

PADUCAH GASEOUS DIFFUSION PLANT SITE SPECIFIC ADVISORY BOARD

Chartered under the
Federal Advisory Committee Act

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MEMORANDUM SITE SPECIFIC ADVISORY BOARD

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Bill Tanner
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Metropolis, Illinois 62960

Rev. Gregory Waldrop
4141 Buckner Lane
Paducah, Kentucky 42001

TO: SSAB Members
Ex Officio Members

FROM: Mark Donham
Vicki Jones

DATE: June 8, 1998

SUBJECT: MEETING REMINDER

The next SSAB meeting will be held June 18, 1998, at 5:00 p.m. in the VanBuren Room at the Executive Inn. The following is the tentative agenda and actions items:

Tentative agenda for the June 18, 1998, meeting:

- Minutes
- Information (Handouts)
- EMEF Project Updates
- DOE Response to SSAB Recommendations (15 minutes)
- Northwest Plume Pump-and-Treat Facility Costs (30 minutes)
- Local NEPA Representative on Categorical Exclusions (30 minutes)
- Waste Area Group 6 — Fact Sheet and Q&A (30 minutes)
- Waste Area Group 22, SWMUs 7 and 30 — Fact Sheet and Q&A (30 minutes)
- Administrative Plans for the Board
 - Office Space, Computer, and Furniture (10 minutes)
 - Review of the SSAB Draft Work Plan (10 minutes)

Action Items

- Provide the board with a breakdown of cost figures for the Northwest Plume pump-and-treat facility.

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Meeting Minutes

June 18, 1998

The June 18, 1998, Site Specific Advisory Board (SSAB) meeting took place at the Executive Inn in Paducah at 5:00 p.m.

The following board members were present: Nola Courtney, Mark Donham, Edward Duff, Vicki Jones, Ronald Lamb, Ray McLennan, Craig Rhodes, and Greg Waldrop. The ex officio member present was John Volpe. Sitting in for Tuss Taylor was Jack Stickney with AIP. 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 contractors and subcontractors of the DOE: Jeannie Brandstetter, Bryan Clayton, Shelley Hawkins, Dennis Hill, Debora Jolly, Stan Knaus, and Bob Pratt.

Steve Kay called the meeting to order and asked if there were any modifications to the agenda. Nola Courtney proposed adding a discussion of the depleted uranium hexafluoride workshop in Cincinnati. Kay suggested adding this section to the administrative issues and Courtney agreed. Myrna Redfield asked if a discussion about a visit to the SSAB meeting by a survey group could be included in the review of the draft work plan. The proposed meeting agenda was adopted by consensus. The approval of meeting minutes was postponed until a quorum was reached.

The next item on the agenda was an information update. Jeannie Brandstetter stated that she had attached a press release, a news story, and an advertisement to the Environmental Management and Enrichment Facilities (EMEF) project updates. There were no comments from the board on the EMEF project updates.

The DOE's response to SSAB recommendations was the next item on the agenda. Redfield gave an update on the status of the Vortec Environmental Assessment (EA) comments. She said the responses still were not final at this point; however, there is a person from Paducah working in Chicago, Ill., finalizing the responses. Redfield said that from her discussions with the project team, the responses should be finished by the end of June. She said the Vortec EA has been completed and all of

the responses to comments will come directly to the commentors, so the board members will receive a formal response.

Cost information on the Northwest Plume Pump and Treat Facility was the next item on the agenda. Debora Jolly, Bechtel Jacobs Company LLC facility operator, distributed roll-up costs for each of the three years of the facility's operations. She said the data show a continued drop in cost for operations. Ray McLennan asked Jolly if she expects the costs to level off. Jolly said probably they would, and that next year's budget will be very close to what it was this year. John Volpe asked how long the pump and treat operations would continue. He asked if there was some sort of trend that was being analyzed subjectively or if there was objective data — specifically, what is being used to make judgments. Redfield said that the pump and treat operation was considered an interim action because there is no final action for ground water in place. She said that as environmental restoration activities move along, other alternatives for remediation will be considered. However, because there is a high concentration of trichloroethene (TCE) leaving the site, some sort of remedial action has to be done. Volpe said that from the data available, he has not seen any decrease in technetium-99 (⁹⁹Tc) levels. He said the operation needed reevaluation or goal setting to determine if it is functioning as designed. Redfield said the Five-Year Review of the Northwest Plume, which is due in July, might help with the reevaluation. McLennan said that the operation needs a better analysis because seasonal fluctuations and other factors tend to hinder the analysis. Redfield said that there are plans to take ground-water samples around the fence perimeter of the plant. She said at this point, the process is not being changed but evaluated. Bryan Clayton, Bechtel Jacobs Company project manager, said that the Sampling and Analysis Plan, released June 17, 1998, helps to close any type of data gaps. He said the Feasibility Study (FS), which will be released in December 1999 to regulators, will address further the action of the plume and address several alternatives. Ronnie Lamb asked about the barrier wall. Clayton said the barrier wall will be revisited along with other options. He said that source areas actually are determined through remedial investigations.

Approval of the May 21, 1998, minutes was the next item on the agenda since a quorum had been reached. Redfield suggested revising the section on the DOE's response to SSAB recommendations on Page 3, Paragraph 1. She proposed adding "Vortec EA" in reference to the comments that have been received. In addition, Redfield suggested revising text on Page 6, Paragraph 1, concerning the 2006 Plan, in order to clarify the parts of the budget covered by the plan as well clarification of the document as a strategy. At this point, Redfield asked if the SSAB wanted to change the format of the minutes since not every detail is recorded and the minutes can sometimes be confusing. Mark Donham said maybe the board should do a transcript of the meeting. Redfield asked the board to consider the purpose of the minutes. Donham said he liked the minutes as they were. Kay said he thought the intention of the minutes was to provide enough information for anyone who was not present to have an overview of the meeting and capture the essence of what was said. Kay said his preference was keep the current format of the minutes, but reserve a time in the agenda to make amendments. A discussion of the format of the minutes was added to the administrative issues section of the agenda. The May 21, 1998, minutes were adopted as amended.

The next item on the agenda was the review of National Environmental Policy Act (NEPA) categorical exclusions (CXs). Vicki Jones suggested going through the different CXs and deciding which ones the board wanted to analyze. Jones said that at the last meeting, it was suggested that generic CXs and the bursting barrel CX be evaluated. Jones read a list of CXs for Paducah, which was distributed at a previous meeting. Donham asked which category was used for the cleanup of the bursting barrel. Stan Knaus, Bechtel Jacobs Company NEPA specialist, said that it was a removal action under the Resource Conservation and Recover Act and the Atomic Energy Act. In this case, Knaus said a quick removal action was needed to stop the spread of contamination. He said the CX went to David Allen in Oak Ridge for approval of the removal action. Donham asked about the CX for storage tank removal and polychlorinated biphenyl (PCB) removal and what the circumstances are that disqualify them for an EA. Knaus said you have to look at what the CX is to include. In the case of the storage tank removal, Knaus said a generic CX has been used for Underground Storage Tank (UST) cleanup activities. Donham asked why a short EA could not be done which would be subject to public review. He asked what the reason was for choosing the CX route. Knaus said he could not answer for the agency; however, one of his observations is that there are very strict UST regulations that do not provide many alternatives. Donham referred to Number 10 of the Significance Criteria of the CQ regulations and said that the removal is potentially significant. He said it would be good to educate the public on what the government has to go through and that public scrutiny is essential to implementing NEPA. Donham said CXs are done more often than EAs and it seems that the purpose of NEPA is being bypassed. Knaus said it is a fairly major effort on the DOE to prepare an EA. Knaus went over a list of what went on last week under the CX at the Paducah Gaseous Diffusion Plant. The list included mainly routine maintenance activities. Knaus said if an activity does not fall under a specific list, then it needs to be written out and submitted to the DOE. The DOE then decides if the activity is a CX and signs off on each specific action. Kay asked if there was a mechanism to make the board aware of CXs of significance. Jones asked if the board agreed that it wanted to consider evaluating only the significant CXs. Donham said he thought the UST and PCB removals were broad and would like to know more information about these. Knaus read the highlights in the CX for the UST and PCB removal. Donham asked if there were any limitations such as on nonradioactive waste. Knaus said the removal action has to be less than five years and five million dollars. Donham asked who drafted the highlights in the CX. Knaus said they came out of the Oak Ridge office; however, the CXs themselves went through a rule-making process. Donham said the environmental laws for public scrutiny were minimal and NEPA is about the only thing the public has. Jones asked if the DOE's approval was needed to conduct an EA. Knaus said, yes, and, at a minimum, David Allen has to approve it. Courtney asked how much resource time is spent doing a CX. She said it seemed like a phenomenal amount of time and money. Knaus said the process has gotten a lot better. He said that only the DOE can make NEPA decisions and, as a contractor, he can look only at activities. Jones said that NEPA requires that every federal action be reviewed by NEPA. Volpe said that the DOE has gone from no oversight to too much. Kay said the issues seem to cover both sides — over-review and under-review. Redfield asked if it would be beneficial for David Allen to come back and explain why CXs are chosen. Donham proposed to put NEPA back on the agenda next month. The board agreed to not have David Allen come back yet, but to put NEPA back on the agenda and have someone come back to answer questions.

Courtney led the discussion of Waste Area Group (WAG) 22. She referred to the fact sheet which had been handed out and asked if the D1 FS for Solid Waste Management Unit (SWMU) 2 included SWMU 3. Bob Pratt, Bechtel Jacobs Company project manager, said SWMU 3 was not included in this FS. Courtney said the United States Environmental Protection Agency (EPA) and the Kentucky Department for Environmental Protection (KDEP) submitted comments on the FS. She said the KDEP had some real concerns and felt like the DOE failed to consider the mobility risk of the waste. Volpe said the Radiation Health and Toxic Agents Branch has concerns that insufficient evidence exist to support the migration of uranium. Volpe said the DOE should not take the health risk to excavate. He said there were a number of reasons why the Radiation Control Branch thinks that excavation should not be done and he said those concerns have not been addressed. Donham asked what the uranium was packed in inside the barrels. Volpe said it was possibly packed in PCB oil. Donham asked if the barrels were intact. Volpe said it depends on the oxidation state and the chemistry within the cell. Courtney said the concern of the KDEP seemed to be that the barrels will rupture over time. Volpe said that even if the barrels corrode, uranium metal is left. Pratt said that their projections are that between 100 to 150 years, TCE levels at the security fence would only be at 60 parts per billion, assuming the drums have been excavated. Redfield asked if the modeling by the state would be finished when the FS is final. Volpe said that Brookhaven National Laboratory is working on the modeling and it will hopefully be done within the next month. Donham asked if this was a model for migration. Volpe said it is called "Breach, Leach, and Transport." Courtney asked if the model had a time limit. Volpe said that uncertainty grows when years are added to the model. Volpe said that some of the alternatives to excavation presented in the FS were very good. He said that one of the alternatives involves a containment wall. Pratt said the fact sheet shows all the alternatives. Volpe said the Commonwealth rejected using grouting at the Maxey Flats Disposal Site because it just did not work. He said there were a number of health physics and other concerns with grouting. Pratt said the FS stage is not where the DOE will select what it is going to do. Lamb said that Paducah was a wetland before the plant was built and asked how grouting would work. Pratt said there are a variety of grouting chemicals that work in a wetland. Lamb asked if uranium breaks down to lead. Volpe said in a few billion years. He said that in-growth really stops at uranium-234. Pratt said his understanding of the location of the drums is that they are very close to the surface and placed in overpacks. He said they border the property boundary of the facility and if the land is turned back over to the city, the drums have to be gone. Donham asked about the ecological effects of WAG 22 and if it was possible for some of the molecules that have oxidized to be taken in by plants and insects. He asked if this was a long-term concern. Courtney said the EPA had four major issues with the FS and one was that the ecological risk assessment was incomplete. Volpe said there have been a number of studies out of Oak Ridge that have looked at the uptake of uranium in plants and said he could provide the studies to Donham. Jones asked about the depth of contamination. Pratt said it is approximately 10 to 12 feet below surface with a total depth of about 18.5 feet. Jack Stickney asked if any surface vegetation had been sampled and Pratt told him, no. Pratt said that the FS has gone out for SWMUs 7 and 30 of WAG 22 and the project team is in the process of getting comments addressed. Courtney said that SWMUs 7 and 30 might need to be addressed in next month's meeting. Donham asked if the SSAB members could receive comments on WAG 22 from the EPA and the KDEP before the next meeting. Brandstetter said yes.

Greg Waldrop led the discussion of WAG 6. Clayton, Bechtel Jacobs Company project engineer said a review of current activities was included in the fact sheet that was handed out to SSAB members. He said that the field investigation of WAG 6 should be completed this year. Clayton said the highest point for contamination for ⁹⁹Tc is north of the C-100 Building. He said that SWMU 11 may not be the major source for this contamination. Clayton also said that a risk assessment and remedial investigation (RI) for WAG 6 are currently being drafted and an FS should be issued December 1999. He said there is a treatability study scheduled that will look at vapor and water extraction in the Regional Gravel Aquifer. Waldrop asked if C-400 is an operating building. Clayton said yes, but the building would not be remediated itself, just the ground below. Waldrop said WAG 6 is clearly a major source of TCE in the ground water and plumes. He asked if July was on target for the RI. Clayton said yes and that the team is collecting comments internally at this point. Lamb asked if the floor was taken up in the C-400 Building. Clayton told him parts of it are. He said there were two borings put through the floor and there was very little water; the water was not flowing. Craig Rhodes asked what happens when TCE oxidizes. Clayton said that hydrochloric acids and hydrogen oxides might be released in vapor form; however, he was not exactly sure and would check with a chemical engineer. Stickney asked if the remediation was considered a destructive treatment and Clayton told him yes. Waldrop said once the RI Report is released in July, there will be numerous comments by the state and the EPA. Donham asked if the SSAB would get copies of the RI Report. Since the report was fairly large, Waldrop asked if the members could get a copy of the summary. Clayton said it might be helpful for the SSAB to have a copy of the executive summary and a copy of Volume 1. He said the additional four volumes are basically data tables. Waldrop said the board might like a copy of the entire document in the SSAB office. Donham asked if high levels of thorium and neptunium were found in WAG 6. Clayton said that since C-400 is a cleaning building, there were a number of semivolatiles found. He said there are also some radioactive components and the largest is technetium. Stickney asked if this was in the ground water or soil. Clayton said he was not sure because other organics are present. Donham asked about dioxins. Clayton said he did not believe any samples were found. He said one area had some PCBs during the Phase I and II investigations. Waldrop said WAG 6 should be put back on the agenda in September. Waldrop also said he would like to be on the mailing list for WAG 6. Kay said that Shelley Hawkins would mail related material to members before each meeting when their assigned project is on the agenda.

The next item on the agenda was administrative issues. Redfield said that Ms. Bradbury of the Pacific Northwest National Laboratory asked if she could call the co-chairs of the SSAB about attending the next meeting in order to begin work on a survey of the SSAB. Redfield said she did not want to make a presentation, she just wanted to introduce herself and observe the board. The co-chairs agreed.

Dennis Hill gave an information update about the depleted uranium hexafluoride workshops. He said there has been a meeting in Cincinnati and Knoxville and they are in the progress of scheduling one for Paducah. Hill said there was a possibility that the Kentucky meeting would be in Lexington. Courtney said the SSAB might want to send a representative to the workshop if it is not in Paducah. Hill said the meeting was scheduled for August 27, 1998.

Revision of the draft work plan was next on the agenda. Waste management, waste minimization/pollution prevention, and transportation of wastes/hazardous materials were all moved to November from July. A discussion of the NEPA CXs was added to the agenda for July along with WAG 22. McLennan said he wanted to be responsible for the Northeast and Northwest Plumes. A discussion of the Northeast and Northwest Plumes Pump and Treat Facilities was added to the September agenda.

The next item under administrative issues was the format of meeting minutes. Kay said the minutes are not a verbatim text. Courtney said the format is good and very helpful. Waldrop said he wants the minutes at least as detailed as they are now. Redfield said her intent was to make sure the SSAB understood the process of creating the minutes. The board members agreed that the minutes should stay in the same format. Kay asked if the format of the meeting with no presentations was working well for the board and the members said yes.

Waldrop said he still has an interest in getting a connection with the SSAB and the government representatives. Hill said he had been in touch with the representatives' office. Waldrop said that part of the SSAB's job is to give the representatives an idea of the environmental side of the SSAB as opposed to the public participation side. Hill said he would see if there was a time when Representative Ed Whitfield and possibly some state representatives would meet with the SSAB.

Securing office space, furniture, and equipment was discussed by Hill. A list of furniture and office information was distributed to the SSAB. The list included furniture that was provided to the board free-of-charge by the DOE and supplies, which have already been ordered for the board by Jacobs. Phone and internet service will be arranged by Hawkins. Hill said that Jacobs can take possession of the office space at any time for the duration of six months. He suggested that the board wait until July 1 so the lease would start at the first of the month and the board agreed. There will be a charge for the duplication of keys for each member and this will also be taken care of by Hawkins. Waldrop said he thought it was important for the members to have their own keys. He also asked if each member would have his or her own mailbox. Hill said that can be arranged. Waldrop asked if Hawkins would go to the office on certain days and she replied that going three times a week in the morning was suggested in previous meetings. Hawkins agreed to send a notice to inform the members when the office and keys are secured. Hill asked if the SSAB wanted to have its next meeting at the Information Age Park and the members agreed. Hill referred to another handout given to the SSAB on a computer for the office. He said that \$1,664 is a government price. He said the package includes a 24-speed CD ROM and a web browser. The board chose Microsoft Office '97 as the software for the computer. Hill said prices of printers would be provided to the board for the members to choose the printer they prefer.

There was a discussion of the meeting time being changed from 5:00. Some of the members said people are having a hard time making it to the meeting at 5:00 and since the meeting location is changed to the Information Age Park, it would take even longer for people to drive from work. The members agreed to change the time to 5:30.

A brief financial update from Hill was given to the board. Hill said that out of \$95,000, the board has only spent \$12,000. He said there are a lot of costs coming in such as the computer and office

space which have not yet been included. He said he would try to give the board an update on finances each month.

The next meeting will be held July 16, 1998, at the Information Age Park at 5:30 p.m. The meeting was adjourned.

Tentative agenda for the July 16, 1998, meeting:

- Minutes
- Introduction from Ms. Bradbury of Pacific Northwest National Laboratory
- Information (Handouts)
- EMEF Project Updates
- Local NEPA Representative on Categorical Exclusions (30 minutes)
- WAG 22, SWMUs 2 and 3 and SWMUs 7 and 30 (30 minutes)
- DOE Response to SSAB Recommendations (15 minutes)
- Administrative Plans for the Board
 - Computer (10 minutes)
 - Review of the SSAB Draft Work Plan (10 minutes)
 - Financial Update (10 minutes)

Action Items

- SSAB members need to bring their copies of CXs to July 16, 1998, meeting
- Provide SSAB members with copies of EPA and KDEP comments on the D1 WAG 22 FS
- Bryan Clayton will provide information from a chemical engineer on what happens when TCE oxidizes
- Provide SSAB members with a copy of the executive summary from the RI Report for WAG 6 (WAG 6 RI Report pushed back to August 14)
- Dennis Hill will contact Representative Whitfield to see if there is a time he and/or state representatives could meet with the SSAB
- Provide SSAB with a price list of printers for the computer

June 18, 1998, SSAB Meeting

Name	Organization
-1. Shelley Hamblinus	Jacobs / EIC
-2 Steve Kay	RKI
-3 Vicki Jones	SSAB
-4 Ed Duff	SSAB
-5 Myra E. Redfield	DOE
-6 Ray McLaughlin	SSAB
-7 John Voyn	Ky Radiation Control
-8 Neil Carty	SSAB
-9 Craig Rhodes	SSAB
-10 Ronald Lamb	SSAB
-11 Mark Darhan	
-12 Gregory Waldrop	SSAB

**PADUCAH GASEOUS DIFFUSION PLANT SITE SPECIFIC ADVISORY BOARD
U.S. DEPARTMENT OF ENERGY
ENVIRONMENTAL MANAGEMENT & ENRICHMENT FACILITIES
PROJECT UPDATES
JUNE 18, 1998**

Northwest Plume Interim Remedial Action Pilot Plant

More than 274 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.

A Five-Year Review of the Northwest Plume IRA Record of Decision, signed in July 1993, is currently underway. Requirements of this document include reviews of documents and standards, visual inspections and interviews.

The system experienced almost 35 hours of down time the week of June 8 due to a lightning strike which caused damage to the PC boards in the level transmitters serving the equalization tank, air stripper, settling tank and backwash tank. Down time included time for the boards to be replaced and calibrations to be conducted.

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 117 million gallons of groundwater treated to date.

Lasagna demonstration

The Lasagna soil remediation technology tested at PGDP works by using buried electrodes to move water through contaminated 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 which are removed by treatment zones containing iron filings.

DOE now plans to propose its preferred remedial measures for SWMU 91, which is The advancement into Phase IIB, full-scale remediation. The spoils from the Lasagna Phase IIA demonstration were sampled March 6 for waste characterization. The spoils consist of soil containing a mix of iron filings, carbon and clay, which are the basic ingredients of the electrodes and treatment zones in the Lasagna process. The analytical results from this sampling event will be used to determine final disposition of this waste.

The project now includes a revised Feasibility Evaluation rather than the earlier proposed Feasibility Study. EPA approved the D1 Record of Decision May 12 and the state has faxed conditional approval. DOE is expected to sign the ROD in July.

If full-scale remediation is undertaken, the remediation will be funded by EM-40 (the office of the Deputy Assistant Secretary for Environmental Restoration), which funds the remainder of Paducah's Environmental Restoration and Waste Management program.

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

WAG 1 consists of a fire training area, the plant sewage treatment facility and a known trichloroethylene spill site inside the PGDP security fence. WAG 7 consists of five underground storage tanks at the plant water treatment facility, and an inactive sanitary landfill outside the

security fence. Three SWMUs are connected with the former Kentucky Ordnance Works (KOW) and are located on the DOE reservation. They are the KOW sewage treatment facility, a known Toluene spill site and a burn area.

The current proposed plan includes continued controlled access, groundwater monitoring and deed restrictions in the preferred alternative. The D1 post construction report was due to the EPA and KDWM June 15, but this date has been rescheduled until after the ROD is signed by the EPA. DOE-Real Estate has prepared a draft version of the C-746-K landfill deed restrictions and submitted it to the regulators for review June 15. EPA and KDWM will sign the ROD following the approval of the deed restriction language.

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 on Nov. 13, 1997, and regulatory comments have been received. Because significant changes were made following comment resolution meetings between DOE and the regulators, an extension has been requested for the June 6 due date for the D2 version because of significant regulator comments and changes during the regulator comment resolution meeting. DOE made an FFA-consistent request for an extension to the D2 deliverable date, with KDEP approval.

A certification meeting for the D2 RI/FS Work Plan is tentatively scheduled for June 25.

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 data from this investigation was used to prepare a WAG 6 Remedial Investigation Work Plan which focuses on contaminant distribution and movement. Treatability studies to get data necessary to remediate contaminants expected to be found during the investigation have been completed.

All of the borings for the remedial investigation have been completed and data is in the process of being validated. 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 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 field work 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.

At these locations, shallow soil borings will be 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 field work and the Site Evaluation are finished, and approval has been granted by KDEP. The Site Evaluation Report is scheduled for December 1998.

Waste Area Group 16 & 19/PCB sites

WAGs 16 & 19 are considered low-risk PCB sites. WAG 16 includes a PCB spill site, inactive PCBP 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 fo the field work addressed in the approved work plan. The Site Evaluation Report is currently scheduled for FY 99.

Waste Area Group 22/Burial grounds

This project includes the investigation of burial grounds in the northwest corner of the plant (SWMUs 7 & 30) and in the west-central portion of the plant (SWMU 2). 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, the KDEP prefers excavation of the burial ground as the only acceptable alternative addressed in the D1 Feasibility Study.

The scope of this project for Fiscal Year 1998 is to prepare the SWMU 2 D1/D2 Feasibility Study, D0/D1 Proposed Plan and the D0 Record of Decision. EPA comments on the D1 FS were received May 13. With the D2 FS due back to agencies by July 12, draft comment responses have been issued to the agencies. Finalization of the Proposed Plan and the ROD are forecast for Fiscal Year 1999.

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.

The project scope also includes the D0/D1 Proposed Plan and the D0 Record of Decision. Finalization of the Proposed Plan and ROD is forecasted for Fiscal Year 99. SWMU 7 & 30 waste pit sampling is scheduled for late June and early July.

Waste Area Group 23/Polychlorinated Biphenyls (PCBs) Spill Sites

The DOE recently finished excavation of approximately 175 cubic yards of contaminated soil at several PCB sites. 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.

This action was performed with an Engineering Evaluation/Cost Analysis Summary for the cleanup and an Action Memorandum. This process allows for the non-time critical removal action to be completed with DOE approval. DOE plans to issue a position paper for final action to the state and EPA. The final disposition of the soil will be determined at a later date, consistent with applicable laws and regulations.

A continuing issue is the disagreement between the Commonwealth and DOE on the PCB clean-up level.

Waste Area Group 27/Potential trichloroethylene sources

Field work remains on schedule for the WAG 27 project. With drilling scheduled to be completed June 24, demobilization is gearing up. The last environmental samples are scheduled to be collected on June 24 as well, but waste samples are expected to be generated throughout demobilization, until late July. 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 began in February 1998, with an approved work plan outlining more than 100 soil borings to be taken, more than 20 of which require deep drilling.

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.

Vortec Vitrification Project

Argonne National Laboratory is in the process of reviewing comments following a public review of DOE's Environmental Assessment (EA) of the potential impacts from construction and operation of the Vortec Corporation Cyclone Melting System technology at PGDP. The incorporation of those comments into the final EA is due to DOE headquarters at the end of June.

With the draft assessment, DOE evaluated the potential environmental impacts of the system for treating low-level radioactive, Resource Conservation and Recovery Act (RCRA) hazardous and Polychlorinated Biphenyls (PCB) mixed (radioactive, PCB and RCRA-hazardous) waste — primarily contaminated soils — currently stored at PGDP. The Vortec system would use a glass-making technology known as vitrification to melt wastes into a solid product that will meet the land disposal requirements of RCRA. This process destroys organics, such as PCBs, and produces a glass which will bind any metallic or radioactive compounds.

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.

Argonne National Laboratory (ANL), which conducted a site visit in August 1997, prepared the EA. DOE chose ANL because ANL had no prior knowledge of the Vortec system or Paducah's waste management program. DOE's original plan for release the EA for public review the week of Feb. 23 was preempted because of extensive internal review. The EA was done to comply with the requirements of the National Environmental Policy Act (NEPA) of 1969.

DOE NEWS

MEDIA CONTACT:
Jeannie Brandstetter, 441-5105

FOR IMMEDIATE RELEASE
June 16, 1998

DOE ADVISORY BOARD HOSTING MONTHLY MEETING

The U.S. Department of Energy's Site Specific Advisory Board (SSAB) for the Paducah Gaseous Diffusion Plant will meet at 5 p.m. Thursday, June 18 in the Van Buren Room at the Executive Inn Convention Center.

Agenda items include presentations regarding ongoing remediation projects at the Paducah Gaseous Diffusion Plant.

The SSAB meets monthly to discuss and develop recommendations on high-level policy issues, including cleanup strategies, technology development, and long-term waste management issues. Board meetings are open to the public.

For more information, please contact Myrna Redfield at 441-6815.

—30—

Suit against uranium plant gets go-ahead from judge

By JAMES MALONE
The Courier-Journal

PADUCAH, Ky. — A federal judge has cleared the way for what could become a huge lawsuit against the Paducah Gaseous Diffusion Plant.

The plaintiffs are three neighbors of the plant who want the case to be certified as a class action. That would let people who live within a 10-square-mile area around the plant, which is west of Paducah, join in the lawsuit.

The suit, filed in U.S. District Court in January 1997, alleges that toxic pollutants from the plant had damaged their property and endangered their health. They also allege that they were misled and lied to about the extent of the contamination.

The defendants — Union Carbide Corp., which used to operate the plant, and two subsidiaries of Lockheed Martin, one that produces nuclear-reactor fuel for the government and one that managed the environmental cleanup around the plant until last month — claimed that the plaintiffs had waited too long to sue.

But Judge Joseph McKinley disagreed and refused to dismiss claims for injury to real estate and personal property, emotional distress, increased health risks and medical monitoring.

McKinley did rule that the plaintiffs could claim livestock damage only in the year before filing the suit, and personal property damage only for two years before filing.

"We're very pleased," said Ron Simon, a lawyer from Washington, D.C., who has handled a number of nuclear-pollution cases at Fernald

See JUDGE
Page 3, col. 1, this section

Judge lets suit against Paducah uranium plant proceed

Continued from Page B 1

and Piketon, Ohio, and at Hanford, Wash., and Rocky Flats, Colo.

McKinley's ruling clears the way for both sides to begin collecting and exchanging evidence, a process that could be lengthy because of wrangling over access to classified or proprietary information.

"There are problems with what they told people in this particular case," Simon said of the defendants. "The judge quoted various documents where they misled people. . . .

The plant has released lots of material into the environment and kept it secret. They actively and knowingly and consciously misled people about it."

Simon said he did not know when the class-action issue would be taken up. But said those questions are often addressed early.

Susan Zimmerman, a spokeswoman for Lockheed Martin, said the company does not comment on litigation. But Lockheed Martin and the U.S. Department of Energy, which owns the plant, have said in recent years that it is safe and that dis-

charges are far below the quantity that would justify concern over health.

The government is spending about \$30 million a year to clean up pollution around the plant, which over four decades has released thousands of tons of contaminants into the air, soil and water, federal reports say.

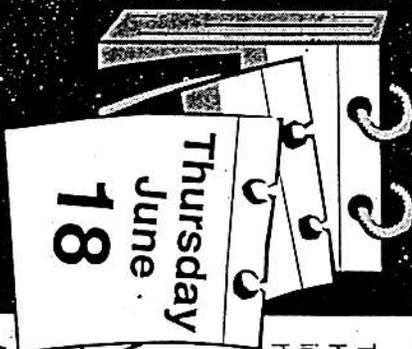
Lockheed Martin Utility Services operates the plant for the quasi-public United State Enrichment Corp. It produces and markets fuel for commercial nuclear reactors worldwide. It provides about 1,800 jobs, many of them high-paying.

The plaintiffs' original complaint alleged that the government has identified at least 204 contaminated areas, many of which have polluted ground water, soil and creeks.

Ground water contaminated with solvents and radioactive material has migrated more than two miles beyond the plant's boundary and "air emissions have resulted in human exposure," the suit alleges.

It seeks unspecified damages, punitive damages and medical monitoring, and it asks that pollution be removed from the defendants' property.

Mark Your Calendar...



Public Notice of Removal Actions at the Former Kentucky Ordnance Works

The U.S. Army Corps of Engineers is currently investigating potential contamination at the former Kentucky Ordnance Works where TNT was produced during World War II. During this investigation, three areas were identified for immediate removal actions due to possible risks to human health and the environment. The removal actions scheduled for this summer include:

- **TNT Manufacturing Area.** Exposed chunks of TNT and open sump pits present a safety hazard. This area will be fenced.
- **Six Pond Area.** Six ponds at the former facility have fish containing mercury above U.S. Food and Drug Administration limits for consumption. These fish will be removed so they cannot be caught and eaten.
- **Sulfur Storage Area.** Rainwater in this area is producing acidic surface runoff and creating other environmental sites. The contaminated soil will be removed and disposed of in an approved landfill.

Administrative Record Established

The Corps of Engineers announces the availability of the Administrative Record leading to this decision. The Administrative Record is located at the Paducah Public Library, 555 Washington Street, Paducah, Kentucky. Phone (502) 442-2510 for hours and directions.

Comment Period and Open House Announced

Comments regarding the proposed removal actions should be submitted by July 7, 1998 to the address below. A public information session about these actions will be presented in an open house on Thursday, June 18, 1998 4:00 to 7:00 p.m. at the Wildlife Management Area Clubhouse, 10535 Ogden Landing Road, Kevil, Kentucky. Representatives from the Kentucky Department of Environmental Protection, Kentucky Department of Fish and Wildlife Resources, Corps of Engineers, contractors, and other regional agencies will be available to answer questions.

For more information or to comment contact Mr. Mark Ringenberg, Project Engineer, U.S. Army Engineer District, Louisville, Attention: CEURL-ED-ER, P.O. Box 59, Louisville, KY 40201-0059. Phone (502) 582-6393.

For an Information Session (4-7 p.m.)

Wildlife Management Area Clubhouse Kevil, Kentucky



U.S. Army Corps
of Engineers
Louisville District

CI 98 000616

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601



10 00 20 13

April 2, 1998

Mr. Jimmie Hodges, Site Manager
U.S. Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

Mr. Jimmy C. Massey
Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

Re: Feasibility Study for Final Action at the SWMU 2 of WAG 22 at the PGDP, Paducah
Kentucky, (DOE/OR/06-1636&D1), November 1997.
KY8-890-008-982 - McCracken County

Gentlemen:

The Division of Waste Management (Division) has reviewed the Feasibility Study for the Uranium Burial Grounds (SWMU 2), dated November 1997. The Division finds that the FS does not appropriately address the magnitude and potential long-term effects that the estimated 200 tons of buried radioactive and chemical waste could have on human health and the environment.

The buried waste at SWMU 2, 90 percent of which is beneath the water table, is currently contributing contamination allowing potentially completed pathways of exposure for both current and future receptors, human and ecological. The deteriorating drums of uranium, TCE, and other waste will rupture over time, and will continue to serve as a source of additional contamination for hundreds, if not thousands of years.

The DOE's efforts to quantify the residual risk of the wastes that would be left in place are woefully inadequate. The DOE has particularly failed to consider the mobility of the wastes that would remain. Of the four potential remedial alternatives proposed by the DOE, only the one involving excavation, treatment, and disposal of the waste would both reduce the risk to *de minimis* levels and remove the waste that could continue future threats of reintroducing excess contamination.

Based on the available information the Division cannot concur with any alternative other than excavation, treatment and proper disposal of the wastes at SWMU 2. The DOE must begin to implement the needed steps that will result in the excavation and removal of the wastes. The attached comments should be addressed in accordance with Section XX.G.2 of the FFA, please provide the Division with the responses within 30 days of the receipt of this and the EPA's letter. If you have any questions please contact Tuss Taylor at 502 564-4797.

Sincerely,



Robert H. Daniell, Director
Division of Waste Management

cc: Carl Froede, Jr., U.S. EPA, Region IV
John Morgan
Lyle V. A. Sendlein, KWRI
Robert Sleeman, DOE/OR
John Volpe, CHS
Margie Williams, DWM -Paducah

NW Plume Operations and Maintenance Cost Information
Presented to the SSAB
June 18, 1998
Debora R. Jolly, Task Lead

The following table summarizes the operating costs for the Northwest Plume Interim Remedial Action for the first three years. These costs include all expenses associated with the project including operations and maintenance of the C-612 Northwest Plume Groundwater System, required regulatory reporting, preparation of required documents (such as the 5 Year Review of the Record of Decision), groundwater plume modeling, project management, and financial tracking. Since startup in late August 1995, costs have continued to decline, with a total decrease of over \$900K. Experience with the system, reduced sampling and analysis, streamlining of operations and maintenance activities, and reduced documentation and reporting have contributed to cost reductions.

The costs for the first and second year are as reported in the First and Second Annual Reports for the Northwest Plume Interim Remedial Action. The costs for the current year include actual costs through April 1998 and estimated costs for May through August 1998.

Operating Year	Total Cost ¹	Decrease from Previous Year's Cost
First Year September, 1995 through August, 1996	\$2,606,434	NA
Second Year September, 1996 through August, 1997	\$1,915,354	\$691,080
Third Year September, 1997 through August, 1998 (Note: Costs for May through August are estimated.)	\$1,628,403	\$286,951

¹ Costs for the first and second year of operations as reported in the first and second annual reports for the Northwest Plume operations. Costs for the third year as reported in the Federal Facilities Agreement Quarterly Progress Reports and estimates prepared for DOE.

SSAB PROJECT UPDATE - WAG 6 REMEDIAL INVESTIGATION/TREATABILITY STUDIES
June 12, 1998

WAG 6 Solid Waste Management Units

- Trichloroethylene leak site (SWMU 11)
- C-400 to C-404 underground transfer line (SWMU 26)
- C-403 Neutralization Pit (SWMU 40)
- Technetium storage tank area (SWMU 47)
- C-400 waste discard sump (SWMU 203)

Project Background

The remedial investigation concerns the area around the C-400 Cleaning/Degreasing Building which is centrally located at PGDP and used TCE as a cleaning solvent for a number of years until its use was discontinued in June, 1993. The C-400 TCE leak site(SWMU 11) is a major source of TCE in the groundwater and soil. Previous investigations such as the Industrial Hydrogeologic Study focused on utility piping and building foundations in the C-400 Building area to determine how these man-made structures influence groundwater infiltration and flow. The WAG 6 Remedial Investigation is evaluating five Solid Waste Management Units in the area to determine their impact on the soil and groundwater contamination in the vicinity of the C-400 Building. The major contaminants expected in the investigation are Trichlorethylene(TCE) and Technetium 99. Treatability studies are being performed to determine potential impact on removing TCE and Technetium 99 from the subsurface.

Project Scope

- Develop remedial investigation work plan
- Develop treatability study program plan and treatability study work plans for Surfactant/Cosolvent Flushing, In Situ Chemical Oxidation and Vapor Extraction/Groundwater Extraction
- Implement remedial investigation
- Implement treatability study work plans
- Develop D0 and D1 remedial investigation reports
- Develop treatability study reports
- Develop feasibility study of potential remedial alternatives under the Groundwater Operable Unit Project

Remedial Investigation Activities

- 214 soil borings installed
- 18 temporary piezometers and 3 groundwater monitoring wells installed
- 7605 feet drilled
- Baseline risk assessment being developed

Remedial Investigation Field Data Summary/Project Activities

- Maximum TCE in groundwater detected - 701,184 ppb
- Maximum TCE in soil detected - 11,055,000 ppb
- Maximum Technetium in groundwater detected - 17,000 pCi/L
- Main TCE contaminant areas - Southeast corner of C-400 near SWMU 11 and adjacent TCE unloading pumps and an area adjacent to southwest corner of building.
- Highest groundwater concentrations of Technetium 99 located north of C-400 Building
- No major contamination detected in shallow soils immediately beneath the C-400 Building
- Remedial Investigation Report and Risk Assessment currently being drafted
- Treatability Studies for Insitu Chemical Oxidation and Surfactant/Cosolvent Flushing being performed
- Vapor Extraction/Groundwater Extraction field test canceled due to budgetary constraints

SSAB PROJECT UPDATE - WAG 6 REMEDIAL INVESTIGATION/TREATABILITY STUDIES
June 12, 1998

Project Schedule

- Submitted RI/FS work plan to USEPA/Kentucky, August, 1996
- Submitted revised RI/FS work plan to USEPA/Kentucky, January, 1997
- USEPA/Kentucky approved RI/FS work plan, April, 1997
- Remedial investigation field work implemented June, 1997 to January, 1998
- Begin implementing treatability studies, April, 1998
- Submit D1 Remedial Investigation report to USEPA/Kentucky, July, 1998
- Submit D1 Feasibility Study Report to USEPA/Kentucky, December, 1999 (Groundwater Operable Unit)

WAG 22
SWMU 2 (C-749 URANIUM BURIAL GROUND)

FINDINGS TO DATE:

- Uranium is the primary component of waste. PCBs were not found in the waste collected. Uranium metal found in the waste is depleted (i.e., the proportion of ^{238}U versus ^{234}U and ^{235}U).
- Buried wastes at SWMU 2 are substantially saturated.
- Uranium activity in the waste is high (U^{238} , 10,159 pCi/g), but low in the RGA soil (U^{238} , 1.2 pCi/g).
- Contaminants found in the RGA below SWMU 2 include various inorganic chemicals, TCE and its degradation products, and radionuclides. The most significant RGA contaminant below the unit is TCE.
- Conservative modeling results: Except for TCE migration of contaminants from waste cells and soil will not result in contributed contaminant concentrations in the RGA at either the plant boundary or security fence that exceed PRGs over the time period modeled.
- Modeling did show TCE migration from waste may result in contributed concentrations that exceed human health risk-based and regulatory PRGs (i.e., 100 yrs.).
- RESRAD - Industry Standard - over 10,000 yrs. modeled, shows no movement from source to RGA
- Local drainage to the shallow groundwater system at SWMU 2 is to a ditch to the south of the unit. Environmental data indicates that very little contaminant migration is occurring within this system.
- Vertical contaminant transport in the UCRS does occur.
- Modeling indicates that the concentration of contaminants transported from soil sources currently at SWMU 2 and then laterally to exposure points at the security fence and plant boundary will not exceed human health or ecological PRGs during the time period modeled.
- Migration of contaminants to surrounding water bodies through the facility drainage system is not occurring. Modeling indicates that very little migration (i.e., migration posing unacceptable risk to human health or the environment) through this pathway is likely to occur in the future.

ISSUES:

- KDEP has stated that excavation of the burial ground is the only acceptable alternative addressed in the D1 Feasibility Study. Excavation alternative preliminary cost estimates range from approximately \$40M to over \$80M.
- Work safety and environmental medium protection (i.e., air release) related to the excavation of Pyrophoric Uranium.

WAG 22
SWMU 2 (C-749 URANIUM BURIAL GROUND)

Appx. 3/4 acre; Operation: 1951 - 1977; Purpose: Uranium (U) & U-contaminated waste disposal; Waste placement: 270 tons U & 450 gal. TCE; Concern: Waste is pyrophoric U metal shop turning, shaving, & sawdust.

HISTORICAL EVENTS:

Phase I & II Site Investigation: (1988 - 1992): Purpose: Identify potentially SWMUs.

Remedial Investigation Addendum: (1991 - 1994): Purpose: Summarize the Phase I & II Site Investigation concerning SWMUs 2, 7, & 30 activities. During the development of this document additional data were noted as being needed to support the development of an Interim Remedial Action as well as a final remedial action.

Feasibility Study Proposed Plan, & Record Of Decision For Interim Remedial Action SWMU 2: (1994 - 1995): Purpose: Summarize the Phases I & II Site Investigation and Remedial Investigation Addendum activities related to SWMU 2, develop Remedial Action objectives and choose a preferred IRA. The FS addressed data inadequacies and uncertainties as needed to develop and choose the appropriate IRA.

SWMU 2 Sampling & Analysis Plan For Interim Remedial Action Design: (1995 - 1996):
Purpose: Gather Data.

SWMU 2 - Data Summary & Interpretation Report: (1996 - 1997): Purpose: To document recent data collected at SWMU 2 and interpret this information in relation to the goals and objectives of the actions proposed in Record of Decision for Interim Remedial Action at SWMU 2, (DOE 1995a) (SWMU 2 ROD).

RECENT EVENTS:

D1 Feasibility Study issued to Regulatory Agencies for review (11/97): Purposed 4 remedial alternatives - 1. No action (Continued groundwater monitoring and institutional controls), 2. In-situ containment of wastes utilizing a cap and subsurface barriers, 3. In-situ containment of wastes using low-pressure grout injection with a cap, & 4. Excavation of wastes and soils from the unit.

D1 Feasibility Study Regulatory Agencies comments received (5/98):

Draft Comment Responses issued to the Regulatory Agencies for review (6/98):

FUTURE EVENTS:

D1 Feasibility Study issue to Regulatory Agencies for review (8/98):

D1 Proposed Plan issue to Regulatory Agencies for review (9/98): Purpose to identify the preferred remedial alternative to be used at the unit.

D2 Proposed Plan issue for public review (11/98):

D1 Record Of Decision issue to Regulatory Agencies for review (2/99): Purpose: To identify implementation activities and requirements of the preferred remedial alternative.

Quote for Dennis Hill

<u>Compaq 6333x/3200</u>	\$1664.00
Pentium II Processor 333MHZ	
512K Secondary Cache	
ATI Rage Pro Video	
3.2 Gig HD	
ESS 1869 Sound Board	
10/100 TX PCI UTP Controller	
Mouse	
Keyboard	
Windows95	
Microsoft Office 97	\$399.00
Corel Wordperfect Suite	\$335.00
US Robotics 56K Modem	\$179.00
Total:	\$2577.00

FURNITURE FOR SSAB OFFICE
(FREE FROM M-K FERGUSON AND DOE)

1 DESK
1 FOLDING TABLE
1 FILING CABINET
1 METAL BOOKCASE
3 STATIONARY CHAIRS
2 ROLLING DESK CHAIRS
1 PRINTER STAND

OFFICE SUPPLIES (ALREADY PURCHASED)

2 FILING CABINETS
PHONE WITH ANSWERING MACHINE
EASEL WITH DRY-ERASE BOARD
BOOKSHELF — 60 INCHES, 3 SHELVES

PHONE SERVICE; INTERNET SERVICE (TO BE ARRANGED BY
SHELLEY)

TAKE POSSESSION ANY TIME (SUGGEST JULY 1)

SHELLEY WILL GET KEYS, HAVE DUPLICATES MADE AND TAKE
CARE OF DISTRIBUTION TO BOARD MEMBERS

TWO KEYS WILL BE PROVIDED TO THE OFFICE FREE-OF-
CHARGE; HOWEVER, IT WILL COST A LOCKSMITH \$25 TO
COME OUT TO THE INFORMATION AGE PARK PLUS \$5 PER
KEY TO GET EACH MEMBER A KEY TO THE OFFICE. THE
TOTAL COST FOR EACH MEMBER TO HAVE A KEY WOULD
BE APPROXIMATELY \$85.

RENT BEING PAID FOR SIX MONTHS IN ADVANCE ON PURCHASE
ORDER

