoc.

The board does not have a differentiated committee structure but, prompted by criticism from one of the regulators, two individuals have recently adopted the role of "issue managers." These persons have agreed to take responsibility for researching and monitoring issues on behalf of the board. This development provides an opportunity to enhance the board's focus. It also provides an opportunity to expand the number of members who are knowledgeable about the issues and can bring different perspectives to bear on them.

As of June 1998 the board had issued 5 sets of recommendations to DOE, mostly concerned with procedural issues of public information and consultation. No tracking system is in place at this stage of the board's development. Although the board's charter calls for decisions to be made by consensus, the board uses majority voting. A search for common areas of agreement is not a priority.

Team building: The board has not engaged in any formal or informal team building activities. such as consensus training or group retreats, and has not conducted a self-evaluation. Such techniques, especially when used in combination with self-evaluation, can help facilitate the process of reflecting critically on successes and problems, providing self-correction and redirection where needed, and promoting a sense of group identity and shared purpose. Opportunities for informal social interaction are limited by the short meeting time—since meetings are scheduled once a month in the evening, members do not have the opportunity for interaction that are available to members of boards where meetings are scheduled over a two-day period with an overnight stay. One member, however, observed that DOE should make a greater effort to provide refreshments to members, most of whom come to board meetings straight from work to contribute many hours of volunteer time.

Most interviewees reported that the board essentially functioned more like a focus group of concerned individuals. In this sense, the board may be close to being a "stable operating system," but it is far from operating as an integrated team. Team building has not been enhanced by disputes between the co-chairs over conflict of interest concerns.

Leadership: Key functions of leadership for the advisory boards include: emphasizing values; searching for agreement; maintaining the balance between technical and policy orientations; setting a conducive atmosphere for work; and networking. The Paducah board does not have

the benefit of strong unifying leadership to perform these essential leadership functions, but has attempted to provide a balance of power between critics and those who are supportive, or defensive, about DOE.

One co-chair is an articulate advocate of positions that are critical of DOE based on its past performance, particularly on issues of informing the public and issues of governance; the other co-chair is employed by the M&O contractor. The board appointed co-chairs drawn from both the DOE critic and supporter camps in an effort to avoid either from dominating the group. However, this strategy does not seem to have overcome the polarization as the chairs do not appear to work directly with each other to establish a consensual agenda. Indeed, one of the co-chairs has been the object of explicit conflict of interest concerns raised by the other that have been widely circulated among members. These have not been fully resolved. The chairs do not interact outside of board meetings.

The Paducah SSAB has no executive committee to help plan strategy or to mediate between the positions of the co-chairs. To date, no other leadership has emerged.

Facilitation: The board has the benefit of a professional facilitator who has been involved in the development of the SSAB from the beginning of the working group, although there is a perception among some board members that he is too close to DOE and too distant from the local community. The facilitator manages the meeting process well, keeping to schedule, and ensuring that all who wished to be heard have ample opportunity to do so. However, his attempts to expand his scope to play a mediator role, intervening outside of meetings to regulate the tone of email exchanges, was perceived among some members as exceeding his legitimate role. There appears to be no other person to fulfill the role of acting as broker on interpersonal issues or differing interpretations of technical and policy issues.

Administrative and Technical Support: The board's administrative and technical support has been provided by M&O contractor personnel. This support is seen as questionable by the DOE critics on the board; in response, DOE has recently provided funding for the board to hire its own secretary and open its own office space in premises not under the control of DOE or an M&O contractor.

There is no independent technical assistance presently available for the board. Members have discussed the possibility of hiring a technical consultant to provide independent peer review; however, no action has been taken, in part because of the difficulty of finding a suitable candidate. The board apparently has not discussed hiring a technical assistant to review technical documents, identify key issues, and prepare and distill information to help members get up to speed.

Process Summary: Our observation of the meeting, combined with a review of the meeting minutes, indicate that the quality of discourse and the ability of the board to effectively advise DOE is constrained by several factors. Lack of community experience with environmental activism or participatory political processes limits the available pool of potential board

members already possessing the skills necessary for the advisory board to operate effectively—these skills are having to be learned more or less from scratch. The majority of members have had no previous knowledge of DOE processes and procedures and are unfamiliar with the technical and policy issues related to the site. As a result, introduction and detailed discussion of issues related to a particular topic appear to be left primarily to one member who has more understanding of technical and procedural issues. Since this member is critical of DOE, the focus of discussion is criticism of DOE, rather than working collaboratively as a group to develop recommendations. To date, no leadership has emerged that is capable of combining this critical perspective with those of others into a single agenda around which the members can unite and focus. However, the appointment of issue managers to monitor and provide feedback to the board on two key projects may help provide more balance in members' ability to contribute to board discussions.

Public Engagement

All participants in the SSAB process, be they members, DOE staff, or M&O contractor personnel, agreed that the Paducah SSAB had not yet reached the state of operational development that would enable it to engage in successful public outreach. DOE staff emphasized, however, that this would be essential for the board to be able to perform the role DOE envisaged for it. From DOE's perspective, a focus group composed of individuals who are not representative of and responsive to the public offers no substantial improvement over existing mechanisms for individual public comment. This view is not necessarily shared by DOE's critics on the board, who tend to regard their role as more of a public watchdog or oversight committee at least as much as an advisory group seeking consensual solutions.

Opportunities for Public Participation in Board Activities: Although board meetings are open to the public, attendance by non-members is almost unheard of. There are no committee meetings in which the public can participate. Indeed, given the difficulties encountered in recruiting members to the board, public interest in participation may be minimal unless or until some kind of precipitating event occurs (such as the groundwater contamination issue in the 1980s).

Outreach and Information Gathering: The extent of seeking input and reporting back to civic organizations appears to be limited. The board does not have an operational mailing list of interested individuals, a newsletter, website, or public comment line.

DOE and Regulator Engagement

The DOE site office is among the most supportive of the SSAB process. Indeed, the environmental restoration program is the major concern of the site office. DOE has continued to provide support, while expressing the view (in common with board members) that the board is still in its formative stages and that its true value remains a potential to be fully realized.

DOE Level of Participation: DOE is represented at SSAB meetings by its most senior Paducah official and its Communications Department. He and his staff respond openly to questions and requests for information, while apparently taking care to keep relationships on an appropriately formal level.

Empowerment by DOE: DOE has attempted to balance the board's desire for independence with agency bureaucratic procedures and needs. In response to members' concerns about undue DOE influence, DOE has supported opening an office in separate premises and the contractor and hiring a part-time secretary who is not an M&O employee.

DOE Responsiveness: To date, very few board recommendations have been issued. In other areas, however, DOE has shown responsiveness. For example, in addition to opening an office and hiring a secretary, changes have been made in DOE presentations: when some board members complained that DOE had previously overwhelmed the board with technical presentations, described by one member as "viewgraph culture," the number and scope of technical presentations was reduced.

Regulator-Board Relationships: The regulators who usually participate in board meetings were not present during our observation of the board meeting in July. We were therefore unable to observe the level and type of interaction that occurred. Members gave mixed assessments of the regulators' role. However, some observed that the State had strongly supported establishment of a SSAB and that the State regulator had contributed, through his criticism of the board, to the decision to appoint two issue managers.

Issues and Observations

Issues raised by members:

- Board is viewed as being "in the early days" (but has been in existence 2 years). Its real value remains a potential one
- Polarization of the board
- Lack of trust in DOE that prevents the board moving forward
- Appearance of conflict of interest
- Uneven attendance by some members

Additional observations:

- There is very strong DOE support for the board
- Board meetings are well run by a professional facilitator who helps keep the board moving forward
- Appointment of issue managers provides an opportunity to balance members' knowledge levels and contributions, as well as providing more focus on issues

- Several contextual factors pose a particular challenge for the Paducah board. In particular:
  - absence of strongly salient issues, which results in difficulty in recruiting and maintaining a high level of interest
  - very limited experience in public involvement, particularly in collaborative problem-solving approaches that provide a foundation for the SSAB
  - limited prior knowledge of DOE issues and government procedures
- Lack of leadership to unify competing agendas is a serious constraint
- Facilitator lacks legitimacy to fill leadership gap

PADUCAH DOE BUDGET REQUESTS

FY1999	FY2000	FY2001
$43,520,663	$50,324,607	$60,507,824

New Subproject Title:

PAD Surface Soils
- WAG 2 & 5
- WAG 8
- WAG 16 and 19
- WAG 20 and 21
- WAG 23
- WAG 9 & 11

PAD Burial Grounds
- WAG 22, SWMU 2 and 3
- WAG 22, SWMU 7 and 30
- WAG 3

PAD Groundwater
- WAG 6
- WAG 27
- WAG 28

PAD Surface Water
- WAG 18 and 25

UST Closures

LASAGNA (SWMU 91)

PAD WM Mixed Low Level Waste Projects

PAD WM Low Level Waste Projects

PAD WM Hazardous Waste Projects

PAD WM Sanitary/Industrial Waste Projects

PAD WM TRU Waste Projects

PAD WM Pollution Prevention

PAD Long-Term Surveillance & Maintenance

PAD D&D Surveillance & Maintenance

Bechtel Jacobs Company LLC
Paducah Project

Site Specific Advisory Board
CCADS: 5522

	BJC	Jacobs	Totals
Carryover	0	30,000	30,000
New BA	194,969	(29,969)	165,000
Total Available Funds	194,969	31	195,000
Actual Costs to Date (August)	38,460	31	38,491
Uncosted	156,509	0	156,509

Participant	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
Bechtel Jacobs Company LLC	0	0	0	0	681	301	0	571	661	189	627		3,029
BJC Sub. - Roberts & Kay, Inc.	1,246	1,380	0	1,107	1,181	1,012	1,177	0	2,415	1,087	1,294		11,899
BJC Sub. - Jacobs Engineering Group	0	0	0	0	0	0	0	0	15,921	(6,480)	7,235		16,676
DOE Prime - Jacobs Engineering Group	0	0	0	0	0	12	0	19	0	0	0		31
Overhead	110	123	0	99	730	346	105	706	4,487	(955)	1,105		6,856
Total Project	1,356	1,503	0	1,206	2,592	1,671	1,282	1,296	23,484	(6,159)	10,261	0	38,491

Participant	Description	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
BJC Engineering Cost Center	OR - Ron Wells - Task Support	0	0	0	0	0	0	0	0	0	189	397		586
BJC Procurement	Contract Work	0	0	0	0	681	301	0	0	0	0	0		982
BJC Project Controls	Project Analyst/Finance Officer Support	0	0	0	0	0	0	0	196	196	0	230		622
SSAB - Misc Expenses	Rents, Food, Sound Recording, Public Notice, etc.	0	0	0	0	0	0	0	375	465	0	0		840
Total Project		0	0	0	0	681	301	0	571	661	189	627	0	3,029

Roberts & Kay, Inc.
Paducah Project

15-Sep-98
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Material Charge Number
54 / P / JEC04

Participant	Type of Service	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
BJC Sub. - Roberts & Kay, Inc. (Payments)	Subcontractor	1,246	1,380	0	684	1,181	1,012	975	0	0	1,969	1,087		9,534
BJC Sub. - Roberts & Kay, Inc. (Travel Payments)	Independent	0	0	0	423	0	0	202	0	0	446	0		1,071
BJC Sub. - Roberts & Kay, Inc. (Accruals)	Facilitator to	0	0	0	0	0	0	0	0	1,969	863	1,069		3,901
BJC Sub. - Roberts & Kay, Inc. (Travel Accruals)	the Site Specific	0	0	0	0	0	0	0	0	446	224	225		895
BJC Sub. - Roberts & Kay, Inc. (Accrual Reversals)	Advisory Board	0	0	0	0	0	0	0	0	0	(2,415)	(1,087)		(3,502)
Total Project		1,246	1,380	0	1,107	1,181	1,012	1,177	0	2,415	1,087	1,294	0	11,899

Jacobs Engineering Group, Inc.
Paducah Project

TASK NUMBER:
35 - H831 - 48

Participant	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
BJC Sub. - Jacobs Engineering (Payments)	0	0	0	0	0	0	0	0	107	1,593	0		1,700
BJC Sub. - Jacobs Engineering (Accruals)	0	0	0	0	0	0	0	0	15,814	7,741	14,976		38,531
BJC Sub. - Jacobs Engineering (Accrual Reversals)	0	0	0	0	0	0	0	0	0	(15,814)	(7,741)		(23,555)
Total Project	0	0	0	0	0	0	0	0	15,921	(6,480)	7,235	0	16,676

INVOICES

35-H831-48 Statement of Cost - Voucher Number: N/A

Total Amount Due	$ 107.00

35-H831-48 Statement of Cost - Voucher Number: 59

LABOR @ Office	95.63
LABOR @ Site	182.28
Teaming Subcontractors: PAI Corporation	258.03
Other Direct Costs	1,195.00
Amounts Previously Invoiced	(137.76)
Total Amount Due	$1,593.18

Jacobs Engineering Group, Inc.

Paducah Project

15-Sep-98
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DOE PRIME

Participant	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
BJC Sub. - Jacobs Engineering (Payments)	0	0	0	0	0	12	0	19	0	0	0		31
Total Project	0	0	0	0	0	12	0	19	0	0	0	0	31

OVERHEAD

15-Sep-98
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Participant	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 98
OVERHEAD	110	123	0	99	730	346	105	706	4,487	(955)	1,105		6,856
Total Project	110	123	0	99	730	346	105	706	4,487	(955)	1,105	0	6,856

AK RIDGE RESERVATION

Environmental Management

September 4, 1998

Mr. Rod Nelson
Assistant Manager for Environmental Management
DOE/ORO
P.O. Box 2001 EM90
Oak Ridge, TN 37831

Dear Mr. Nelson:

The Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB), as well as the other SSABs across the nation, continues to strive to provide useful advice to the Department of Energy (DOE) Environmental Management Program. One important facet of this effort is the preparation of comments on relevant draft documents. We find that this is often a difficult or impossible task due to time constraints imposed by DOE. As an example, we cite the August 6 Notice of Intent (NOI) for the "DOE Order and Manual on Radioactive Waste Management" that allows 30 days for comments. In this case, we did not receive a copy of the documents until August 18.

Because of FACA constraints such as the requirements for advertising meetings and the established monthly cycle of SSAB operation, such a time request is impossible to meet in a responsible fashion. Our minimum procedural cycle, which we believe is typical of most SSABs and has only some slight degree of flexibility, is as follows:

(1) Upon receipt of the document, the Board at its next regular monthly meeting decides whether to comment and assigns the document to the appropriate Project Team.

(2) The Project Team meets, discusses the topic and prepares a recommendation on the proper comment/response.

(3) At the following SSAB meeting, the recommendation is discussed, accepted, modified, rejected, or returned to the Project Team for additional consideration and revision. Assuming acceptance, the recommendation is formally transmitted to DOE.

In cases where the Project Team is directed to revise the recommendation, an additional month may be involved. For Boards that meet only at two month intervals, the time could be longer.

P.O. Box 2001 • Mail Stop EW-91 • Oak Ridge, TN 37831 • (423) 241-3665

The best case analysis of the process readily shows that the most optimistic time for response is about 30 days. This is assuming immediate receipt of the draft after the NOI is issued and the next regular SSAB meeting being held the day after receipt.

The worst case analysis would be to receive the document two weeks after date of NOI, have the next regular SSAB meeting 3-4 weeks later, and subsequently need two iterations on the Project Team action. In this situation, the required total time for response after NOI could be as long as 14 weeks, or approximately 100 days.

Reality suggests that a reasonable response time is somewhere between the two extremes discussed. However, it should be obvious that a minimum of 60, and preferably 90 days, should be allowed by DOE for any response by an SSAB. To allow less time is a disservice to the SSABs whose members perform on a voluntary basis, and under federally imposed (FACA) rules. The only alternatives for SSABs are to provide inferior quality recommendations, or none at all, or to constantly be in a position where they must request extensions to the comment period.

The imposition of unreasonably short comment periods detracts from the public's ability to supply meaningful responses. This often results in a perception that DOE is really not interested in public comments and impacts negatively on the attitude of SSAB members.

The ORREMSSAB appreciates the fact that DOE-Oak Ridge Environmental Program management is sensitive to this problem and has generally accommodated these concerns on documents they issue. By copy of this letter, we request that the Office of Intergovernmental and Public Affairs (EM-22) bring this concern to EM programmatic offices at DOE-HQ. We request that program staff: (1) advise SSABs in advance of their intent to seek comments on specific documents, and the approximate date of release for comment, (2) supply copies of documents for which they desire SSAB input directly to the SSABs on the date of their availability, and (3) allow sufficient time in the cycle to accommodate SSAB schedules.

Further, we would appreciate a written response from EM-22 on the response to this request.

Sincerely,

William M Pardue

William M. Pardue, Chair

WMP/sb

cc: Martha Crosland, DOE/HQ
Marianne Heiskell, DOE/ORO
Earl Leming, TDEC
Jon Johnston, EPA Region 4
Karol Hazard, SAIC, DOE/HQ
Susan Gawarecki, LOC
Other SSABs

SSAB Chairs Bi-Monthly Conference Call Minutes

Wednesday, August 12, 1998

SSAB Chairs Participating:
Hanford
Idaho
Los Alamos
Monticello
Nevada
Oak Ridge
Pantex
Sandia
Savannah River

Absent:
Paducah
Rocky Flats

DOE-Headquarters:
Martha Crosland
Fred Butterfield
Karol Hazard
Michael Purkey

DISCUSSION

A. Outreach Issues

1. Discussion/Agenda-Development/Logistics for SSAB Chairs Meeting to be held September 16-17, 1998 in Boulder, CO.

The primary issues concerned the participation of regulators and the limitation of the number of people from any one site. Merilyn Reeves (Hanford) led the discussion by stating that regulators should be allowed to come, because they are directly involved with the situation at each site, and sites should be allowed to bring more than two people as needed. It was agreed that regulators and local officials should be invited to attend the SSAB meeting by the local site board. Also, the possibility of having a panel session at a future SSAB Chairs meeting featuring state regulators was discussed and received a favorable response. Additionally, EM-22 also agreed that there should be some flexibility in the number of participants from each site.

Follow Up:
In view of this, Fred Butterfield sent an e-mail message to all SSAB Federal coordinators on 8/11, excerpted as follows:

> "Message Subject: Logistics for the SSAB Chairs & Federal Coordinators
>
> As discussed during last week's SSAB Chairs conference call, we need to distinguish between a PARTICIPANT and an ATTENDEE at the upcoming

Boulder meeting.

- A PARTICIPANT is an individual who will sit at the meeting table and actively participate in all aspects of the SSAB Chairs discussion.

- An ATTENDEE is, in effect, anyone else — individuals who will sit around the room (probably in chairs behind the PARTICIPANTS, similar to last year's Dallas meeting), who will need to be recognized by the Facilitator in order to comment or otherwise participate in the ongoing discussion.

Our general policy is that there should be two (2) persons from each local site board serving as PARTICIPANTS, e.g., Chair and Vice-Chair, Co-Chairs, or other designees. In the event that one of these persons is resigning, his/her successor (i.e., if already-elected) may come either as one of the two participants or as a THIRD participant.

It is also expected that each site board's SSAB Federal Coordinator AND the SSAB Administrator will come to the SSAB Chairs meeting as ATTENDEES.

In addition, local site boards are encouraged to invite their state regulator(s) and/or local government officials to this meeting — as either PARTICIPANTS or ATTENDEES.

When considering whether a given invitee should be asked to come as a PARTICIPANT or an ATTENDEE, it should be kept in mind that the focus of the discussion at this meeting will primarily be on the following three (3) topics, per the draft agenda (see below):

1. Issues and information exchange among the SSAB Site Board Chairs
2. An interactive discussion of the factors that contribute to the effectiveness of local EM SSAB Site Boards
3. Discussion of lessons-learned — and a path forward — vis-à-vis SSAB cross-site discussions."

Actions Required:
In turn, Fred has asked that the Federal Coordinators talk with their respective site board Chair(s), and provide EM-22 with the following information as soon as practicable:

- NAMES and ORGANIZATIONS of all PARTICIPANTS at the SSAB Chairs Meeting (including regulators and/or local government officials);

- NAMES and ORGANIZATIONS of all ATTENDEES at the SSAB Chairs Meeting (including regulators and/or local government officials); and

- NAMES of all SSAB Federal Coordinators who will be attending the SSAB Federal Coordinators meeting (and evening dinner) on 9/15."

2. *Discussion of "Issues and Interaction: DOE Citizens Advisory Board — Panel Session" to be held September 17, 1998 at SPECTRUM '98 in Denver, CO.*

Some concern was expressed about the panel discussion at the SPECTRUM conference. It was pointed out that the panel discussion was to take place on the last day of the conference, and therefore most of the attendees probably would have left by that time. However, HQ suggested that this would not be the case as there were many workshops being held on the last day, and that most people would stay until the end.

Subsequent to the 8/5 SSAB Chairs conference call, EM-22 was notified that the conference fee for attending the SPECTRUM '98 panel session would be waived only for the panelists themselves. Non-panelists will be required to pay the full daily conference rate. For non-ANS members, that fee is $300 before August 21 and $375 after August 21.

B. SSAB Site Board Public Participation Issues/Updates

Fernald – The Fernald CAB was having a board meeting that night. Their big focus was preparing for next month's NTS CAB Low Level Waste (LLW) Seminar.

Hanford – The HAB's issues centered around the high level waste (HLW) tank treatment and the associated privatization contract, which is expected to be signed soon. Their next meeting will take place in Pendleton, OR, on 9/10-11. The HAB also asked about the status of the HQ SSAB Guidance. The EM-22 response was that the updated Guidance is still in draft form, and that the next step was for the Office of General Counsel to review it.

Idaho – The DOE/ID site manager is leading the EM Integration "round-robin" meetings among the managers of five major sites on EM integration. It was agreed that these "Round Robin" meetings and planned next steps be included as agenda items in the next SSAB Chairs meeting. They INEEL CAB spent about two hours discussing risk at the last board meeting, and they plan to spend additional time on the same topic at the next meeting.

Los Alamos – There was an NNMCAB meeting last Thursday which was very constructive. The board is presently working on bylaws and their FY 99 work plan. The next meeting is scheduled for August 25.

Monticello – Nothing to report.

Nevada – The NTS CAB is heavily involved in preparation for the 8/16 - 8/18 LLW seminar, for which they are getting the final information pack together. The NTS CAB meeting was set for that evening (8/5).

Oak Ridge – The ORREMSSAB meeting was scheduled that night (the first Wednesday of each month). Accordingly, the Oak Ridge Chair proposed that we have the conference calls on the first *Tuesday* of every other month. All participants on the call agreed.

Pantex – Nothing to report.

Sandia – The Sandia Cab is working on their FY '99 work plan.

Savannah River – The SRS CAB was preparing to recommend that DOE approve the EIS on the Surplus Pu disposition.

C. Miscellaneous/Administrative/Other Issues

Merilyn Reeves asked if Secretary-Designate Richardson could come to speak at next month's SSAB chair meeting in Boulder. All participants on the call agreed that this was a good idea.

Follow Up:
A request for the Secretary's attendance has been prepared by EM-22 and forwarded for review and comment.

D. Next Conference Call

The next call will be held on Tuesday, September 8, 1998, 11:00 AM to 12:30 PM, EDT.

SSAB Monthly Meeting Attendance

Name	Sep '97	Oct '97	Nov '97	Jan '98	Feb '98	Mar '98	Apr '98	May '98	Jun '98	Jul '98	Aug '98
Mark Donham	X	X	X		X	X	X	X	X	X	X
Vicki Jones	X	X	X	X	X	X	X	X	X	X	X
Nola Courtney	X	X	X	X	X		X	X	X	X	X
Edward Duff				X	X	X	X		X	X	X
David Fuller							X	X			
Ronald Lamb	X	X	X		X		X	X	X	X	
Lynn Lane			X	X	X	X					
Linda Long	X	X	X		X	X		X			X
Ray McLennan	X	X	X		X	X		X	X	X	
Craig Rhodes		X	X		X	X	X	X	X	X	
Connie Sykes	X		X								
Bill Tanner	X	X		X	X			X			X
Gregory Waldrop		X	X			X		X	X	X	

received
J Brandstetter 8-24-98

ACCELERATING CLEANUP PATHS TO CLOSURE

COMMENT/RESPONSE DOCUMENT

June 30, 1998

Post-it™routing request pad 7664

ROUTING - REQUEST

Please
- ☐ READ
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and
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Date _____

To SSAB members and regulators in September mailing

From Jeannie Brandstetter

ACCELERATING CLEANUP PATHS TO CLOSURE
COMMENT/RESPONSE DOCUMENT

Comment No.	Comment	Source	Response
1	Paths to Closure must be written to be understandable by an interested stakeholder. Greater care is needed with acronyms and abbreviations.	Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) April 7, 1998	Noted
2	Tables and figures should be self explanatory to facilitate their use out of context.	ORREMSSAB April 7, 1998	Noted
3	Avoid use of jargon (e.g., outsourcing, scope)	ORREMSSAB April 7, 1998	Noted
4	Consider discussion of institutional controls/stewardship where appropriate in Paths to Closure. Since stakeholder end use recommendations include leaving some wastes in place, the issue of stewardship/institutional controls is paramount. DOE must come to terms with this issue as it develops its watershed strategy. Furthermore, the State has gone on record in regard to DOE's plans for stewardship/institutional controls. In addition, DOE should say something about the fact that some contaminants remaining in place will be radioactive/hazardous beyond 2070. DOE must be prepared to respond to stakeholders on these issues at the public meeting scheduled for Mid-April.	ORREMSSAB April 7, 1998	Sect. 2.3 discusses long-term stewardship, and the section has been enhanced somewhat to reflect this comment.
5	The waste management assumptions in Appendix A should be revised for clarity, particularly parts III. A., B., and C.	ORREMSSAB April 7, 1998	Assumptions are being reviewed/revised for next issue.
6	The City of Oak Ridge is very sensitive about the fact that most of the ORR is within the City boundaries. Can the maps in Appendices B and C be improved to clearly reflect this condition?	ORREMSSAB April 7, 1998	Maps have been updated.
7	The maps in Appendices B and C for the ORR must be revised and improved. They are misleading: Please see specific comments.	ORREMSSAB April 7, 1998	Maps have been updated.
8	Although Appendix D "EM Program Subprojects Scopes" was not reviewed, project managers should review the text to ensure it is representative of current plans.	ORREMSSAB April 7, 1998	Noted

Comment No.	Comment	Source	Response
9	The text in Appendix G that accompanies the OR waste and material disposition maps should be reviewed for clarity and rewritten. Text for all disposition maps should follow a similar pattern and the level of detail should be similar throughout. A single author might reduce the disparities. Please ensure that acronyms/abbreviations are spelled out the first time used and also included in the list of abbreviations on page ix.	ORREMSSAB April 7, 1998	The disposition maps and the supporting narrative is presently being revised. With the revision the maps will be updated, the narrative will be rewritten by a single group assigned to this task and to the extent possible the acronyms/abbreviations will be spelled out. It should be pointed out that the waste types have been previously defined in the body of the text, eg. LLW is low level waste, MLLW is mixed low level waste, HAZ is hazardous waste, TRU is transuranic waste, and SAN is sanitary waste. Additionally the three or four capital letter identification links are used for reference points between one activity and another and the narrative will now use those references so that cross walking to the narrative will be much improved. The next area to be addressed is the TBD which represents "The To Be Determined" category. Lastly the buttons at the bottom of the map represents Department of Energy field offices around the complex, e.g. INEEL is Idaho Falls, OR Oak Ridge, etc.
10	The prioritized list of subprojects in Appendix H does not match the 2/19/98 ranking list. Please ensure that the final iteration of Paths to Closure has the most current prioritization list.	ORREMSSAB April 7, 1998	Appendix H is consistent with the prioritization used at the time this document was prepared and is consistent with the Project Budget Summaries submitted in January 1998. Even though the initial

Comment No.	Comment	Source	Response
			document will be published in July 1998, it is supposed to be consistent with the January Project Budget Summaries.
11	Page xi, 1st paragraph Delete "accelerating" since there is no reference against which the "acceleration" can be compared.	ORREMSSAB April 7, 1998	Noted
12	Page xi, 2nd paragraph Find other descriptor (e.g., projects, activities) for "new scope." It is jargon.	ORREMSSAB April 7, 1998	Changed
13	Page xi, 3rd paragraph Does this include reindustrialization?	ORREMSSAB April 7, 1998	Environmental Management does not include reindustrialization.
14	Page xi, After 3rd paragraph Add descriptions of EM-30, EM-40, and EM-60	ORREMSSAB April 7, 1998	Descriptions Added.
15	Page xi, 11th paragraph Spell out nCi/g someplace, either following abbreviation or in the abbreviation section	ORREMSSAB April 7, 1998	Changed
16	Page xiii, 1st paragraph Change second sentence to read "The name was changed in response to.."	ORREMSSAB April 7, 1998	Changed
17	Page xiii, 2nd paragraph Reference to the rivers that have been contaminated – sounds as if it is all DOE's fault – rewrite; see also on pages 2-5 and 4-2	ORREMSSAB April 7, 1998	Changed
18	Page xiii, 2nd paragraph Last sentence, no explanation of how Paducah relates to Oak Ridge which is the topic of balance of paragraph.	ORREMSSAB April 7, 1998	Changed
19	Page xiii, 4th paragraph Delete "for sustainment" – poor use of words and unnecessary.	ORREMSSAB April 7, 1998	Changed
20	Page xiii, 4th paragraph Last sentence, "centerpiece" – this is an overly optimistic statement.	ORREMSSAB April 7, 1998	Noted
21	Page xiv, 3rd paragraph Delete "efficiencies" after "surveillance and maintenance"; insert "decreased" or "reduced" in front of "surveillance and maintenance"	ORREMSSAB April 7, 1998	"Efficiencies" is correct
22	Page xiv, Last Heading Change "documents" to document is"	ORREMSSAB April 7, 1998	Changed
23	Page xiv, 7th paragraph Add "s" to action" in next to last line	ORREMSSAB April 7, 1998	Changed
24	Page xv, 3rd bullet This doesn't seem consistent with the Glossary,	ORREMSSAB	Glossary changed

Comment No.	Comment	Source	Response
	page xi	April 7, 1998	
25	Page xvi, 1st paragraph Under Compliance, 2nd sentence, delete "achievement of compliance at the"	ORREMSSAB April 7, 1998	Changed
26	Page xvi, 2nd paragraph What does this mean?	ORREMSSAB April 7, 1998	Table ES.2 referenced in this section contains the end uses assumed for each site for the purposes of developing a baseline. The table also contains the date at which the future use is achieved and remediation is complete.
27	Page xvi, 4th paragraph Second line, "... funding from" sounds better	ORREMSSAB April 7, 1998	Changed
28	Page xvi, 5th See suggested revision in document	ORREMSSAB April 7, 1998	Changed
29	Page xviii, Table ES.2 Future use assumptions for ORNL, ETTP, and Y-12 do not agree with End Use Working Group's future use recommendations. Note: Y-12 and ETTP recommendations are in progress and will be completed by the time *Paths to Closure* is finalized.	ORREMSSAB April 7, 1998	This was prepared prior to the recommendations and reflect the assumptions used in the baseline. When the recommendations are complete, and if they are adopted by DOE, then they will be incorporated into the baseline.
30	Page xviii, 1st paragraph Add "d" to "enhance"	ORREMSSAB April 7, 1998	Changed
31	Page xviii, 1st paragraph Second sentence, insert "annual" before enhanced	ORREMSSAB April 7, 1998	Changed
32	Page xviii, Bullets 2 & 3 Can you find a better word(s) – "outsourcing" is jargon!	ORREMSSAB April 7, 1998	Changed
33	Page xviii, Bullet 5, Use of "subcontractors to provide support (e.g., health and safety)" will raise the hackles of some stakeholders! See also page 4-7.	ORREMSSAB April 7, 1998	Noted
34	Page xvii, Bullet 6 Not clear	ORREMSSAB April 7, 1998	Since it is the intent of the Management and Integration Contractor to subcontract out the majority of the work on a

Comment No.	Comment	Source	Response
			competitive basis. The contractual mechanism can be configured in a manner that reward the efficient and effective subcontractor by providing financial incentives for doing so.
35	Page xix, Bullet 2 Does not make sense ". . . before remediation on D&D and escalation"	ORREMSSAB April 7, 1998	Changed
36	Page xix, Bullet 2 Last part of sentence, beginning with "surveillance and maintenance..." is not clear	ORREMSSAB April 7, 1998	Changed
37	Page xix, Bullet 5 What is "cost reduction support?"	ORREMSSAB April 7, 1998	The bullet has been eliminated.
38	Page xix, 1st paragraph, Bullets 2 & 3 What are these?	ORREMSSAB April 7, 1998	New remediation strategies means watershed decision-making and using existing data to make decisions rather than gather a lot of new data. "Cost reduction support" has been deleted from the document.
39	Page xix, Last paragraph Replace "This documents the culmination of ..." with "Paths to Closure is . . ."	ORREMSSAB April 7, 1998	Changed
40	Page 1-1, 1st paragraph See suggested change for page xiii, first paragraph	ORREMSSAB April 7, 1998	Changed
41	Page 1-1, 3rd paragraph Last two sentences are a good description of the "life cycle effort"	ORREMSSAB April 7, 1998	Noted
42	Page 1-1, 5th paragraph , Second sentence Change "scope is" to "activities are" – "scope" is jargon and meaningless to the lay reader.	ORREMSSAB April 7, 1998	Changed
43	Page 1-1, 5th paragraph, Fourth sentence, delete "that constitute the specific, individual locations."	ORREMSSAB April 7, 1998	Changed
44	Page 1-4, Bullet 2 Is this for all three plants with UF_6 and consistent with EIS?	ORREMSSAB April 7, 1998	It is for all three plants.
45	Page 1-4, Bullet 3&4 Confusing	ORREMSSAB April 7, 1998	Bullets rewritten.
46	Page 1-4, 3rd paragraph, Section 1.3.2 Second Sentence. Did "uranium enrichment" continue to 1993?	ORREMSSAB April 7, 1998	Sentence will be changed to read, 'Uranium enrichment was

Comment No.	Comment	Source	Response
			discontinued in 1947, but other aspects of weapons production continued until 1993.
47	Page 1-8, 4th paragraph The planning, including costs, for institutional controls must extend beyond 2070 if wastes remain in place.	ORREMSSAB April 7, 1998	Noted
48	Page 1-8, Section 1.7.2 See comment for page 3-8. Suggest you incorporate paragraph 3, page 3-8 here.	ORREMSSAB April 7, 1998	This section describes changes from previous versions. The reference is not a change.
49	Page 1-8, Section 1.7.3 Please provide additional information on length of delays. Please modify Table 1.2 to show original completion data and delayed completion date. How much will declining budgets affect delays? Please provide estimate.	ORREMSSAB April 7, 1998	Since the 2006 Discussion Draft compared two alternative budget levels, and the one contained in this version is between the two, it is not simple to provide this comparison. Overall, the Program is delayed by several years.
50	Page 1-9, 1st paragraph Suggest rewrite.	ORREMSSAB April 7, 1998	Noted
51	Page 1-9, 2nd paragraph, Last sentence revised to read "The Paths to Closure is a living document that will be revised annually to reflect the life cycle baseline."	ORREMSSAB April 7, 1998	Changed
52	Page 1-9 This document begs the question of how the ORO share of the total $5.75B annual EM budget for DOE is determined.	ORREMSSAB April 7, 1998	Noted
53	Page 2-1, 1st paragraph, Section 2.1 First sentence, what does "Following the confirmation of a release . . ." mean?	ORREMSSAB April 7, 1998	Changed
54	Page 2-1, 2nd paragraph, Second through fifth sentences, suggested revision. "The end use categories described in Table 2.2 are used for purposes of the life cycle baseline. Once an end use is identified, human health and environmental risk assessments are used to determine acceptable cleanup levels. These risk-based levels are the basis for selecting remedial actions." Appendix B...	ORREMSSAB April 7, 1998	Changed
55	Page 2-1, 3rd paragraph, First sentence "Following remediation, the end state of the Oak Ridge Reservation is estimated to be..."	ORREMSSAB April 7, 1998	Changed

Comment No.	Comment	Source	Response
56	Page 2-1, 3rd paragraph, Third and fourth sentences "The Site Specific Advisory Board convened the End Use Working Group to develop end use recommendations to guide... Actual end states will be identified in watershed or..."	ORREMSSAB April 7, 1998	Changed
57	Page 2-2 & 2-3 Table 2.1 Revise table to reflect current decisions. Use of ISV for disposal pits and trenches (see also page A-8. Some stakeholders question use of ISV.) Where are the mercury-contaminated soils in Bethel Valley? Surface impoundment sediments isolated in a consolidation cell? I thought the proposed plan said removal! Long-term stewardship has more requirements/activities than listed in Table 2.1 (e.g., recordkeeping, access, education, and research). Page 1-8 says, the period of institutional controls has been extended to 2070. This table says 22 years (FY 2020). Reconcile times and dates throughout document. Also define "institutional controls" and "long-term stewardship" and ensure consistent use throughout. Section Bethel Valley D&D, "The Oak Ridge National Laboratory Graphite Reactor will be preserved as a national landmark" is redundant. Bullet 4 is redundant.	ORREMSSAB April 7, 1998	-ISV is the baseline technology. -Mercury-contaminated soils are primarily in the main plant of ORNL. -A consolidation cell is the baseline technology. -Table 2.1 has been changed to include these activities. -Changed. -Noted. -Noted.
58	Long-term stewardship encompasses all activities required to maintain an adequate level of protection for human health and the environment from the hazards posed by nuclear and/or chemical materials, waste, and residual contamination remaining after cleanup. Some of these stewardship activities are prescribed by regulation, compliance agreements, or DOE orders; others have not yet been defined. They can range from varying degrees of surveillance, monitoring, and maintenance at sites with residual contamination to access restrictions at sites with hazards of greater concern. Stewardship activities may include safeguarding nuclear materials, monitoring contamination migration and remedy effectiveness, inspecting disposal cells, enforcing access restrictions,	OREMSSAB April 7, 1998	Noted

Comment No.	Comment	Source	Response
	implementing permits and other legal or institutional controls, maintaining relevant information, and generally providing responsible long-term care of the sites. For example, clay caps built over landfills will require occasional repair because of damage from weather and erosion. Also, rigorous record keeping is required to preserve information on the location and longevity of residual contamination to ensure future generations do not inadvertently disturb contaminated areas. In many cases, DOE's current technologies and remedies will not last as long as the waste and contamination at its sites. Therefore, long-term stewardship will be required to ensure follow-up maintenance of existing remedies, to provide confidence that current remedies remain credible and reliable, and to determine if replacement remedies should be implemented. DOE will maintain a presence at the sites for which it is responsible to ensure that the reduction in risk to human health and the environment is maintained. For the purposes of this life cycle baseline, budget requirements are shown through FY 2070. The Site-Specific Advisory Board's End Use Working Group has established the Long-Term Stewardship Committee to enable stakeholders to participate in making recommendations regarding the long-term stewardship strategy and requirements for the Oak Ridge Reservation. These recommendations will be used to help develop the long-term stewardship program in the future.		
59	Page 2-7, 4th paragraph First sentence "The End Use Working Group and the Friends of Oak Ridge National Laboratory have..."	ORREMSSAB April 7, 1998	Changed
60	Page 2-7, 4th paragraph Why is "Strategy" in Section 3? Parts of it sound as if they should be up front.	ORREMSSAB April 7, 1998	The outline was prescribed by DOE-HQ.
61	Page 3-1, Section 3.1.1 "Vision. Revitalization of scientific infrastructure at ORNL." What does this mean, what is wrong with it now?	ORREMSSAB April 7, 1998	This reflects DOE's vision. It means to enhance its research reputation.
62	Page 3-2, Section 3.1.1 Add a bullet to the list at the top of the page "establish stewardship programs for sites where wastes remain in place." Punctuate previous bullets appropriately.	ORREMSSAB April 7, 1998	Noted
63	Page 3-2, Bullet 1 DOE-ORO can't do this alone.	ORREMSSAB	Noted

Comment No.	Comment	Source	Response
		April 7, 1998	
64	Page 3-8, 3rd paragraph This paragraph explains my question marks on page 1-8 in Section 1.7.2 about removal of the assumption "return of waste management responsibility to the generators..." Suggest you incorporate this in Section 1.7.2.	ORREMSSAB April 7, 1998	Section 1.7.2 discusses changes from previous versions. The referenced statement does not belong in Section 1.7.2
65	Page 3-8, 3rd paragraph Second sentence, "through 2070" and 3rd sentence, "After 2013" – are these contradictions?	ORREMSSAB April 7, 1998	The sentences are not contradictions. 2013 represents the end date for EM. 2070 represents the end date for WM activities, which will be transitioned to other programs in 2013.
66	Page 3-11, 4th paragraph, Fifth line from the bottom, what/where is "Table 0.9.1 of the site summary level..."?	ORREMSSAB April 7, 1998	The table is actually in the Operations Office Data Summary (a summary of the Operations Office Info.)
67	Page 3-12, 1st paragraph Middle of paragraph "Table 0.9.2 of the site summary level..."	ORREMSSAB April 7, 1998	The table is actually in the Operations Office Data Summary (a summary of the Operations Office Info.)
68	Page 3-12, 3rd paragraph Spell out abbreviations here or in the abbreviation section.	ORREMSSAB April 7, 1998	Changed
69	Page 3-12, 4th paragraph, "Table 0.9.3 of the site summary level..."	ORREMSSAB April 7, 1998	The table is actually in the Operations Office Data Summary (a summary of the Operations Office Info.)
70	Page 3-12, 5th paragraph, Third sentence, insert "Site Specific Advisory" in front of "Board"	ORREMSSAB April 7, 1998	Changed
71	Page 3-13, Table 3.1. Spell out RA here or in the abbreviation section or use footnotes to the table for RA, D&D, WAG, and DNAPL. My preference is that a table or a figure should be able to stand alone since they are often used out of context.	ORREMSSAB April 7, 1998	Changed
72	Page 3-15, Section 3.6.2, First bullet on use of the TSCA incinerator is in jeopardy given the State's attitude on importing wastes.	ORREMSSAB April 7, 1998	Noted
73	Page 3-15, Bullet 2 "Oak Ridge capabilities available to other	ORREMSSAB	During fiscal year 1998, the principal

Comment No.	Comment	Source	Response
	DOE sites. Oak Ridge lead site for National scrap metal reuse/recycle program" Will State regulators buy into this? What commitment do we have from other sites to date or in the works?	April 7, 1998	scrap metal activities involved the definition and establishment of a National Program for Metal Recycle and the development and award of fixed price contracts for the recovery and recycle of structural and miscellaneous metal from the demolition of facilities at the East Tennessee Technology Park (ETTP) and the Y-12 Plant. The benefit arising from these activities will be a significant demonstration of methods and costs for the recycle of both contaminated and environmental cleanup continues. A recycle contract has been awarded by DOE and two recycle subcontracts are anticipated to be awarded by Bechtel Jacobs Company. The first, a performance based fixed price contract, has been awarded to BNFL for the removal of uranium enrichment process facilities. Two similar subcontracts are in the planning phase which include a combined total of 52,000 tons of uranium contaminated ferrous scrap metal from the Y-12 and ETTP sites. The Oak Ridge National Scrap Metal Reuse/Recycle Program will also develop DOE policy for release of contaminated scrap metal and establish a national procurements to maximize recycle of scrap metal and

Comment No.	Comment	Source	Response
			avoid burial when shown to be economically feasible. The Oak Ridge Program has the lead for coordination with State and Local regulators concerning any established policies and release criteria. The Oak Ridge National Scrap Metal Reuse/Recycle Program is currently using the Oak Ridge Reservation as an incubator for the national program. The Program is developing a business plan to identify opportunities and commitments at other sites. The Program will move to establish commitments during the second half of FY98 and FY99.
74	Page 3-15, Last Bullet Explain why Oak Ridge is chosen site (it has 80% of the waste) - how will it be reused? - will regulators accept off site waste?	ORREMSSAB April 7, 1998	Oak Ridge Operations has single largest inventories of Low Level, Mixed Low Level, and Remote Handled Transuranic Waste in the Complex. As such it has considerable motivation in having treatment and disposal access for its waste. While establishing this access, it only reasonable to allow other DOE field offices access to the contracting mechanism since economy of scale pricing can be established by offering this access to others. This access **does not** imply shipments of waste to the Oak Ridge Reservation from other sites simply using the contractual mechanism in

Comment No.	Comment	Source	Response
			place.
75	Page 3-16, Section 3.7 If applicable, is the potential cost for long-term institutional control/stewardship factored into the mortgage reduction methodology? If not, it should be. If not applicable to a particular case, it should be so stated.	ORREMSSAB April 7, 1998	The mortgage reduction analyses are created by comparing the current subproject baseline scopes, schedules, and estimates against alternative mortgage reduction scenarios. Few, if any, of the current subproject baselines include long-term stewardship scopes, schedules, and costs, and thus are not considered in the mortgage reduction calculations.
76	Page 3-17, Section 3.8.1 "Contracting Strategy." Public participation is being encouraged in all other aspects of the clean up. Will the SSAB or public be allowed or encouraged to give input on review of contractor performance objectives relating to fee awards? OR Any public input to determination of M&I Contractor fees for performance?	ORREMSSAB April 7, 1998	No
77	Page 3-18, 3rd paragraph, Is there a mechanism/plan/procedure for existing subcontractors to retain staff during the change to the M&I and the competition for subcontracts? Please address this issue in the document.	ORREMSSAB April 7, 1998	This process is still being developed and will be presented when appropriate.
78	Page 3-19, item 1. Spell out "m^3" here or in the abbreviation section.	ORREMSSAB April 7, 1998	Changed
79	Page 3-19, item 2. "RCRA hazardous waste" into the onsite waste management facility? Is this issue resolved? Please clarify in the document.	ORREMSSAB April 7, 1998	Only CERCLA derived waste will be placed in the CERCLA Cell. Additionally, all RCRA waste will be treated to LDR standards in accordance with the Waste Acceptance Criteria to be established.
80	Page 3-19, item 2. "TSCA waste"; document states elsewhere that TSCA incinerator waste would be returned to generator. Not clear what is meant here. Please clarify.	ORREMSSAB April 7, 1998	The reference to TSCA waste here is not related to the TSCA Incinerator residual waste which is considered operational waste residues. It is the

Comment No.	Comment	Source	Response
			operational waste residues that are being referred to in this comment.
81	Page 4-1, 1st paragraph, If applicable, need to include institutional control/stewardship into the life cycle baseline of projects/subprojects.	ORREMSSAB April 7, 1998	These costs are included in either long-term surveillance and maintenance or Integrated Water Quality Program.
82	Page 4-1, Section 4.3, Fifth line, change "criteria" which is plural to the singular "criterion"	ORREMSSAB April 7, 1998	Changed
83	Page 4-1, Section 4.3, Add "Site Specific Advisory Board members" to the list of ex-officio members.	ORREMSSAB April 7, 1998	Changed.
84	Page 4-2, Section 4.5 Please address institutional controls/stewardship costs in paragraph two. If DOE does not want to include such costs, it must explain: (1) why not, (2) how such costs will be managed, and (3) who is/will be responsible for the costs.	ORREMSSAB April 7, 1998	The note at the bottom of Fig 4.1 contains the estimated annual costs for institutional controls. Section 2.3 has been revised to reflect DOEs stewardship responsibility until the site no longer poses a hazard.
85	Page 4-3, 4th paragraph What is "level 6"? Not clear to the reader.	ORREMSSAB April 7, 1998	Changed
86	Page 4-4, Figure 4.1 Finally see the note to Figure 4.1 that gives the first clue to annual institutional control/stewardship costs through 2070. Given the current interest in the issue by stakeholders, I believe DOE should be more "upfront" with the plans, management, and costs for an institutional controls/stewardship program for the Oak Ridge Reservation.	ORREMSSAB April 7, 1998	Noted
87	Page 4-5 "DOE-ORO Risk reduction score table." ETTP and Y-12 scores drop off significantly over the next several years as opposed to ORNL. Why is this? Prioritization and sequencing ranking of projects?	ORREMSSAB April 7, 1998	The difference in risk reduction is a direct function of the subproject sequencing.
88	Page 4-7, Bullets 8, 9, 11, and 14 See comments for page xviii	ORREMSSAB April 7, 1998	Changed
89	Page 4-8, 2nd paragraph Middle of paragraph, more "outsourcing."	ORREMSSAB April 7, 1998	Changed
90	Page 4-8, 2nd paragraph "Decreased landlord costs at ETTP; reduction in general use facilities and utility systems." Clarify on	ORREMSSAB April 7, 1998	Decreased costs are assumed to be a function of increased subcontracting

Comment No.	Comment	Source	Response
	utility systems. Is it related to removal of specific buildings or general reduction of utility systems?		of operations and more efficient management.
91	Page 4-9, Figure 4-4 "ACP" should be changed to Paths to Closure (two places). Once again it would be helpful to the reader and those who might want to use this figure if the abbreviations were spelled out in footnotes or in the title of the figure. At least, ensure that BEMR, ACP, PAD, PORT, GDPs, GCEP, STUs, D&S, and WSSRAP are spelled out in the abbreviation table.	ORREMSSAB April 7, 1998	Changed
92	Page 5-1, 2nd paragraph, Second line, "...funding from" sounds better. (I bet the managers of such programs are delighted to hear this not once, but twice. See page xvi.)	ORREMSSAB April 7, 1998	Changed
93	Page 5-3, Section 5.2 The line between NEPA assessment and CERCLA for the onsite waste management facility is probably not settled/drawn as far as some stakeholders are concerned. The third sentence may give such stakeholders additional "ammunition" for their cause. Perhaps DOE could revise this sentence to briefly explain why the onsite waste management facility is a CERCLA project and not a project subject to NEPA review and documentation.	ORREMSSAB April 7, 1998	The text as written accurately reflects how DOE incorporates NEPA values into the CERCLA process. Since the on-site waste management facility is the result of a CERCLA action, an independent NEPA review/ assessment was not necessary. The Paths to Closure document is not the appropriate place to describe in detail the on-site waste management facility, but instead comments should be directed to the proposed plan when issued for public review and comment.
94	Page 5-3, Section 5-3 The ORREMSSAB requests a stakeholder seat on the ORR Natural Resource Trustee Council.	ORREMSSAB April 7, 1998	The ORR Trustee Council consists of representatives from the State of Tennessee, The Department of Interior, TVA, and DOE. Trustee stature is defined by law; however, the Council is currently discussing Stakeholder input issues, and the best means of providing opportunities for the members of the Council to present their views on natural

Comment No.	Comment	Source	Response
			resource issues to the SSAB. DOE will forward the SSAB's comments regarding Trustee Council issues to the full Council for its consideration in the context of these discussions.
95	Page 5-3, Section 5-3 Provide more information about the Council's role and report. SSAB or EUWG might benefit from participation on the Council.	ORREMSSAB April 7, 1998	The ORR Trustee Council consists of representatives from the State of Tennessee, The Department of Interior, TVA, and DOE. Trustee stature is defined by law; however, the Council is currently discussing Stakeholder input issues, and the best means of providing opportunities for the members of the Council to present their views on natural resource issues to the SSAB. DOE will forward the SSAB's comments regarding Trustee Council issues to the full Council for its consideration in the context of these discussions.
96	Page 6-1, 2nd paragraph, Fourth and fifth sentences, "As issues are resolved, Paths to Closure and subsequent documents will be modified."	ORREMSSAB April 7, 1998	Changed
97	Page 6-1, 2nd paragraph, Delete last sentence; it is redundant.	ORREMSSAB April 7, 1998	Changed
98	Page 6-2, Last paragraph Suggested rewrite. Original paragraph is not accurate. "The Budget and Prioritization Team of the Oak Ridge Reservation Site Specific Advisory Board is dedicated to understanding DOE's prioritization and budgeting systems. This includes learning about... This group will gain an understanding of how DOE plans on making the most of its shrinking pool of funds, and will provide advice and recommendations to the DOE-ORO EM Program through the Site Specific Advisory Board."	ORREMSSAB April 7, 1998	Changed
99	Page 6-2, Last paragraph DOE has been responsive to the public's need for input into this process and we commend them. Please	ORREMSSAB April 7, 1998	Noted

Comment No.	Comment	Source	Response
	continue the process so that the public may assess and comment at the earliest opportunity.		
100	Page A-4 item A The last sentence is not clear. What is meant by "provided"? Is "land" given to the private sector or is it provided for use during the term of the lease? Please clarify.	ORREMSSAB April 7, 1998	The land is provided for use for the term of the lease.
101	Page A-5, item J These budget targets do not agree with current estimates. Please revise and include a date (e.g., The February 4, 1998 budget targets are as follows:).	ORREMSSAB April 7, 1998	They are the budget targets with which this plan was developed.
102	Page A-6, C. ORR Assumptions. The waste management facility (waste cell – Bear Creek Valley?) Please clarify what types of waste and from where and from what activities.	ORREMSSAB April 7, 1998	This plan assumes all LLW and MLLW generated by CERCLA activities on the Oak Ridge Reservation will go to the on-site waste management facility. Waste Acceptance Criteria are being prepared now that will better define what wastes will go there.
103	Page A-7, E. Remedial investigation. What are "data quality objectives"?	ORREMSSAB April 7, 1998	Data quality objectives refers to a methodical process of determining the data that are needed to make remedial decisions. Each piece of data to be obtained must have a specific objective or it will not be obtained. This eliminates lengthy characterization programs that better define an area but do not improve the decision-making.
104	Page A-7, item f. "No Further Action (NFA) decisions are made as part of the five major RODs." Unclear what is meant. Please revise.	ORREMSSAB April 7, 1998	RODs list actions to be taken to remediate a site. They also can state that a particular site does not need any further action.
105	Page A-7, item h, no. 1 Why is the portion of contaminated groundwater in the sumps and drains expected to increase? Please explain.	ORREMSSAB April 7, 1998	As the sumps continue to collect contaminated groundwater, the part of the plume with the highest concentrations will eventually reach the sump.

Comment No.	Comment	Source	Response
106	Page A-7, item h, no. 1 "The federal government acknowledges its responsibility for these activities in perpetuity." These are nice words but stakeholders will want to know more – where written, who ensures, who funds, who oversees. In other words, does DOE have a plan/program?	ORREMSSAB April 7, 1998	Noted.
107	Page A-8, item h. no. 7 There are stakeholders with a consuming interest in criticality risks on the Reservation. The ORREMSSAB suggests that you provide more information (e.g., Where are these deposits? What is the status of the risk? Who will do the work? Have there been any criticality events in the buildings?)	ORREMSSAB April 7, 1998	Those details are in the subproject baseline and plans. A specific request to DOE is needed to obtain that information.
108	Page A-8, item h. no. 7 What will be done with uranium deposits? How much? Is this a major or minor task?	ORREMSSAB April 7, 1998	See #107, above.
109	Page A-8, item h, no. 7 You probably should say something about the group that oversees criticality risk on the Reservation.	ORREMSSAB April 7, 1998	Noted.
110	Page A-8, item i, no. 4 Although can not find the page, believe it was said the Graphite Reactor will be maintained as a historic landmark. What is meant by decommissioning it? Please clarify.	ORREMSSAB April 7, 1998	Decommissioned means it will be placed into a safe state but not necessarily demolished.
111	Page A-8, item i, no. 7 Not yet accepted "with in situ vitrification."	ORREMSSAB April 7, 1998	Noted.
112	Page A-9, item i, no. 8 The subsurface grout sheets will require stewardship/institutional controls for a very long time. Perhaps you should say so here to help waylay comments.	ORREMSSAB April 7, 1998	Changed.
113	Page A-9, item i, no. 9 Why "left in place"?	ORREMSSAB April 7, 1998	The baseline assumption is to grout them in place.
114	Page A-9, item j, no. 6 Change "The sources of contaminated..." to "The sources that contribute to contaminated..."	ORREMSSAB April 7, 1998	Changed.
115	Page A-10, item 3, no. b Revise to read "The area of the Oak Ridge Reservation subject to CERCLA is reduced by 85% by the end of FY 2000."	ORREMSSAB April 7, 1998	Changed.
116	Page A-14, III.A.1, Unclear. Are you talking about waste volumes, waste costs. Please rewrite sentence.	ORREMSSAB April 7, 1998	Changed.
117	Page A-14, III.B.3., Unless you mean "treated and dispositioned," the final phrase about "no residues" being returned in unnecessary.	ORREMSSAB April 7, 1998	Noted.
118	Page A-15, III.B.4. What are "burden-of-proof schedule	ORREMSSAB	The phrase, "burden-of-proof

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	requirements"? Are they described elsewhere in the document; if so, please give reference.	April 7, 1998	schedule requirements" refers to the storage of "newly generated" hazardous wastes and who (generator or regulator) has the assigned responsibility of demonstrating whether or not the waste is being speculatively accumulated. A owner/operator of a treatment, storage or disposal facility may store hazardous wastes for up to one year from the time of generation unless the regulator can demonstrate that the waste in storage is not being stored solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. A owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year: however, the owner/operator bears the burden of proving that such storage was solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. There are no additional references within this document. For clarification the reviewer is asked to see CFR 268.50(a)(3)(b) and See

Comment No.	Comment	Source	Response
			CFR 268.50(a)(3)(c).
119	Page A-15, III.B.5 How can funding for "nonmixed" waste be "...provided by the Mixed Waste Type Project."? Please revise sentence to clarify.	ORREMSSAB April 7, 1998	Funding for the material in the example currently resides within the Mixed Waste Type Project because the available characterization data identifies the waste as being "mixed waste". As a result of further characterization of the waste (in order to meet the WAC of a specific treatment or disposal facility), it is determined that the waste has been inaccurately categorized as mixed waste. The waste "ownership" is then transferred to a different Waste Type Project and the funds originally allocated for the disposition of the waste are also transferred from the Mixed Waste Type Project to the receiving Project. As a result, the Mixed Waste Type Project appears to be "providing funds for the disposition of the waste". This is a reallocation of funding between Waste Type Projects rather than a direct funding of the disposition of non-mixed wastes by the Mixed Waste Type Project.
120	Page A-15, III.B.7. This is a politically sensitive issue since according to the State, the 1998 burn plan for the TSCA incinerator (which the State rejected; see the Oak Ridger, March 11, 1998) grants permission for out-of-state sites to ship waste to Tennessee. Thus, it appears that this statement does not agree with the 1998 burn plan. Please resolve because when these kinds of important issues are at cross-purposes, DOE looses credibility quickly. (See also item C.13. on page A-16)	ORREMSSAB April 7, 1998	The assumption addresses hazardous waste not mixed waste or TSCA waste, which is burned at the TSCA incinerator.

Comment No.	Comment	Source	Response
121	Page A-15, III.C.1. Insert "storage" in front of "operations" at the end of line one. Would help to add "MLLW waste storage will be consolidated at ETTP."	ORREMSSAB April 7, 1998	Changed.
122	Page A-15, III.C.2., Last sentence, "at all three sites" is unclear. Change to "at the X-10, Y-12, and ETTP".	ORREMSSAB April 7, 1998	Changed.
123	Page A-15, III.C.6., Last sentence is unclear. Please advise.	ORREMSSAB April 7, 1998	The last sentence means the budget to treat the "routine wastewaters" is included in the baseline, but the quantity of this wastewater treated is not included in performance measures.
124	Page A-15, III.C.7 "documentto" should be "document to"	ORREMSSAB April 7, 1998	Changed.
125	Page A-16, III.C.10. Would help to give a few examples of what the projection includes (e.g., solid waste, sludges,???).	ORREMSSAB April 7, 1998	The reviewer is referred to the Oak Ridge MLLW Disposition Maps and the accompanying text on pages G-32 through G-36 for a description of the types of wastes encompassed by the newly generated MLLW projections.
126	Page A-16, III.C.11. Where is the small fraction of the current storage capacity needed"? at ORNL, Y-12, ETTP?	ORREMSSAB April 7, 1998	The referenced storage capacity will be predominantly at the ETTP with a potential for very limited capacity at the Y-12 Site and ORNL.
127	Page A-16, III.C.13. See comment for item III.B.7. on page A-15. These items must agree with each other and with any related statements in the document.	ORREMSSAB April 7, 1998	Noted.
128	Page A-17, III.D.10. The nature of the "Mixed Waste Type Project" is unclear. (see comment for item III.B.5.). Can you resolve this so the reader understands why this project funds so many different activities?	ORREMSSAB April 7, 1998	As in the example provided in item III.B.5, the funding for the waste in the example currently resides within the Mixed Waste Type Project because the available characterization data identifies the waste as being "mixed waste". As a result of further characterization of

Comment No.	Comment	Source	Response
			the waste (in order to meet the WAC of a specific treatment or disposal facility), it is determined that the waste has been inaccurately categorized as mixed waste. The waste "ownership" is then transferred to a different Waste Type Project and the funds allocated for the disposition of the waste are also transferred from the Mixed Waste Type Project to the receiving Project. As a result, the Mixed Waste Type Project appears to be "providing funds for the disposition of the waste".
129	Page A-18, III.E.11. Add "storage or disposition on" to first sentence because out-of-state TRU waste may be targeted for treatment on the ORR.	ORREMSSAB April 7, 1998	Changed.
130	Appendix B ORR Current Use , It is not clear that the ORR is mostly within the boundary of the City of Oak Ridge. Suggest you change "City of Oak Ridge" title in the upper middle of maps to "Oak Ridge Residential area", and somehow unscramble the City of Oak Ridge Boundary and the DOE-Owned Boundary. This also applies to the ORR Maps in Appendix C.	ORREMSSAB April 7, 1998	Maps have been changed.
131	Appendix C ORR Current State Environmental Remediation This map is misleading! It looks as if most of the ORR is the responsibility of EM and that remediation is required but not complete on almost the entire ORR. I think you are trying to show that most of the ORR is currently a NPL site, and the next map is showing the hoped for 85% reduction, and the next map is a future end state when EM has completed its tasks. Somehow you must clarify the message of the maps in the titles. Furthermore, there will continue to be use restrictions for many of the EM sites well into the future because wastes will remain in place. Your end state map should show such restricted areas and not mislead the public	ORREMSSAB April 7, 1998	Maps have been changed.

Comment No.	Comment	Source	Response
	into thinking they will be able to freely roam the Reservation at some time in the future.		
132	Appendix D The "EM Program Subproject Scopes" was not reviewed. However, it was called to our attention that item 1.X.06.10.01.12 suggests that in situ vitrification will be used in the pits and trenches in Melton Valley. Please revise if this text is in error.	ORREMSSAB April 7, 1998	ISV is the baseline technology.
133	Page E-3, 1st paragraph See editorial changes on document.	ORREMSSAB April 7, 1998	Noted
134	Page E-3, bullet 3 Add description of EM-50 to third bullet. Also add to Glossary on page xi.	ORREMSSAB April 7, 1998	Changed
135	Page E-3, Last bullet Unclear statement. Be more specific about who is doing what to whom.	ORREMSSAB April 7, 1998	Changed
136	Page E-4 Please see editorial comments for the section "Barriers to Implementation".	ORREMSSAB April 7, 1998	Noted
137	Appendix F What do the numbers in parenthesis mean (e.g., [1,3,1])? Please describe in title or in footnote.	ORREMSSAB April 7, 1998	Added in text.
138	Appendix G Impossible to read information in some of the black blocks. Too many unknown abbreviations/acronyms.	ORREMSSAB April 7, 1998	Please refer to response in comment # 9.
139	Page G-21, 1st paragraph See editorial changes to clarify this paragraph.	ORREMSSAB April 7, 1998	Noted
140	Page G-21, 4th paragraph Is it certain that Envirocare can accept the waste?	ORREMSSAB April 7, 1998	Based on the best available characterization information, it is assumed that the mixed stabilized and mixed unstabilized pond waste (after treatment) will meet the Envirocare Waste Acceptance Criteria.
141	Page G-21, 3rd &5th paragraph These paragraphs are confusing. Please revise.	ORREMSSAB April 7, 1998	Please refer to response in comment # 9.
142	Page G-21, 6th & 7th paragraph Please revise.	ORREMSSAB April 7, 1998	Please refer to response in comment # 9.
143	Appendix H Ranking of subprojects does not match the 2/19/98 ranking list. Please ensure that the most current list is included in	ORREMSSAB April 7, 1998	Appendix H is consistent with the prioritization used at the time this

Comment No.	Comment	Source	Response
	the final iteration of Paths of Closure.		document was prepared and is consistent with the Project Budget Summaries submitted in January 1998. Even though the initial document will be published in July 1998, it is supposed to be consistent with the January Project Budget Summaries.
144	Appendix I The ORREMSSAB Budget and Prioritization Team reviewed the Stakeholder Issues/Action Plans (particularly the Resolution Approach and Stakeholder Involvement parts) and is providing the following evaluation of DOE's actions. Specific comments are found in the accompanying table. As applicable, the action plans should be updated to reflect current information and decisions. The DOE must soon come to agreement with the State on issues (raised by the State) that are roadblocks to remediation and waste management on the Oak Ridge Reservation (e.g., institutional controls, interim RODs, excavation of uranium.) Items that are the responsibility of DOE-HQ can not be resolved by DOE-ORO; however, it is important that DOE-ORO understands stakeholder concerns and factors them into its negotiations with Headquarters.	ORREMSSAB April 7, 1998	Noted
145	Issue number OR-1-97, Resolved, Resolved to the satisfaction of interested stakeholders. EM deserves compliments.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the resolution to the satisfaction of the stakeholders
146	Issue number OR-2-97, Headquarters Initiative, No apparent progress at HQ on the questions of planning and funding for activities/facilities that presently are not the responsibility of EM but may become EM responsibilities in the future.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to indicate Actions by ORO that could help in the resolution of this Issue and a Greater discussion of Environmental Liabilities estimate.
147	Issue number OR-3-97, Unresolved, This action plan should be updated. The issues of reduction of environmental liability and diversion of resources from higher risk activities are not addressed	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area.

Comment No.	Comment	Source	Response
	satisfactorily.		
148	Issue number OR-4-97, Unresolved, Although DOE may be doing everything it believes is necessary for reindustrialization at ETTP, some stakeholders continue to be dissatisfied with levels of contamination, worker safety, CROET's approach to leasing, and the adequacy of the NEPA EA. The DOE must try to resolve such issues during the CERCLA process leading to the ROD.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area including the addition of the Facility Safety Upgrade Project
149	Issue number OR-5-97, Unresolved, Stakeholders have asked for a meeting about the change in strategy for the Bear Creek Valley ROD. An important issue is the preparation of "other CERCLA decision documents . . . in addition to watershed RODs." What are the effects on scheduling and funding?	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area and progress on the Bear Creek Watershed ROD.
150	Issue number OR-6-97, Resolved, Interested stakeholders are satisfied with DOE's process for estimating costs of environmental remediation and waste management. But as always, estimates are subject to change. As long as DOE continues to inform and involve stakeholders, confidence should remain high.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the resolution to the satisfaction of the stakeholders
151	Issue number OR-7-97, Unresolved, As long as institutional controls, if needed, are planned for within the CERCLA process and included in the RODs, we see no need for NEPA review. Addressing Reservation-wide institutional control under NEPA would be time consuming and costly. Far greater benefits would result from devoting such time and money to the development of an institutional control/stewardship program/plan.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area and to broaden the discussion that some stakeholders consider the CERCLA process as adequate.
152	Issue number OR-8-97, Resolved, The State and DOE must come to agreement on this issue. The State must stop throwing up road blocks to an onsite waste disposal cell for what appear to be political reasons. The stakeholders support the facility and want no more delays.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area and the progress on the EMWMF ROD.
153	Issue number OR-9-97, Unresolved, The State and DOE must work together to resolve problems associated with movement of wastes to and from the ORR. The Governor's panel determined the use of the TSCA incinerator was safe. Thus, for the State to reject DOE's proposed burn plan is unacceptable.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area and the results of continuing negotiations with the State.
154	Issue number OR-10-97, Headquarters Initiative, HQ is	ORREMSSAB	The inclusion of a National Action

Comment No.	Comment	Source	Response
	responsible for the National Action Plan and Dialogue. This is not really a local issue.	April 7, 1998	Plan is no longer a part of the Paths to Closure Document and this issue will be dropped in the future.
155	Issue number OR-11-97, Unresolved, See comment for OR-9-97.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to discuss the latest actions in this area and the results of continuing negotiations with the State.
156	Issue number OR-12-97, Resolved, Appears to be resolved. However, the ORREMSSAB believes a stakeholder(s) should be appointed to the ORR Trustee Council.	ORREMSSAB April 7, 1998	Natural Resource Trustees are regulatory defined and are Limited to those federal or state natural resources management agencies who may pursue a natural resource damage claim. The ORR Natural Resource Trustee Council is comprised only of those federal and state agencies which fall within this definition. Therefore, it is not appropriate for other stakeholders to participant on the Council.
157	Issue number OR-13-97, Resolved, See page 3-8.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the Resolution to the satisfaction of the stakeholders
158	Issue number OR-14-97, Unresolved, Unclear what this is all about. Please revise, update, and rewrite.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect how Special Case Waste was included in the Paths to Closure.
159	Issue number OR-15-97, Resolved.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the resolution to the satisfaction of the SSAB and continued actions with TDEC
160	Issue number OR-16-97, Resolved, The schedule for watershed RODs is ambitious and may suffer some delays along the way.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the

Comment No.	Comment	Source	Response
	Nevertheless, stakeholders, EPA, and the State must work together with DOE to expeditiously complete the CERCLA process so that remediation can proceed.		resolution to the satisfaction of the SSAB and continued actions with TDEC
161	Issue number OR-17-97, Resolved, DOE agrees to collect additional data if DOE, EPA, and the State decide they are necessary.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the resolution to the satisfaction of the SSAB and continued actions with TDEC
162	Issue number OR-18-97, Resolved, However, stakeholders may continue to ask why the onsite waste management will not/cannot be designed to accept RCRA waste as well as CERCLA waste.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect the resolution to the satisfaction of the SSAB and the progress of the ROD
163	Issue number OR-19-97, Headquarters Initiative, HQ is responsible for plans related to disposal of non-defense TRU waste and determination of the waste acceptance criteria for WIPP.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to reflect responsibilities of DOE HQ and the progress of the new Foster Wheeler TRU Waste Treatment Contract
164	Issue number OR-20-97, Unresolved, Appears unresolved until the Melton Valley Watershed CERCLA process is completed.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to the progress on the Melton Valley Watershed ROD
165	Issue number OR-21-97, Unresolved, Stakeholder resistance to the use of ISV is high.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to the progress on the Melton Valley Watershed ROD
166	Issue number OR-22-97, Headquarters Initiative, The targets for enhanced performance and productivity improvements are program goals. Stakeholders may consider them unrealistic but we also should encourage DOE to try to reach the goals. We ask that DOE honestly evaluate its progress toward reaching the targets and report to the public.	ORREMSSAB April 7, 1998	This action plan will be updated in the future to show the M&I contractors progress in meeting the enhanced performance goals.

Comment No.	Comment	Source	Response
167	Any plan for the closure of the DOE legacy at Oak Ridge should have a prominent place for a discussion of the million or so curies of radionuclides entombed in the hydrofracture grout sheets in Melton Valley. This is a lot of curies, they will remain for a long time, and could conceivable be a hazard to present and future inhabitants. What I find when I read the report however, is merely a casual mention that the grout sheets will be left in place and will be monitored for 22 years. There may have been mention of the curie content, but if so, I missed it. Apparently the same emphasis would have been given if the grout sheets contained only a couple of barrels of diesel oil. This blind eye to the buried grout sheets leads to a couple of misleading (erroneous?) assumptions. 1) Page A-16, #16 says "there is no disposal of stored legacy MLLW on the ORR." There is a million curies (more or less) in the grout sheets and if this is not permanently stored, what is? 2) Page A-17, #1 - "All TRU waste will go to WIPP". There are at least 1000 Ci in the grout sheets. This is a significant fraction of the Reservation inventory. Variations of these statements are on page A-4.	Herman Weeren April 16, 1998	Noted.
168	Page A-9, i-8 speaks of groundwater monitoring to verify that contaminants are not released from the grout sheets. Small quantities of radionuclides are known to have migrated from the grout sheets for more than 20 years. This being the case, a monitoring well would need to measure the RATE of movement - something that is not easily done and I don't think the project team has a plan. The wording here needs careful thought.	Herman Weeren April 16, 1998	Noted.
169	Page D-29 Injection/monitoring wells states that there are 46 wells associated with the injection wells. In fact, there are more like 100. What happened to the others?	Herman Weeren April 16, 1998	This reflects the baseline assumption.
170	Page 2-7 speaks of "rigorous record keeping" being required for long-term stewardship. I do agree, but think my experience in this regard is relevant. Bechtel wrote a series of reports in about 1995 on the status of the hydrofracture wells. These reports were rather hysterical (the radionuclides are migrating!) and, in addition, were replete with errors. They missed the injection volumes (by a factor	Herman Weeren April 16, 1998	Noted.

Comment No.	Comment	Source	Response
	of 2), the injection depth, the solids mix, and much else besides. They admitted, finally, that they had not read the principal reports on the injection series. Their reports were big and loaded with beautiful graphics. They look definitive, and as far as I know, no one but me questioned them. I am sure they are in lots of managers' files as the Bible of the hydrofracture wells. Nevertheless, they are seriously wrong. The hydrofracture injections were completed in 1984 and reported in considerable detail. After only 12 years it seems that it is possible to mis-state the volumes of the injections by a factor of 2 - to pick only one error. The rigorous records were there, the report writers just didn't bother to read them. This problem needs lots of attention.		

Comment No.	Comment	Source	Response
171	The most recent draft is subject to a number of basic problems which hamper review of the content. A lack of clarity plus numerous errors and omissions prevent this draft from meeting the fundamental requirement that the final document be understandable by any interested stakeholder.	Citizens' Advisory Panel (CAP) of the Oak Ridge Reservation (ORR) Local Oversight Committee (LOC) May 1, 1998	Noted
172	The extensive use of jargon and undefined terminology adds to the confusion.	CAP of the ORR LOC May 1, 1998	Noted
173	The acronym list needs to be all inclusive and not just selective.	CAP of the ORR LOC May 1, 1998	Noted
174	Information tables and figures should be self-explanatory.	CAP of the ORR LOC May 1, 1998	Noted
175	The on-site waste management facility will not be approved by the State of Tennessee unless DOE can meet the required stewardship responsibilities, including provision of long-term funding. The state is also unwilling to accept DOE's proposed Waste Acceptance Criteria, and any compromise in this regard will drive up costs as more reliance on off-site waste disposal will be required.	CAP of the ORR LOC May 1, 1998	Noted
176	The watershed approach has been criticized and rejected by the Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) DOE Oversight Division. A compromise approach utilizing several Records of Decision (RODs) per watershed is much more likely and should be discussed thoroughly in the text. Additionally, both EPA and the state have indicated that they will not approve any RODs until long-term stewardship is assured.	CAP of the ORR LOC May 1, 1998	This plan is based on five watershed RODs. If DOE changes this strategy, then the long-range plan will be modified accordingly.
177	Efficiencies greater than 33% are unrealistic, especially with decreasing budgets and regulatory delays increasing the cleanup timeline and consequently driving up surveillance and maintenance costs.	CAP of the ORR LOC May 1, 1998	Noted.
178	Availability of off-site disposal facilities for all waste streams continues to be problematic. WIPP will likely be opened, but the schedule is still unclear. DOE Headquarters is unwilling to support Oak Ridge Operations (ORO) in opening Nevada Test Site to our	CAP of the ORR LOC May 1, 1998	It is recognized that for technical, logistic, economic and stakeholder reasons, disposal sites for Transuranic, Mixed and Low Level

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	low level waste, and ORO does not want to enter into further contracts with Envirocare. The status of Hanford accepting Oak Ridge's mixed low level waste is not known.		wastes may not be available or available in a timely manner, however there is a multiple faceted approach in opening up disposition end points. This approach includes looking at both the Department of Energy facilities and Commercial facilities as well. Additionally, other Federal Contractual vehicles are being reviewed as options as well.
179	Assumptions concerning actions to be taken need to conform to the recommendations of the End Use Working Group. Because recommendations for the Y-12 plant were finalized on April 30, 1998, and recommendations are still pending for East Tennessee Technology Part (ETTP), Appendix A should be amended such that the assumptions conform to these and other EUWG recommendations. Cost assumptions may be affected also.	CAP of the ORR LOC May 1, 1998	Assumptions will be changed.
180	Introduction: One of our members when referring to Section 1.2 and Figure 1.1 wrote: "This section and figure, although impressive at first glance, seem to be relatively free of any real information. Delete or clarify."	CAP of the ORR LOC May 1, 1998	Disagree. Section and figure discuss relationship between Paths to Closure and the life-cycle baseline.
181	End State, End Use, and Stewardship: The stewardship strategy must be outlined in more specific terms, for example, when a stewardship program and funding for the reservation will be in place. The State of Tennessee specifically emphasizes stewardship and demands long term funding to accomplish this important task. DOE must develop plans, management requirements, and costs for an institutional controls/stewardship program for the ORR. The discussion of long-term stewardship on page 2-7 should also mention the roles of local governments and how DOE plans to coordinate with state and local officials to ensure the effectiveness of institutional controls.	CAP of the ORR LOC May 1, 1998	Changed.
182	Appendix A: Assumption I on page A-4 states that operations and maintenance (O&M) will continue through 2070; this should be	CAP of the ORR LOC May 1, 1998	This has been clarified in the text.

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	revised to acknowledge that O&M has no foreseeable conclusion, although for costing purposes 2070 is used as an endpoint.		
183	Appendices B and C: All of the maps need to be corrected and improved. The ORR is within the Oak Ridge City limits, although the maps in Appendices B and C could lead a reader to believe otherwise. Other maps are also deficient and/or misleading; it is suggested that a single person be responsible for clarity, continuity, and accuracy for all maps. This might reduce the disparities.	CAP of the ORR LOC May 1, 1998	Maps have been changed.
184	The ORR maps in Appendix B are inaccurate. The Current Use map incorrectly implies that most of the reservation is restricted industrial use, when in fact only a small portion is. The FY 2006 Use map and End Use map do not show the expected substantive differences, except at ETTP. The End Use map should have a projected date.	CAP of the ORR LOC May 1, 1998	Maps have been changed, end dates are shown in Table 1.2.
185	The ORR maps in Appendix C do not accurately reflect the current and proposed states of cleanup. The Current State Environmental Remediation map gives the erroneous impression that all of the red-colored area is contaminated. The FY 2006 State Environmental Remediation map does not show the progress that stakeholders have been led to believe will be accomplished by that year. The End State Environmental Remediation map seems to be lacking all of the areas where use restrictions will be in place, especially those areas to be considered "controlled industrial" and areas with groundwater use restrictions (for examples, Union Valley and Parcel A). Furthermore, this map is lacking the date that this end state represents, and areas able to be released for private or city ownership should be delineated.	CAP of the ORR LOC May 1, 1998	Maps have been changed, end dates are shown in Table 1.2.
186	It is not clear how the Appendix B maps are supposed to differ from the Appendix C maps, and the two sets of maps do not seem to correlate well.	CAP of the ORR LOC May 1, 1998	Noted.
187	Appendix G: The presentation of these data is particularly unclear, especially the relationship of the text to the disposition maps.	CAP of the ORR LOC May 1, 1998	Please refer to comment # 9

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188	The Kentucky Division of Waste Management (Division) has completed its review of the February 1998 Draft US Department of Energy (DOE) Environmental Management Program Accelerating Cleanup Paths to Closure Oak Ridge Operations Office. While this document improves on the Draft 2006 Plan, it again does not address the Division's concern that many of DOE's assumptions are problematic and does not take into consideration stakeholders' positions. The Division has sent correspondence directing DOE to budget for removal activities at particular SWMUs. The Accelerated Cleanup Path to Closure assumes cap and cover, which is significantly less money than may be needed in the immediate future. If DOE continues its current strategies to formulate budgets for Paducah Gaseous Diffusion Plant, the budget will significantly fall short in the immediate future (FY, FY +1, and FY +2). The Division questions a strategy, which budgets for unrealistically inexpensive remedial activities such as cap and cover when excavation is the only sound remedial action.	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	The 2006 Plan is a flexible, planning document intended to outline a long-term strategy for expediting site remediation. While the facility has not completed all characterization activities currently scheduled, a significant amount of data is available to adequately identify the primary source areas, contaminants of concern (e.g., TCE, TC-99, PCBs), geologic conditions, migration pathways, and exposure points. The assumptions presented in the current document have been developed, based on the site conditions as currently defined, and incorporates the use of presumptive remedies and remedial practices being employed nationwide. However, the 2006 Plan is a dynamic document that will be updated on a routine basis to reflect new data as site characterization progresses and the technical and funding assumptions will be revised accordingly. It should be noted that the 2006 Plan is not intended to replace the CERCLA process for source-specific decisions, but merely to provide a programmatic framework for establishing a long-term strategy.
189	While DOE contends that the Path to Closure is not a plan, this document is used as a strategy for determining funding levels. The	Commonwealth of Kentucky Natural Resources and	See comment response No. 188.

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	Division maintains that the site-specific assumptions have the same effect on the budget, regardless.	Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	
190	The Division encourages DOE to look at removal of recyclable material in the near future. The removal of scrap metals and nickel ingots would allow for the investigation of WAG 24 on schedule without hindrance from the overburden. This would reduce the cost of long term storage for these items, and thus reduce the O & M costs associated with Waste Management.	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	DOE agrees that removal of scrap metals and nickel ingots is important to the Paducah Remediation Program. The current assumptions include scope and funding for repackaging and transport of the scrap metal to Oak Ridge for inclusion in a multi-site scrap metal program. However, other options, including bartering of the nickel ingots and other high-value metals in exchange for decontamination of the remaining scrap metal, are being evaluated.
191	The Division encourages DOE to budget for remedial technologies versus budgeting for long term O & M costs of maintaining a containment system and providing water to effected residences. Many new technologies are emerging that effectively remediate or passively control both soils and groundwater contamination. The Cabinet has encouraged DOE to bring innovative technologies to Paducah in the past, and will continue to do so in the future.	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	Agree—DOE plans to further explore such opportunities and maximize their use to the extent feasible.
192	Although the Division cannot support DOE's current budget proposal, we are prepared to assist DOE in its efforts to accelerate the cleanup at PGDP. In fact, we believe that we can build on the efforts outlined in the Federal Facility Agreement and Site Management Plan to expedite the remedial process at PGDP.	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	DOE agrees and welcomes the opportunity to work with KDWM and other stakeholders to identify additional streamlining approaches that will accelerate the cleanup process.
193	The Division is concerned that DOE is not making realistic assumptions for investigative and remedial activities at Paducah Gaseous Diffusion Plant. By assuming minimal investigation and remediation, DOE will always fall short of compliance dates in the	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental	See comment response No. 188.

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	FFA. The goals and assumptions which are key to DOE's budgeting strategy for PGDP are unrealistic and unjustifiable. DOE has budgeted for PGDP assuming that capping/covering and monitoring will be the final remedial actions necessary for all burial grounds at PGDP. Not only would such actions be technically unsound as a final action for numerous PGDP burial grounds, but also to plan a budget around such an assumption is financially irresponsible. In accordance with our responsibilities and commitment to the FFA for PGDP, Kentucky notified DOE with a letter in November 1997 advising DOE to budget for the excavation of SWMU 2 at PGDP, the C-749 Uranium Burial Ground. Furthermore, with a letter dated April 2, 1998 regarding the Feasibility Study for SWMU 2, Kentucky clearly informed DOE that excavation, treatment, and proper disposal is the only acceptable option for SWMU 2.	Protection April 23, 1998	
194	DOE has also assumed "No Further Action" for the sixteen of the remaining nineteen PGDP WAGs scheduled for the RI/FS process by implementing the PA/SI process. To include such a financially reckless assumption into the EM budget planning is an insult to those who have to develop and implement the remedial strategy for the PGDP site, and is contrary to the FFA which have been negotiated by representatives of Kentucky, EPA, and DOE. As part of our efforts to work with DOE toward developing a long-term remedial strategy and feasible Fiscal Year budgets for PGDP, Kentucky has agreed upon a general PA/SI strategy for sixteen of the nineteen remaining PGDP WAGs to be investigated. That agreement and strategy does not assume "No Further Action" for those WAGs. Kentucky is resolute in that all nineteen remaining PGDP WAGs will have to go through the RI/FS process.	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection April 23, 1998	See response to comment No. 188.
195	In summary, Kentucky strongly reiterates the general fundamental essence of our initial comments submitted regarding the June 1997 DOE Draft Accelerating Cleanup: 2006 Plan. The FFA for PGDP Fiscal Year budgets for the site must be adequate to fund the excavation of SWMU 2 PGDP burial ground, and must also be	Commonwealth of Kentucky Natural Resources and Environmental Protection Cabinet Department for Environmental Protection	See response to comment No. 188.

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	sufficient to conduct a RI/FS for all nineteen remaining PGDP WAGs. DOE cannot continue to develop Fiscal Year budgets for the PGDP site based upon unrealistic assumptions. Section XVIIID of the FFA must be met. If these types of assumptions continue, enforcement action may be taken pursuant to section XLIII of the PGDP Federal Facility Agreement. Kentucky cannot accept DOE's claims of budget problems for PGDP when the Accelerating Cleanup Paths to Closure clearly fails to assume realistic and pre-agreed upon schedules and strategies.	April 23, 1998	

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196	The problems and possible solutions along with their environmental impact may be premature. They may leave out unknowns so as to present a tidy document.	Jotilley Dortch April 7, 1998	The 2006 document is a flexible, planning document intended to outline a long-term strategy for expediting site remediation. While the facility has not completed all characterization activities currently scheduled, a significant amount of data is available to adequately identify the primary source areas, contaminants of concern (e.g., TCE, TC-99, PCBs), geologic conditions, migration pathways, and exposure points. The assumptions presented in the current document have been developed, based on the site conditions as currently defined, and incorporates the use of presumptive remedies and remedial practices being employed nationwide. However, the 2006 Plan is a dynamic document that will be updated on a routine basis to reflect new data as site characterization progresses and the technical and funding assumptions will be revised accordingly. It should be noted that the 2006 Plan is not intended to replace the CERCLA process for source-specific decisions, but merely to provide a programmatic framework for establishing a long-term strategy.
197	I do not understand separating the above-ground cylinder storage from the rest of the waste management flow. They are waste; they.	Jotilley Dortch April 7, 1998	DOE agrees that a long-term solution is needed for the above-ground

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	present risks and problems; they require long-term solutions.		storage of depleted uranium hexafluoride. The Nuclear Energy Program of the Department is preparing a Programmatic Environmental Impact Statement (PEIS) to identify future plans for the material, with a Record of Decision scheduled for 1999. Depleted material is the responsibility of the Nuclear Energy Program of DOE, while the remediation and waste management activities are the responsibility of the Environmental Management Program. As a result, the cylinders are not included in Accelerating Cleanup: Paths to Closure. Additionally, in order to mitigate potential hazards, cylinders are routinely inspected to ensure their condition is adequate for storage. A program is in place to apply a protective coating to some of the oldest cylinders to prevent additional surface corrosion, and the yards where the cylinders are stored are being upgraded to concrete to improve drainage and storage conditions.
198	Concerning the Vortec process being tested at Paducah: the Vortec representative could not say exactly what the by-products of its technology would be. If their waste products are unknown, their management is also unknown. We, therefore, cannot say if this is just an expensive experiment or a viable alternative for use in	Jotilley Dortch April 7, 1998	The Vortec process will produce air discharges, water discharges, solid materials that are unsuitable for being processed into glass (e.g., plastic drums or drum liners, metal),

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	waste stream management.		and glass frit. The specific constituents that are expected to make up each of these streams are being evaluated in the Environmental Assessment that is being developed, and results of this evaluation will be presented in the EA. As part of the demonstration phase, the processes for handling by-products will be further evaluated and may be refined as appropriate if the Vortec process is implemented as a production process.
199	The same can be said of the Lasagna approach, there have been instances in the past where theories of "pollution taking care of itself" by layering has failed. Note: GE and its Hudson River fiasco.	Jotilley Dortch April 7, 1998	The Lasagna Phase I (pilot test) was a notable success, demonstrating, for the first time, the strong possibility that DNAPL could be removed by the electrokinetic process (TCE~99%). Based upon these results, Phase II was implemented on a larger scale, and preliminary results are very encouraging.
200	The geologists, who are on site at Paducah, are taking core samples to determine pollution in groundwater at one waste site. They admit that the only definitive conclusions that can be reached are that exactly where each drill hole is located, here is the profile. And where to drill is just a guess—they might be a foot off an underground stream seeking its own way. So here again we have some evidence and no conclusive profile as to groundwater pollution.	Jotilley Dortch April 7, 1998	On a small local scale, it is very common to encounter subtle changes in subsurface geology and contamination levels; however, viewed from a regional scale, the contaminated plumes, groundwater flow directions, and aquifer characteristics are well defined.
201	I do not understand why SWMU 7 and 30 are left out of this document. The whole Waste Management stream needs to be addressed if the impact is to be complete and long term.	Jotilley Dortch April 7, 1998	Both SWMUs, Nos. 7 and 30, are part of WAG 22, which is identified as a subproject in Appendix D of the Paths to Closure document. The scope of that subproject includes

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			completion of an RI/FS, Proposed Plan, ROD, and RD/RA activities.
202	If a cap on an area does not keep the site's pollution from eventually finding the groundwater, why is it recommended that PGDP's SWMU 3 have no further action?	Jotilley Dortch April 7, 1998	Contamination can migrate from a source based on various release mechanisms. The infiltration of rainwater through contaminated soils and subsurface disposal areas can cause contamination to mobilize and migrate downward to the underlying groundwater. However, construction of impermeable caps over closed landfills has been a widely implemented practice for many years to reduce the amounts of water infiltration, thereby minimizing contaminant migration. Capping has been adopted as an option in both federal and state regulations for closure of RCRA-regulated disposal units and solid waste-permitted landfills, and is considered a presumptive remedy under the CERCLA process. SWMU 3 has been closed and capped; however, long-term groundwater monitoring will continue to be conducted to ensure that action remains effective.
203	The fact that pollution is climbing the food chain in the Wildlife Management area surrounding the PGDP points to the problems here. Now that we know there are problems, instead of denying situations, we need permanent solutions, not Band-Aids.	Jotilley Dortch April 7, 1998	DOE has been performing environmental sampling at PGDP on a routine basis for a number of years. This sampling has included game animals likely to be consumed by humans, primarily deer and fish. Those results have been openly published in our annual

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			Environmental Site Report since the mid-1980s. DOE currently has several studies in progress to better evaluate the extent of the impacts on the food chain, toxic affects, and contributing sources. Once these studies are complete, comprehensive solutions commensurate to the risks will be evaluated and implemented as appropriate.
204	The two plumes making their way toward the river at PGDP are real. A regional DOE official told me they could be slowed down but not stopped. He said it didn't matter anyway, since when they reached the river no harm would be done. What sort of attitude is that (GE-Hudson River, yet again.)	Jotilley Dortch April 7, 1998	DOE has initiated several interim actions to address off-site risks (e.g., Water Policy) and mitigate the further migration of the high-concentration portions of the off-site plumes (e.g., NW/NE Treatment Systems). In addition, several subprojects (e.g., WAGs 6, 27, 28, and 26) are currently in progress to further evaluate and support the selection of additional remedial actions for groundwater contamination at PGDP.
205	The buried drums of waste-in-oils are leaking, but this has not reached off-site. Further, they present a chance of fire. The attitude that there are so many off-site problems this waste-in-oil will be dealt with later is not an acceptable solution. How can off-site waste be stopped when on-site sources are still pouring forth their poisons?	Jotilley Dortch April 7, 1998	DOE agrees that source actions are critical to the overall effectiveness of site remediation. It appears your comment is referring to the C-749 Burial Ground which is part of WAG 22. The remedial investigation for this source is complete and the results do not indicate any immediate risk to off-site receptors. The nature and extent of the remedial actions recommend-ed for this SWMU will be determin-

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			ed through the ongoing CERCLA process, encompassing an FS, Proposed Plan, and ROD. A draft FS has been developed and was submitted to the regulatory agencies for review in November 1997.
206	Continual storage of waste at PGDP is risky because of our earthquake threat. We got in trouble by an "I'll deal with it later production at all costs" attitude. We need a comprehensive waste management plan that includes all waste streams.	Jotilley Dortch April 7, 1998	DOE agrees that a comprehensive approach for managing stored wastes is needed. The Paducah Site has developed a process to evaluate and rank waste streams that are currently in storage, based upon their potential risks. This ranking system is currently being implemented for wastes in storage. The wastes that pose the greatest risks will be given first priority for treatment and disposal. Additionally, mixed wastes (wastes that contain both radioactive and hazardous components) are included in the Site Treatment Plan, which specifies time frames for identification of technologies and for completion of treatment of specific stored wastes.

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207	DOE's statements that this is a strategic planning document and not a major federal action subject to NEPA doesn't hold water. In addition, this comment was made by the commenters on the discussion draft and was not responded to by DOE in the response to the comments.	Mark Donham, Kristi Hanson April 30, 1998	This document is a strategic planning document, not a decision-making document, as stated in Section 1.1. It contains a set of assumptions and acknowledges that the appropriate regulatory processes will make the decision. Consequently, NEPA is not necessary to prepare a strategic plan.
208	Strategic Planning is done under the Government Performance and Results Act, and DOE has already prepared such a plan under this act, which the commenters submitted written comments on the record. Clearly, there is no provision under the law for the agency to prepare two such plans, and NEPA contains no exception for strategic planning. This is clearly a programmatic plan, which requires an EIS. This would require a hard look at alternatives, a hard look at the direct, indirect, and cumulative effects of the alternatives, and public scrutiny.	Mark Donham, Kristi Hanson April 30, 1998	This is a strategic planning document, not a decision-making document, as stated in Section 1.1. It contains a set of assumptions and acknowledges that the appropriate regulatory processes will make the decision. Consequently, NEPA is not necessary to prepare a strategic plan. The cleanup decisions do look at alternatives under the requirements of CERCLA and RCRA.
209	Clearly, this plan is the ER segment of the combined WM/ER EIS which DOE promised in a 1990 court stipulation in the DC Dist. Court they would prepare. There is good cause for preparing such a document. For example, the Vortec project at Paducah is assumed to be the major treatment remedy for most of the ER waste, yet it is being brought in under the WM program and the current draft EA on the project only analyzes the WM portion of the project. The failure to subject this program to the NEPA procedures is a blatant violation of the law, both on a national and regional scale.	Mark Donham, Kristi Hanson April 30, 1998	This document is not part of a combined WM/ER EIS. It is a strategic planning document, not a decision-making document, as stated in Section 1.1. It contains a set of assumptions and acknowledges that the appropriate regulatory processes will make the decision. Consequently, NEPA is not necessary to prepare a strategic plan.
210	There are inconsistencies between sites which need to be addressed. For example, the national document states that future land use at Hanford will be determined through the NEPA process, yet at Paducah or anywhere in the Oak Ridge complex	Mark Donham, Kristi Hanson April 30, 1998	The land use assumptions in this document are not decisions, but simply preliminary planning assumptions to help determine what

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	there is no plans to use the NEPA process to determine future land use. Failure to explain this inconsistency is arbitrary and capricious. Land use assumptions are made in the Oak Ridge document as if decisions were already made, yet there has been no public comment or analysis of this at all.		remedial action objectives should be considered. DOE has openly presented these assumptions in numerous public forums including public workshops in 1994, 1995, 1996, and 1998; SSAB presentations in 1996 and 1997; and during the public comment period for the FFA/SMP and Paths to Closure document. Actual decisions will be documented through the CERCLA process (e.g., RODs), and implemented using deed restrictions and other institutional controls.
211	Paducah establishes cleanup levels for PCBs of 25 ppm for industrial sites inside the fence and 10 ppm for unrestricted areas outside the fence. The unrestricted areas include a publicly accessed state wildlife management area. What is the 10 ppm standard based upon? Already there is strong evidence that PCBs are beginning to bioaccumulate in the food chain in the area around the plant. How is leaving 10ppm in the soil outside the fence and 25ppm inside the fence going to contribute to the continued contamination of the food chain by PCBs. We would like to know how these figures were determined and how they compare with other sites cleanup levels?	Mark Donham, Kristi Hanson April 30, 1998	The PCB cleanup levels of 25 ppm and 10 ppm are based on EPA's TSCA PCB Cleanup Policy (40 CFR 761.125), which reflects protective levels for direct-contact exposure for restricted-industrial and unrestricted areas. Several studies are currently underway at PGDP to evaluate the extent and impacts of bio-accumulation of PCBs in the food chain. The results of these studies will be considered in the final cleanup standards ultimately selected through the CERCLA process (e.g., RODs).
212	We don't think the Vortec project should be assumed to be implemented successfully. This project is highly speculative, and is based upon a sweetheart deal between DOE and an ex DOE employee, which needs to be investigated. This project is highly experimental, highly controversial, and highly speculative. There is no guarantee that it will even be demonstrated, let alone	Mark Donham, Kristi Hanson April 30, 1998	Comment noted.

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	operated for a decade or more. We are very concerned about the effluents from this facility, both into the air and water and are strongly opposed to continuing the experiment. The effects of this facility need to be considered as part of a site wide EIS at Paducah.		
213	Assuming that WIPP will open is premature. There are many people in New Mexico opposed to this facility, and many serious environmental issues regarding the safety of this site have been brought to light.	Mark Donham, Kristi Hanson April 30, 1998	Comment noted.
214	If assumptions like WIPP and Vortec are going to be made, then the effects and risks of mass transportation of radioactive wastes and substances needs to be part of this analysis. This is completely lacking as part of this document. Yet, they are clearly connected actions.	Mark Donham, Kristi Hanson April 30, 1998	DOE agrees that the effects of the transportation of radioactive wastes must be considered prior to implementing an option; however, analyzing these impacts is not required in this plan. The effects of transportation of wastes to WIPP are addressed in the Waste Management Programmatic Environmental Impact Statement. Any impacts associated with off-site shipment of wastes from the Vortec project are being addressed in the Environmental Assessment that is under development for the demonstration and operation of Vortec (based upon successful demonstration).
215	The assumption that the uranium burial grounds at Paducah will remain buried is ill advised. Already, the State of Kentucky and US EPA are opposing this. This is going to raise the cost of remediation at Paducah significantly, which needs to be addressed in the cost sections. The assumption that these burial grounds can stay in the ground for a thousand years before causing significant environmental damage is ridiculous and not supported by objective scientific data.	Mark Donham, Kristi Hanson April 30, 1998	The general assumption to cap all landfills and implement long-term monitoring is not a decision, but rather a planning assumption based on EPA's presumptive remedy guidance and Kentucky Closure requirements for permitted landfills. It is the intent of DOE to evaluate each burial ground on a case-by-case

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			basis and select a remedy through the CERCLA process, commensurate to the risks being posed. The FS for the uranium burial ground is not limited to capping and includes four different remedial alternatives for consideration. In addition, DOE, in consultation with the Kentucky Radiation Control Branch, KDWM, and EPA, has collected additional data to better determine the mobility of the contaminants present and their long-term impacts. The outcome of that study and the CERCLA decision-making process will be used as the basis for future revisions to our planning assumptions for this SWMU.
216	We are opposed to the continued operation of the incinerator at Oak Ridge. Incineration is a barbaric, ineffective, and obsolete method of dealing with hazardous/radioactive wastes. It is not fair to continue to subject Oak Ridge to this toxic mixture of unknown substances emitted from this facility. Long term storage of these substances should be looked at until a more environmentally sound method of treating the wastes is found.	Mark Donham, Kristi Hanson April 30, 1998	Comment noted. It should also be noted that long-term storage of wastes presents risks and hazards.
217	We believe that the costs of dealing with the 40,000 cylinders of depleted uranium need to be considered in planning at Paducah for the future. Separating this problem out is ill advised and violates NEPA. This could cost billions of dollars to deal with. It needs to be considered as part of the overall cost of cleanup at Paducah and the other sites where cylinders exist.	Mark Donham, Kristi Hanson April 30, 1998	Please see response to Comment 197.
218	We believe that a system wide look at the effectiveness of pump and treat groundwater treatment facilities needs to be given a hard look. These facilities are costing the taxpayers millions of dollars, yet there is little evidence that there is any substantial long term	Mark Donham, Kristi Hanson April 30, 1998	DOE agrees that source actions are a key element to effective remediation at PGDP. In fact, DOE's current effort is focused on addressing

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	benefit from the facilities. The DOE needs to be focusing its efforts on identifying the sources of contamination and cleaning them up as expeditiously as possible. The focusing of this urgent need seems to be lacking from the document, as the pump and treats are rated as the highest priorities and the actual cleanup of sources are shoved down on the list.		source areas that have been identified as suspected contributors of off-site contamination. These include WAGs 6, 27, 28, 22, and 3, which are currently in various phases of remedial action process. However, prior to initiation of those projects, it is true that DOE's initial efforts focused on addressing off-site contamination as opposed to the source areas. Both DOE and the regulatory agencies felt it was critical to address any immediate risks potentially being posed by the migration of off-site contamination. These actions included providing water to affected residents, and implementation of groundwater treatment systems to reduce further off-site migration of the high-concentration portions of the NW and NE Plumes. Now that the immediate risks have been addressed, DOE's current focus is to develop a comprehensive strategy that will address the contributing source areas and evaluate the benefits of various options for the off-site plumes.
219	How the new contracting method or having more subcontractors is going to "enhance performance" and significantly save money while getting more work done is not well explained. Further, it is hard to believe. This needs to be explained in greater detail.	Mark Donham, Kristi Hanson April 30, 1998	This will be expanded upon in the next version of the Plan.

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220	Thank you for the opportunity to comment on the revised plan. The Department of Energy (DOE) should be commended for developing a vision and strategy for its Environmental Management (EM) program. I do, however, share many Oak Ridgers' concerns that the Environmental Management budget proposed for Oak Ridge Operations does not support the goals and schedule as described in the document. Unless sufficient resources are devoted to waste management and other vital EM programs, assumptions upon which the plan is based are not valid. The ORO-EM DOE budget has been reduced by approximately 23% without a corresponding modification to the scope of work proposed. This reduction will have a negative impact not only on Oak Ridge, but on other sites whose plans include treatment at Oak Ridge facilities. In addition, please find attached my letter to you dated September 17, 1997 which details the City's comments to your previous draft. I ask that DOE also reconsider these issues, as some were not satisfactorily addressed in the new document.	Walter K. Brown, Mayor, City of Oak Ridge May 1, 1998	Your comments on the budget are noted. Responses to your comments on the Discussion Draft are contained in the Comment/Response Document for the Discussion Drafts.
221	The Department of Energy (DOE) is to be complimented for undertaking this effort to develop a long-term planning baseline for environmental restoration and waste management activities. Establishment of a well-documented planning baseline should make it much easier to consider and accommodate changes in the future. DOE Oak Ridge Operations is also to be complimented for its efforts to involve the public in the process. Public discussions held last winter in Oak Ridge eliminated numerous misconceptions about the plan. The discussions helped DOE and the stakeholders to better understand one another's objectives and concerns. Local DOE personnel seem to have made a sincere effort to address community concerns. However, the City of Oak Ridge has a number of serious concerns about the substance of the planned program as it affects the Oak Ridge site: PLAN WILL NOT MEET THE FEDERAL OBLIGATION TO THE COMMUNITY. The plan assumes that the program for	Walter K. Brown, Mayor, City of Oak Ridge September 17, 1997	Noted.

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	decontamination and decommissioning (D&D) of contaminated facilities, cleanup of contaminated sites, and management of legacy waste will be constrained by a fixed budget that is not based on the cost of doing the job. With a fixed budget and streamlined schedule objectives driving the program, program objectives have been pruned severely. Facility D&D will proceed, but only limited environmental cleanup will occur. Even the optimistic budget scenario considered in DOE's analysis (a $6 billion annual budget nationwide, which is $1 billion higher than provided in the current Congressional budget) would require emphasis on long-term institutional controls, rather than actual remediation, to address the legacy of environmental contamination on the Oak Ridge Reservation (ORR). Thus, the plan would achieve far less reduction in risk, elimination of legacy contamination, and removal of associated community stigma than the Oak Ridge community has been led to expect based on past Federal government pledges to clean up the legacy of the Manhattan Project and the Cold War. To meet the Federal government's obligations to this community, DOE should be asking Congress for sufficient funding to do its cleanup job properly.		
222	PLAN ADDRESSES ONLY A FRACTION OF THE OAK RIDGE ENVIRONMENTAL MANAGEMENT JOB. The plan addresses remediation of only those facilities and sites that are currently assigned to the DOE Assistant Secretary for Environmental Management (EM). There is no plan for managing cleanup of other excess DOE facilities. This is an important concern for Oak Ridge. Relatively few Y-12 and ORNL facilities are currently included in the EM Decontamination and Decommissioning program, but a number of older facilities at these sites will become candidates for D&D over the next decade. Although many of these facilities are still being used, many of them are both obsolete and contaminated. Current facility uses are often unrelated to the earlier activities that left a legacy of environmental problems. The ORO portion of the plan	Walter K. Brown, Mayor, City of Oak Ridge September 17, 1997	One assumption upon which this plan is based is that the scope of work currently the responsibility of EM is the only scope to be included. The additional scope that could become the responsibility of the EM Program is acknowledged.

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	says as "the need for stabilization and D&D of [additional] facilities arises. . . .baseline change proposals are prepared." The national portion of the plan, however, says that DOE has not decided whether such facilities would be accepted into the EM program. It notes that "maintenance and cleanup could remain the responsibility of the current responsible office." Without targeted federal funding for management of additional excess facilities and sites, legacy facilities will burden our community both environmentally and financially. Cleanup is unlikely to occur without funding for this purpose, and future costs for surveillance and maintenance of legacy facilities will add to the "cost of doing business" at Y-12 and ORNL (i.e., the "overhead" cost that must be borne by anyone carrying out productive activity at these sites). This would put these sites at a competitive disadvantage in maintaining existing Federal programs and attracting new programs and projects. This could be a serious economic disadvantage for the community as a whole. Congress and the public must understand that the "Focus on 2006" plan does not present the full cost of cleaning up the ORR. Instead, DOE should develop and present estimates of the total cost of D&D and remediation for all of the legacy facilities and contaminated areas on the Oak Ridge Reservation and should request sufficient funding to address the full problem. This would be a significant increase over the funding level in the "Focus on 2006" plan.		
223	PLAN CALLS FOR DECISIONS WITHOUT ADEQUATE CHARACTERIZATION. Under the plan, most cleanup decisions are to be based on existing information. Footprint-reduction decisions (i.e., determinations that certain areas of the Oak Ridge Reservation are uncontaminated and area therefore suitable for unrestricted use) will be based on existing information and visual inspection. This would likely result in erroneous decisions. Local experience has repeatedly found old records to have been incomplete, and wastes and contaminants often are not visible. There have been many "surprises" in the site investigation and	Walter K. Brown, Mayor, City of Oak Ridge September 17, 1997	The footprint reduction project does a literature search and a field survey. If areas are not obvious candidates for removal from the list of contaminated sites, then they do not get removed. The characterization needs for remedial decision-making are determined in workshops attended by

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	cleanup programs undertaken to date. If future decisions on site cleanup are based solely on available records and limited characterization data, some of the resulting savings in characterization costs will come at the expense of (1) cleanup workers who are injured as a result of unexpected conditions or (2) environmental resources that are damaged by releases from undiscovered sources or undetected pathways. Thorough surveys are needed before decisions are made.		the TDEC and EPA. Only when consensus is reached about adequate data for decision-making, is the characterization plan developed. During remediation activities, additional characterization/monitoring will probably be necessary to protect workers.
224	DOE DOES NOT EXPECT TO CONTINUE CENTRALIZED WASTE MANAGEMENT FOR OPERATIONS WASTE FROM OAK RIDGE FACILITIES. The plan would transfer future financial and substantive responsibility for waste management at DOE facilities to generators. This was proposed as an incentive to waste minimization. Acceptance of financial responsibility should encourage generators to reduce waste, but the division of substantive responsibility among numerous Y-12 and ORNL programs could eliminate the efficiencies gained from coordination. More importantly, it could increase the incidence of unsound waste management practices. One reason for the legacy of contamination in Oak Ridge is that managers who were focused on R&D or production goals sometimes neglected their waste management responsibilities. To ensure that this history is not repeated, DOE should continue the central coordination of waste management for its Oak Ridge facilities.	Walter K. Brown, Mayor, City of Oak Ridge September 17, 1997	The plan assumes that the EM Program retains responsibility for waste disposal operations.
225	LACK OF PROVISION FOR FUTURE ON-SITE MANAGEMENT OF OPERATIONS WASTE MAY HINDER CONTINUING DOE OPERATIONS AND MAKE OAK RIDGE UNCOMPETITIVE IN DEVELOPING NEW PROGRAMS. Under the plan, after the current tumulus facility for low-level waste reaches capacity, all ORR operations-generated radioactive waste would be shipped offsite for storage, treatment, and disposal (at the expense of the generator). No new waste management facilities would be built on the ORR. This is proposed not for technical reasons, but to reduce costs and administrative	Walter K. Brown, Mayor, City of Oak Ridge September 17, 1997	Noted.

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	responsibility assigned to the EM program within Oak Ridge Operations. EM expects to continue disposing of wastes on the ORR, but only wastes from remediation activities conducted by EM. Eliminating on-site waste management for future DOE operations could seriously handicap Oak Ridge's future. There are technical reasons to limit future waste disposal on the ORR. However, if the ORR is found to be technically suitable for continued disposal of some wastes, disposal facilities should accommodate new operations waste as well as remediation waste.		

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226	The Tennessee Department of Environment and Conservation, DOE-Oversight Division (TDEC/DOE-O) notes that the DOE responses to its comments on the prior version of the Oak Ridge Operations plan, "Accelerating Cleanup: Focus on 2006," June 1997, are inadequate. Many responses are rephrased versions of the original text and do not address the questions and concerns of the State of Tennessee. During the National Governors' Association, Federal Facilities Compliance Act Task Force Meeting, Vienna, Virginia on March 31, 1998, Eugene Schmitt briefed the DOE host states on the status of the Paths to Closure document. It was my understanding that comments provided to DOE on the draft "Accelerating Cleanup: Paths to Closure" and "Accelerating Cleanup: Paths to Closure, Oak Ridge Operations Office," February, 1998, could not be addressed prior to a final strategy document being provided to Congress in June 1998. As such, I advised that DOE should acknowledge the plan as a "vision" and continue to update it as necessary. I also indicated that detailed comments from the State of Tennessee would not be provided prior to DOE's issuance of the final document and that Tennessee's silence was not consent. Secretary Pena, in his letter to Governor Sundquist dated April 10, 1998, expressed DOE's interest in the State of Tennessee's comments and gave his commitment that individuals from the Oak Ridge Operations Office and Headquarters will meet with Tennessee to discuss those comments. The State will provide comments to the final strategy in an effort to improve the 1999 update of the documents and will look forward to a future meeting.	TDEC May 1, 1998	Noted.

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227	This comment is in regard to Page A-11/J,which states: "Landfills and burial grounds are capped in place with long-term monitoring based on U.S. EPA's presumptive remedy guidance for landfills and Kentucky regulations for closure of RCRA land disposal units." Item J, which concerns landfills and capping in place, is contrary to other proposed actions as far as any migration or protecting the groundwater. Therefore, a blanket capping of all landfills is not the best alternative. Each landfill should be studied individually, and if any landfill has the potential of an off-site release in the future, alternatives other than capping should be explored. Capping all landfills may not meet the goals of future land use, particularly outside the security fence.	Paducah, Site Specific Advisory Board	The general assumption to cap all landfills and implement long-term monitoring is not a decision, but rather a planning assumption based on EPA's presumptive remedy guidance and Kentucky Closure requirements for permitted landfills. It is the intent of DOE to evaluate each burial ground on a case-by-case basis and select a remedy through the CERCLA process, commensurate to the risks being posed. The FS for the uranium burial ground is not limited to capping and includes four different remedial alternatives for consideration.
228	This comment is in regard to the risk-based PCB levels (25 ppm) listed in assumptions in Section G of the document. Based on existing data, the Board supports the Commonwealth's risk-based levels for cleanup standards of PCBs, pending future studies, when evidence shows they should either be more restrictive or less restrictive. DISSENTING OPINION This member supports the TSCA risk-based PCB cleanup levels currently being employed by DOE.	Paducah, Site Specific Advisory Board	The PCB cleanup levels of 25 ppm and 10 ppm are based on EPA's TSCA PCB Cleanup Policy (40 CFR 761.125), which reflects protective levels for direct-contact exposure for restricted-industrial and unrestricted areas. Several studies are currently underway at PGDP to evaluate the extent and impacts of bio-accumulation of PCBs in the food chain. The results of these studies will be considered in the final cleanup standards that will be ultimately selected through the CERCLA process (e.g., RODs).

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229	Regardless of what it is named, the document is serving in effect as a funding plan. As such, it does not take into account the needs of Paducah in the long run. That compounds the Board's fears about DOE not being able to complete the task. The Board would like a thorough explanation from DOE about why it does not consider this document a "Major federal action."	Paducah, Site Specific Advisory Board	The 2006 document is a flexible, planning document intended to outline a long-term strategy for expediting site remediation. While the facility has not completed all characterization activities currently scheduled, a significant amount of data is available to adequately identify the primary source areas, contaminants of concern (e.g., TCE, TC-99, PCBs), geologic conditions, migration pathways, and exposure points. The assumptions presented in the current document have been developed, based on the site conditions as currently defined, and incorporates the use of presumptive remedies and remedial practices being employed nationwide. However, the 2006 Plan is a dynamic document that will be updated on a routine basis to reflect new data as site characterization progresses and the technical and funding assumptions will be revised accordingly. It should be noted that the 2006 Plan is not intended to replace the CERCLA process for source-specific decisions, but merely to provide a programmatic framework for establishing a long-term strategy. Therefore, actual decision-making, relative to any "major federal actions," will be accomplished through the CERCLA

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			process for remedial actions, and the NEPA process for waste management actions, not through the Paths to Closure document.