# PADUCAH GASEOUS DIFFUSION PLANT
# SITE SPECIFIC ADVISORY BOARD

*Chartered under the Federal Advisory Committee Act*


***CO-CHAIRS***

Mark Donham
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mdonham@igc.org

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1131 Hamburg Road
Kevil, Kentucky 42053
jonesvw@ornl.gov

***BOARD MEMBERS***

Nola Courtney
14299 Wickliffe Road
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David Fuller
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Eddie Gray II
241 Reid Circle
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Rev. W.G. Harvey, Sr.
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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:** February 9, 1998

**SUBJECT:** **MEETING REMINDER**

The next SSAB meeting will be February 19, 1998, at 5:00 p.m. in the McKinley Room at the Executive Inn. The following is the tentative agenda and action items:

**Tentative agenda for the February 19, 1998, meeting:**

Administrative Plans for the Board - 5:00 p.m. - 6:30 p.m.
- Office Location
- Administrative Support
- Meeting Schedule
- Agenda Time Frames
- Policy on Presentations
- Activity between meetings
- Board Evaluation

Adjourn to attend PEIS for Depleted Uranium 7:00 p.m. - 8:00 p.m.
Minutes
Information (Handouts)
EMEF Project Updates
OCAW Health Study (Canceled)
Review of the SSAB Draft Work Plan
WAG 6
WAG 22 (If regulatory comments have been received)
Vortec EA (If available)

**Action Items**

Provide SSAB members with Feasibility Study Summary for Solid Waste Management Unit (SWMU) 2 of WAG 22 - COMPLETE

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# PLEASE SIGN IN

## Paducah Gaseous Diffusion Plant
## Site Specific Advisory Board

| NAME | AFFILIATION |
|---|---|
| Linda Lang | SSAB |
| Craig Rhodes | SSAB |
| Steve Kay | Facilitator |
| E. N. Daft | SSAB |
| K D Brandstetter | EnSafe |
| [illegible] | SSAB |
| Shelley Hawkins | Jacobs/EIC |
| Patricia Barnhill | Jacobs |
| DON J. WILKES | JACOBS ENGINEERING |
| Bill Tanner | SSAB |
| Vicki Jones | SSAB |
| JACK STICKNEY | UK-AIP-FFOU |
| Wayne Davis | KDFWR |
| Jon Maybriar | UK-AIP-FFOU |
| Julie Watts | BU/ATSDR |
| CAROL CONNELL | ATSDR |
| Myrna E. Redfield | DOE |
| Norman Liletta | Vortec |
| [illegible] | SSAB |
| Ronald Lamb | SSAB |
| Mark Donham | SSAB |
| [illegible] | SSAB |
| [illegible] | LMES |

February 19, 1998

**MEMORANDUM**
**SITE SPECIFIC ADVISORY BOARD**

**TO:** Distribution

**FROM:** Mark Donham
Vicki Jones

**DATE:** March 3, 1998

**SUBJECT:** **FEBRUARY 19, 1998, MEETING MINUTES**

Attached are the subject meeting minutes. The next meeting will be held March 19, 1998, in the Van Buren Room at the Executive Inn, at 5:00 p.m. Please review and provide comments or changes at the March meeting.

SSAB Distribution List
Nola Courtney
Mark Donham
Edward Duff
David Fuller
Eddie Gray II
W. G. Harvey, Sr.
Vicki Jones
Ronald Lamb
Lynn Lane
Linda Long
Ray McLennan
Craig Rhodes
Connie J. Sykes
Bill Tanner
Gregory Waldrop

Ex Officio Distribution List
Wayne Davis
Carl Froede, Jr.
Jimmie C. Hodges
Tuss Taylor
John A. Volpe

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# SITE SPECIFIC ADVISORY BOARD

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Meeting Minutes

February 19, 1998

DRAFT

The February 19, 1998, Site Specific Advisory Board (SSAB) meeting took place in the McKinley Room at the Executive Inn at 5:00 p.m.

The following board members were present: Nola Courtney, Mark Donham, Edward Duff, Vicki Jones, Ronald Lamb, Lynn Lane, Linda Long, Ray McLennan, Craig Rhodes, and Bill Tanner. Ex Officio members present were: Wayne Davis and Jimmie Hodges. Facilitator Present: Steve Kay. Also present were: Patricia Barnhill, Jeannie Brandstetter, Carol Connell, Teresa Fields, Shelley Hawkins, Dennis Hill, Norman Jetta, Jon Maybriar, Jack Stickney, Myrna Redfield, Julie Watts, and Don Wilkes.

Steve Kay called the meeting to order and explained that the first 1 - 1½ hours would be spent in discussing Administrative Plans. Steve asked if there were any modifications for the agenda. Craig Rhodes stated that he would like to discuss adding a future agenda item. The agenda was approved by consensus.

Craig Rhodes proposed adding a recommendation on the next Environmental Report to the agenda for April. It was approved by consensus.

Administrative plans were the first item on the agenda. Steve Kay stated that these items were discussed at the January informal meeting. Bill Tanner stated that he had sent a summary of the information he had obtained on office locations and Administrative Support to the board. Bill discussed the four alternatives with an office at Jacobs being the most expensive and the least expensive the Katterjohn Building. Bill stated that all the alternatives except for the Jacobs office would require that the board obtain (purchase or rent) furniture, computer equipment, etc. Bill stated that Gregory Waldrop was in Oak Ridge, Tennessee attending a meeting and he had called stating that he felt the advantages of using Alternative 1 (the Jacobs Office with Jacobs support) much outweighed any negative impacts. Jimmie Hodges stated that since the last meeting the Department of Energy (DOE) has been working on the contract changes due to the changes in the Bechtel/Jacobs Management and Integration (M&I) contract. Jacobs Engineering Group will become a subcontractor to Bechtel/Jacobs. Jimmie stated that the board needs to decide what it wants to do so that DOE can work out the details on how that can be done. Mark Donham asked about the details on the Jacobs proposal. Bill Tanner explained what facilities would be available. Shelley Hawkins distributed a floorplan of the Jacobs building showing what parts of the building would be available to the board. Mark stated that he felt that the Jacobs building was inconvenient being located out in Kevil. Bill stated that he felt that what was convenient for one might be inconvenient for another. Bill felt that of the four alternatives that the Jacobs alternative was the best choice.

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Craig Rhodes stated that he felt that the board's purpose was to disseminate information to the public and in his opinion that the greatest amount of dissemination would occur where the greatest part of the population is. Craig stated he felt that the Jacobs alternative did not best fit the mandates of the board. Bill questioned how much the general public would use this office. Bill felt that the best place to receive comments would be at the meetings. Bill also felt that his idea of having meetings home and away would provide the public with an opportunity to express comments. Craig stated that he felt that a central location would best meet the mandates of the board. Ray McLennan stated that the SSAB is the best kept secret in McCracken County. Joe Walker of the Paducah Sun does not know who the SSAB is. Ray stated that he felt that by moving to the Jacobs building the board would be more aligned to DOE, Jacobs, etc. Bill stated that Jacobs had also given a proposal using Jacobs personnel at the Information Age Park. Mark Donham stated that the first charter of the board is to make recommendations on cleanup. Mark stated that the board has made recommendations but that DOE is not responding to them. Mark stated that the board is doing their part and DOE is not. Steve Kay asked how this issue related to the office discussion. Mark stated that his concern was that the SSAB would be viewed as another sub-agency of DOE, a rubber stamp. Mark stated that the reason these boards were set up was because citizens across the whole DOE complex fought really hard to get information from DOE. Ronnie Lamb stated that he was not for the Jacobs alternative. Steve Kay asked for proposals. Bill Tanner proposed that the board go for Alternative 1 (Office at the Kevil Environmental Information Center [EIC] Building with Jacobs personnel manning the office) for 6 months to 1 year. Edward Duff proposed that an amendment be made to Bill's proposal that the proposal be tabled for a couple of meetings. Steve Kay asked if that could be held to see if it was possible to reach an agreement on a proposal. Edward agreed. Ray McLennan opposed Alternative 1. Ray then made a proposal to approve Alternative No. 2 (Office at the Information Age Park with Jacobs personnel manning the office). The proposal was approved by consensus. Ray McLennan and Bill Tanner will be responsible for making the arrangements for the office, determining what furniture is needed, and work on guidelines for the Jacobs personnel for the administrative support, duties, etc.

The next item on the agenda was the meeting schedule. Steve asked if the board wanted to continue meeting at 5:00 p.m. to discuss administrative issues then continue on with regular business. It was agreed to continue with the meeting schedule as it is. Vicki suggested that after discussing agenda time frames that the board might find that they do not need 1½ hours for the Administrative Issues.

The next item on the agenda was the agenda time frames. The suggestion was made at the last meeting that each agenda item be allowed 15 minutes for the presentation and 15 minutes for questions for a total of 30 minutes. The proposal was made that agenda items be allowed 15 minutes for presentations and 15 minutes for questions. The proposal was approved by consensus.

Jimmie Hodges stated that perhaps there should be an agenda item for responses from DOE to recommendations from the board. Jimmie asked if the board preferred oral or written responses. Steve Kay proposed that DOE responses to recommendations become a standing verbal 15 minute presentation. The board could request written responses if wanted. The proposal was approved by consensus.

The next item on the agenda was activity between meetings. This item was something that Steve Kay wanted on the agenda. Steve's concern was that items of concern for the board should be brought before the board at the regular meeting. Craig Rhodes asked exactly what Steve was concerned about. Steve stated that he was concerned about the e-mails that raise issues that are

pertinent to the board that then get circulated to some people and some people do not get them. Steve stated that he felt that it was more efficient to have those issues brought before the board at the board meeting. Ray McLennan stated that e-mail was used to determine who was going to the meeting in Oak Ridge. Ray felt that this was one positive way that e-mail was used. Steve stated that he was not talking about necessary administrative functions but substantive issues that concern the relationship between this board and DOE. Mark Donham stated that whenever he sends out e-mails that have to do with board business he sends it to everybody that he has e-mail addresses for on the board, Carlos Alvarado, Jimmie Hodges, Vicki Jones, William Perry at Oak Ridge, Martha Crossland and sometimes to Fred Butterfield in Washington. Mark stated that he made 2 conference calls on behalf of the board totaling more than $40.00 and had still not been reimbursed for them. Mark also stated that he had turned in his paperwork 1-2 months before for reimbursement and had still not been reimbursed. Mark also stated that he had used his own money for mailings that he had not been reimbursed for and he was not going to spend any more of his money until DOE gets some sort of a system for reimbursement that he can count on. Mark stated that he felt that a person has a right to communicate with DOE or whoever they want to between meetings. Mark asked about the statement that was made at the last meeting that said "the tone of any communications be subject to the same guidelines we follow at our meetings, some basic civility." Steve stated that he had made the statement and was referring to some personal accusations that were contained in those e-mails. Steve felt that they were impugning the integrity of some of the people at who they were aimed. Mark asked which ones he was talking about. Steve said he would bring them to the next meeting. Steve stated that he believed that the board had agreed to guidelines to operate by which include a basic civility and it is part of his job to help the board operate in that way. Steve brought that issue up because he felt that the intent and language of these e-mails was undermining the functioning of the board. Mark stated that he wanted to go on record that he always communicates with basic civility. Mark stated that he says what he thinks but he says it in a way where he doesn't curse and that he hopes that Steve isn't making a judgement about some of the e-mails he sent. Mark stated he would be willing to get the e-mails out and go through every word he said. Steve stated that his job is to be neutral but in this instance he has a dog in the fight. Steve stated that he wanted to be very careful and to make sure that the board was comfortable with this discussion. Craig Rhodes stated that he felt that Steve was opening up a can of worms. Craig stated that there is no way to control outside communications, civil or otherwise. Steve stated there is no limitation on what the board members can do as individuals. Steve said he saw something that he felt was interfering with the board functioning and that he felt he should bring it forward. Steve also stated that if the board preferred to put a lid on this can a worms then he would do so. Steve said he felt that it was possible for this board to conduct its own business in a way that does not prove to be offensive to any of its members. Steve proposed that they look at the e-mails to see if these phrases were considered uncivil. Nola Courtney stated that she did not feel comfortable going over these e-mails at length. Nola felt that she was not sure what the board would accomplish by going over all of these e-mails. Steve made the suggestion that he and Mark have a private conversation to the discuss the e-mails and the matter would be dropped.

Board evaluation was the next item on the agenda. Vicki Jones stated that at the November meeting she provided Mark with a copy for his review and comment and was awaiting his comments. Mark felt that the list he had made with all of the recommendations that the board had made should be added to the report. Mark stated that he would provide Vicki with his final comments and they would have something to hand out at the next meeting. Vicki stated that the Paducah report is modeled after the Oak Ridge report. Jimmie Hodges asked if the board had received copies of the results on the survey that was sent out last year. The board members had not received

any recent survey results. Jeannie Brandstetter stated that copies of the results would be provided to the board.

Mark asked again about his reimbursement for the 2 conference calls. Jimmie Hodges stated that the problem lies with the mechanism on how DOE does that. This is the first one and DOE is working on the process. Mark stated that he had waited 5 months to get his Travel reimbursement but that Nola and Vicki had theirs in 2 weeks. Mark stated maybe he had bad luck or something. Jimmie stated that it is the contracting mechanism. DOE is working on it. Jimmie stated that Travel is easier to be reimbursed.

The next item on the agenda was the approval of the minutes. Steve asked for approval of the November 20, 1997, and January 15, informal meeting minutes. The minutes were approved by consensus.

An information/handouts update was the next item on the agenda. Jeannie Brandstetter stated that she had attached 3 Public Notices to the Environmental Management and Enrichment Facilities (EMEF) Project Updates.

The EMEF Project Updates were the next thing on the agenda. Mark stated that the report on the bursting barrel incident is available to the public. Mark had received it through the Freedom of Information Act.

The next item on the agenda was the Oil, Chemical, & Atomic Workers (OCAW) Former Worker's Health Study. Jimmie stated that the person who was to do the presentation is not ready at this point and time to release that information. There will probably be a Phase 2. The Oak Ridge and Portsmouth meetings have been scheduled. DOE has proposed that the meeting be held on March 19, the same night as the March SSAB meeting. The board stated that they preferred that it not be held on the same night. Jimmie stated that DOE would work with the board to find a different date.

The SSAB Draft Workplan was the next item on the agenda. Vicki stated that the Bechtel/Jacobs M&I contractor should have a presentation in March. This had been proposed at the January meeting. Waste Area Grouping (WAG) 27 will be on the EMEF updates with a discussion next month on whether to put it on the work plan. Jack Stickney stated that an update on field activities would be a good idea. Mark stated that he felt it would be a good idea to get some information on the National Environmental Policy Act (NEPA) from DOE's Oak Ridge NEPA Officer, Patty Phillips. NEPA information will be on the June agenda.

The next item on the agenda was the WAG 6 update. The updates were handed out to the board. There were no comments.

Dennis Hill stated that the finished Community Relations Plan was available on the table in the back with the Comment Response.

The regulatory comments had not been received on WAG 22 so it will be scheduled for March.

The Vortec Environmental Assessment (EA) was the next item on the agenda. Jimmie Hodges stated that the EA is not final. It is still being reviewed by DOE Legal. Jimmie stated that it is supposed to be complete in 2 weeks. Jimmie also stated that once DOE has the EA, DOE will mail

it out to the board members. Mark asked how long the comment period is. Jimmie stated that it is 15 days. Mark stated if it came out on February 23, the comment period would be over before the next meeting. Mark also stated that he thought that DOE's NEPA regulations required an EA have a 30 day comment period. Jimmie stated that he was told that DOE's regulations require a 15 day comment period. Jimmie suggested to Mark that when he received the EA that if he wanted to request an extension that he do it at that time.

The next meeting will be held March 19, 1998, in the Van Buren Room at the Executive Inn. The meeting was adjourned.

**Tentative agenda for the March 19, 1998, meeting:**

Administrative Plans for the Board - 5:00 p.m. - 6:00 p.m.

- Office Location (10 minutes)
- Administrative Support (10 minutes)
- Board Evaluation (10 minutes)
- Review of the SSAB Draft Work Plan (10 minutes)

Minutes
Information (Handouts)
EMEF Project Updates
DOE Response to SSAB Recommendations (15 minutes)
Decontamination and Decommissioning (D&D) (30 minutes)
Cost Effectiveness (30 minutes)
Site Treatment Plan (STP) Annual Report (30 minutes)
Bechtel/Jacobs Management and Integration (M&I) Presentation (30 minutes)
Report on Prioritization Meeting from Gregory Waldrop (30 minutes)
WAG 22 (If regulatory comments have been received) (30 minutes)
Vortec EA (if available) (30 minutes)

**Action Items**

DOE will mail the SSAB the Vortec EA when released.
Jeannie Brandstetter will provide the SSAB with copies of the results from the survey that was sent out last year.

**MEMORANDUM**
**SITE SPECIFIC ADVISORY BOARD**

**TO:** Mrs. Jo Tilley Dortch

**FROM:** Vicki Jones

**DATE:** February 12, 1998

**SUBJECT:** **FEBRUARY 19, 1998, SITE SPECIFIC ADVISORY BOARD (SSAB) MEETING**

Per our conversation at the Public Workshop, you are being sent this information about the next SSAB meeting. As you can see, 5:00 p.m. - 6:30 p.m. will be administrative, so you might want to wait to arrive around 6:30 p.m. to get a feel for a normal meeting.

Please call me at (502) 441-5058 if you have any questions.

Attachment

# PADUCAH GASEOUS DIFFUSION PLANT
# SITE SPECIFIC ADVISORY BOARD

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## MEMORANDUM
## SITE SPECIFIC ADVISORY BOARD

**TO:** SSAB Members
Ex Officio Members

**FROM:** Mark Donham
Vicki Jones

**DATE:** February 9, 1998

**SUBJECT:** **MEETING REMINDER**

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- Office Location
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Minutes
Information (Handouts)
EMEF Project Updates
OCAW Health Study (Canceled)
Review of the SSAB Draft Work Plan
WAG 6
WAG 22 (If regulatory comments have been received)
Vortec EA (If available)

**Action Items**

Provide SSAB members with Feasibility Study Summary for Solid Waste Management Unit (SWMU) 2 of WAG 22 - COMPLETE

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**PADUCAH GASEOUS DIFFUSION PLANT SITE SPECIFIC ADVISORY BOARD**
**U.S. DEPARTMENT OF ENERGY**
**ENVIRONMENTAL MANAGEMENT & ENRICHMENT FACILITIES**
**PROJECT UPDATES**
**FEBRUARY 19, 1998**

### Northwest Plume Interim Remedial Action Pilot Plant

More than 240.5 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.

### 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 86.7 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.

Phase IIA installation was completed in August 1996 and the process was operational through Feb. 26, 1997, with post-demonstration sampling completed the week of March 3, 1997. DOE EM-50 granted the Lasagna consortium another extension of the Phase IIA project, allowing it to operate through August 1997. The DOE now plans to propose its preferred remedial measures for SWMU 91, which is advancement into Phase IIB, full-scale remediation.

The project now includes a revised Feasibility Evaluation rather than the earlier proposed Feasibility Study. The proposed public comment period for the Proposed Remedial Action Plan is Feb. 23 — April 8, 1998. The following are scheduled around those dates:

Feb. 22 — Public notice of availability in Paducah Sun
March 24 — public meeting (if requested by March 16)
March 24 — public hearing administered by the state (if requested by March 16)
March 22— cancellation notice in Paducah Sun if no meeting and/or hearing is requested.

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. Warning signs were installed around the landfill on Oct. 15, 1997. DOE signature of the Record of Decision is expected in late April 1998, with EPA and KDWM expected to sign the ROD in June 1998.

**Waste Area Group 3/burial grounds**
WAG 3 is composed of three burial grounds within the PGDP security fence. The FY 97 scope of this project include the development of a work plan scoping document and work plan. The draft scoping document was submitted to the regulators on March 27, 1997. The D2 Remedial Investigation/Work Plan was issued to regulatory agencies on Nov. 13, 1997.

The state agency has exercised its option for a seven-day extension to comment on the document, making pushing the date from Feb. 13, 1998 to Feb. 20, 1998.

**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. 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 & 11 are composed of seven below ground liquid containment vessels.
The scope of work for this project includes development of an SAP, field sampling and development of a Site Evaluation Report. Historical analytical data was transmitted electronically to the Kentucky Division for Waste Management, and the data assessment report completed and delivered to DOE and KDEP.

**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. DOE has been advised by the Kentucky Division of Waste Management that it will issue a letter requiring the DOE to excavate the buried wastes at SWMU 2.

The development of a Feasibility Study is ongoing at SWMUs 7 & 30 (the C-747-A Uranium Burial Ground and C-747-A Burn Area). This report is dur to be issued to the regulatory agencies on March 30, 1998. The Feasibility Study for SWMUs 2 & 3 was issued to the Regulatory Agencies on Nov. 26, 1997. Regulatory comments were due Feb. 28, 1998, but EPA requested a 30-day extension. Comments are now due March 30, 1998.

The Remedial Investigation Project report was issued to regulatory agencies Jan. 30, 1998 and scheduled for approval by March 2, 1998. However, the agencies have requested and been granted a seven-day extension, making approval due on March 9, 1998.

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

Past use of PCBs and subsequent accidental spills and leaks of oils that contain PCBs caused surface soil contamination at several Solid Waste Management Units inside the PGDP security fence. The DOE recently sought public comment on an Engineering Evaluation/Cost Analysis Summary (EE/CA Summary) for the cleanup of PCB sites. The summary describes the Non-Time-Critical Removal Action that DOE is carrying out — the excavation and temporary on-site storage of the contaminated soil.

Following incorporation of public comments, DOE issued an Action Memorandum for the selected action on Sept. 8, 1997. The Action Memo was transmitted to EPA for their information, but will not be signed by the agency. DOE signed the Action Memo on Sept. 12, 1997. The focus of this removal action is the elimination of risk to workers from contact with soil. The final disposition of the soil would 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**
WAG 27 consists of potential or known sources of TCE on the west side of the Paducah Gaseous Diffusion Plant. A second draft Remedial Investigation/Feasibility Study Work Plan was submitted to regulatory agencies in June.

Field work is expected to begin in February 1998.

**Vortec Vitrification Project**
DOE is currently conducting an Environmental Assessment (EA) before continuing construction on the project. Argonne National Laboratory (ANL), which conducted a site visit in August, is preparing the EA. DOE chose ANL because DOE believes they will produce an unbiased document. ANL has no knowledge of the Vortec system or Paducah's waste management program. DOE plans to release the EA for public review the week of Feb. 23.

**THIS AD RAN IN THE SUNDAY, FEB. 15 ISSUE OF THE PADUCAH SUN (CLASSIFIEDS)**

PUBLIC NOTICE
Intent to Modify Existing Hazardous Waste Management Facility Permit

Issued to the U.S. Department of Energy, Lockheed Martin Energy Systems, Inc., Paducah Gaseous Diffusion Plant

The Kentucky Natural Resources and Environmental Protection Cabinet proposes to modify the existing hazardous waste storage and treatment permit issues to the United States Department of Energy (DOE) Paducah Gaseous Diffusion Plant (PGDP) located at 5600 Hobbs Road, Paducah, Ky. DOE currently operates the PGDP hazardous waste storage and treatment facility under a 10-year operating permit issued by the cabinet on Aug. 19, 1991.

The proposed permit modification address removing Lockheed Martin Energy Systems, Inc. from the permit and adding Bechtel Jacobs Company L.L.C. as a co-operator with DOE. Anyone wishing to comment on the permit modification should submit comments on or before March 31, 1998. The cabinet will consider all comments received by the close of the public comment period in making a final decision.

Public hearings have been tentatively scheduled to address the permit modification and a Proposed Remedial Action Plan for Solid Waste Management Unit (SWMU) 91, provided that the cabinet receives at least one request for a public hearing by March 16. The hearings will follow a DOE public meeting to discuss the Proposed Plan for SWMU 91 tentatively scheduled for 7 p.m. March 24 at the Paducah Public Library, 555 Washington St. (A public notice for the SWMU 91 Proposed Plan will run in the Feb. 22 Paducah Sun.) Hearing requests should state the issues to be raised. If neither is requested, a notice of cancellation will appear in the Sunday, March 22, 1998 Paducah Sun newspaper.

If a hearing is requested, the cabinet will designate a presiding officer to conduct the hearing in an orderly manner. Individuals are encouraged to present oral or written statements and data concerning the preliminary decision. Reasonable limits may be set on the time allowed for oral statements.

Any person who may be aggrieved by the issuance of a permit modification for this hazardous waste storage and treatment facility may file with the cabinet a petition, which sets forth the grounds of the objections and demands a formal hearing pursuant to KRS 224.10-420(2). This type of hearing is held before a hearing officer and all parties are advised to have legal counsel present.

The draft permit modification and related information are available for review during regular hours at the Paducah Public Library and from 7:30 a.m.-4:30 p.m. Monday-Friday in DOE's Environmental Information Center, 175 Freedom Blvd., Kevil, Ky.

The cabinet does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in the provision of services. Upon request, the cabinet provides reasonable accommodations including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities. To request appropriate accommodations for a public hearing (such as an interpreter) or alternative formats for printed information, contact Terry kyle at 502-564-6716.

Comments on this proposed modification and requests for a public hearing should be sent to Robert H. Daniell, Division of Waste Management, 14 Reilly Road, Frankfort, Ky., 40601, 502-564-6716.

This advertisement ran in the Feb. 15, 16 & 17 editions of The Paducah Sun

*The U.S. Department of Energy*

*invites you to a*

# PUBLIC WORKSHOP

to discuss the newly released
"Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride"

**Thursday, Feb. 19, 1998**
**5-9 p.m., with a Plenary session at 7 p.m.**
**Eisenhower Room**
**Executive Inn Convention Center**
**One Executive Blvd.**
**Paducah, Ky.**

The meeting will provide citizens with an opportunity to submit comments orally or in writing. The 120-day comment period extends through April 23, 1998.

The document is available for review at the Environmental Information Center in the West Kentucky Technology Park, 175 Freedom Blvd., Kevil, Ky., 502-462-2550

This advertisement will run in the Sunday, Feb. 22 Paducah Sun newspaper

# PUBLIC NOTICE

**AVAILABLE FOR PUBLIC COMMENT**

**Proposed Remedial Action Plan and Statement of Basis for**
**Solid Waste Management Unit 91 at the Paducah Gaseous Diffusion Plant**

The U.S. Department of Energy and the Kentucky Natural Resources and Environmental Protection Cabinet are seeking public comments on a Proposed Remedial Action Plan for Solid Waste Management Unit 91 (the former Cylinder Drop Test Area) at the Paducah Gaseous Diffusion Plant (PGDP) in west McCracken County.

Investigation of the unit revealed trichloroethylene (TCE) contamination in the shallow soil and groundwater. The Proposed Plan describes DOE's preferred remedial option for preventing off-site ground water from exceeding allowable limits. The remedy is a form of in-situ remediation (treating the soil in place) known as the Lasagna™ process, which uses buried electrodes to move water through contaminated soil. The water moves contaminants from the soil as the water passes through treatment zones. This technology has been tested at PGDP and has proven effective at treating TCE-contaminated soil with minimal risk to workers and the environment.

The Proposed Plan complies with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as the Federal Superfund Law, and Resource Conservation and Recovery Act (RCRA), and complies with federal and state hazardous waste management laws and regulations. The plan, jointly issued with the Commonwealth of Kentucky, will also serve as a Statement of Basis for modifying the facility's Hazardous Waste Permit to include this action.

A 45-day public comment period on the Proposed Plan has been set for Feb. 23 through April 8, 1998. Following the comment period, DOE will prepare a Record of Decision (ROD) for the selected remedial action. The Proposed Remedial Action Plan is available at these locations:

**U.S. Department of Energy**
**Environmental Information Center**
**175 Freedom Blvd.**
**Kevil, Ky. 42053**
**502-462-2550**
**7:30 a.m.-4:30 p.m. weekdays**
**or by appointment**

**Paducah Public Library**
**555 Washington St.**
**Paducah, Ky. 42001**
**502-442-2510**
**9 a.m.-9 p.m. M-Th**
**9 a.m.-6 p.m. Fri-Sat**
**1-6 p.m. Sunday**

**Kentucky Div. of Waste Management**
**14 Reilly Road**
**Frankfort, Ky. 40601**
**502-564-6716, ext. 247**
**8:30 - 4 M-F by appointment only**

A public meeting will be conducted by the Department of Energy at 7 p.m. March 24 1998 at the Paducah Public Library, 555 Washington St., if requested in writing no later than March 16, 1998. A public hearing will be administered by the Kentucky Division of Waste Management immediately following the public meeting if requested in writing by March 16, 1998. A hearing is a formal gathering during which public comments are officially recorded by a hearing officer, to be designated by the Cabinet.

Meeting and hearing requests should state the issues to be raised. If neither is requested, a notice of cancellation will appear in the Sunday, March 22, 1998 Paducah Sun newspaper. Comments on the Proposed Plan and requests for a public meeting can be submitted to Dennis Hill, Lockheed Martin Energy Systems Inc., 761 Veterans Ave., Kevil, Ky., 42053. Comments on the Statement of Basis and requests for a public hearing can be submitted to Robert H. Daniell, Kentucky Division of Waste Management, 14 Reilly Road, Frankfort, Ky., 40601. The cabinet secretary will consider all comments received by the close of the public comment period in making a final decision. If the final decision is substantially changed, the cabinet will issue a public notice indicating the revised decision.

The meeting facility is accessible to persons with disabilities. If an interpreter or other auxiliary aid is needed, contact Terry Kyle at 502-564-6716.

February 18, 1998

## SSAB PROJECT UPDATE - WAG 6 REMEDIAL INVESTIGATION

### 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 C-400 TCE leak site is a major source of TCE in the groundwater and soil. Previous investigations such as the Industrial Hydrogeologic Study focused on utility piping, 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.

### 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 report
- Develop feasibility study report

### Remedial Investigation Activities

- 214 soil borings installed
- 18 temporary piezometers and 3 groundwater monitoring wells installed
- 7605 feet drilled
- Baseline risk assessment to be performed

### Remedial Investigation Field Data Summary

- 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 area - Southeast corner of C-400 near SWMU 11 and TCE pumps
- No contaminants detected in shallow soils beneath C-400 Building

### Project Activities/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, 1998

WILLIAM A. TANNER
6072 ROSEBUD ROAD
METROPOLIS, IL 62960
(618) 524-4039

# MEMORANDUM

TO: SSAB Members

FROM: Bill Tanner

RE: Administrative Support and Office

DATE: February 14, 1998

The following is a comparison and summary of possibilities for administrative support and administrative office for the SSAB:

***Administrative Support:***
All inquiries were based on the following assumptions:

- Work required - estimated at 40 hours per month.
- Job duties: Attend meeting, prepare minutes, coordinate agenda, deliver meeting packets to SSAB and others, prepare PSA's and news releases, develop media contact, arrange travel for members, arrange travel and lodging for board guests, coordinate payment of invoices with DOE, provide additional information and documents as requested by SSAB members, develop or oversee development of displays for meetings or "open house" type events.

Two possible solutions were explored:

- The first is to utilize Shelby Hawkins with Jacobs. Shelby manages the Environmental Information Center at Kevil, and has been involved with the SSAB since day one.
- The second is for the board to hire an individual through an employment agency. Use of an employment agency would eliminate the numerous problems associated with direct employment (taxes, FICA, unemployment insurance, etc.)

***Administrative Office:***
All inquiries were based on the following assumptions:
(This guideline was based on Oak Ridge SSAB having an office for administrative support, not an office, per sey, for SSAB members.)

- Office space is primarily for administrative support.
- Office size is approximately 500 square feet.
- Night accessibility.
- Janitorial support.
- Meeting space once per month.

Four locations were investigated:

- **EIC at Kevil** - includes a complete office, with furniture, computer, office equipment and a large meeting room with equipment. The lobby could be keyed to allow night access for members, including computer. EIC also has a complete library for data access and allows maximum accessibility to resources. Utilities, except phone, and janitorial are included.
- **Information Age Park** - Six hundred square feet includes utilities, except phone, janitorial, common kitchen, and meeting room. The price would be $10 to $13 per square foot for an annual lease. Using $12, the cost would be $7,800 per year. We would have night access and a security system.
- **Ritz Hotel** - Four hundred square feet office on the ground floor that rents for $450 per month, for a one year lease of $5,400. This includes utilities, except phone. We would negotiate janitorial cost with maintenance personnel. I could not get information on this cost, but for comparison, used $50 per month, or $600 per year. There is night accessibility, but no meeting space.
- **Katterjohn Building** - First floor, five hundred square foot office, with the rent at $8.50 per square foot, for a one year lease at $4,250. This includes utilities, except phone. Janitorial with maintenance personnel estimated the same as the Ritz, $600 per year. There is night accessibility, but no meeting space.

Using the above criteria, the following alternatives were developed:

| Alternative | Description | Cost |
|---|---|---|
| 1 | Jacobs with office at the Kevil EIC | $16,000 |
| 2 | Jacobs with office at the Info. Age Park | $14,100 |
| 3 | Employment Agency with office at the Ritz | $11,280 |
| 4 | Employment Agency with office at the Katterjohn Bldg. | $10,130 |

These costs include personnel, office lease, janitorial. Phone, office furniture, and office supplies are not included in the above estimate. Alternatives 2,3 and 4 would require purchasing a complete line of office furniture.

# ENVIRONMENTAL INFORMATION CENTER/JACOBS ENGINEERING

## A Department of Energy Environmental Information Center

The Environmental Information Center (EIC) provides access to over 2,000 Administrative Record and Information Repository documents and environmental restoration newspaper articles and fact sheets. Copy machines are also available for use.

The EIC contains a lobby which can be locked off from the rest of the building and used as office space for the SSAB. A computer and laser jet printer are available for use by the board.

## B Jacobs Small Conference Room

The small conference room contains a conference table and can hold up to 20 people. There are white boards and an overhead projector available for use by the SSAB.

## C Jacobs Large Conference Room

The large conference room contains conference tables and can hold up to 50 people. There is also a white board, overhead projector, and podium available for use by the SSAB.

The SSAB would also be able to participate in conference calls from both conference rooms. A breakroom with a coffee maker, microwave, and refrigerator is also available for use by the board.

## JACOBS EM TEAM SUPPORT OF THE SITE SPECIFIC ADVISORY BOARD

If the Jacobs Environmental Management (EM) Team were tasked by the Department of Energy (DOE) to provide support to the Site Specific Advisory Board (SSAB), the members of the SSAB would retain the right to spend the board's allocated funds at the discretion of the SSAB members.

A task manager from the Jacobs EM Team would be assigned to execute the requirements or responsibilities set forth by the SSAB and the DOE. The task manager would be allowed to delegate particular tasks to qualified disciplines on the Jacobs EM Team in order to meet the requirements of the task. These disciplines would be provided to the SSAB on an "as-needed" basis, so as not to exceed the hours forecasted during each month.

The Jacobs EM Team would be able to provide office equipment to the SSAB. Since the Jacobs EM Team already has this equipment, most things needed by the board would be available at no cost. The following is a list of available equipment and an explanation of costs:

| Available Equipment | Description of Terms |
|---|---|
| Copy Machine | SSAB must pay for paper and toner used |
| Computer | SSAB must pay for upgrades (if needed) and Internet access |
| Laser Jet Printer | SSAB must pay for paper and toner used |
| Conference Rooms | Available upon reservation |
| Overhead Projectors | Available upon reservation |
| Telephone | SSAB must pay for phone line ($26 per month) and long distance |
| Fax Machine | SSAB must pay for long distance |
| Office Furniture | Available furniture would be offered as needed; however, any new furniture would come from SSAB funds |

In the cost plan, the task manager (information systems specialist) is allocated several more hours than will be charged per month. Excess hours will be transferred to "other direct costs" and travel. These funds can be carried over from month to month and used as they are needed.

With the transfer of funds to the "other direct costs" and travel considered, the estimated annual cost per hours for the Jacobs EM Team support of the SSAB would be approximately $16,072. This number is estimated on the assumption that all disciples would use all of their forecasted hours per month.

## DISCIPLINES AND BIOGRAPHIES OF JACOBS EM TEAM MEMBERS ASSIGNED TO THE SSAB TASK

### COMPUTER INFORMATION SYSTEMS

Will work on task two hours per month for a total of 24 hours per year*

**Brian Purcell** — Born and raised in Ballard County, Kentucky. Currently working on a bachelor's degree in computer science at Murray State University.

### CLERICAL

Will work on task eight hours per month for a total of 96 hours per year*

**Linda Callander** — Has lived in Paducah since 1987. Spent three years working in the field of psychology. Has worked at the Paducah Gaseous Diffusion Plant for four years.

**Sherry Shoulta** — Born and raised in Paducah. Attended the West Kentucky Vocational School in the administrative assistant program. Graduated from Lone Oak High School and was a member of a Christian community group (Co-Ed Y).

**Suzanne Underwood** — Has lived in Paducah since 1986. Active member of Immanuel Baptist Church in Paducah. Attended the University of Tennessee for undergraduate work in business. Son graduated from Heath High School and currently is attending Paducah Community College.

### ADMINISTRATION

Will work on task one hour every other month for a total of six hours per year*

**Patricia Barnhill (Deputy Site Manager)** — Will serve as team leader of the project. Born and raised in Grant County, Kentucky. Attended college in Kentucky. Her husband is retired from a 38-year career in Calvert City, Kentucky. Active member of Providence Church in Ballard County.

**Chris Browning** — Born and raised in Marion, Kentucky. Has received a bachelor's degree in public relations from Murray State University and is pursuing a master's degree in communications with an area in public relations from Murray. Assistant coach to the little-league team in Marion. Member of the Democratic Committee in Marion.

**Judy Jackson (Technical Editing Support)** — Has lived in the West McCracken County community for 40 years. Taught English at Heath High School for 28 years. Has a master's degree in English from Murray State University. She and family are active members of New Liberty United Methodist Church. Husband has been active in community affairs including the McCracken County Board of Education, the Lion's Club, and the Lakeland Wesley Village Board.

**Ava Siener (Quality Assurance Support)** — Born and raised in Wickliffe, Kentucky. Has a bachelor's degree in independent studies from Murray State University. Family owned and operated four weekly newspapers in West Kentucky (Ballard, Livingston, Hickman, and McCracken Counties) for 48 years. Resides in Reidland and is an active member of St. Francis deSales Church.

* Projected levels of support (charges will be made on an "as-needed" basis)

### DOCUMENT CONTROLS

Will work on task one hour every fourth month for a total of three hours per year*

**Shirley Speer (Document Control Coordinator)** — Has lived in Paducah since 1983. Currently pursuing a bachelor's degree in organizational communications at Murray State University. Has an associate degree in business management from Paducah Community College. Has previous involvement with the school system in McCracken County. Three children have gone through the McCracken County school system.

### FEASIBILITY STUDY ENGINEER

Will work on task one hour every third month for a total of four hours per year, as required by the SSAB*

**Bruce Ford** — Born and raised in southern Illinois; has lived in Marshall County since 1993. Received a bachelor's degree in engineering from the University of Missouri-Rolla. Has worked in the environmental field for ten years, six of those years for the State of Illinois, including the Illinois Environmental Protection Agency. Has served on one workgroup and one committee for the United States Environmental Protection Agency. Has coached juvenile soccer teams in Calvert City. Attends church in Calvert City. Has two children who attend Sharpe Elementary and North Marshall Middle schools. Serving a second annual term on Sharpe Elementary's Site-Based Decision Making Council. Currently serving as Sharpe Elementary's Parent-Teacher Organization (PTO) president for the 1997-1998 school year.

**Steve Miller** — Born and raised in southern Illinois; has lived in Paducah since 1994. Received a bachelor's degree in engineering from the University of Missouri-Rolla. Worked as an environmental engineer for nine years, six years as an Illinois Environmental Protection Agency regulator and three years at Jacobs Engineering.

### GRAPHICS

Will work on task two hours per month for a total of 24 hours per year*

**Daryl Tabor** — Born and raised in Marion, Kentucky. Has an associate degree from Paducah Community College in liberal arts. Currently pursuing a bachelor's degree in business management from Murray State University. Coached the little-league team in Marion. Father has owned and operated a service station in Marion for over 20 years. Was involved in community-related clubs at Marion High School.

### INFORMATION SYSTEMS SPECIALIST

Will work on task approximately 40 to 50 hours per month. Remaining hours which appear in the cost plan for this discipline will be used for "other direct costs" and travel.

**Shelley Hawkins (Environmental Information Center Coordinator)** — Will serve as task manager of the project. Born and raised in Paducah, Kentucky. Has received a bachelor's degree in print journalism from Murray State University and is pursuing a master's degree in communications with an area in public relations from Murray. Graduate of Reidland High School. Family has owned and operated English's Sewing Machines in Reidland for over 40 years. Active member of Reidland United Methodist Church. Assists husband with self-defense seminars for the Rape Crisis Center and other women's organizations.

* Projected levels of support (charges will be made on an "as-needed" basis)

## PROJECT CONTROLS SPECIALIST

Will work on task two hours per month with a total of 24 hours per year*

**David Everly** — Will supply support from the home office in Oak Ridge, Tennessee, for cost tracking and reporting. This is the only team member on this task who does not permanently live in this region, although he spends one to two weeks per month in Paducah supporting the local Jacobs office, which generates considerable support for the local economy. Has received a bachelor's degree in liberal arts from the University of Michigan.

* Projected levels of support (charges will be made on an "as-needed" basis)

12/12/97

**Informal Memo**

Re: Contracting for Paducah SSAB Office Space and Clerical Support

To: Mr. Bill Tanner, SSAB
Mr. Ray McClennan, SSAB
Mr. Gregory Waldrop, SSAB

From: Carlos Alvarado, US Dept.of Energy CA

Gentlemen, the purpose of this memo is to let you know that I have been working on the contracting mechanism for the SSAB to get an office, equipment and clerical support. Based on my discussions with DOE contracts personnel is seems the easiest way to do this is for you all to go out and find what you want in the way of office space, clerical support and office equipment. Then, put together a listing of the costs in the form of an invoice to DOE (Jimmie Hodges) from the SSAB on your letter head. DOE would then direct Jacobs to cut a check to the Paducah SSAB for the amount in the invoice. I recognize some bills will run monthly and so each month the board would submit an invoice to DOE for the amount of these expenses and DOE would direct Jacobs to cut a check to the SSAB for these monthly expenses. If you decide to go with this type of setup then the SSAB would have to establish a checking account and have someone responsible for paying the bills each month. By going this route, the board would be free to find and use any space, equipment and support personnel it so desired and DOE would keep a file of invoices to document the use of the funds and the SSAB would have canceled checks and statements to show the funds were used as invoiced. Jacobs **might** charge a **very small fee** to account for the funds, and to do the paperwork to cut a check each month but I haven't found out just how much that would be. I know that some folks on the board don't want anything to do with a contractor, but the fact is I would rather have a professional accountant looking over my shoulder to make sure all the money is accounted for, than to have a mistake and have no backup and have to explain it myself. Additionally, our office has a 4 million dollar per year contract with Jacobs and they answer directly to me at Paducah with regards to that contract. So they are very responsive on most issues when I need them to be. If we went outside Jacobs and DOE finance people were cutting the check each month, they do not answer directly to me and they live in Oak Ridge 300 miles away. If there were problems or delays there would not be to much I could do about it from Paducah. Regardless, if this plan does not work for you we can develop and discuss others and I will work with you to find a way to work this out. Please consider this my first proposal on this activity. I look forward to a response from you in the near future.

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## Hawkins, Shelley

**From:** Hawkins, Shelley
**To:** 'Donham, Mark'
**Cc:** Barnhill, Patricia; 'Jones, Vicki'
**Subject:** SSAB Office Space
**Date:** Monday, February 02, 1998 10:39AM

I thought E-mail might be a good way to reach you since I'm not sure of your schedule.

Patricia Barnhill, my supervisor, asked me to reach you before the next meeting to extend an offer for you and any other members you would like to come see the office and meeting room facilities at Jacobs and the Environmental Information Center. You have seen most of the Information Center; however, we would like for you and other members to have a chance to see the meeting rooms and equipment which would be available for use by the SSAB.

Among the members who have seen the facilities are Vicki Jones and Bill Tanner.

Please give me a call at 462-2550 and we would be happy to meet with you.

Thanks,
Shelley Hawkins

**COMMENT RESPONSE SUMMARY**
**Community Relations Plan**

| Reviewer: SSAB | | | |
|---|---|---|---|
| 1 | General | If DOE proposes an action that affects a particular group of citizens, then that group of citizens should be notified specifically. | Statement inserted after 3rd sentence of last paragraph on page 6-1. |
| 2 | Page 2-4, Sec 2.2<br>Page 2-5, Table 2.1 | The SSAB questions the plan's date given for the discovery of groundwater contamination (8/88). | No documentation can be found to support a different date, therefore, the 8/88 date will remain. |
| 3 | Page 6-4, Sec 6.2.2 | DOE should place ads or articles in media around the region giving an address and phone number where citizens can get on the mailing list to receive notices about the cleanup at the plant. | Efforts for adding new members to the mailing list are provided in Section 6.2.2. Added a sentence within the text which tells readers who to contact to be included on the list. DOE will continue to provide citizens with the opportunity to join the mailing list. The SSAB can be instrumental in supporting this effort. |
| 4 | General | DOE should appoint a full time public affairs officer at Paducah. | This comment addresses a programmatic issue that is not within the scope of the CRP. Although LMES maintains responsibility for running the local site office, a DOE Public Affairs Officer in Oakridge oversees activities of public affairs in Paducah.<br><br>This issue will be brought to the attention of DOE officials at Oak Ridge. |
| 5 | General | The CRP should indicate the methodology used to do the community interviews and to make them statistically accurate in representing the community point of view.<br><br>When the CRP is updated next year, the community interviews should be done in a scientifically accepted methodology to accurately reflect the community's attitude toward the cleanup. | Interviews are not required to be statistically accurate, but rather are required to gather insight from stakeholders and other randomly sampled individuals on general opinions of the community.<br><br>CRP updates are not required on an annual basis. However, next time the interviews are conducted, DOE will consider conducting a survey using scientifically accepted methodology. |

February 18, 1998

**SSAB PROJECT UPDATE - WAG 6 REMEDIAL INVESTIGATION**

**WAG 6 Solid Waste Management Units**

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# PADUCAH GASEOUS DIFFUSION PLANT
# SITE SPECIFIC ADVISORY BOARD

*Chartered under the Federal Advisory Committee Act*


***CO-CHAIRS***

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Meeting Minutes

February 19, 1998

The February 19, 1998, Site Specific Advisory Board (SSAB) meeting took place in the McKinley Room at the Executive Inn at 5:00 p.m.

The following board members were present: Nola Courtney, Mark Donham, Edward Duff, Vicki Jones, Ronald Lamb, Lynn Lane, Linda Long, Ray McLennan, Craig Rhodes, and Bill Tanner. Ex Officio members present were: Wayne Davis and Jimmie Hodges. Facilitator Present: Steve Kay. Also present were: Patricia Barnhill, Jeannie Brandstetter, Carol Connell, Teresa Fields, Shelley Hawkins, Dennis Hill, Norman Jetta, Jon Maybriar, Jack Stickney, Myrna Redfield, Julie Watts, and Don Wilkes.

Steve Kay called the meeting to order and explained that the first 1 - 1½ hours would be spent in discussing Administrative Plans. Steve asked if there were any modifications for the agenda. Craig Rhodes stated that he would like to discuss adding a future agenda item. The agenda was approved by consensus.

Craig Rhodes proposed adding a recommendation on the next Environmental Report to the agenda for April. It was approved by consensus.

Administrative plans were the first item on the agenda. Steve Kay stated that these items were discussed at the January informal meeting. Bill Tanner stated that he had sent a summary of the information he had obtained on office locations and Administrative Support to the board. Bill discussed the four alternatives with an office at Jacobs being the most expensive and the least expensive the Katterjohn Building. Bill stated that all the alternatives except for the Jacobs office would require that the board obtain (purchase or rent) furniture, computer equipment, etc. Bill stated that Gregory Waldrop was in Oak Ridge, Tennessee attending a meeting and he had called stating that he felt the advantages of using Alternative 1 (the Jacobs Office with Jacobs support) much outweighed any negative impacts. Jimmie Hodges made a statement regarding the proposals. Since the last meeting the Department of Energy (DOE) has been working on contract changes resulting from the award of the Bechtel/Jacobs Management and Integration (M&I) contract. Jacobs Engineering Group will become a subcontractor to Bechtel/Jacobs. Jimmie stated that the board needs to decide what it wants to do so that DOE can work out the details on how that can be done under the new contract arrangement. Mark Donham asked about the details on the Jacobs proposal. Bill Tanner explained what facilities would be available. Shelley Hawkins distributed a floorplan of the Jacobs building showing what parts of the building would be available to the board. Mark stated that he felt that the Jacobs building was inconvenient being located out in Kevil. Bill stated that he felt that what was convenient for one might be inconvenient for another. Bill felt that of the four alternatives that the Jacobs alternative was the best choice.

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Craig Rhodes stated that he felt that the board's purpose was to disseminate information to the public and in his opinion that the greatest amount of dissemination would occur where the greatest part of the population is. Craig stated he felt that the Jacobs alternative did not best fit the mandates of the board. Bill questioned how much the general public would use this office. Bill felt that the best place to receive comments would be at the meetings. Bill also felt that his idea of having meetings home and away would provide the public with an opportunity to express comments. Craig stated that he felt that a central location would best meet the mandates of the board. Ray McLennan stated that the SSAB is the best kept secret in McCracken County. Joe Walker of the Paducah Sun does not know who the SSAB is. Ray stated that he felt that by moving to the Jacobs building the board would be more aligned to DOE, Jacobs, etc. Bill stated that Jacobs had also given a proposal using Jacobs personnel at the Information Age Park. Mark Donham stated that the first charter of the board is to make recommendations on cleanup. Mark stated that the board has made recommendations but that DOE is not responding to them. Mark stated that the board is doing their part and DOE is not. Steve Kay asked how this issue related to the office discussion. Mark stated that his concern was that the SSAB would be viewed as another sub-agency of DOE, a rubber stamp. Mark stated that the reason these boards were set up was because citizens across the whole DOE complex fought really hard to get information from DOE. Ronnie Lamb stated that he was not for the Jacobs alternative. Steve Kay asked for proposals. Bill Tanner proposed that the board go for Alternative 1 (Office at the Kevil Environmental Information Center [EIC] Building with Jacobs personnel manning the office) for 6 months to 1 year. Edward Duff proposed that an amendment be made to Bill's proposal that the proposal be tabled for a couple of meetings. Steve Kay asked if that could be held to see if it was possible to reach an agreement on a proposal. Edward agreed. Ray McLennan opposed Alternative 1. Ray then made a proposal to approve Alternative No. 2 (Office at the Information Age Park with Jacobs personnel manning the office). The proposal was approved by consensus. Ray McLennan and Bill Tanner will be responsible for making the arrangements for the office, determining what furniture is needed, and work on guidelines for the Jacobs personnel for the administrative support, duties, etc.

The next item on the agenda was the meeting schedule. Steve asked if the board wanted to continue meeting at 5:00 p.m. to discuss administrative issues then continue on with regular business. It was agreed to continue with the meeting schedule as it is. Vicki suggested that after discussing agenda time frames that the board might find that they do not need 1½ hours for the Administrative Issues.

The next item on the agenda was the agenda time frames. The suggestion was made at the last meeting that each agenda item be allowed 15 minutes for the presentation and 15 minutes for questions for a total of 30 minutes. The proposal was made that agenda items be allowed 15 minutes for presentations and 15 minutes for questions. The proposal was approved by consensus.

Jimmie Hodges stated that perhaps there should be an agenda item for responses from DOE to recommendations from the board. Jimmie asked if the board preferred oral or written responses. Steve Kay proposed that DOE responses to recommendations become a standing verbal 15 minute presentation. The board could request written responses if wanted. The proposal was approved by consensus.

The next item on the agenda was activity between meetings. This item was something that Steve Kay wanted on the agenda. Steve's concern was that items of concern for the board should be brought before the board at the regular meeting. Craig Rhodes asked exactly what Steve was concerned about. Steve stated that he was concerned about the e-mails that raise issues that are

pertinent to the board that then get circulated to some people and some people do not get them. Steve stated that he felt that it was more efficient to have those issues brought before the board at the board meeting. Ray McLennan stated that e-mail was used to determine who was going to the meeting in Oak Ridge. Ray felt that this was one positive way that e-mail was used. Steve stated that he was not talking about necessary administrative functions but substantive issues that concern the relationship between this board and DOE. Mark Donham stated that whenever he sends out e-mails that have to do with board business he sends it to everybody that he has e-mail addresses for on the board, Carlos Alvarado, Jimmie Hodges, Vicki Jones, William Perry at Oak Ridge, Martha Crossland and sometimes to Fred Butterfield in Washington. Mark stated that he made 2 conference calls on behalf of the board totaling more than $40.00 and had still not been reimbursed for them. Mark also stated that he had turned in his paperwork 1-2 months before for reimbursement and had still not been reimbursed. Mark also stated that he had used his own money for mailings that he had not been reimbursed for and he was not going to spend any more of his money until DOE gets some sort of a system for reimbursement that he can count on. Mark stated that he felt that a person has a right to communicate with DOE or whoever they want to between meetings. Mark asked about the statement that was made at the last meeting that said "the tone of any communications be subject to the same guidelines we follow at our meetings, some basic civility." Steve stated that he had made the statement and was referring to some personal accusations that were contained in those e-mails. Steve felt that they were impugning the integrity of some of the people at who they were aimed. Mark asked which ones he was talking about. Steve said he would bring them to the next meeting. Steve stated that he believed that the board had agreed to guidelines to operate by which include a basic civility and it is part of his job to help the board operate in that way. Steve brought that issue up because he felt that the intent and language of these e-mails was undermining the functioning of the board. Mark stated that he wanted to go on record that he always communicates with basic civility. Mark stated that he says what he thinks but he says it in a way where he doesn't curse and that he hopes that Steve isn't making a judgement about some of the e-mails he sent. Mark stated he would be willing to get the e-mails out and go through every word he said. Steve stated that his job is to be neutral but in this instance he has a dog in the fight. Steve stated that he wanted to be very careful and to make sure that the board was comfortable with this discussion. Craig Rhodes stated that he felt that Steve was opening up a can of worms. Craig stated that there is no way to control outside communications, civil or otherwise. Steve stated there is no limitation on what the board members can do as individuals. Steve said he saw something that he felt was interfering with the board functioning and that he felt he should bring it forward. Steve also stated that if the board preferred to put a lid on this can a worms then he would do so. Steve said he felt that it was possible for this board to conduct its own business in a way that does not prove to be offensive to any of its members. Steve proposed that they look at the e-mails to see if these phrases were considered uncivil. Nola Courtney stated that she did not feel comfortable going over these e-mails at length. Nola felt that she was not sure what the board would accomplish by going over all of these e-mails. Steve made the suggestion that he and Mark have a private conversation to the discuss the e-mails and the matter would be dropped.

Board evaluation was the next item on the agenda. Vicki Jones stated that at the November meeting she provided Mark with a copy for his review and comment and was awaiting his comments. Mark felt that the list he had made with all of the recommendations that the board had made should be added to the report. Mark stated that he would provide Vicki with his final comments and they would have something to hand out at the next meeting. Vicki stated that the Paducah report is modeled after the Oak Ridge report. Jimmie Hodges asked if the board had received copies of the results on the survey that was sent out last year. The board members had not received

any recent survey results. Jeannie Brandstetter stated that copies of the results would be provided to the board.

Mark asked again about his reimbursement for the 2 conference calls. Jimmie Hodges stated that the problem lies with the mechanism on how DOE does that. This is the first one and DOE is working on the process. Mark stated that he had waited 5 months to get his Travel reimbursement but that Nola and Vicki had theirs in 2 weeks. Mark stated maybe he had bad luck or something. Jimmie stated that it is the contracting mechanism. DOE is working on it. Jimmie stated that Travel is easier to be reimbursed.

The next item on the agenda was the approval of the minutes. Steve asked for approval of the November 20, 1997, and January 15, informal meeting minutes. The minutes were approved by consensus.

An information/handouts update was the next item on the agenda. Jeannie Brandstetter stated that she had attached 3 Public Notices to the Environmental Management and Enrichment Facilities (EMEF) Project Updates.

The EMEF Project Updates were the next thing on the agenda. Mark stated that the report on the bursting barrel incident is available to the public. Mark had received it through the Freedom of Information Act.

The next item on the agenda was the Oil, Chemical, & Atomic Workers (OCAW) Former Worker's Health Study. Jimmie stated that the person who was to do the presentation is not ready at this point and time to release that information. There will probably be a Phase 2. The Oak Ridge and Portsmouth meetings have been scheduled. DOE has proposed that the meeting be held on March 19, the same night as the March SSAB meeting. The board stated that they preferred that it not be held on the same night. Jimmie stated that DOE would work with the board to find a different date.

The SSAB Draft Workplan was the next item on the agenda. Vicki stated that the Bechtel/Jacobs M&I contractor should have a presentation in March. This had been proposed at the January meeting. Waste Area Grouping (WAG) 27 will be on the EMEF updates with a discussion next month on whether to put it on the work plan. Jack Stickney stated that an update on field activities would be a good idea. Mark stated that he felt it would be a good idea to get some information on the National Environmental Policy Act (NEPA) from DOE's Oak Ridge NEPA Officer, Patty Phillips. NEPA information will be on the June agenda.

The next item on the agenda was the WAG 6 update. The updates were handed out to the board. There were no comments.

Dennis Hill stated that the finished Community Relations Plan was available on the table in the back with the Comment Response.

The regulatory comments had not been received on WAG 22 so it will be scheduled for March.

The Vortec Environmental Assessment (EA) was the next item on the agenda. Jimmie Hodges stated that the EA is not final. It is still being reviewed by DOE Legal. Jimmie stated that it is supposed to be complete in 2 weeks. Jimmie also stated that once DOE has the EA, DOE will mail

it out to the board members. Mark asked how long the comment period is. Jimmie stated that it is 15 days. Mark stated if it came out on February 23, the comment period would be over before the next meeting. Mark also stated that he thought that DOE's NEPA regulations required an EA have a 30 day comment period. Jimmie stated that he was told that DOE's regulations require a 15 day comment period. Jimmie suggested to Mark that when he received the EA that if he wanted to request an extension that he do it at that time.

The next meeting will be held March 19, 1998, in the Van Buren Room at the Executive Inn. The meeting was adjourned.

**Tentative agenda for the March 19, 1998, meeting:**

Administrative Plans for the Board - 5:00 p.m. - 6:00 p.m.
- Office Location (10 minutes)
- Administrative Support (10 minutes)
- Board Evaluation (10 minutes)
- Review of the SSAB Draft Work Plan (10 minutes)

Minutes
Information (Handouts)
EMEF Project Updates
DOE Response to SSAB Recommendations (15 minutes)
Decontamination and Decommissioning (D&D) (30 minutes)
Cost Effectiveness (30 minutes)
Site Treatment Plan (STP) Annual Report (30 minutes)
Bechtel/Jacobs Management and Integration (M&I) Presentation (30 minutes)
Report on Prioritization Meeting from Gregory Waldrop (30 minutes)
WAG 22 (If regulatory comments have been received) (30 minutes)
Vortec EA (if available) (30 minutes)

**Action Items**

DOE will mail the SSAB the Vortec EA when released.
Jeannie Brandstetter will provide the SSAB with copies of the results from the survey that was sent out last year.

**COMMENT RESPONSE SUMMARY**
**Community Relations Plan**

| Reviewer: SSAB | | | |
|---|---|---|---|
| 1 | General | If DOE proposes an action that affects a particular group of citizens, then that group of citizens should be notified specifically. | Statement inserted after 3rd sentence of last paragraph on page 6-1. |
| 2 | Page 2-4, Sec 2.2<br>Page 2-5, Table 2.1 | The SSAB questions the plan's date given for the discovery of groundwater contamination (8/88). | No documentation can be found to support a different date, therefore, the 8/88 date will remain. |
| 3 | Page 6-4, Sec 6.2.2 | DOE should place ads or articles in media around the region giving an address and phone number where citizens can get on the mailing list to receive notices about the cleanup at the plant. | Efforts for adding new members to the mailing list are provided in Section 6.2.2. Added a sentence within the text which tells readers who to contact to be included on the list. DOE will continue to provide citizens with the opportunity to join the mailing list. The SSAB can be instrumental in supporting this effort. |
| 4 | General | DOE should appoint a full time public affairs officer at Paducah. | This comment addresses a programmatic issue that is not within the scope of the CRP. Although LMES maintains responsibility for running the local site office, a DOE Public Affairs Officer in Oakridge oversees activities of public affairs in Paducah.<br><br>This issue will be brought to the attention of DOE officials at Oak Ridge. |
| 5 | General | The CRP should indicate the methodology used to do the community interviews and to make them statistically accurate in representing the community point of view.<br><br>When the CRP is updated next year, the community interviews should be done in a scientifically accepted methodology to accurately reflect the community's attitude toward the cleanup. | Interviews are not required to be statistically accurate, but rather are required to gather insight from stakeholders and other randomly sampled individuals on general opinions of the community.<br><br>CRP updates are not required on an annual basis. However, next time the interviews are conducted, DOE will consider conducting a survey using scientifically accepted methodology. |

KENTUCKY ENVIRONMENTAL

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# Oversight News

Newsletter of the Commonwealth's Environmental Oversight of the Paducah Gaseous Diffusion Plant

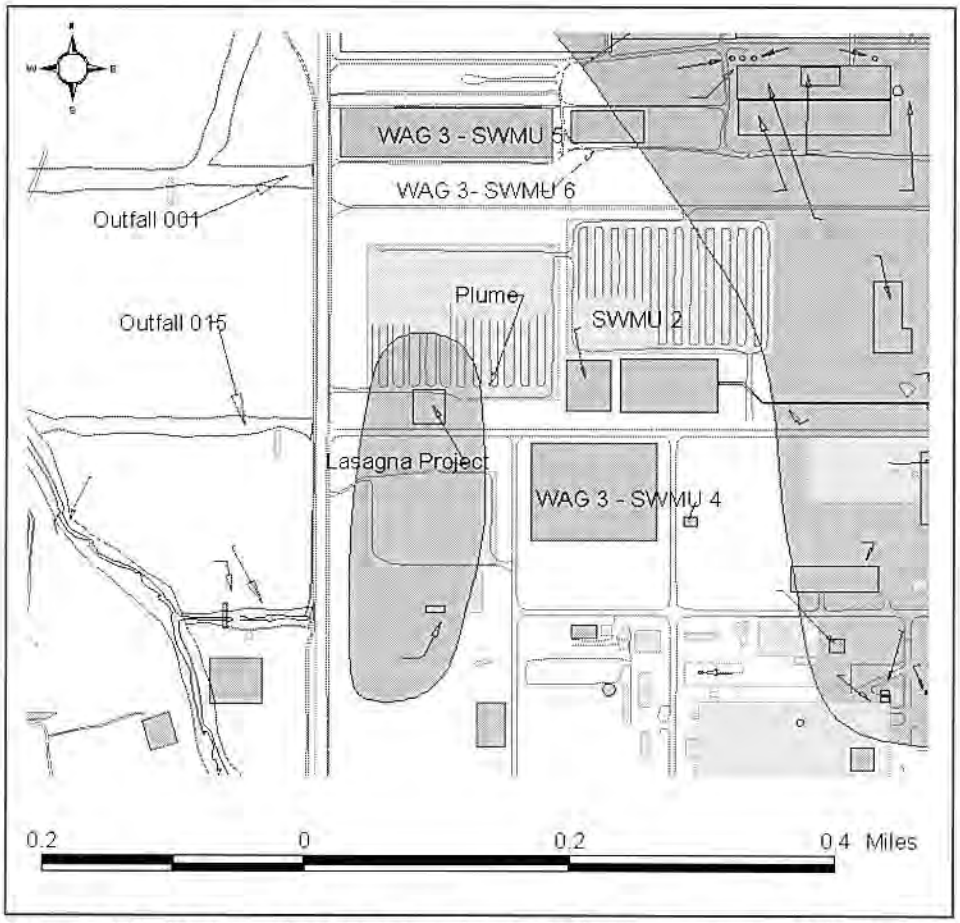


*Figure 1. SWMUs 4, 5 and 6 of Wag 3 are located in the western section of the Paducah Gaseous Diffusion Plant site.*

## Public comments are invited on the DOE work plan for WAG 3

People interested in the environmental clean up at the Paducah Gaseous Diffusion Plant are invited to review and comment on the U.S. Department of Energy's (DOE) Remedial Investigation/Feasibility Study (RI/FS) Work plan for Waste Area Grouping (WAG) 3 that was recently submitted to the U.S Environmental Protection Agency (EPA) and the Kentucky Division of Waste Management.

WAG 3 consists of the following solid waste management units (SWMUs): the C-747 Contaminated Burial Yard (SWMU 4), the C-746-F Classified Burial Yard (SWMU 5), and the C-747-B Burial Ground (SWMU 6). The SWMUs, located in the western section of the Paducah plant site, are shown in Figure 1 and are described below.

**C-747 Contaminated Burial Yard**

The C-747 Burial Yard was in operation from 1951 to 1958 for the disposal of radiologically-contaminated debris and uncontaminated debris from the

(continued on page 2)

## WAG 17 cleanup is completed

Waste Area Group (WAG) 17 has the distinction of becoming the first WAG at the Paducah Gaseous Diffusion Plant site to complete the cleanup process. Also known as the concrete rubble piles, WAG 17 received the status of "No Further Action" from the Kentucky Division of Waste Management and the U.S. Environmental Protection Agency (EPA). The Record of Decision between EPA and the U.S. Department of Energy was signed last September, and the Division of Waste Management modified the Hazardous Waste Permit to reflect this decision.

A "No Further Action," in this case, means that the rubble piles can be either left where they are or moved by the landowners. The SWMUs (Solid Waste Management Units) located in Ballard County Wildlife Management Area were disturbed during the construction of wetlands under the Olmsted Dam Project. The other SWMUs located in the Western Kentucky Wildlife Management Area are now the responsibility of the Kentucky Fish and Wildlife Resources. They plan to leave these concrete rubble piles in place, which provides a habitat for small

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## WAG 3, *cont. from page 1*

$UF_6$ feed plant. SWMU 4 may have also received sludges during its operation. The burial yard is reported to consist of two pits that, together, cover an area of approximately 8,200 feet$^2$. The pits were reported to be excavated to a depth of approximately 15 feet below ground surface (bgs).

**C-746-F Classified Burial Yard**

The Classified Burial Yard was in operation from 1965 to 1987. The burial yard reportedly consists of several small (about 10 feet by 10 feet) cells excavated to depths of about 6 to 15 feet. The wastes in this inactive landfill include security-classified weapon components, radionuclide-contaminated scrap metal and slag from nickel and aluminum smelters. DOE speculates that chemically unstable or incompatible compound/metal wastes may have been disposed of in this unit. This speculation is based on an underground fire that occurred in the burial yard around 1975 or 1976. The fire burned for several weeks, and people observing the fire reported that the ground surface appeared to become unstable. The source or cause of the fire was never determined, and the fire burned out without intervention.

**C-747-B Burial Ground**

This disposal area was reported to be in operation from 1960 to 1976 and consists of five cells covering approximately 5200 feet$^2$. Excavated depths are reported to be 6 to 8 feet. bgs. Magnesium scrap, exhaust fans contaminated with perchloric acid, a $UF_6$ condenser and aluminum scrap were among the wastes disposed in this area.

As required in the Paducah plant site management plan, a scoping meeting was held in June 1997 prior to development of the RI/FS work plan. DOE, EPA and Division of Waste Management representatives discussed the investigation strategy for the WAG at this meeting. The primary comments from the regulators involved the need to characterize the waste within the units, and the groundwater directly beneath these units.

Despite the above-mentioned comments, the first draft of the work plan does not contain proposals for sampling the waste within the disposal units nor the groundwater directly beneath the units. DOE noted several problems with sampling the actual wastes within the units, particularly in the Classified Burial Yard, where sampling the actual wastes would require the use of security-cleared contractors as well as security clearance for any reviewer of the sampling results.

The Division of Waste Management will comment on the WAG 3 Work plan by Feb. 12, 1998. The WAG 3 project schedule calls for DOE to submit a revised RI/FS work plan by April 5, 1998. Any public comments received after Feb. 12 will be incorporated in the review of the revised document. The Divison's comments on this work plan will reflect the regulatory requirements to define the nature and extent of contamination, provide sufficient data to evaluate risks to human health and the environment, and provide sufficient data to select any appropriate remedial action.

The document may be reviewed at:

U.S. Department of Energy
Environmental Information Center
175 Freedom Blvd.
Kevil, KY 42053
502-462-2550
7:30 a.m. – 4 p.m. Mon. – Fri. or by appointment, or

Kentucky Division of Waste Management
14 Reilly Road
Frankfort, KY 40601
502-564-6716, ext. 247
8:30 a.m. – 4 p.m. Mon. – Fri. by appointment only

The Division of Waste Management encourages public involvement in all issues at the Paducah Gascous Diffusion Plant (PGDP). Please contact Jack Stickney, AIP supervisor for the University of Kentucky Federal Facilities Oversight Unit, at 502-564-4797 for assistance in review of the WAG 3 RI/FS work plan, or any other PGDP environmental restoration document.

*By Mike Guffey, an environmental engineer with the Kentucky Water Resources Research Institute, Federal Facilities Oversight Unit of the University of Kentucky.*

# AIP residential well sampling policy

The Agreement-In-Principal (AIP) program routinely collects many environmental samples during a year's time. By far the most sampled media are soil and groundwater. Many of these samples are collected in conjunction with oversight of ongoing site investigations. In addition to site-investigation sampling, several residential and monitoring wells are monitored yearly as part of AIP's quarterly sampling program.

On occasion, concerned residents who have wells that are not typically sampled have requested that their wells be sampled. Because AIP has limited funds available for sampling activities, it is the unit's policy to first screen all residential well sampling requests. If the unit believes that the resident's well may have been exposed to the contaminated groundwater, then the unit will perform one-time sampling of that resident's well. Once received, these results as well as laboratory and field sampling procedures are reviewed to insure that the samplings results are accurate. A copy of the results is then sent to the well's owner and DOE, along with a letter explaining the results.

During the last year, AIP personnel sampled several residential wells at the request of the well's owners. No contamination was detected in any of these wells. It should be noted that many of these samples were collected from wells located outside of the U.S.

*(continued on page 4)*

# DOE removes contaminated soil at WAG 23 and SWMU 1

In December, the U.S. Department of Energy (DOE) began removing contaminated soil from Waste Area Group (WAG) 23 and Solid Waste Management Unit (SWMU) 1 of WAG 27 at the Paducah Gaseous Diffusion Plant site. About 125 cubic yards of soil contaminated with polychlorinated biphenyls (PCBs) will be excavated during this nontime-critical removal action by the end of January. DOE is removing the soil to reduce the potential risk to industrial workers onsite, because, if it is left in place, the soil could pose a threat to human health and the environment.

DOE is currently evaluating several technologies to treat the excavated soils. Until a final treatment remedy is selected, the PCB-contaminated soils will be stored in containers onsite in specially constructed facilities. The Kentucky Agreement in Principle (AIP) is monitoring the DOE activity throughout the entire process.

SWMU 1 and the SWMUs comprising WAG 23 have been grouped together, because they are similar in physical characteristics, past uses and types of contamination present. WAG 23 consists of SWMUs 32 and 33, SWMUs 56 and 80, SWMUs 57 and 81 (which are paired because they have adjoining boundaries), and SWMU 74, all of which are located within the security-fenced area. SWMU 79 also is included in WAG 23 but is outside the plant security fence within the C-611 Water Treatment Facility fence.

These SWMUs are the result of past waste-handling and disposal practices by DOE. Accidental PCBs spills and leaks caused surface-soil contamination at these sites. SWMU 1 was the result of PCB-contaminated waste oil being landfarmed. At the Paducah plant, oils containing PCBs have been used in

(continued on page 4)

# Guffey joins the UK-FFOU

Mike Guffey began working with the University of Kentucky Federal Facilities Oversight Unit (UK-FFOU) in Frankfort, Ky. in July 1997. Guffey is the project manager for the C-404 mixed-waste landfill, the Northwest Plume, the burial grounds comprising Waste Area Group (WAG) 3, and the scrap yards comprising WAGs 14 & 24. He will also be involved in permitting and regulatory issues at the site as well as mixed-waste issues, including the proposed Vortec vitrification unit.

Before moving to the UK-FFOU, Guffey had worked for the Division of Waste Management's Hazardous Waste Branch since 1991. Guffey worked in the mining, oil and gas, and utility industries prior to 1991.

Guffey received his bachelor's degree in mining engineering from the UK College of Engineering.

# Gotpagar is new chemical engineer

Jayant K. Gotpagar started working as a chemical engineer with the University of Kentucky Federal Facilities Oversight Unit (UK-FFOU) in July 1997. Gotpagar provides technical expertise and reviews and evaluates the environmental restoration activities at the U.S. Department of Energy's Paducah Gaseous Diffusion Plant.

In addition to working for the UK-FFOU, Gotpagar is finishing his Ph.D. in chemical engineering at the University of Kentucky College of Engineering in Lexington. He expects to have his degree by December 1998.

Gotpagar earned a bachelor's degree in chemical engineering at the University of Bombay, India in 1993. He came to the U.S. in 1994 to begin work on his Ph.D. at the UK College of Engineering. For more information, visit Gotpagar's web page at www.ewl.uky.edu~jayant.

# Vick moves from the AIP to the Kentucky Division of Water

Matt Vick, who was a biologist working for the University of Kentucky Agreement-In-Principle (AIP) in the Paducah field office, has taken a temporary, one-year job with the Kentucky Division of Water in Frankfort, Ky. Vick was a familiar face to many area school children because of his many presentations at their schools about wildlife and wildlife habitat. He also frequently contributed articles about his AIP activities to *Oversight News*.

Vick is the new acting coordinator for the total maximum daily load program at the Division of Water.

Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division of Waste Management

*Return to:*
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**233 Mining and Mineral Resources Bldg.**
**University of Kentucky**
**Lexington, KY 40506-0107**

***The Kentucky Environmental Oversight News*** is published quarterly by the Kentucky Department for Environmental Protection with editorial and production assistance from Jack Stivers, Kentucky Water Resources Research Institute, Federal Facilities Oversight Unit at the University of Kentucky. The publication features information regarding the environmental remediation activities at the Paducah Gaseous Diffusion Plant site and related topics. Subscriptions are free and may be requested by contacting Anya Armes with the **Division of Waste Management, 14 Reilly Rd., Frankfort, KY 40601**, (502) 564-6716, FAX: (502) 564-4049.

***Oversight News*** and other materials offered to the public by the Department for Environmental Protection can be provided in alternative formats to any individual with a disability. To request materials in an alternative format, contact Anya Armes of the Division of Waste Management at the address and phone numbers listed above. Hearing- and speech-impaired people can contact the agency by using the Kentucky Relay Service, a toll-free telecommunications device for the deaf (TDD). For voice to TDD, call 1-800-648-6057. For TDD to voice, call 1-800-648-6056.

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## WAG 17, *cont. from page 1*

mammals and snakes.

Nine SWMUs in WAG 17 have been reassigned to either WAG 25 or 18, which are located along Little and Big Bayou Creeks, respectively. Reassignment of these SWMUs ensures all aspects of contamination are investigated in these areas.

*By **Karen Exton**, a geologist with the Kentucky Water Resources Research Institute, Federal Facilities Oversight Unit of the University of Kentucky.*

## AIP sampling, *cont. from page 2*

DOE Water Policy boundary. Within this boundary, all residents who have requested city water service have been connected at DOE's expense.

*By **Todd Mullins**, a geologist with the Kentucky Water Resources Research Institute, Federal Facilities Oversight Unit of the University of Kentucky.*

## DOE removes, *cont. from page 3*

process equipment, transformers, capacitors, and other electrical equipment. The use of PCBs is being phased out at the plant.

*By **Jon Maybriar**, an environmental scientist with the Kentucky Water Resources Research Institute, Federal Facilities Oversight Unit of the University of Kentucky.*

### For more information

Contact Todd Mullins at:
University of Kentucky
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P.O. Box 1410
Building C-103
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Phone: (502) 441-5278
FAX: (502) 441-5277

Visit these Web sites:

**www.state.ky.us./agencies/nrepc/nrhome.htm**

**www.uky.edu/WaterResources/FFOUHOME.HTML**

DOE/OR/07-1233&D3

# COMMUNITY RELATIONS PLAN
FOR THE
# PADUCAH GASEOUS DIFFUSION PLANT
**Paducah, Kentucky**

Date Issued - January 1998

**Prepared by**
**CH2M HILL INC.**
**Paducah, Kentucky**
**under General Order 18B-99345C**
**for**
**LOCKHEED MARTIN ENERGY SYSTEMS, INC.**
**for the**
**U.S. DEPARTMENT OF ENERGY**
**under contract DE-AC05-84OR21400**

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# ACRONYMS

| | |
|---|---|
| ACO | Administrative Consent Order |
| AIP | Agreement in Principle |
| AOC | Area of Concern |
| AR | Administrative Record |
| ARARs | applicable or relevant and appropriate requirements |
| ATSDR | Agency for Toxic Substances and Disease Registry |
| AVLIS | Atomic Vapor Laser Isotope Separation |
| BTEX | benzene, toluene, ethylbenzene, and total xylene |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act (1980) |
| CMS | Corrective Measures Study |
| CRP | Community Relations Plan |
| CWA | Clean Water Act |
| CX | categorical exclusion |
| D&D | decontamination and decommissioning |
| DNAPL | dense nonaqueous-phase liquid |
| DOE | U.S. Department of Energy |
| EA | environmental assessment |
| EE/CA | Engineering Evaluation/Cost Analysis |
| EIS | environmental impact statement |
| ER | Environmental Restoration |
| EM | Environmental Management |
| EMEF | Environmental Management and Enrichment Facilities |
| EPA | U.S. Environmental Protection Agency |
| FFA | Federal Facilities Agreement (under CERCLA) |
| FFCA | Federal Facility Compliance Agreement (under TSCA) |
| FONSI | finding of no significant impact |
| FS | Feasibility Study |
| HRS | Hazard Ranking System |
| HSWA | Hazardous and Solid Waste Amendments |
| KPDES | Kentucky Pollutant Discharge Elimination System |
| LMES | Lockheed Martin Energy Systems, Inc. |
| LMUS | Lockheed Martin Utility Services, Inc. |
| M&I | Management and Integration |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NEPA | National Environmental Policy Act |
| NOV | notice of violation |
| NPL | National Priorities List |

| | |
|---|---|
| ORO | Oak Ridge Operations |
| OU | Operable Unit |
| PA | preliminary assessment |
| PCB | polychlorinated biphenyl |
| PGDP | Paducah Gaseous Diffusion Plant |
| PHEA | Public Health and Ecological Assessment |
| ppb | parts per billion |
| ppm | parts per million |
| PRP | potentially responsible party |
| PRAP | Proposed Remedial Action Plan |
| RA | remedial action |
| RCRA | Resource Conservation and Recovery Act of 1976 |
| RD | remedial design |
| RFI | RCRA Facility Investigation |
| RI | remedial investigation |
| ROD | record of decision |
| SARA | Superfund Amendments and Reauthorization Act of 1986 |
| SI | Site Inspection |
| SMP | Site Management Plan |
| SWMU | solid waste management unit |
| TAG | Technical Assistance Grant |
| $^{99}Tc$ | technetium-99 |
| TCE | trichloroethylene or trichloroethene |
| TSCA | Toxic Substances Control Act |
| TSDF | treatment, storage, and disposal facility |
| UST | underground storage tank |
| WAG | Waste Area Grouping |
| WKWMA | West Kentucky Wildlife Management Area |

# EXECUTIVE SUMMARY

This Community Relations Plan (CRP) describes a program for conducting community relations activities related to the U.S. Department of Energy (DOE) Environmental Management and Enrichment Facilities (EMEF) program at the Paducah Gaseous Diffusion Plant (PGDP) in western Kentucky. This plan updates and expands the CRP released in March 1989 that addressed the initial phases of a groundwater-contamination investigation at the plant. The 1989 CRP is being revised and expanded to update information regarding EMEF program activities, identify changes in community concerns, assess the effectiveness of community relations activities to date, and plan additional activities to meet the current and future needs of the community. The plan will be implemented through the public affairs office by the manager for EMEF at Lockheed Martin Energy Systems, Inc. (LMES), with DOE oversight.

LMES representatives interviewed a cross section of Paducah residents during the week of November 18, 1996. Interviews were conducted with individuals from the following categories:

- Local officials/community leaders
- Media (newspaper, radio, and television)
- PGDP neighbors and area residents
- Members of the Neighborhood Council, Site Specific Advisory Board, and Environmental Advisory Committee
- Randomly selected individuals

These individuals included environmental activists, homemakers, local business people, plant workers, and students. All of the 1996 respondents were aware of PGDP, and a distinct majority stated that their overall impression of the plant was positive. With few exceptions, everyone interviewed was aware, to some extent, of the environmental activities taking place at the plant and the DOE water policy that provides municipal drinking water to the residents who are affected, or potentially affected, by the groundwater contamination.

A variety of concerns regarding the plant were shared that included property values, economic opportunities, recreation, wildlife, cost of the cleanup, plant closure, and internal plant management. The most frequently cited areas of concern were human health and drinking water issues. Most respondents said their attitudes about PGDP have either not changed or have become more positive over time.

The 1996 round of community interviews concluded that there is a high level of community awareness regarding PGDP; 100% of respondents were aware of the plant's existence in their community. PGDP neighbors, environmental activists, local officials, and the media showed the highest level of understanding about and involvement with the environmental activities at the plant. Many other respondents, although not actively involved, expressed interest in being kept informed about the activities through newsletters and media coverage.

Community relations outreach activities to date include the following:

- Personal contact between PGDP representatives and the public
- Maintaining a mailing list to disseminate public information
- Conducting interviews
- Producing information bulletins
- Holding public meetings
- Maintaining an information repository
- Publishing information about environmental activities through local media and announcing public comment periods for major documents
- Offering access to the Administrative Record
- Chartering and/or promoting community special interest groups
- Providing public speakers
- Conducting plant tours

In addition to the above, future community outreach activities may include establishing suggestion boxes for anonymous comment and using local cable television programming to present PGDP environmental activities and progress to date.

# 1. OVERVIEW OF COMMUNITY RELATIONS PLAN

## 1.1 INTRODUCTION

This Community Relations Plan (CRP) describes a program for conducting community relations activities related to the Environmental Management and Enrichment Facilities (EMEF)[1] program at the Paducah Gaseous Diffusion Plant (PGDP) in western Kentucky. This plan updates and expands the CRP released in March 1989 that addressed the initial phases of a groundwater-contamination investigation at the plant. A copy of the original 1989 CRP is available for review at the Information Repository of the U.S. Department of Energy (DOE) Environmental Information Center in Kevil, Kentucky (see Appendix A for the address and telephone number). The 1989 CRP is being revised and expanded to update information regarding EMEF program activities, identify changes in community concerns, assess the effectiveness of community relations activities to date, and plan additional activities to meet the current and future needs of the community.

DOE has established the Environmental Management (EM) program to investigate, clean up, and comprehensively manage contamination from past operations at all DOE facilities. The scope of this document covers community relations activities as they relate to environmental restoration and waste management efforts under the EMEF program at Paducah. The CRP will help DOE meet its commitment to public involvement during the cleanup and permitting activities being conducted under the EMEF program.

## 1.2 SCOPE

The information in this CRP is based primarily on the following:

- Formal interviews with residents, elected officials, and community-based groups affiliated with the DOE environmental program
- Facts provided by the DOE community relations staff
- Documents available to the public, including reports from remedial activities at PGDP, the February 1996 draft *PGDP Site Management Plan*, and the October 1996 draft *Federal Facility Agreement for the Paducah Gaseous Diffusion Plant*

This CRP has been prepared in accordance with the following guidance manuals issued by the U.S. Environmental Protection Agency (EPA) Office of Emergency and Remedial Response:

- *Community Relations in Superfund: A Handbook* (Directive 9230.0-03C)
- *Guidance on Public Involvement in the RCRA Program* (Directive 9901.3)

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[1] The Environmental Management and Enrichment Facilities (EMEF) program was previously called the Environmental Restoration and Waste Management (ERWM) program. In April 1998, under new management by Bechtel Jacobs, the program name will again be changed.

The plan will be implemented by the Public Affairs Office for EMEF, which, at the time of publication of this document, is run by Lockheed Martin Energy Systems Inc. (LMES), with DOE oversight.[2]

Community relations objectives will be met by providing the community with information about current and planned environmental activities at PGDP, and encouraging public input and comments on these activities. The CRP is organized into the following sections:

- Overview
- Site description
- EMEF Program
- Community background
- Key community concerns
- Highlights of the community relations program

Supplemental information in the appendices includes material on the following:

- Information Repository
- DOE PGDP water policy
- Summary of major environmental activities
- Applicable environmental regulations
- Results of November 1996 interviews
- List of contacts and interested parties
- Glossary

[2]As of April 1, 1998, Bechtel Jacobs will replace LMES as the new Management and Integration (M&I) contractor.

# 2. SITE DESCRIPTION

## 2.1 SITE LOCATION AND HISTORY

PGDP is an operating uranium enrichment facility that includes 748 fenced acres within a DOE reservation of approximately 3,556 acres. The plant is in McCracken County in far western Kentucky, approximately 3 miles south of the Ohio River, as shown in Fig. 2.1. The layout and boundaries of the site are shown in Fig. 2.2.

The closest communities to PGDP are the unincorporated towns of Grahamville (about 1 mile east) and Heath (about 1 mile southeast). The closest communities with public water supplies are Kevil, Kentucky (about 3 miles southwest), and Metropolis, Illinois (about 4 miles northeast, across the Ohio River). Paducah, Kentucky, is approximately 12 miles east of the plant. The population of the greater Paducah area, based on the 1990 U.S. census, is about 27,400. The total population of McCracken County (251 square miles) is about 62,800.

The area surrounding the plant is mostly agricultural and open land, with some forested areas. Homes are scattered along rural roads around the plant. The Tennessee Valley Authority (TVA) Shawnee Steam Plant, adjacent to the northeast border of the DOE reservation, is the only other major industrial facility in the immediate area. An Allied Signal Plant across the Ohio River near Metropolis, Illinois, produces feed material for PGDP.

As shown in Fig. 2.1, the DOE tract includes approximately 1,986 acres that are licensed to the Commonwealth of Kentucky Department of Fish and Wildlife Resources as part of the West Kentucky Wildlife Management Area (WKWMA). The WKWMA is an important recreational resource for western Kentucky and is used by more than 10,000 people each year. Major recreational activities include hunting deer and small game, field trials for dogs and horses, trail riding, fishing, skeet shooting, and camping.

The plant is in the drainage areas of Big Bayou Creek and Little Bayou Creek, which flow around the western and eastern boundaries of PGDP. The two streams converge about 3 miles north of PGDP and flow into the Ohio River. Much of the water in both creeks, especially during dry weather, comes from controlled discharges at the plant. PGDP is above an 80-foot-deep gravel aquifer that provides water to private residential wells.

Before the plant was built, a munitions-production facility, the Kentucky Ordnance Works (KOW), operated in an area southwest of the plant. Munitions, including trinitrotoluene (TNT), were manufactured and stored at the KOW between 1941 and 1946. The site was shut down immediately after World War II and later became part of the WKWMA. DOE performed preliminary investigations at the site and turned the information over to the U.S. Army Corps of Engineers (COE). COE has conducted public meetings describing their work at the site and seeking public input.

PGDP was constructed from 1951 to 1954, and production began in 1952. The plant was operated by Union Carbide until 1984, when Martin Marietta Energy Systems, Inc. (MMES), was contracted to operate the plant for DOE. In July 1993, the U.S. Enrichment Corporation (USEC), which was established by Congress, leased uranium enrichment production facilities from DOE and became responsible for production of enriched uranium. At that time Lockheed Martin Energy Systems, Inc. (LMES; formerly MMES), split into two corporations. The newly formed Lockheed

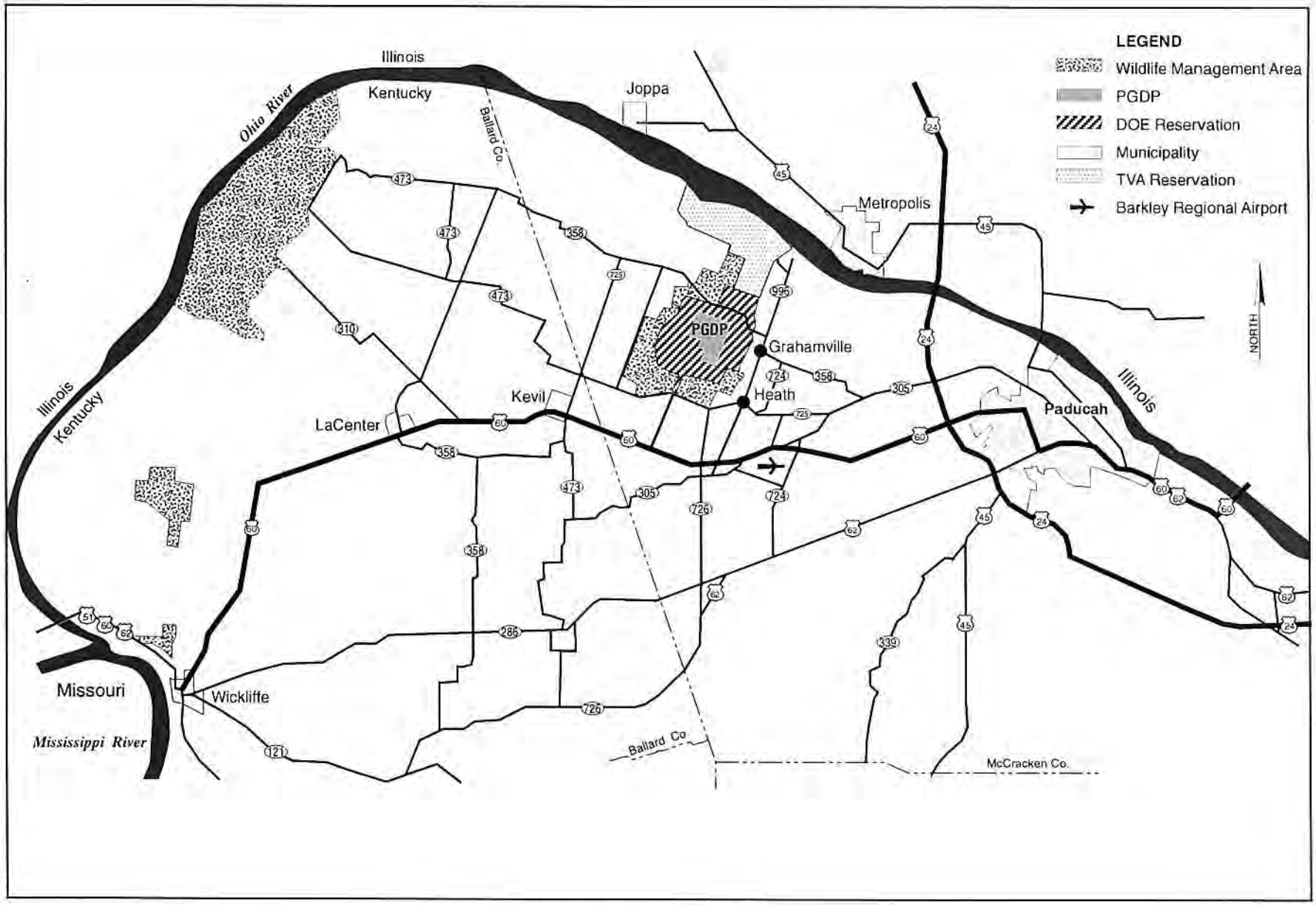


Fig. 2.1. Plant Location.

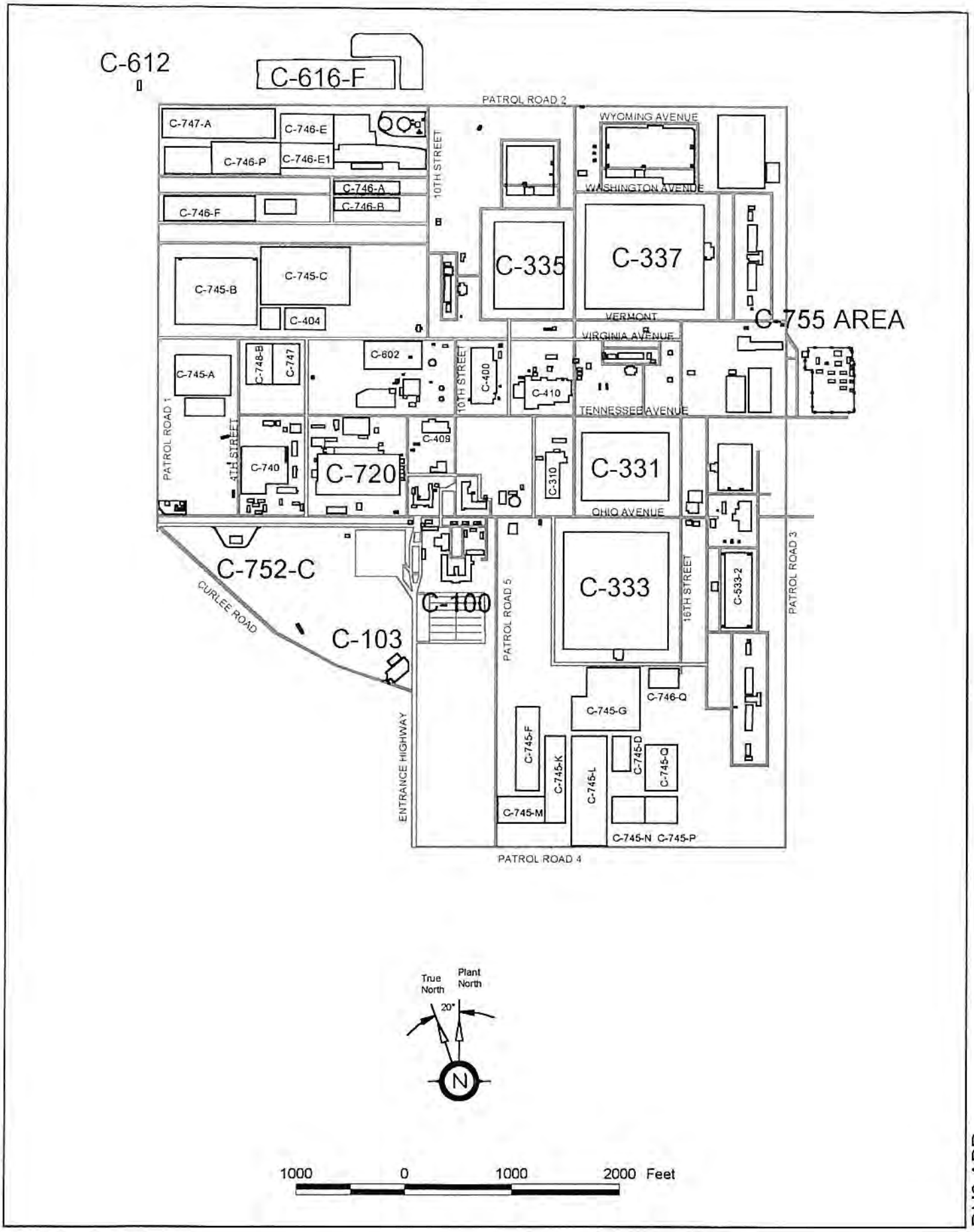


**Fig. 2.2 Plant Layout and Boundaries.**

Martin Utility Services (LMUS) was created to serve USEC as its operations and maintenance contractor. LMES remained as DOE's integrating contractor at the site. Although USEC continues to enrich uranium for commercial nuclear power use, DOE owns the plant and property and still oversees environmental restoration and waste management activities. The plant is a significant regional employer, providing work for approximately 1,850 people from 20 counties in 4 states (Kentucky, Illinois, Missouri, and Tennessee). The annual payroll totals more than $70 million.

## 2.2 DISCOVERY OF GROUNDWATER CONTAMINATION

In August 1988, in response to questions from residents about the quality of their water, the Purchase District Health Department (in conjunction with the Cabinet for Health Services, Department for Public Health, Radiation Control Branch) sampled residential wells north of PGDP. Elevated concentrations of gross beta contamination, indicating radionuclides, were identified in the samples. PGDP management, once informed of the results of the analyses, promptly sampled additional private groundwater wells. The samples were analyzed for trichloroethylene (TCE), an industrial degreaser, and for technetium-99 ($^{99}$Tc), a nuclear fission product reprocessed from spent nuclear reactor fuel.

As a result of the plant's sampling, DOE provided potable water to the 10 potentially affected residences, via a centrally located water truck, while results were analyzed. Four residences that had wells with detectable TCE or $^{99}$Tc were each furnished with a 1,000-gallon water tank connected directly to the house's plumbing. These tanks were later replaced with a permanent connection to the public water supply.

## 2.3 WATER POLICY

In response to the contamination, a water policy was implemented that stated that municipal water from the West McCracken Water District would be provided free of charge to any resident whose well became contaminated with TCE or $^{99}$Tc associated with the plant. Since 1988, two additional wells were identified, through ongoing sampling by DOE, as containing detectable concentrations of TCE and $^{99}$Tc, for a total of six residential wells (north of the plant) with contamination. The six wells served seven residences, and DOE supplied municipal water to those households.

In 1993, the water policy was revised. The new policy offered free municipal water to all existing private residences and businesses within or adjacent to the area of potential groundwater contamination. This "water policy area" is bounded generally by the Ohio River to the north of PGDP, Metropolis Lake Road to the east, and Bethel Church Road to the west. South of the plant, the water policy area extends to the limits of DOE property. As of December 1996, 97 residences were supplied with municipal water. Households receiving free water do not use existing wells or dig new wells in accordance with a licensing agreement entered into with DOE, and must allow DOE personnel access to their properties to collect water samples from their wells. All wells at a residence where DOE provides municipal water have been locked and capped, or abandoned.

DOE paid all reasonable costs of water for users in this area through December 1997. At that time the policy was reevaluated and modified to include residents who moved into the area after November 1, 1993. Also, those residents who declined to participate in the program when it was offered in 1992 were given another opportunity to participate. Whether businesses locating in the area after November 1, 1993, will be provided water under the policy will be decided by DOE on a case by case basis. If additional wells become contaminated and municipal water is not already being

provided, DOE will immediately provide an alternate water supply and connect the affected residences to municipal water as soon as possible. PGDP samples groundwater from residential and monitoring wells on a regular basis. A copy of the 1993 water policy is provided in Appendix B. The revised policy is still in draft at the time of publication of this CRP, but will be included in future revisions.

## 2.4 SITE CONTAMINATION OVERVIEW

Past operations at PGDP generated hazardous wastes as by-products of the enrichment process, and some wastes were released into the environment. The areas where releases originally occurred are referred to as solid waste management units (SWMUs) and Areas of Concern (AOCs). In general, SWMUs and AOCs typically are areas such as waste burial grounds, spill sites, and underground storage tanks (USTs). Some contaminants have moved into the surrounding soil and, in some cases, into the underlying groundwater and adjacent surface waters.

A total of 208 SWMUs and AOCs have been identified at the plant as a result of the groundwater investigation and other related environmental activities. Others may be identified as environmental work continues. Not all of the sites have been confirmed as contributing to contamination, but all require at least some degree of evaluation, and many will require remediation (such as cleanup or isolation) or closure.

Because the contamination problems at PGDP are technically complex and many sites need to be evaluated with limited resources, DOE and regulatory agencies have developed a long-term strategy for remediation. The strategy involves setting priorities for studying the sites, reducing risks as early as possible through interim remedial actions, and phasing remediation by dividing cleanup response actions into discrete units, called Waste Area Groupings (WAGs) that can be dealt with incrementally.

As a part of this strategy, the numerous SWMUs and AOCs at the plant have been grouped into WAGs based on factors such as geographic location, contaminant type, media (soil, groundwater, and surface water), and common remedial alternatives or timing. The WAGs are ranked for study and cleanup on the basis of their potential to contribute to human health problems and/or off-site contamination.

Table 2.1 summarizes environmental activities since 1988. Table 6.1 presents a summary of the community relations activities that accompanied these activities. More detailed information regarding environmental site activities can be found in Appendix C, as well as in the PGDP Site Management Plan (SMP) and other technical documents that are maintained in the Information Repository at the Environmental Information Center listed in Appendix A.

**Table 2.1. Summary of major environmental site activities**

| Date | | Activity |
|---|---|---|
| 1988 | August 9 | Paducah Gaseous Diffusion Plant (PGDP) notified of possible groundwater contamination from PGDP |
| | August 9-11 | Plant conducted sampling and confirmed that groundwater had been contaminated with trichloroethylene (TCE), an industrial solvent, and technetium-99 ($^{99}Tc$), a man-made radioactive element |

**Table 2.1 (continued)**

| | Date | Activity |
|---|---|---|
| | August 12 | Bottled water and water trucks supplied in response to contamination; 10 area households advised not to drink or bathe in water from their wells |
| | August | Five of the 10 households were allowed to return to use of their wells after no contamination was found |
| | August 20 | Interim water supply (water tanks) furnished to affected residences |
| | August | PGDP begins routinely sampling area residential water wells |
| | November 23 | Administrative Consent Order (ACO), between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA), approved with participation by the Commonwealth of Kentucky |
| | November | Municipal water line completed: five residences furnished water by DOE |
| | December | Elevated levels of polychlorinated biphenyls (PCBs) detected in fish from Big Bayou Creek. Subsequent sampling and analyses were conducted by the University of Kentucky in a DOE-sponsored program |
| 1989 | February | Contaminants were identified in a fifth well and residents were provided with municipal water |
| | May | Start of Phase I of ACO site investigation to evaluate nature and extent of off-site contamination |
| | June | Initiation of Agreement in Principle (AIP): DOE activity oversight by University of Kentucky and Kentucky Division of Waste Management personnel |
| 1990 | November | Start of Phase II of ACO site investigation to evaluate on-site sources of off-site contamination |
| 1991 | March | Final report of Phase I of ACO site investigation issued |
| | May | Contaminants found in sixth residential well; municipal water supplied |
| | June | Phase I of ACO site investigation report approved as final by EPA |
| | October | Draft report on Phase II of ACO site investigation issued |
| | November | Draft report issued on alternatives evaluation for potential groundwater remediation. Assessment of public health and environment issued |
| | December | Draft report detailing and evaluating a preliminary range of alternatives for remediation of off-site contamination issued |
| 1992 | May | Approximately 50 land owners around plant contacted to obtain license agreements to enter their property for an environmental assessment to help plan off-site environmental restoration and waste management projects |

**Table 2.1 (continued)**

| Date | | Activity |
|---|---|---|
| | | Draft interim corrective measure work plan for hydraulic containment and treatability test of northwest plume issued |
| | August | License agreements with land owners obtained for drilling and sampling to better characterize northwest plume of groundwater contamination |
| | | Carbon filters furnished by DOE, at the request of the Commonwealth, to two homes where wells were found to contain TCE from a source not considered related to plant activities |
| | December | Draft *Environmental Restoration Program Site Management Plan* issued |
| 1993 | January | Permission obtained from landowners for drilling and sampling to characterize northeast plume of groundwater contamination more accurately |
| | March | Proposed revision to water policy, furnishing water to all residences within a defined geographic area, sent to EPA and the Commonwealth for comments |
| | | *Site-Specific Plan* (PGDP's part of DOE's 5-year plan for environmental restoration and waste management) issued |
| | April | Draft Federal Facilities Agreement (FFA) for the PGDP issued |
| | May 10 | *Federal Register* notice proposing to add PGDP to the National Priorities List (NPL, or "Superfund" sites) issued by EPA |
| | June/July | Proposed plan for an interim remedial action to contain contaminated groundwater in the northwest plume issued |
| | July | Record of decision (ROD) signed for interim remedial action of the northwest plume |
| | | Formation of U.S. Enrichment Corporation/Lockheed Martin Utility Services |
| | November 1 | DOE began paying water bills for 73 residences in the vicinity of the plant as part of revised Water Policy |
| | December | Remedial investigation (RI) fieldwork began on Waste Area Groupings (WAGs) 1 and 7 |
| 1994 | January | Construction of Phase 2 of the water-line extension began |
| | | Construction of the hydraulic containment of the northwest plume began |
| | | ROD signed for interim remedial action of the North/South diversion ditch |
| | April | Construction of silt containment around scrapyards and ditches started |
| | May | Phase 2 of municipal water-line construction completed |
| | | PGDP placed on NPL |
| | August | DOE extended municipal water service to approximately 100 residents to complete the implementation of the water policy |

**Table 2.1 (continued)**

| Date | | Activity |
|---|---|---|
| | | Preparation of Public Health Assessment begun by Agency for Toxic Substances and Disease Registry (ATSDR) in response to NPL listing |
| | November | Begin innovative technology demonstration for cleanup of contaminated soils: "Lasagna™" Phase I |
| 1995 | February | Preliminary characterization of the northeast plume completed |
| | April | Moratorium on off-site shipping of waste to commercial facilities lifted |
| | June | ROD signed for interim remedial action of the northeast plume |
| | | DOE approves the locating of Vortec, a waste treatment technology demonstration, at Paducah |
| | August | Northwest plume pilot plant begins extracting and treating contaminated groundwater to slow the movement of the subsurface plume |
| | | ROD signed for interim remedial action at WAG 22 |
| 1996 | January | Additional characterization began at WAG 23 to quantify PCBs in surface soils at nine different solid waste management units |
| | | Second site visit completed by ATSDR |
| | May | Proposed Plan for the remediation of WAGs 1 and 7 submitted to EPA and the Commonwealth of Kentucky |
| | June | Cylinder cleaning, coating, and re-stacking begins |
| | | Northeast plume treatment systems construction begins |
| | July | Begin Lasagna™ Phase II demonstration |
| | August | D3 version of WAG 6 work plan submitted to EPA and the Commonwealth of Kentucky |
| | September | Construction of Solid Waste Contained Landfill completed |
| | | 6,330 PCB capacitors were disposed of off-site to reduce the risk to the environment from continued storage |
| | November | D1 version of WAG 27 work plan issued for comment |
| | | D1 version of RI report for the WAG 17 concrete rubble piles |
| | December | Completed construction of the northeast plume treatment system |
| 1997 | April | Final FFA for the PGDP issued on April 18 |
| | | 90-day public comment period began on April 21 |
| | October | ROD for WAG 17 signed |
| | November | FFA signed by DOE. Approval by Commonwealth of Kentucky and EPA is pending. |

**Table 2.1 (continued)**

Note: All applicable documents were produced and issued in compliance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Resource Conservation and Recovery Act (RCRA) guidelines for public availability and review.

# 3. ENVIRONMENTAL MANAGEMENT AND ENRICHMENT FACILITIES PROGRAM

## 3.1 INTRODUCTION TO EMEF AND APPLICABLE ENVIRONMENTAL LAWS

The EMEF program at Paducah is part of a nationwide DOE initiative to clean up and restore DOE facilities that have been contaminated with hazardous substances during past production or disposal activities. EMEF is an integrated program that addresses:

- Remedial actions for cleaning up contamination from past activities
- Corrective actions for bringing facilities into compliance with air, water, and waste regulations
- Waste management and minimization
- Decontamination and decommissioning of inactive facilities

The EMEF program at PGDP is driven by several environmental laws and regulations including:

- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) of 1980, as modified by the Superfund Amendments and Reauthorization Act of 1986
- The Resource Conservation and Recovery Act (RCRA) of 1976, as modified by the Hazardous and Solid Waste Amendments of 1984
- The National Environmental Policy Act (NEPA) of 1969, as amended, supplemented by Council on Environmental Quality 1988 regulations and DOE NEPA-implementing procedures issued in April 1992
- The Clean Water Act, as implemented by Commonwealth of Kentucky regulations for permitting surface water discharges
- The Toxic Substances Control Act
- Commonwealth of Kentucky UST laws and regulations (KRS Chapter 224 and 401 KAR 42) and hazardous waste regulations

Although all of these regulations affect the EMEF program to some degree, RCRA and CERCLA are considered the primary regulations that currently drive most investigations and remedial activities on-site. Additionally, provisions within these laws (most notably CERCLA, RCRA, and NEPA) include public involvement elements that provide opportunities for the public to participate in the remedial process.

The Federal Facilities Agreement (FFA), required by CERCLA, helps to coordinate environmental restoration activities under the EMEF program at PGDP that are regulated under the environmental laws listed above. The FFA also helps to establish schedules and priorities for action and serves to resolve inconsistencies between the various environmental regulations.

Appendix D describes the environmental laws listed above and explains how each affects the activities at PGDP.

The *DOE Accelerated Cleanup: Focus on 2006* (formerly known as *The 10-Year Plan*) was developed in response to public and congressional calls for faster, more efficient, and cost-effective cleanup of DOE sites while adhering to state and federal regulations and protecting human health and the environment. This document addresses a large number of environmental restoration issues at Paducah and calls for accelerated cleanup and stabilization of a large number of sites. This document states that PGDP remedial action will be achieved by the year 2010.

## 3.2 DECONTAMINATION AND DECOMMISSIONING OF INACTIVE FACILITIES

Decontamination and decommissioning (D&D) is a process that usually begins when a contaminated facility is declared surplus and is officially shut down by the party responsible for its operation. At PGDP, two groups of process facilities at the plant are scheduled for D&D: the C-340 metals plant and the C-410 feed plant. Facilities scheduled for D&D are placed in a surveillance and maintenance program until such time that D&D is accomplished.

D&D follows a series of phased steps, in accordance with CERCLA, to clean up contamination, including the following:

- Planning (site characterization, risk assessment, and hazard classification)
- Evaluation of remedial alternatives
- Environmental review
- Conceptual design
- Cleanup
- Surveillance and maintenance

D&D plans at PGDP are closely related to the other remedial activities being conducted. In some cases, investigation and cleanup of SWMUs will depend on first completing the D&D of certain facilities. New SWMUs may be identified during the D&D process. Those SWMUs may be subject to CERCLA removal actions or the full CERCLA remedial process.

## 3.3 SITE MANAGEMENT PLAN

The PGDP SMP is a planning document that is a vital part of the environmental program at Paducah. The main purpose of the SMP is to identify specific milestones, in accordance with regulatory requirements and EMEF goals, that can be used to monitor the progress of the remedial action. The SMP presents project schedules and also defines remedial priorities. The SMP is intended to be a dynamic document that will be updated annually.

The most recent SMP is available at the DOE Environmental Information Center in Kevil, Kentucky (see Appendix A).

## 3.4 LAND USE

The proposed future land use scenario for PGDP property is mixed industrial/recreational. The proposed use is the same as the current use, which consists of industrial designations within the security fences and recreational use of the adjacent property (which is part of the WKWMA). The future use of selected property at PGDP will have significant impact on the cleanup standards, types of remedial action, and total cost for site remediation. For example, remediation for industrial areas may differ significantly from actions taken for recreational areas. Major factors that will be considered regarding final land-use decisions include existing lease commitments, the nature of contamination at the plant, and community input.

## 3.5 EMEF PROGRAM MANAGEMENT

Successful implementation of the EMEF program relies on the expertise, communication, and coordination of multiple agencies and organizations. Major participants are listed below.

- **DOE–Headquarters Environmental Management** is responsible to the Secretary of Energy for accomplishing the DOE environmental management program nationally.

- The **DOE–Oak Ridge Operations (DOE–ORO) Assistant Manager for Environmental Management** is responsible for accomplishing the environmental management program at DOE–ORO managed installations, which includes PGDP. Within the DOE–ORO framework, the PGDP DOE site manager is responsible for executing the work at the Paducah site.

- **Lockheed Martin Energy Systems, Inc.**, is the current Management and Operating contractor at the five DOE–ORO installations. LMES is directly responsible for the remedial investigations, has oversight responsibility for all other environmental work, and is assigned the role of integrating contractor for this work through DOE at PGDP. The LMES contract expires March 31, 1998.

- **U.S. EPA Region IV** is the federal regulatory entity that provides program management support as it relates primarily to CERCLA and the FFA.

- **Kentucky Department for Environmental Protection, Division of Waste Management** is the Commonwealth regulatory agency responsible for managing RCRA and other permitting issues and supporting the FFA.

- **Kentucky Water Resources Research Institute Federal Oversight Unit** is a committee from the University of Kentucky that acts (with Commonwealth oversight) in an advisory capacity to DOE on the EMEF program regarding technical documents and activities.

- **Jacobs Engineering Group, Inc.**, is the technical support contractor to DOE–ORO for EMEF work at PGDP and is responsible for developing proposed plans, feasibility studies, and records of decision.

- A number of other **environmental subcontractors** provide remedial design, construction, and other comprehensive environmental management support services to LMES.

# 4. COMMUNITY BACKGROUND

## 4.1 COMMUNITY PROFILE

Paducah, Kentucky, has a population of approximately 27,400. The population of McCracken County, including Paducah, is approximately 62,800. The nearest population center to the plant other than Paducah is Metropolis, Illinois, which has a population of about 6,700 (see Fig. 2.1). The towns of La Center and Kevil, Kentucky, each have populations of 1,000 persons or fewer. With approximately 2,000 employees, PGDP is a major employer in the area and is credited by many in the community as being the primary reason for Paducah's development into a regional center for western Kentucky.

The area immediately around the plant has an identity separate from the nearby city of Paducah and is known as west McCracken County. The area is rural and is characterized by small farms and the WKWMA. The only other industry near the plant is the TVA Shawnee Steam Plant, about 2 miles north of PGDP on the Ohio River.

Approximately 300 people live within 2 miles of PGDP. This area includes the unincorporated communities of Grahamville and Heath. Community focal points include locally owned restaurants, grocery stores, schools, and the post office.

Several neighbors of PGDP live on small farms, where they raise cattle and horses and cultivate crops such as sorghum, corn, wheat, soybeans, hay, and tobacco. Many residents have lived in the area all their lives, and neighbors tend to know each other well. Some of the residents around the plant are related, and grown children and their families often live near their parents. Because PGDP is a major employer in the area, many of the residents work there. Almost all residents who do not work at the plant have relatives or friends who do.

## 4.2 HISTORY OF COMMUNITY INVOLVEMENT

### 4.2.1 Overview of Activities

In 1988, after groundwater contamination was first identified and information was released to the media, PGDP received frequent phone calls (15 to 20 per day-primarily from the community) for approximately 6 weeks before the calls tapered off. The plant designated a contact person to handle all telephone inquiries. Personal visits were made to inform concerned residents of the groundwater contamination issue, and all residents with contamination in their wells were informed personally of the situation.

In response to the intensity of public interest regarding the groundwater investigation, PGDP personnel began implementing additional means to update the community regarding ongoing activities and to listen to community interests and concerns. Such activities included:

- Letters to local residents
- Periodic interviews with community members to gauge public interest and concern

- Information bulletins
- Newspaper advertisements announcing the availability of reports and meetings
- Public briefings
- Providing information to reporters for stories, both at the plant's initiative and in response to inquiries
- Providing related documents in an information repository
- Establishing community groups to enhance communication between PGDP and the public

These community relations elements are detailed in Section 6. Other areas of noteworthy community involvement include:

- Interest of two local environmental groups: Association of Concerned Environmentalists and Coalition for Health Concerns
- Two lawsuits filed by local residents since 1988: one was dismissed, and the other was settled out of court
- A lawsuit was filed in January 1997 by four individuals who live near PGDP; the lawsuit remains in litigation

### 4.2.2 Medical Examinations, Medical Surveillance Pilot, and Public Health Assessment

**Medical Examinations**

In December 1988, PGDP arranged for a physician and a toxicologist from the University of Cincinnati Medical Center to meet with those residents whose wells were contaminated or who were perceived as being at risk. Sixteen residents were examined for effects of possible exposure to contaminants in drinking water. The health study identified no signs of medical problems that could be associated with the presence of TCE or $^{99}$Tc in drinking water. Two families were offered annual health examinations for health effects from drinking the contaminated well water before DOE supplied municipal water.

Residents whose wells were selected for routine sampling were informed of the results through personal letters sent to their homes. Residents of property where "special sampling" was performed on groundwater, surface water, sediment, soil, or vegetables received letters indicating that the results were available and would be reviewed with the residents on request.

**Medical Surveillance Pilot**

In September 1996, the Paducah Medical Surveillance Pilot Program for former DOE workers was initiated. Phase I will assess the nature and extent of health hazards that former workers encountered and determine the need for further action, including medical surveillance. Phase II, if needed, will begin late in 1997.

**Public Health Assessment**

Because the Paducah site is listed on the Superfund National Priorities List (NPL), the Agency for Toxic Substances and Disease Registry (ATSDR) is required to perform a site assessment. Information collected during site visits in 1994 and 1996 is being used to produce a Public Health Assessment. A draft of the Public Health Assessment is scheduled for release in early 1998.

### 4.2.3 Current Status of Community Involvement

The 1996 round of community interviews concluded that there is a high level of community awareness regarding PGDP; 100% of respondents were aware of the plant's existence in their community. PGDP neighbors, environmental activists, local officials, and the media showed the highest level of understanding about and involvement with the environmental activities at the plant. Many other respondents, although not actively involved, expressed interest in being kept informed about the activities through newsletters and media coverage.

PGDP will continue with a proactive community relations program that both informs the community and provides an opportunity for public input and opinions about the DOE EMEF program.

# 5. COMMUNITY INTERVIEWS

## 5.1 INTRODUCTION

Residents have been interviewed to assess the community's level of knowledge and perception regarding the environmental activities at PGDP. Formal interviews were conducted in 1988, 1990, and again in 1992-1993. Information gathered from these interviews was used to first establish and then improve upon a program for public involvement.

In November 1996, another round of interviews was conducted to reassess public awareness of the plant and its activities, reevaluate public perception, and determine if attitudes or types of concerns had changed. This information was used to update this CRP. A copy of the interview questionnaire and a summary of responses is provided in Appendix E.

## 5.2 SCOPE

LMES representatives interviewed a cross section of Paducah residents during the week of November 18, 1996. Interviews were conducted with individuals from the following categories:

- Local officials/community leaders
- Media (newspaper, radio, and television)
- PGDP neighbors and area residents
- Members of the Neighborhood Council, Site Specific Advisory Board, and Environmental Advisory Committee (see Section 6.2)
- Randomly selected individuals

These individuals included environmental activists, homemakers, local business people, plant workers, and students. Forty-two people responded to questionnaires through face-to-face and telephone interviews, or returned the questionnaires by mail or facsimile (fax) transmission.

## 5.3 GENERAL ATTITUDES

### 5.3.1 Public Perception of PGDP Activities

As observed through previous interviews and supported through the most recent interviews, community perception and level of knowledge about the PGDP varies greatly among different groups. For instance, residents close to the plant, environmental activists, and individuals on associated boards or councils have a greater understanding of and involvement with the ongoing environmental activities than do many of the randomly interviewed community members who have no direct association to PGDP.

Local officials had a very positive outlook about the plant and its activities, gave high credibility ratings for government agencies, and were concerned primarily about the related economic issues. Environmental activists had an overall negative outlook about the plant, its activities, and the agencies

and organizations running the program. Their concerns primarily centered around contamination harming the environment and causing human health problems.

All of the 1996 respondents were aware of PGDP, and a majority stated that their overall impression of the plant was positive. With few exceptions, everyone interviewed was aware, to some extent, of the environmental activities taking place at the plant and the DOE water policy that provides municipal drinking water to the residents affected or potentially affected by the groundwater contamination.

A variety of concerns regarding the plant were shared, including property values, economic opportunities, recreation, wildlife, cost of the cleanup, plant closure, and internal plant management. The most frequently cited areas of concern were human health and drinking water issues. Most respondents said their attitudes about PGDP have either not changed or have become more positive over time.

### 5.3.2 PGDP Public Outreach Findings

Most respondents think PGDP has made a good effort in providing the community with information about the environmental activities, and they have confidence in the information the plant is providing. Some comments included:

- "Open attitude dealing with community."
- "Always been credible source."
- "Timely correspondence with community residents."

However, some respondents did not trust the information they were receiving. Comments that reflect those attitudes include:

- "The plant will only tell us what they want us to know."
- "There are so many issues that the plant doesn't even understand the extent of what they're dealing with."
- "The plant will say anything to stay open."
- "The public is not receiving the 'bad' or 'dangerous' information."

To pinpoint the source of mistrust among these individuals and the level of trust within the population as a whole, respondents were asked to rate the credibility of a number of associated organizations and agencies. Responses were varied; however, federal agencies involved in the environmental cleanup received lower marks than the other groups, including LMES and the public affairs staff.

### 5.3.3 Public Outreach Methods

Most respondents receive their information on the environmental program through the media or, if they are a member of a board, through board meetings. Many people reported that they are on the Paducah DOE Site Office mailing list and receive periodic (or monthly) newsletters. A smaller

number said they receive their information by word of mouth from neighbors, friends, or acquaintances. Most individuals interviewed seemed satisfied with the frequency of information they receive about site activities. When asked to specify the optimal frequency, "quarterly" and "whenever something newsworthy occurs" were the most frequent responses.

One frequent comment was that information is too technical. Newsletters, meetings, reports, and even newspaper advertisements about activities were specifically noted as being difficult to understand.

## 5.4 SPECIFIC CONCERNS

### 5.4.1 Human Health and Drinking Water

Human health and drinking water contamination were the most frequently expressed concerns among respondents. Accounts of higher than average levels of childhood leukemia and brain cancer were reported by residents and were speculated to be associated with the groundwater and other contamination problems at PGDP. (Medical records were not researched for this report to substantiate those claims.) Another respondent noted that anytime anyone gets sick (with anything), the plant is blamed.

### 5.4.2 Property Value

Property value was a concern among residents close to PGDP. This concern, however, was somewhat subdued, perhaps because many of those interviewed were lifelong residents and farmers who did not plan on selling their properties. One resident receiving municipal water was concerned that he could not subdivide his land for residential housing because of the water policy provisions. (The water policy provisions do not place restrictions on subdividing land. Landowners can subdivide their land and they can hook up to municipal water; however, the water costs for the newly established parcels may not be covered by DOE.)

### 5.4.3 Water Policy

A few residents receiving municipal water expressed interest in knowing what changes, if any, will take place at the time the water policy is revised (in December 1997). These same residents stated that they haven't received any progress reports in a long time on the status of the groundwater investigation and water policy, and expressed interest in receiving more regular updates.

### 5.4.4 Final Cleanup Plan and Schedule

Several individuals expressed their interest in knowing when PGDP will be completely cleaned up. Although incremental updates are being provided, community members would like to know about the comprehensive cleanup plans and schedule. Others said that although they want a comprehensive cleanup, they doubt it can be accomplished. Another respondent specifically wanted to know about the plans to address cylinders of depleted uranium hexafluoride.

### 5.4.5 Western Kentucky Wildlife Management Area

Although not one of the most frequently stated concerns, recreational issues were cited as a concern for some respondents. Despite the fact that use of the WKWMA has remained consistent,

respondents stated that fewer people seem to be using the WKWMA for hunting and fishing. Other respondents said they were concerned about contamination found in deer.

### 5.4.6 Conservative Attitudes

One often-repeated concern was that residents may not be sharing their true feelings regarding PGDP, fearing that they may anger management and cause the plant to shut down. Along the same line, one respondent said that the media does not report opposing views, noting that only safe stories appear.

### 5.4.7 Future of PGDP

Although not an environmental issue, economic concerns were frequently noted. Concerns were raised about the future location of the Atomic Vapor Laser Isotope Separation (AVLIS) plant and how it would affect PGDP, and about the overall economic health of the plant.

## 5.5 ADDRESSING CONCERNS

LMES Public Affairs staff will consider the community concerns described in this section when implementing public outreach activities. Section 6 describes activities that address community concerns.

# 6. HIGHLIGHTS OF THE COMMUNITY RELATIONS PROGRAM

## 6.1 OVERVIEW

Community relations activities intensified at PGDP beginning in 1988, when the first indication of off-site groundwater contamination was identified. Since then, numerous outreach activities have been conducted to inform and educate residents about environmental activities at the plant, to address their pressing concerns, and to provide an opportunity for public input on environmental activities.

Information gathered from the November 1996 community interviews was used to determine whether outreach activities should be modified or supplemental activities should be instituted to make the program more effective. This section reviews the elements of the current program and recommends supplemental activities as a result of the interviews. Table 6.1 lists major outreach activities conducted to date.

In the 1996 interviews, responses indicated that overall DOE efforts to keep the community informed are perceived as effective. A number of respondents specifically noted improvement in outreach activities over the past few years. DOE is committed to maintaining a strong community relations program and will strive to make improvements to meet changing community needs.

## 6.2 PROGRAM ACTIVITIES TO DATE

### 6.2.1 Personal Contacts and Designated Contact Person

In the early stages of PGDP environmental investigations, EMEF personnel went door-to-door informing local residents of important findings as they developed. Site personnel, including the plant manager and DOE officials on occasion, continue to visit or telephone residents to discuss concerns and pass on new information. In addition, the community at large has been given names and phone numbers of designated plant representatives who can be contacted with questions or concerns. Lists of these contacts have been published in information bulletins and other written outreach material and are provided to the media and at public briefings and meetings. Current contact names and phone numbers are provided at the front of this CRP.

Personal contact is a very effective outreach method used regularly by DOE and LMES at PGDP. When residents were asked who they would contact with questions about the plant, many 1996 interviewees named LMES Public Affairs staff or other PGDP personnel. Many respondents appreciate the fact that their concerns are addressed personally and prefer calling the Public Affairs office to attending meetings. In instances where DOE proposes action that affects a particular group of citizens, that group of citizens shall be specifically notified of the action.

The name and phone number of a contact person will continue to be published in all community relations publications and will be provided at public meetings and briefings. Public Affairs staff are dedicated to accommodating personal inquiries and will continue to encourage calls from the public.

**Table 6.1. Summary of major community relations events**

| Date | | Activity |
|---|---|---|
| 1988 | August 12-13 | Paducah Gaseous Diffusion Plant (PGDP) and McCracken County personnel conduct home visits to 10 affected households to request that residents stop using their wells until sampling is completed |
| | August 12 | Media notified that contamination had been confirmed at one location by sampling and that additional sampling was under way |
| | | Regular home visits and telephone communication between plant environmental personnel and neighbors began |
| 1989 | January | *Information Bulletin Number 1* issued |
| | February | U.S. Department of Energy (DOE) initiated formal reporting (by letter) of sampling results to residences with affected wells. Prior to that, individuals were contacted personally to discuss results |
| | | Public briefing held |
| | March | *Community Relations Plan for Paducah Gaseous Diffusion Plant* for Administrative Consent Order site investigation issued |
| 1990 | January | *Information Bulletin Number 2* issued |
| | March 12 | Public briefing held |
| 1991 | January | Regional scoping meetings held for DOE systemwide *Programmatic Environmental Impact Statement* for environmental restoration and waste management activities |
| | | *Information Bulletin Number 3* issued |
| | November | *Information Bulletin Number 4* issued |
| 1992 | January | *Information Bulletin Number 5* issued |
| | February 4 | Public briefing held |
| | August | Neighborhood Council chartered |
| | September | First meeting of Neighborhood Council held |
| | October | DOE Environmental Information Center at Kevil, Kentucky, established. Administrative Record and lengthy Environmental Restoration and Waste Management (ERWM) documents moved there from Paducah Public Library |
| 1993 | March | *Environmental Restoration Information Bulletin* (Vol. 1, No. 1) issued |
| | | Neighborhood Council and Environmental Advisory Committee briefed on proposed plan for northwest plume |
| | April 6 | Public briefing held |
| | August 10 | Public comment period on Engineering Evaluation and Cost Analysis for Water Policy |

**Table 6.1 (continued)**

| | Date | Activity |
|---|---|---|
| | August 18 | Public comment period on Interim Corrective Measures Work Plan for containment of sediments from scrapyards |
| | October | Published fact sheet on Federal Facilities Agreement |
| 1993 | November | Public comment period on Proposed Remedial Action Plan and Interim Corrective Measures for Source Control of the North/South Diversion Ditch |
| | December | Published notice of availability of Administrative Record File for the PGDP Water Policy |
| | December | *ERWM Information Bulletin* (Vol. 1, No. 2) issued |
| 1994 | April 10 | Public comment period for the Conceptual Site Treatment Plan |
| | June 22 | Conducted Public Workshop |
| | September 11 | Issued Draft Site Treatment Plan for public comment |
| | December 1 | Conducted Public Workshop |
| 1995 | January 26 | Conducted Public Workshop |
| | March | Issued Proposed Remedial Action Plan for northeast groundwater contamination plume |
| | May 2 | Conducted scoping meeting on feasibility and desirability of forming a Site Specific Advisory Board (SSAB) at Paducah |
| | May 7 | Conducted Public Meeting |
| | July 9 | Conducted Public Workshop |
| | September 10 | SSAB Selection Committee begins soliciting applications for membership |
| | September 28 | Conducted public meeting on Baseline Environmental Management Report |
| 1995 | November 5 | Conducted public video conference with DOE-Headquarters (HQ) and other sites on Draft Waste Management Programmatic Environmental Impact Statement |
| 1996 | January 31 | Conducted Public Meeting on Depleted Uranium Hexafluoride Programmatic Environmental Impact Statement |
| | July 23 | Conducted Public Meeting on the Waste Area Groupings 1 and 7 activities |
| | September | SSAB chartered by DOE-HQ Office of Public Accountability |
| | | Initiated Paducah Medical Surveillance Pilot Program for former DOE workers |
| | October | SSAB meeting held |

**Table 6.1 (continued)**

| Date | | Activity |
|---|---|---|
| | November 14 | Conducted Public Workshop |
| | November | SSAB meeting held |
| 1997 | January | Lawsuit filed in U.S. District Court, Western District of Kentucky by four individuals who live near PGDP |
| | | SSAB meeting held |
| | February | SSAB meeting held |
| | March | SSAB meeting held |
| | April | SSAB meeting held |
| | May | SSAB meeting held |
| | June | SSAB meeting held |
| | July | Issuance for public comment, Discussion Draft of "Accelerating Cleanup: Focus on 2006" (Formerly called the "Ten Year Plan") |
| | | SSAB meeting held |
| | August | SSAB meeting held |
| | September | SSAB meeting held |
| | October | SSAB meeting held |
| | November | SSAB meeting held |

### 6.2.2 Mailing List

The LMES Public Affairs Office maintains an extensive mailing list of approximately 2,000 individuals and groups. The list includes PGDP neighbors; members of the Environmental Advisory Committee, Neighborhood Council, and Site Specific Advisory Board (SSAB); local officials; meeting attendees; environmental activists; plant employees; past interviewees; and other individuals who have requested to be on the list. This list is used when distributing materials (such as information bulletins) about environmental activities at the plant.

Although newsletters were reported to be an attractive method of receiving information, more than half of those interviewed who were not currently on the LMES Public Affairs Office mailing list declined to be added. It would appear that those individuals who did not want to be on the mailing list were satisfied with their sources of information.

DOE will continue to provide opportunities for individuals to join the LMES mailing list by completing cards at public meetings and briefings, and announcing the opportunity in written materials that are widely distributed. To be added to the mailing list, contact either Dennis Hill or Jeannie Brandstetter at the address/phone number found on the back of the cover page of this CRP.

### 6.2.3 Interviews

Many community interviews have been conducted as part of the plant's information-gathering efforts to improve public outreach. Formal interviews were conducted in 1988, in October 1990, and between August 1992 and April 1993 by DOE and their representatives. In November 1996, additional interviews were conducted to reevaluate public concern and opinion and to update the CRP. Interviews are an effective method of obtaining opinions from a cross section of the community. If major or unexpected changes develop in the EMEF program, PGDP may initiate another round of extensive interviews to assess opinion regarding the changes. However, other methods of gathering information, such as door-to-door canvassing, telephone interviews, and community forums (e.g., the SSAB or the Neighborhood Council) may be used when the plant is seeking more immediate communication on specific issues. LMES Public Affairs staff will evaluate the November 1996 questionnaires to determine whether individual attention can help address specific concerns.

### 6.2.4 Information Bulletins

Information bulletins have been prepared and distributed by the plant at least once a year since contamination was first detected. These bulletins provide technical information and program updates to the community. Ten bulletins have been distributed since 1989. As many as 4,000 people received each bulletin—2,000 through the mailing list and the remainder through distribution at the plant.

Interview respondents who received the information bulletins were generally pleased with the length and subject of the bulletins. However, many respondents said the material has been too technical for the average person. Because information bulletins are a good source of information regarding progress and technical activities, these bulletins will be produced on a regular basis. Information bulletins will be written, using layman's terms, for the general public.

In addition to program activities, a question-and-answer section within the bulletins may be included to address relevant concerns collected through interviews and community forums. Future bulletin topics (such as those raised during the 1996 interviews) may include a projected schedule for plant remediation, an update on the water policy, and plans for addressing the issue of depleted uranium cylinders.

To improve bulletin distribution, additional measures will be implemented, including providing copies of the bulletin at local libraries and other public locations and providing opportunities for community members to join the LMES Public Affairs Office mailing list.

### 6.2.5 Public Meetings

Public meetings (also called briefings or workshops) have been held at least once a year since contamination was first detected. Attendance has varied from approximately 40 to 100 people. Attendance by community members has decreased since the first meetings. Public Affairs staff noted that there is a core of regular attendees at community meetings.

Most residents who have attended the meetings have found them informative: however, a few people reported that the meetings have become repetitive and do not provide new information. In general, 1996 interview respondents thought the frequency, format, and duration of the public meetings were appropriate.

The 1996 interviews did not find many people who regularly attend the public meetings (with the exception of those interviewed who were members of the Neighborhood Council, Environmental Advisory Committee, or SSAB). A few people said they had attended one or two meetings but do not attend regularly. Other people said they are aware that meetings are being held, but do not attend. A smaller subset of respondents, made up primarily of PGDP neighbors, prefer to call the Public Affairs office to personally discuss their specific concerns rather than attend a meeting.

One respondent suggested that PGDP host an annual event similar to the "Calvert City Good Neighbor Night" where guests can discuss issues in an informal setting rather than being a captive audience to a specific topic or briefing. DOE currently hosts a semi-annual/annual workshop that is conducted along those lines. There are no formal presentations, but a number of information stations are set up around the meeting room. These stations are staffed by experts in those particular fields. The public is free to ask questions and relate one-on-one with DOE, LMES, and DOE support contractor personnel. These workshops serve as a comprehensive introduction for those not familiar with the EMEF program and provide an opportunity to be added to the mailing list, acquire written material, and learn about the Information Repository, community boards, and other available resources.

Public meetings will continue to be offered at least annually or as needed (depending on site activities and public interest). The meetings will continue to be advertised to give the public the opportunity to attend. Evaluation forms will be distributed and responses tallied to further evaluate the effectiveness of the meetings and to determine continued need.

### 6.2.6 Information Repository

The Information Repository is the collection of documents associated with the environmental site activities at PGDP. The repository is maintained for public access to documents relating to past and ongoing environmental activities at the plant. This repository is maintained at the DOE Environmental Information Center in Kevil. Documents released for public comment are also available at the information desk of the Paducah Public Library for the duration of any published public comment period.

Availability of documents to the public is an important element in maintaining openness with the community. During the interviews, a number of respondents noted that they were aware of the Information Repository and acknowledged its availability as part of the plant's efforts to keep the community informed. The location of the DOE Environmental Information Center is and will continue to be mentioned in every information bulletin, display advertisement, and news release. (See Appendix A for locations, hours, and contact person for the Information Repository.)

### 6.2.7 Public Comment Periods

Public comment periods are required by law for major documents produced through the environmental program at PGDP and for RCRA permit modifications. The public comment period provides the official opportunity for public input into the remedy selection process. Comment periods of 45 to 60 days are generally provided.

Documents for public comment will be made available at the Information Repository at the DOE Environmental Information Center and at the Paducah Public Library. In most cases, copies will also be sent to SSAB and Environmental Advisory Committee members. Comment periods will continue to be announced to the public through notices in the local newspaper.

### 6.2.8 Administrative Record

The Administrative Record is a collection of documents similar to the Information Repository, but more extensive. The administrative record is a formal collection that must legally contain all documentation relating to the decision-making process for an NPL site remedy. The Administrative Record for DOE EMEF activities is maintained at the DOE Environmental Information Center (see Appendix A) and is available for public review.

### 6.2.9 Media

Multiple publications of display advertisements printed in *The Paducah Sun* have announced each public briefing, meeting, and workshop. Display advertisements also announce the release of reports, work plans, and other documents that are subject to public comment. The display advertisements are approximately one-sixth of a page in size and usually appear in the first section of the Sunday newspaper. Legal notices have been used for permit applications and other actions, such as extending the public comment period for the proposed plan for the northwest plume.

News releases have been used by regional television stations, radio stations, and newspapers. Coverage has been heaviest in western Kentucky, southern Illinois, and southeastern Missouri, although articles also have appeared in the *Louisville Courier-Journal*, which has statewide circulation.

Many respondents stated that they receive information about the plant and its environmental activities through the media. Public Affairs personnel contact television stations, radio stations, and newspapers through personal correspondence, fax transmittals, and mail. Media representatives interviewed in November 1996 reported general satisfaction with the frequency and method with which they are informed about plant environmental activities.

Display ads and legal notices will continue to be submitted and published in the *Paducah Sun* to announce public meetings, public comment periods, and permit actions. News releases will continue to be prepared by Public Affairs at important milestones in a project and whenever significant developments occur. News releases about activities specifically covered in the FFA will also be provided to EPA and state regulators.

Timely personal contact will continue as the standard for the Public Affairs group to inform the media about newsworthy issues.

### 6.2.10 Community Boards, Councils, and Committees

Special interest groups such as the Neighborhood Council, the Environmental Advisory Committee, and the SSAB can be dynamic and effective in community relations by sharing information with the community and providing important input to DOE about environmental concerns.

**Environmental Advisory Committee.** The Environmental Advisory Committee (EAC) was established in 1986. Six to eight members representing academia, local business, farming, and PGDP

neighbors were originally appointed by plant managers to provide input on environmental activities at PGDP. The six- to eight-member committee reviews technical documents and gives DOE and LMES comments from technical and professional perspectives.

The committee generally meets four to five times a year but may meet as often as eight times according to its charter. Committee members are paid a stipend by LMES to provide their input and are viewed as technical consultants who provide recommendations individually, not as a group. With the establishment of the PGDP SSAB, the EAC has become less active.

**Neighborhood Council.** In response to community members who requested more direct interaction with the plant, LMES/DOE chartered the Neighborhood Council in August 1992. The Neighborhood Council is an exclusively volunteer group of six local residents who interface with LMUS, LMES, USEC, DOE, and the immediate community. DOE and LMES representatives attend the meetings to provide information and answer questions about the EMEF program. Administrative support and funding are provided by LMUS.

The Neighborhood Council provides members the opportunity to learn firsthand about plant activities. This information then filters into the community, when members share information within their individual social and business circles. The members see the council as a positive element for the community that will help provide more accurate information to residents. Past interviews showed that the community views the council as a valuable tool for reestablishing trust regarding PGDP.

**Site Specific Advisory Board.** Another DOE initiative that was recently implemented is the formation of an SSAB. SSABs are recommended as public-participation tools for federal facilities involved in major cleanup programs. An SSAB provides a forum for dialogue among representatives from the community, DOE, and regulatory agencies earlier in the decision-making process than is usually provided by other RCRA, CERCLA, or NEPA public involvement activities.

The SSAB is composed of 20 members representing a diverse cross section of the community, DOE, EPA, and state agencies. Fifteen volunteers were chosen through a structured selection process. The remaining five members (ex-officio members) were appointed by their respective agencies. The SSAB was chartered and held its first official meeting in November 1996.

The SSAB is one of the most effective and broad-reaching public relations tool in the community relations program. This forum is used to express public concerns about important decisions and educate the public about proposed actions and the decision-making process. It is also used to evaluate and recommend additions to the EMEF public-participation program. At regularly scheduled meetings, the SSAB may address the following issues:

- Recommendations about priorities for the EMEF budget and other policy issues
- Recommendations about the EMEF decision-making process
- Scope of EMEF studies and alternatives
- Future land uses

Additionally, the SSAB forum may be used to supplement public briefings and meetings by convening special meetings or including featured topics on the regularly scheduled agenda. Presentations of interest to the community (such as sampling demonstrations or speeches by environmental specialists) and site tours can be scheduled through the SSAB. SSAB meetings are

open to the general public and are advertised through local media outlets. A Community Outreach Subcommittee was established to identify community concerns and how they should be addressed.

### 6.2.11 Speakers Bureau

LMES Public Affairs staff offers public speakers to address civic groups, local businesses, trade associations, utilities, and educational institutions. To help advertise this service, LMES developed a brochure that is distributed to groups primarily at public meetings. In response to the sustained interest and frequent requests for this service, LMES will continue to offer speakers to local groups.

### 6.2.12 Plant Tours

Plant tours and tours of DOE projects are conducted on a fairly regular basis for groups and individuals. Tours will be continued and publicity associated with these events will be increased.

### 6.2.13 Technical Assistance Grants

When PGDP became a Superfund site, local environmental or other community groups became eligible to apply for the EPA Technical Assistance Grant (TAG) program. The TAG program provides funds for qualified citizen groups affected by a Superfund site to hire independent technical advisers to help them understand and comment on site-related information and thus participate in the cleanup effort. Grants of up to $50,000 are available for community groups to hire a technical adviser to interpret site-related technical information.

The grant is not a lump sum, but is provided on a reimbursement basis, and the group must provide at least 20% of the necessary funds. The 20% may be in the form of cash, in-kind services, or volunteer work, but cannot be federal funding. Only incorporated community groups (excluding political groups or academic institutions) may apply for grants. The group must file a letter of intent with the EPA office for their area. For Kentucky, that address is:

Sharon Chandler
U.S. EPA Region IV
100 Alabama Street, SW
Atlanta, GA 30303-3104
(404) 562-8888

Once this has been done, the *Superfund TAG Handbook*, which includes an application and instructions, will be sent to the party. Before the grant is awarded, EPA will ensure that the group has specific goals and intent. The group must demonstrate its ability to manage the grant in compliance with EPA rules and must be willing to share any results with the community.

Records of accounting and administration of the funds must be kept and properly maintained. These records should be kept so that the funds will be reimbursed by the EPA, and records must show that the group is paying for 20% of the effort. Lastly, quarterly progress reports must be submitted to EPA.

## 6.3 POTENTIAL COMMUNITY RELATIONS ACTIVITIES

The following activities are not currently part of the program but may be included as outreach activities in the future.

### 6.3.1 Suggestion Boxes

In response to comments that the community and media may not feel confident in expressing their true concerns about the plant, in fear of retribution or of the plant closing and damaging the local economy, the Public Affairs Office may establish suggestion boxes in public locations or at public meetings to encourage anonymous candid comments and concerns. Comments can be collected periodically by Public Affairs staff and evaluated for possible action.

### 6.3.2 Local Cable Access

Two interview respondents recommended using the resource of local cable television programming to disseminate information about PGDP environmental activities and progress. Using this method, local political events are covered and may reach a different audience than other current outreach methods. Periodic coverage may be scheduled in response to major milestones in the DOE EMEF program.

## 6.4 COMMUNITY RELATIONS PROGRAM COORDINATION AND TIMING

Although many of the outreach activities discussed in this section are strictly voluntary, a number of community relations elements are required by law at specific milestones in each regulation (CERCLA, RCRA, NEPA). These public involvement requirements for the EMEF program will be integrated under the FFA. Table 6.2 presents a generalized timeline of activities that will be implemented under the DOE EMEF program at PGDP.

**Table 6.2. Timing and implementation of community relations activities**

| Activity | Timing/Frequency of Activity |
|---|---|
| Point of Contact | A point of contact has been established to field inquiries from the community |
| | A contact person will be provided for the duration of the cleanup |
| | Contact information is provided in all publications |
| Personal Contact | Personal contact has been used for relaying information when appropriate |
| | Personal contact will be made with residents, local officials, and the media as significant developments occur |
| | Results of the Water Policy reevaluation will be shared (by December 1997) with residents affected by the policy |
| Mailing List | Established. Maintain the list for the duration of the cleanup to include any new interested parties and to eliminate outdated entries |

**Table 6.2 (continued)**

| Activity | Timing/Frequency of Activity |
|---|---|
| Interviews | Interviews conducted in 1988, 1990, 1992-1993, and 1996 |
| | Formal interviews with the community, or informal interviews through established forums such as the Site Specific Advisory Board (SSAB), will be conducted as necessary to evaluate public opinion about the Paducah Gaseous Diffusion Plant (PGDP) |
| Information Bulletins | Produced and distributed on average of twice a year |
| | Information bulletins or fact sheets will be produced during the Remedial Design/Remedial Action (also called Corrective Measures Implementation) stage of the cleanup. Multiple projects may be covered in one bulletin. |
| Information Repository | Established in 1994. Will continue to be updated with applicable documents |
| Public Comment Periods | 30-day comment period for proposed plan and significant changes to record of decision (ROD). (U.S. Department of Energy [DOE] may increase length of comment periods if deemed necessary, and comment periods may be extended upon request) |
| | 45 days for major Resource Conservation and Recovery Act (RCRA) permit modifications |
| Administrative Record | Established in 1989. Will continue to be updated with applicable documents |
| Media - Public Notice | Public notices will be placed in the newspaper to announce comment periods on proposed plans, RODs, and modifications to RODs |
| Media - General | Media contacts have been used regularly to publicize information |
| | Media will continue to be updated on Environmental Management and Enrichment Facilities (EMEF) milestones and newsworthy events |
| | Meetings will be announced and information will be provided for reporters' use in stories |
| Community Boards | Three groups (Environmental Advisory Committee, Neighborhood Council, and SSAB) have been established to represent community interests in the EMEF program. Boards will meet according to their charters |
| Speakers Bureau | Established. Continue to have speakers available for civic groups, academia, and businesses |
| Plant Tours | Tours may be scheduled in conjunction with specific environmental activities at the plant |
| Technical Assistance Grants | Information on Technical Assistance Grants (TAGs) has been made available, and citizens' groups may apply through the U.S. Environmental Protection Agency (EPA) |

**Table 6.2 (continued)**

| Activity | Timing/Frequency of Activity |
|---|---|
| Suggestion Boxes | May establish suggestion boxes in public locations to encourage candid comments. Comments would be collected periodically |
| Local Cable Access | Updates regarding major milestones for EMEF program can be covered on the local cable television station. Frequency and topics will be determined as necessary |

# 7. REFERENCES


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# Appendix A

# Information Repository

# Information Repository

Copies of technical reports, information bulletins, and other site documentation relating to the environmental activities at the Paducah Gaseous Diffusion Plant are contained in the Information Repository that is available for review at the U.S. Department of Energy (DOE) Environmental Information Center.

Documents that are made available for review during public comment periods are available at the Environmental Information Center and at the Paducah Public Library.

*Information Repository/Public Comment Documents*

DOE Environmental Information Center
175 Freedom Boulevard
Kevil, Kentucky 42053

Hours:
Monday - Friday
7:30 a.m. - 5:00 p.m.

Contact Person:
Shelley Hawkins
Phone (502) 462-2550
Fax (502) 462-2551

*Public Comment Documents Only*

Paducah Public Library
555 Washington Street
Paducah, Kentucky 42001

Hours:
Monday - Thursday
9 a.m. - 9 p.m.
Friday and Saturday
9 a.m. - 6 p.m.
Sunday
1 - 6 p.m.

Request specific document or assistance at the
Information Desk.
(502) 442-2510

# Appendix B

## Paducah Gaseous Diffusion Plant
## Water Policy

# Paducah Gaseous Diffusion Plant
# Water Policy

## Policy

It is the intent of the Paducah Gaseous Diffusion Plant (PGDP) Environmental Restoration Program to offer municipal water service in accordance with this Policy to all existing private residences and businesses within the projected migration area of the contaminated groundwater originating at PGDP (affected area). [The figure at the end of this appendix shows the boundary of the Water Policy.]

## Procedure

For all existing residences and businesses within the affected area currently using well water (users), PGDP will, at the U.S. Department of Energy's (DOE's) expense:

- Offer to connect all users to municipal water supply lines.
- Offer to pay the reasonable costs of water bills for "users" whose wells are currently contaminated from the plant or whose wells might potentially become contaminated from the plant, as determined by DOE. Any determination as to the reasonableness of a water bill shall be made by DOE.
- Provide locks for securing wells in the affected area to control unauthorized use of the wells and to ensure access by PGDP for sampling or testing.
- Continue to monitor the extent of contamination to determine movement of contaminated groundwater.
- Continue paying reasonable cost of water bills for residences and businesses through December 1997. At that time DOE will re-evaluate this policy and determine whether to continue, modify, or terminate it. The long-term responsibilities of DOE in respect to this water policy are expected to ultimately be stipulated in a record of decision (ROD). When the ROD is issued, it will supersede whatever policy is in effect at that time.

Those outside the affected area and/or new residences and businesses will be allowed to connect to a municipal water supply at their own expense. Agreements will be developed with each user who is provided water that delineate the responsibilities of both parties, including a provision that no additional water supply wells may be drilled in the affected area. All users will cooperate and work directly with the West McCracken Water District to connect to the water supply.

New residences and businesses that are offered access to a municipal water supply at their own expense within the affected area will not be provided free water under this policy.

It is the intent of PGDP to provide water service comparable to that currently available to and used by people within the affected area. Increases in water usage as a result of increases in agricultural use of water, livestock watering, or subdivision of property will not be paid for under this policy.

The implementation of municipal water service to the affected area will modify PGDP's current off-site well sampling policy. These modifications are:

- No residential well that lies outside the boundaries of the water sampling box will be sampled.
- Sample schedules normally will not be changed to accommodate a sample request inside the boundary if there is not a good technical reason driving the schedule change.

The PGDP water policy will be periodically evaluated and modified as conditions warrant. Exceptions to this policy may be made on a case-by-case basis.

# Appendix C

## Summary of Major Environmental Activities

# Summary of Major Environmental Activities

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Consent Order (ACO) that the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) signed in November 1988 under the provisions of Section 104 and Section 106 of CERCLA formally documents the actions that will be taken to determine the nature and extent and the sources of the off-site contamination that was discovered in August 1988. Major activities completed under the ACO include the following:

- Site investigation completed in two phases
- A public health and ecological assessment that evaluated the risks from exposure to trichloroethylene (TCE), technetium-99 ($^{99}Tc$), polychlorinated biphenyls (PCBs), and other contaminants to humans, plants, and animals
- An alternatives assessment and summary of alternatives that evaluated a preliminary range of potential alternatives

The specific requirements of the ACO are being met and will be considered to be complete when the Federal Facilities Agreement (FFA) is signed.

The FFA is required under CERCLA for any federal facility that is placed on the National Priorities List (NPL) for cleanup. The Paducah Gaseous Diffusion Plant (PGDP) was placed on the NPL on May 31, 1994. The first draft of the FFA was generated in 1993 and has been under negotiation since that time. The FFA is expected to be signed early in 1997 and will incorporate the corrective action requirements of CERCLA and RCRA. Therefore, additional work being performed for the 205 solid waste management units (SWMUs), now grouped into 30 Waste Area Groupings (WAGs), at PGDP will be implemented according to FFA requirements.

## CERCLA/RCRA Activity

### Interim Actions

Several interim actions to protect human health and the environment, such as keeping additional contaminants from migrating off the site while the final remedial alternatives are being determined, have been implemented at PGDP. These actions are called "interim corrective measures" under the Resource Conservation and Recovery Act (RCRA) or "interim remedial actions" under CERCLA. Some of the interim actions that have been completed or are in progress include the following:

- Institutional controls (erecting fences and posting signs) on outfalls, ditches, and creeks that may contain contaminated sediment, surface water, or fish to limit human exposure, specifically Little Bayou Creek and the North-South Diversion Ditch. (Completed 1993 - maintained annually)
- Silt fences designed to control sediment movement and surface water runoff from the scrapyards (completed 1994 - maintained annually)
- A pump-and-treat system intended to hydraulically contain the highest concentration areas of contaminated groundwater in the northwest area of the plant while a final remedial action for the contamination is developed (completed 1995)

- A pump-and-treat system intended to hydraulically contain the highest concentration areas of contaminated groundwater in the northeast area of the plant (completed 1996)

**RCRA Facility Investigations/Remedial Investigations**

The terms of PGDP's RCRA (Hazardous and Solid Waste Amendments [HSWA]) permit require that SWMUs on the permit be investigated through RCRA Facility Investigations (RFIs), which are very similar to the phased CERCLA Remedial Investigation (RI) process. DOE uses the CERCLA terms for these documents or combines them with the equivalent RCRA terms as part of the integration of the two regulatory programs required by the FFA.

RFIs (RIs) are used for evaluation of SWMUs to identify the sources, the release mechanisms, and the extent and concentrations of potential contaminant releases. RFIs are initiated by work plans and are followed by reports that contain information on site characterization along with human health and ecological risk assessments. If a remedial action is determined necessary, the potential remedial alternatives are assessed, a preferred alternative is identified and presented to the public, and a remedy is selected. The final stages include remedial design, implementation of the remedial action (the "corrective action," in RCRA terminology) and, finally, monitoring to assess the effectiveness of the remedial action.

WAGs that have been or are being investigated are listed below with brief descriptions:

- WAGs 1 and 7 RFI (1993,1994): 12 SWMUs in two different WAGs were investigated. Three of the SWMUs were inside the secured fence; nine SWMUs were located outside the fence adjacent to the plant, or in the former Kentucky Ordnance Works area southwest of the plant. The SWMUs included spill sites, a fire training area, an inactive sanitary landfill, and several underground storage tanks (USTs).

- WAG 17 RFI (1994, 1995): WAG 17 is a grouping of construction rubble piles scattered around the outside of the fenced plant proper.

- WAG 23 RI (1995): WAG 23 is a collection of nine PCB spill sites of which eight are located inside the plant fenced area.

- WAG 22 RI (1995): WAG 22 is three former landfills inside the security fence.

- WAG 6 RI/Feasibility Study (FS) (1996,1997): WAG 6 includes four SWMUs associated with off-site contamination emanating from the C-400 building.

**Closure and Cleanup of Underground Storage Tanks**

USTs are managed under RCRA Subtitle I under 401 KAR 42. To reduce the risk of a release, 12 USTs at the plant have been or are being investigated, as follows:

- Two USTs (C-611-2, C-746-B) were determined not to be present.

- One UST (C-750-C) was removed and closed under RCRA.

- Four USTs (C-611-1, C-611-3, C-611-4, C-611-5) have been closed or determined to require no further action.

- Four USTs (C-750-D, C-746-A, C-200-A, C-710-B) will be closed in the summer of 1997 by grouting in place.

- Two USTs (C-750-A, -B) have been removed and the closure process is ongoing.

**Waste Management Program**

The Paducah Waste Management program consists of the treatment, storage, and/or disposal of various wastes including mixed waste, scrap metal, low-level radioactive material, and other stored DOE material. It is divided into three work breakdown structure elements: treatment, storage, and disposal. The Vortec Vitrification Demonstration project, preparation of legacy waste for treatment, and on-site wastewater treatment are managed under the treatment work breakdown structure. The storage work breakdown structure includes storage activities and RCRA closures. Disposal activities include operation of a 60-acre solid waste landfill (approximately 3,000 tons of waste per year) and preparation and shipment of certain RCRA, Toxic Substances Control Act (TSCA), and low-level radioactive wastes to off-site disposal facilities.

**Management of Legacy Wastes**

Legacy waste is waste that was generated prior to July 1, 1993, when DOE transferred uranium enrichment process operations to U.S. Enrichment Corporation (USEC). Management of legacy waste is covered under a number of state and federal regulations. Some of the legacy waste is slated for shipment off-site for treatment and/or disposal, while some is stored on-site for future disposition, which may include on-site treatment dependent on the nature of the waste and available technologies for treatment/disposition. The current plans are to treat and dispose of all DOE legacy waste (except for transuranic waste) by the end of FY 2006. A number of documents, including the Site Treatment Plan, are used to govern this waste. In addition, DOE has issued a draft Waste Management Programmatic Environmental Impact Statement (PEIS) to deal with legacy waste at DOE sites nationwide.

**Disposition of Uranium Hexafluoride ($DUF_6$) Cylinders**

DOE owns close to 30,000 10- to 14-ton cylinders at Paducah that contain depleted uranium hexafluoride ($DUF_6$). An aggressive cylinder inspection and maintenance program at the site includes cleaning and coating cylinders and constructing new, concrete cylinder yards for storage. The $DUF_6$ is being addressed in a PEIS. Public meetings on the draft PEIS are scheduled for the fall of 1997.

**Innovative Technologies/Demonstrations**

Within the arena of environmental restoration activities at PGDP, DOE and/or Lockheed Martin Energy Systems, Inc. (LMES), have sponsored or implemented several innovative technology demonstrations. An innovative technology is a new or untried approach used to solve an environmental problem. Trying these new ideas at a site where active environmental cleanup is ongoing provides more realistic conditions and results than can be duplicated in a laboratory setting. Several innovative technologies are described below.

*Iron Filings Demonstration*

This idea concerned the chemical relationship between TCE and iron, i.e. that TCE dissolved in water would chemically adhere to iron. To test the idea, groundwater contaminated with TCE was passed through a container filled with iron filings.

*Lasagna™*

A group from private industry that included Dupont, General Electric, and Monsanto developed a technology called Lasagna™ to remove TCE from soil. In Phase I (1995), the concept for this technology was demonstrated in an actual contaminated medium (soil at the PGDP Cylinder Drop Yard). In Phase IIa (1996), a commercial application of the technology was conducted at PGDP. This project is funded by DOE.

*Vortec*

The Vortec Corporation in Pittsburgh, Pennsylvania, has a contract with the DOE Morgantown Environmental Technology Center to build and demonstrate a waste treatment unit at PGDP. The unit, which is a new application of an existing technology, will treat mixed waste by heating the waste to very high temperature with the raw products used to make glass. Any hazardous or radiological materials in the waste would be captured in the resulting vitrified glass frit.

DOE conducted an Environmental Assessment for the Vortec project in late 1997 as part of an agreed settlement to a lawsuit filed against the agency over the process.

The reader can find more detailed information on the activities described above by contacting the DOE Environmental Information Center in Kevil, Kentucky (see Appendix A).

# Appendix D

# Summary of Environmental Laws

# SUMMARY OF ENVIRONMENTAL LAWS

## Comprehensive Environmental Response, Compensation, and Liability Act

### *Overview of CERCLA*

The main intent of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is to protect human health and the environment by investigating and remediating (containing or cleaning up) releases of hazardous substances at unpermitted, uncontrolled, or abandoned hazardous waste sites.

Based on findings from environmental studies, facilities are scored by the U.S. Environmental Protection Agency's (EPA's) Hazard Ranking System. Sites scoring 28.5 or higher (out of 100) are placed on the EPA's National Priorities List (NPL) and become a high priority for cleanup. The Paducah Gaseous Diffusion Plant (PGDP) scored 56.9 and was placed on the NPL in May 1994. CERCLA requires federal facilities that are listed on the NPL to enter into a Federal Facilities Agreement with EPA.

The CERCLA remedial process normally takes place in three phases:

- A site evaluation
- A detailed study of the site along with an exploration of alternatives and a risk assessment, followed by the selection of a remedial action plan
- The design and implementation of the selected site remedy

If a site poses an immediate threat to public health or the environment, EPA can require a short-term removal action to address the threat immediately.

### *How CERCLA Affects PGDP*

In November 1988, the U.S. Department of Energy (DOE) entered into an Administrative Consent Order (ACO) with EPA to determine the nature and extent of contamination of off-site groundwater caused by sources at PGDP and to take appropriate action as necessary to protect the public health, welfare, and the environment. To date, a series of site investigations and interim actions have been initiated under the ACO.

## Resource Conservation and Recovery Act

### *Overview of RCRA*

The main intent of the Resource Conservation and Recovery Act (RCRA) is to protect human health and the environment through the proper management of hazardous and nonhazardous wastes at operating sites. Three subtitles of RCRA apply to PGDP:

- RCRA Subtitle C, which establishes permit requirements for generation, transportation, and treatment, storage, and disposal (TSD) of hazardous wastes; regulates closure plans for inactive facilities; requires corrective actions for hazardous substances originating in solid waste management units (SWMUs); and provides for interim corrective measures (ICMs), if necessary, to respond to immediate threats to public health or the environment

- RCRA Subtitle D, which regulates the management and disposal of nonhazardous solid wastes
- RCRA Subtitle I, which regulates underground storage tanks (USTs) used for storing petroleum products or hazardous wastes to prevent and control leaks and releases from such tanks

RCRA Subtitle C is the most important of the three subtitles for the Environmental Management and Enrichment Facilities (EMEF) program at PGDP. The Commonwealth of Kentucky administers the RCRA Part B permit that applies to the PGDP TSD facilities that actively manage hazardous wastes and to postclosure groundwater monitoring of closed landfills. EPA administers the parts of the RCRA Part B permit (1) that apply to corrective actions for releases from SWMUs and Areas of Concern and (2) that govern necessary interim actions. RCRA requires a study and decision-making process for SWMU corrective actions that is similar to the CERCLA process.

***How RCRA Affects PGDP***

One facility at PGDP is operating under a RCRA Subtitle D permit administered by the Commonwealth of Kentucky: the residential C-746-U Contained Solid Waste Landfill. Two former Subtitle D facilities, C-746-S and C-746-T, have been closed and are in postclosure groundwater monitoring.

**National Environmental Policy Act**
***Overview of NEPA***

The main intent of the National Environmental Policy Act (NEPA) is to make sure that environmental resources, values, and factors are fully considered in major decisions and actions taken by federal agencies. NEPA requires federal agencies to determine whether a proposed action does one of the following:

- Qualifies for a categorical exclusion (CX)
- Requires the preparation of a report called an environmental assessment (EA) to evaluate the potential for environmental effects
- Will involve potentially significant environmental effects and thus require preparation of a more detailed report called an environmental impact statement (EIS)

***How NEPA Affects PGDP***

NEPA requirements generally overlap with those of RCRA and CERCLA and are therefore integrated according to DOE policy. In the early stages of environmental investigations, PGDP evaluated the appropriate NEPA actions (CX, EA, or EIS) and integrated them into the remedial activities.

**Clean Water Act**
***Overview of CWA***

The Clean Water Act (CWA) regulates pollutant discharges into surface water from municipal, industrial, and other sources. The Commonwealth of Kentucky administers the CWA under EPA authorization.

*How CWA Affects PGDP*

Effluent discharges from PGDP through the plant discharge ditches into Big Bayou Creek and Little Bayou Creek are regulated under the CWA through a Kentucky Pollutant Discharge Elimination System (KPDES) permit.

**Toxic Substances Control Act**
***Overview/How TSCA Affects PGDP***

The Toxic Substances Control Act (TSCA) comprehensively regulates the manufacturing, use, and disposal of certain chemical products. The most significant provisions of TSCA that apply to PGDP are regulations on the use and disposal of polychlorinated biphenyls (PCBs).

**Commonwealth of Kentucky Underground Storage Tank Program**
***Overview/How UST Affects PGDP***

The Commonwealth of Kentucky passed a UST law in April 1990 and adopted the federal regulations in December 1990. Kentucky administers the federal UST program under Subtitle I of RCRA and the state's UST regulations. The state and federal UST regulations govern the installation of USTs used to store petroleum and chemicals, requirements for leak-detection systems and containment of releases, reporting of known or suspected leaks and releases, UST closure and removal, certification of persons who install and remove USTs, and cleanup of releases from USTs. Several USTs at PGDP are being investigated or removed under Kentucky's administrative jurisdiction.

**Federal Facility Compliance Agreements (FFCAs)**
***Overview/How FFCAs Affect PGDP***

DOE has entered into three FFCAs with EPA regarding regulated waste or materials.

Toxicity Characteristic Leaching Procedure (TCLP) FFCA - A large volume of historic waste (approximately 14,000 drums) at PGDP was characterized for storage using a method no longer accepted under RCRA. Therefore, EPA has required DOE to characterize this waste using the currently accepted characteriztion method–TCLP. This work is in progress under the TCLP FFCA and is due to be completed by December 1999.

Land Disposal Restriction (LDR) FFCA - Approximately 2,000 drums at PGDP contain waste material that cannot be disposed of in a landfill unless treated to acceptable condition. Therefore, EPA and the Kentucky Division of Waste Management have required DOE to characterize this waste and to treat it so that it may be properly disposed of. This work is in progress under the LDR FFCA and the Federal Facilites Compliance Act Site Treatment Plan, which outlines waste treatment schedules.

TSCA FFCA - A large volume of PCB waste and PCB-containing building materials is found at PGDP. The TSCA FFCA is a plan that brings PGDP into compliance with the requirements of TSCA. Under the TSCA FFCA, EPA has given DOE (1) guidelines for limited use and storage of PCBs and PCB-containing materials and (2) compliance schedules for each PCB concern covered in the FFCA.

# Appendix E

## Paducah Gaseous Diffusion Plant
## Community Relations Plan
## Questionnaire

# Paducah Gaseous Diffusion Plant
# Community Relations Plan
# Questionnaire[1]

**Purpose:** To learn about the community's level of knowledge regarding the plant and its environmental activities, and determine the type and extent of public outreach activities the public prefers.

**Objective:** To produce a Community Relations Plan (based on these interviews) that will meet the needs of the Paducah community in understanding the environmental activities at the Paducah Gaseous Diffusion Plant, and provide improved two-way communication between the community and the plant.

1) **Are you familiar with the Paducah Gaseous Diffusion Plant? Yes / No**
Yes 42 No 0

2a) **Do you work at the plant? Yes / No**
Yes 5 No 37

2 Retired from plant

2b) **If no, do you know anyone who does? Yes / No (neighbor/relative/friend/other)**
Yes 36 No 3

2 Knows retirees

3) **What is your overall impression of the plant?**

- ☐ **Positive / Why?** 26

| | |
|---|---|
| 15 | Economic impact |
| 4 | Good neighbors, intelligent people |
| 3 | High level of safety awareness |
| 2 | Open and honest |
| 2 | No reason to feel negatively |
| 1 | Poses no real danger |
| 1 | No personal problems with it |
| 1 | Bogged down with bureaucracy |

- ☐ **Negative / Why?** 6

| | |
|---|---|
| 6 | Environmental/health issues concern |
| 1 | Energy hog |
| 1 | Management wasted money |

- ☐ **No opinion/Neutral** 10

---

[1] 42 Questionnaires were completed during the November 1996 interview process.

**4a) Do you have any concerns about the plant? Yes / No**

Yes 27 No 10

**4b) If so, what are they? Please specify.**

- **Property values** 10 *(Some respondents had multiple comments)*
  - 3 Can't dig or use wells
  - 2 Can't subdivide land
  - 1 Realize it may become a concern but it's not a concern now
  - 1 Concern about what is in the silos at KOW (not PGDP property)

- **Human health** 15
  - 5 Contamination issues
  - 3 Cancer/health concerns
  - 2 Groundwater issues

- **Drinking water** 15
  - 7 Drinking water contaminated now or in the future
  - 1 The plant has done a good job of taking care of it

- **Recreation** 7
  - 3 Concern with loss of opportunity
  - 1 Decline in use, may be related to plant
  - 1 Pollutants in the deer

- **Environment** 12
  - 5 Negative impact on the environment
  - 1 The extent of all areas of contamination hasn't been investigated
  - 1 Going overboard to please the public

- **Other** 6
  - 2 Economic concerns/longevity of the plant
  - 2 Wants plant to have a good future
  - 1 Information leaks on work done at the plant
  - 1 Management problems
  - 1 Wildlife
  - 1 Maintenance

**Comments:**

- 3 Economic concerns
- 2 Why try to clean it up when it's impossible to do so; let nature do it
- 1 Doesn't always believe everything on the news
- 1 Contaminant release affects all of the above
- 1 Done an excellent job in community awareness, notifying appropriate people
- 1 Many people died on Bradford Road from cancer, freezing vapors from cooling tower blow and settle there (rumor)
- 1 If we are to be attacked by another country, Paducah might be a target because of the plant
- 1 Heavy industry concerns, nothing radiological
- 1 Costly cleanup (the prospect of spending billions of dollars)

5) **Are you aware of the environmental cleanup activities ongoing at the plant? Yes / No**
Yes 38 No 4

6) **Are you aware of the Water Policy? Yes / No**
Yes 32 No 7

7) **Is there anything you want to know about the plant or its environmental activities? Yes / No If yes, please specify.**
Yes 15 No 22 *(Some respondents had multiple comments)*

8 Keep the community well informed.
3 Are contaminants affecting human health/environment?
3 How are contaminants affecting the environment/groundwater?
2 Would like to know updates on water policy. How long will water be supplied. will people be allowed to use wells?
1 Hold quarterly meetings.
1 Information will be discussed at Environmental Advisory Committee meetings.
1 Soil core sample, results cumulative from all plants in the area.
1 Does the plant communicate with the Wildlife Management Association?
1 What does the plant do?
1 Will cleanup solve drinking water problems?
1 Doing a good job of informing people and cleaning up.
1 Initial negligence by Union Carbide in construction stage.
1 Is there an anticipated date for cleanup of drums?
1 Wish plant would tell the truth
1 Has the plant contaminated the aquifer, and if so, does the plant have to clean up the aquifer to the same levels the city does as a result of the city's landfill problem?
1 Will be following Vitrification Demonstration Project with great interest.

8) **How do you rate the Plant's efforts in providing the community with information about environmental activities?**

- ☐ **Good** 28
- ☐ **Average** 7
- ☐ **Poor** 3

2 Library has documents and bulletins
2 Plant holds public meetings
2 Plant provides information when something happens
1 Excellent
1 Very poor. Used to be really good.
1 Too technical. Just give nuts and bolts. Talk to the people, not the technical folks.
1 Proactive, continue community awareness program
1 Not hiding anything
1 Good effort in getting information out, but is it information or propaganda.
1 Ads in newspaper for meetings, etc.

9) **Do you feel confident in the information the plant is giving to you? Yes / No**
Yes 28 No 3

3 Tells what they want to tell, not necessarily everything
2 Pretty well informed
2 Gives good information
2 Explains their position
1 So much data. Surprises come up when other people look at data
1 Doing best they can do
1 Don't believe them
1 Plant is afraid not to tell them
1 Always been credible
1 Information has been as accurate as possible, but DOE has not been so good at responding; slow to react to questions, given wrong dates, etc.

10) **Do you feel the plant is doing everything possible to correct the environmental problems? Yes / No Please explain.**
Yes 24 No 7

5 The Plant's doing as good a job as possible on environmental issues.
3 Is money being spent wisely?
3 Efforts are being made, but are they correcting everything?
2 How will they be able to clean it up?
2 Skeptical of bigger picture.
2 Doing more than necessary.
1 Is cleanup worth the cost?
1 The plant is using unproven experimental technologies.
1 Uranium is tough stuff to get rid of.
1 Doing everything within reason.
1 Pump and treat probably isn't needed at this site. It's blown out of proportion but provides lots of jobs.
1 DOE may be holding up progress.
1 Lack of trust.
1 More could be done, but should it?
1 Are not looking at total impact of cleanup.

11) **How do you get your information about environmental issues at the plant?**

- **Public Meetings** 22
  - 1 Go to meetings every once in a while.
  - 1 See announcements for the meetings.
  - 1 Informative, but how trustworthy?
  - 1 Technical, but doing best job possible. Need to explain issues, give a reference like how much contamination is bad? How much is there?

- **Newsletters** 21
  - 1 Receives monthly employee bulletin

- ☐ **Media (Please specify: newspaper/radio/TV)** 19

| | |
|---|---|
| Newspaper | 7 |
| Radio | 1 |
| Television | 1 |

| | |
|---|---|
| 1 | Not much on TV |
| 1 | Media don't want to rock the boat and cause the plant to leave |

- ☐ **Public Affairs/Community Relations Office** 14

| | |
|---|---|
| 1 | Receives letters |
| 1 | Best method |
| 1 | Daily newspaper/newsletter type publication |

- ☐ **Word of mouth through neighbors/Plant employees/other** 13

- ☐ **Other (please specify)** 17

| | |
|---|---|
| 5 | Mailing list |
| 4 | Plant |
| 2 | Environmental Advisory Committee |
| 2 | Site Specific Advisory Board |
| 1 | Technical documents |
| 1 | Freedom of Information Act |
| 1 | Environmental research group in Maryland (IEER), Native Americans for a Clean Environment, Indigenous People Network. |
| 1 | Sometimes public calls |
| 1 | U.S. Enrichment Corporation |
| 1 | AIP Group (affiliated with the University of Kentucky) |

**12) Regarding the methods you checked in 11, can you suggest improvements in the way you receive information? For example, if you attend public meetings, how can they be improved?**

| | |
|---|---|
| 5 | Information is too technical – even ads in the newspaper |
| 3 | Public meetings |
| 3 | Inform media and newspaper, proactive articles needed |
| 3 | Keep newsletters simple and brief, not technical. Losing interest when too technical |
| 2 | Newsletters are useful |
| 1 | Unbiased articles in newspaper; biased media avoids opposing views |
| 1 | Meetings stacked with government and plant officials, very intimidating |
| 1 | More advanced notice of meetings |
| 1 | Meetings with officials under oath and available for cross examination |
| 1 | Is the plant hiding something? |
| 1 | Presenting information they believe at the time |
| 1 | Target the residents of piped water |

**13a) How would you *prefer* to get information about the plant?**

- ☐ **Public Meetings** *(Some respondents had multiple comments)* 14

  1 Allows people to ask questions
  1 Not many people go

- ☐ **Newsletters** 17

  1 For standard updates

- ☐ **Media (newspaper/radio/TV). Please specify** 19

- ☐ **Public Affairs/Community Relations Office** 10

- ☐ **Word of mouth through neighbors/Plant employees/friends** 4

- ☐ **Other (please specify)** 11

  7 Okay as is.
  2 Mailings
  1 Technical documents
  1 FOIA
  1 Variety of ways
  1 Environmental Committee meetings
  1 E-mail or web page
  1 If important, phone call or personal visit
  1 Briefings by officials

- ☐ **I'm not interested in getting information about the plant** 4

  1 Don't know who's in charge
  1 Go back to the old days when they sent out usable newsletters

**13b) How often would you like to get information about the plant?**

- ☐ **Once a month** 11

  1 For water policy recipients.
  1 Whether new information or not. Monthly update.
  1 Media updates once a month.

- ☐ **Quarterly (four times a year)** 15

  2 Updates quarterly.
  1 Quarterly newsletter.

- ☐ **Yearly (once a year)** 1

  1 Would like updates once or twice a year.

□ **Other (please specify)** 15

13 Whenever something is an issue
2 As often as possible

**14) What other public outreach activities do you think should be conducted by plant personnel?**

3 Onsite inspection/tour
3 Local cable
3 None
2 Simplify material
2 Pamphlets
1 Public survey about health concerns
1 Get more information to the community
1 Church announcements
1 Public meetings
1 Host events similar to Calvert County Good Neighbor Night
1 Be more open about environmental problems
1 Cumulative effects of all environmental issues
1 Site Specific Advisory Board may be able to get information out - may be a better forum
1 Clean up their credibility
1 Not much more to do
1 Proactive approach to anticipating potential problems, address potential pitfalls rather than reacting to them after they occur

**15) How has your attitude about the plant and its environmental activities changed over the last few years or since your last interview?**

□ **More positive / Why?** 16

3 Plant is more forthright and open.
1 Taking more caution when necessary.
1 Plant has participated in public meetings and is ready to answer questions.
1 Plant is doing everything possible.
1 More public involvement.
1 Afraid of plant in earlier years.
1 Privatization.
1 Budget cuts.
1 What I've seen gives me a more positive outlook.
1 Being proactive, trying to remedy the situation, looking at the environmental side.
1 When I retired 12 years ago, the attitude was negative. Plant is now doing more to clean up. More sensitive to public opinion.
1 Not paying attention to the little guys anymore. Doing well with trying to get information out, but not in manner conducive to community members.
1 Doing more cleanup activities

□ **More negative / Why?** 5

1 Plant continues to pollute and covers up future plans to pollute.

□ **No change** 20

1 Get the run-around on answers, used to be more direct, management getting worse
1 Positive all along.
1 Did the right thing with providing piped water.
1 Seems like there's a lot of wasted time and money regarding other issues.
1 Always been excellent source of employment and excellent contributor to community.

**16) Who would you call if you had a question about environmental issues at the plant?**

11 Dennis Hill
8 Jimmy Massey/Jimmy Hodges/Steve Polston
5 Plant
4 Friends/family
2 Department of Energy
2 Environmental Protection Agency
2 Public Affairs Office
1 Waste Management Department, Fish and Wildlife Division
1 Danny Giminski
1 Lockheed-Martin Utility Services
1 No-one at the plant
1 Susan Zimmerman
1 Lockheed Martin
1 Jeannie Brandstetter
1 Debbie Wattier

**17) How would you rate the credibility of the following?**

| Groups/Agencies/Organizations | (Circle one) Not credible 1 | 2 | 3 | 4 | Very credible 5 |
|---|---|---|---|---|---|
| **Department of Energy (DOE)** | 3 | 5 | 10 | 10 | 10 |
| **Environmental Protection Agency (EPA)** | 3 | 5 | 10 | 7 | 13 |
| **Kentucky EPA** | 1 | 3 | 10 | 10 | 9 |
| **Lockheed - Martin** | 1 | 2 | 5 | 15 | 10 |

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **Paducah Public Affairs personnel** | 1 | 1 | 4 | 12 | 17 |
| **Paducah Plant Workers** | 0 | 0 | 11 | 7 | 15 |

Additional Comments:

1 Get technical documents to a more readable level. People won't read.
1 Many stories about improper disposal practices. Probably about half the plant didn't trust Union Carbide (12 years ago). Worker's daughter contracted leukemia. He was eventually fired for stirring things up.
1 Feels like a lot of money is wasted.
1 Could do more for minorities as far as hiring practices.
1 Plant should involve workers and improve management.
1 Kentucky Department of Environmental Protection works too closely with plant.
1 Who do you call for what? Plant's internal management structure is not clear.
1 Never had a tour of plant - would like one.
1 Residents are conservative. May be more concerned by environmental issues than stating they are, but don't want to rock the boat and make the plant (and jobs) leave.

**Thank you for your participation.**

# ADDITIONAL QUESTIONS FOR NEIGHBORHOOD COUNCIL, EAC, SSAB, AND LOCAL OFFICIALS

**18) Do you get calls or questions from community members regarding the plant? Yes / No**

Yes 8 No 11

**18a) If yes, what type of issues are they concerned with?**

3 Health.
3 Environment.
1 Property values.
1 Hear complaints/reports about people in Tyvek suits.
1 Who and what will be done at the plant?
1 Plant personnel should do as much of the work as possible.
1 Occasional letter regarding nuclear waste disposal.
1 Are deer safe to eat?

**19) How do you rate public perception about the plant?**

a)
- ☐ **High awareness** 8
- ☐ **Average awareness** 9
- ☐ **Low awareness** 3

b)
- ☐ **High Concern** 8
- ☐ **Average Concern** 9
- ☐ **Low Concern** 2

**20a) Do you think the community at large is getting information about the environmental efforts at the plant? Yes / No**

Yes 15 No 5

3 Information is out there, community needs to act on it.
2 Not sure public is seeking information.
2 Pollution prevention measures.
1 Make community feel PGDP is part of the community.
1 DOE doesn't know what the public takes seriously.

**20b) Do you have any suggestions for improvement?**

2 Make information less technical.
2 Plant tours.
1 Environmental monitoring and surveillance.
1 More public awareness.
1 Tell the public where to get information.
1 Try harder.
1 Ads that are sent are too technical. Turn off the general public.
1 More media coverage.

1 Improve information dissemination.
1 Speakers bureau - talk to schools, groups, etc.

**21) What issues do you think need to be addressed regarding the environmental activities at the plant?**

2 More comprehensive explanation of ecological contamination.
2 Will the AVLIS plant result in the closing of PGDP?
1 More public awareness.
1 What will be cleaned up and how?
1 Future plans (beyond 1999).
1 What preventative measures will be taken?
1 What's wrong, or could be wrong, and how will it be fixed?
1 Timetable of remediation activities.
1 Long-term cleanup for the environment. Is it feasible?
1 Is the plant in danger of closing due to cheaper Uranium being produced in Russia?
1 Are Plant's infrastructure and processes still strong?

**Neighborhood Council and SSAB only**

**22) How has your attitude changed regarding the efforts and activities at the plant since you've been involved with the Neighborhood Council or SSAB?**

□ **More positive / Why?** 3

1 Used to only receive information through "hearsay."
1 Have learned more and understand more.

□ **More negative / Why?** 1

1 Fear of DOE and other agencies dominating work of SSAB

□ **No change** 7

_____End_____

# Appendix F

# List of Contacts and Interested Parties

# LIST OF CONTACTS AND INTERESTED PARTIES

## Media

### Newspapers

*Paducah Sun*
408 Kentucky Avenue
(P.O. Box 2300)
Paducah, Kentucky 42002-2300

*Advance Yeoman*
100 Ohio Street
(P.O. Box 8)
Wickliffe, Kentucky 42087

Metropolis Planet
P.O. Box 820
Metropolis, Illinois 62960

*West Kentucky News*
P.O. Box 1135
Paducah, Kentucky 42002-1135

*Louisville Courier Journal*
P.O. Box 1116
1619 Jefferson
Paducah, Kentucky 42001

### Television Stations

KFVS (Channel 12, CBS)
P.O. Box 100
Cape Giardeau, Missouri 63702

WPSD-TV (Channel 6, NBC)
P.O. Box 1197
Paducah, Kentucky 42002-1197

WSIL (Channel 3, ABC)
Route 13
Carterville, Illinois 62918

Comcast Cablevision of Paducah
800 Broadway
Paducah, Kentucky 42001

### Radio Stations

WCBL
P.O. Box 387
Benton, Kentucky 42025

WDDJ-FM (96.9)
1700 N. 8th Street
Paducah, Kentucky 42001

WKMS (91.3)
Fine Arts Building
Murray State University
Murray, Kentucky 42071

WKYQ-FM (93.3)
6000 WKYQ Road
Paducah, Kentucky 42003

WKYX-AM (570)
Box 2397
Paducah, Kentucky 42002-2397

## Elected and Appointed Officials, Business Groups, and Agencies

### Local

Honorable Danny Orazine
McCracken County Judge Executive
McCracken County Courthouse
301 South Sixth Street
Paducah, Kentucky 42003

Honorable Bill Kommer, Mayor
Metropolis Town Hall
106 West Fifth Street
Metropolis, Illinois 62960

Honorable Albert Jones, Mayor
City of Paducah
P.O. Box 2267
Paducah, Kentucky 42002

Honorable Bill Graves
Ballard County Judge Executive
Ballard County Courthouse
P.O. Box 276
Wickliffe, Kentucky 42087-0276

Mark Payton, District Director
Purchase District Health Department
P.O. Box 2657
Paducah, Kentucky 42002-2357

Charles Logsdon, Manager
West Kentucky Wildlife Management Area
10535 Ogden Landing Road
Kevil, Kentucky 42053

Ms. Melanie Ellingsworth
Paducah Area Chamber of Commerce
P.O. Box 810
Paducah, Kentucky 42002-0810

Ms. Kristin Reese, President & CEO
Greater Paducah Economic
Development Council
2000 McCracken Boulevard
Paducah, Kentucky 42002

### Commonwealth of Kentucky

Dr. John A. Volpe, Manager
Radiation Control Branch
275 East Main Street
Frankfort, Kentucky 40621
(502) 564-3700

Jack Wilson, Director, Water Division
KY Dept. for Environmental Protection
14 Reilly Road
Frankfort, Kentucky 40601
(502) 564-3410

John E. Hornback, Director
1607 Sycamore
Murray, Kentucky 42071

Air Quality Division
KY Dept. for Environmental Protection
316 Saint Clair Mall
Frankfort, Kentucky 40601

Mr. Robert H. Daniell, Director
Waste Management Division
KY Dept. for Environmental Protection
14 Reilly Road
Frankfort, Kentucky 40601

Representative J. R. Gray
3188 Mayfield Highway
Benton, Kentucky 42025

Representative Kathy Hogancamp
300 Acorn Lane
Paducah, Kentucky 42003

Representative Charles Geveden
P.O. Box 518
Wickliffe, Kentucky 42087

Senator Bob Jackson
Room 209 - Capitol Annex
Frankfort, KY 40601

Representative Freed Curd
1607 Sycamore
Murray, Kentucky 42071

Senator Bob Leeper
229 Friendship Rd.
Paducah, Kentucky 42003

Representative Frank Rasche
2929 Jefferson Street
Paducah, Kentucky 42001

Representative Fred Nesler
P.O. Box 323
Mayfield, Kentucky 42066

**Federal**

Mr. Steve Wyatt
Manager for Public Information
U.S. Department of Energy
P.O. Box 2001
Oak Ridge, Tennessee 37831

Mr. Carl Froede, Jr.
Remedial Project Manager
Environmental Protection Agency
Region IV
100 Alabama Street
Atlanta, GA 30303

Ms. Carol Connell
Agency for Toxic Substances and
Disease Registry
1600 Clifton Road
Atlanta, Georgia 30333

Robert C. Sleeman, Director
U.S. Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee

Honorable Wendell H. Ford, U.S. Senate
173A Russell Senate Building
Washington, DC 20510-1701

Honorable Mitch McConnell, U.S. Senate
120 Russell Senate Building
Washington, DC 20510-1702

U.S. Representative Ed Whitfield
643 Winchester Drive
Hopkinsville, Kentucky 42240

## Other

Ms. Corinne Whitehead
Coalition for Health Concern
Route 9, Box 25
Benton, Kentucky 42025

## Site Specific Advisory Board

*Ex-officio members*
Mr. Wayne L. Davis - Environmental Section Chief, KY Dept. of Fish & Wildlife Resources
Mr. Carl Froede, Jr. - U.S. Environmental Protection Agency Region IV
Mr. Tuss Taylor - Division of Waste Management, KDEP
Mr. Jimmie Hodges - DOE Paducah Site Manager
Dr. John Volpe, Ph.D - Manager, Radiation Control Branch, KDEP

*Community members*
Ms. Nola Courtney
Mr. Mark Donham
Mr. Edward Duff
Mr. David Fuller
Mr. Eddie Gray, II
Rev. W.G. Harvey, Sr.
Mrs. Vicki Jones
Mr. Ronald Lamb
Ms. Lynn W. Lane
Ms. Linda Long
Mr. Ray McLennan
Mr. Craig Rhodes
Ms. Connie J. Sykes
Mr. Bill Tanner
Rev. Gregory Waldrop

## Environmental Advisory Committee

Dr. Gary W. Boggess
Mr. Bob Gresham
Mr. Leonard P. Grief
Mr. Gary D. Jackson
Dr. Charles G. Smith
Mr. Robert Thomas Walden

**Neighborhood Council**

Mr. Dylan Gipson
Mr. Benny F. Heady
Mr. Ronald Lamb
Mr. Philip Milner
Mr. Warren Smith
Mr. Charles Warford

# Appendix G

# Glossary

# Glossary

This glossary defines terms often used by DOE and EPA staff in describing activities under **CERCLA** (commonly called "Superfund"), **RCRA**, or DOE's **Environmental Management and Enrichment Facilities (EMEF)** Program. The definitions that apply specifically to the CERCLA or RCRA programs may have other meanings when used in different circumstances. **Words in bold type are defined elsewhere in the glossary.**

**Administrative Consent Order (ACO)** - A legal agreement between EPA and **potentially responsible parties (PRPs)** under which PRPs agree to perform or pay the cost of a site **cleanup**. The agreement describes actions to be taken at a site and may be subject to a public **comment period.**

**Administrative Record** - A file that is maintained and that contains all the information used by the lead agency to make its decision on the selection of a **response action** under **CERCLA**. The file is to be available for public review, and a copy is to be available at or near the site, usually at one of the **information repositories**.

**Agreement in Principle (AIP)** - Funded by DOE, the AIP is an agreement with the University of Kentucky and the Kentucky Division of Waste Management to provide state oversight of DOE activities at PGDP.

**Air Stripping** - A treatment system that removes or strips volatile organic compounds from contaminated **groundwater** or **surface water** by forcing an airstream through the water and causing the compounds to evaporate.

**Aquifer** - An underground rock formation composed of materials such as sand, soil, and gravel that can store **groundwater** and supply **groundwater** to wells and springs.

**Carcinogen** - A substance that causes cancer.

**Categorical Exclusion (CX)** - A category of actions that does not have a significant effect on the environment and that normally does not require the preparation of an **EA** or an **EIS** under **NEPA**. DOE and other federal agencies define the actions that qualify as **categorical exclusions** in their implementing regulations for **NEPA**.

**Cleanup** - Actions taken to deal with a release or a threatened release of **hazardous substances** that could affect public health or the environment. The term often is used broadly to describe various response actions or phases of **remedial responses**, such as the **remedial investigation** and the **feasibility study**.

**Comment Period** - A time period for the public to review and comment on various documents and EPA or DOE actions. For example, a **comment period** is established when EPA proposes to add sites to the **National Priorities List**. A minimum 30-day **comment period** is held to allow community members to review and comment on a draft **RI/FS** and a **proposed plan**; the period must be extended an additional 30 days upon timely request. A **comment period** is required to amend the **ROD**. Similarly, a 30-day **comment period** is established when EPA proposes to delete a site from the **NPL**.

**Commonwealth** - State, as in State of Kentucky or Commonwealth of Kentucky. State and Commonwealth are used interchangeably in this document.

**Community Relations (CR)** - EPA's program for informing and involving the public in the **Superfund** process and for responding to community concerns.

**Community Relations Plan (CRP)** - The formal plan for EPA **community relations** activities at a **Superfund** site.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** - A federal law passed in 1980 and modified in 1986 by the **Superfund Amendments and Reauthorization Act** that establishes procedural, substantive, and administrative requirements for responding to releases of **hazardous substances**. The act created a special tax that goes into a Trust Fund, commonly known as **"Superfund,"** to investigate and clean up abandoned or uncontrolled hazardous waste sites. Monies from the trust fund are not available to federal facilities.

**Corrective Measures Study (CMS)** - The study performed under **RCRA** to identify and screen **cleanup** alternatives and to analyze the costs and technology of the alternatives. The CMS is analogous to the **feasibility study** under **CERCLA**.

**Decontamination and Decommissioning (D&D)** - The process of removing a facility from operation, followed by decontamination (removing unwanted material, usually radioactive, by washing, chemical action, mechanical cleaning or other techniques), entombment, dismantlement, or conversion to another use.

**Environmental Assessment (EA)** - A concise public document prepared under **NEPA** that contains sufficient information and analysis for determining whether an agency needs to prepare an **EIS** or a **FONSI** for a proposed action.

**Engineering Evaluation/Cost Analysis (EE/CA)** - An analysis of **removal** alternatives for a site, similar to a **feasibility study**. Upon completion, the EE/CA must be made available for a 30-calendar-day public **comment period**. The **comment period** must be extended by at least 15 days upon timely request.

**Environmental Impact Statement (EIS)** - A detailed public document prepared under **NEPA** that discusses potentially significant environmental effects of a proposed action by a federal agency. An EIS informs agency decision-makers and the public about reasonable alternatives that would prevent or lessen adverse effects, and serves as a planning and decision-making tool for the agency.

**Environmental Management and Enrichment Facilities (EMEF)** - DOE program for cleaning up and restoring sites contaminated by **hazardous substances** during past production or disposal activities and managing waste from past operations and wastes generated by environmental restoration activities.

**Finding of No Significant Impact (FONSI)** - A public document, prepared by a federal agency under **NEPA**, presenting the reasons that a proposed action will not have a significant effect on the environment and thus an **EIS** will not be prepared.

**Feasibility Study (FS)** - See **remedial investigation and feasibility study**.

**Groundwater** - Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In **aquifers**, **groundwater** occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

**Hazard Ranking System (HRS)** - A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of **hazardous substances**. EPA and states use the HRS to calculate a site score (0 to 100) on the basis of actual or potential release of hazardous substances from a site through air, **surface water**, or **groundwater**. The score is the primary factor used to decide if a hazardous waste site should be placed on the **National Priorities List**.

**Hazardous Substance** - Any material that poses a threat to public health or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

**Hydrology** - The science dealing with the properties, movement, and effects of water found on the earth's surface, in the soil and rocks below, and in the atmosphere.

**Incineration** - Burning of certain types of solid, liquid, or gaseous materials under controlled conditions to destroy hazardous waste.

**Information Repository** - A file containing current information, technical reports, reference documents, and **TAG** application information on a **Superfund** site. The **Information Repository** usually is in a public building (such as a public school, the city hall, or a library) that is convenient for local residents.

**Kentucky Pollutant Discharge Elimination System (KPDES)** - A state program under Section 402 of the Clean Water Act that establishes standards under which a permit for discharges to water may be granted.

**Leachate** - A liquid resulting when water percolates, or trickles, through waste materials and collects components of those wastes. Leaching may occur at landfills and may result in **hazardous substances** entering soil, **surface water**, or **groundwater**.

**Monitoring Wells** - Special wells drilled at specific locations on or off a hazardous waste site where **groundwater** can be sampled at selected depths and studied to determine the direction of **groundwater** flow and whether the **groundwater** is contaminated. If contamination is detected, **monitoring wells** also can determine the types and amounts of contamination.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP)** - The federal regulation that guides the **Superfund** program. The NCP was revised in February 1990.

**National Priorities List (NPL)** - EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term **remedial response** using money from the **Superfund**. The list is based, primarily, on the score a site receives on the **Hazard Ranking System (HRS)**. EPA is required to update the NPL at least once a year. Federal facilities do not qualify for **Superfund** money.

**National Environmental Policy Act (NEPA)** - A federal law that requires federal agencies to conduct environmental reviews of actions that have the potential for adverse effect on the human environment.

**Operable Unit** - An action taken as one part of an overall site **cleanup**. For example, a system could be installed to halt rapidly spreading **groundwater** contaminants during the more comprehensive and long-term **remedial investigation** and **feasibility study**. A number of operable units can be used in the course of a site **cleanup**.

**Parts Per Billion (ppb)** - Units commonly used to express low concentrations of contaminants. For example, one ounce of trichloroethylene (TCE) in one billion ounces of water is one ppb. If one drop of TCE is mixed in a competition-size swimming pool, the water will contain about 1 ppb of TCE.

**Potentially Responsible Party (PRP)** - An individual or a company (such as owners, operators, transporters, or generators of hazardous waste) potentially responsible for, or contributing to, the contamination problems at a **Superfund** site.

**Preliminary Assessment (PA)** - The process of collecting and reviewing available information about a known or suspected hazardous waste site or release. EPA or states use this information to determine whether the site requires further study. If further study is needed, a **site inspection** is undertaken.

**Proposed Plan** - A public-participation requirement of **CERCLA** in which EPA summarizes for the public the preferred **cleanup** strategy, rationale for the preference, alternatives presented in the detailed analysis of the **remedial investigation and feasibility study**, and waivers to **cleanup** standards of §121(d)(4) that may be proposed. The plan may be prepared either as a fact sheet or a separate document. In either case, it must actively solicit public review and comment on all alternatives under consideration.

**RCRA Facility Investigation (RFI)** - Analytical studies performed under **RCRA** to determine the extent of hazardous waste contamination, similar to the **CERCLA remedial investigation**.

**Record of Decision (ROD)** - A public document that explains which **cleanup** alternative will be used at **National Priorities List** sites. The **record of decision** is based on information and technical analysis generated during the **remedial investigation and feasibility study** and on consideration of public comments and community concerns.

**Remedial Action (RA)** - The construction or implementation phase that follows the **remedial design** of the selected **cleanup** alternative at a site and during response actions.

**Remedial Design (RD)** - An engineering phase that follows the **record of decision**, when technical drawings and specifications are developed for the subsequent **remedial action** at a site on the **National Priorities List**.

**Remedial Investigation and Feasibility Study (RI/FS)** - Investigative and analytical studies usually performed at the same time in an interactive, iterative process. They are intended to do the following:

- Gather the data necessary for determining the type and extent of contamination at a **Superfund** site
- Establish criteria for cleaning up the site
- Identify and screen **cleanup** alternatives for **remedial action**
- Analyze in detail the technology and costs of the alternatives

**Remedial Response** - A long-term action that stops or substantially reduces a release or threatened release of **hazardous substances** that is serious but does not pose an immediate threat to public health or the environment.

**Remediation** - **Cleanup** or other methods used to remove or contain a toxic spill or hazardous materials from a **Superfund** site.

**Removal Action** – An immediate action taken over the short term to address a release or a threatened release of **hazardous substances**.

**Resource Conservation and Recovery Act (RCRA)** – A federal law that established a regulatory system for tracking **hazardous substances** from their generation to disposal. The law requires that safe and secure procedures be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent new uncontrolled hazardous waste sites.

**Response Action** – A **CERCLA**-authorized action at a **Superfund** site involving either a short-term **removal action** or a long-term **remedial response** that may include, but is not limited to, the following activities:

- Removing hazardous materials from a site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction
- Containing the waste safely on the site to eliminate additional problems
- Destroying or treating the waste on the site using **incineration** or other technologies
- Identifying and removing the source of **groundwater** contamination and stopping further movement of the contaminants

**Responsiveness Summary** – A summary of oral and written public comments received by EPA during a **comment period** on key EPA documents and EPA's responses to those comments. The **responsiveness summary** is a key part of the **ROD**, highlighting community concerns for EPA decision-makers.

**Selected Alternative** – The **cleanup** alternative selected for a site on the **National Priorities List** on the basis of technical feasibility, permanence, reliability, and cost. The **selected alternative** does not require EPA to choose the least expensive alternative. The requirement is that if there are several **cleanup** alternatives available that deal effectively with the problems at a site, EPA must choose the remedy on the basis of permanence, reliability, and cost.

**Site Inspection (SI)** – A technical phase that follows a **preliminary assessment** and is designed to collect more extensive information on a hazardous waste site. The information is used to score the site by using the **Hazard Ranking System** to determine whether a **response action** is needed.

**Superfund** – The common name used for the **Comprehensive Environmental Response, Compensation, and Liability Act**.

**Superfund Amendments and Reauthorization Act (SARA)** – Modifications to **CERCLA** enacted on October 17, 1986.

**Surface Water** – Bodies of water that are above ground, such as rivers, lakes, and streams.

**Technical Assistance Grant (TAG) Program** – A grant program that provides funds for eligible citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions relating to **Superfund cleanup** actions.

**Treatment, Storage, and Disposal Facility (TSDF)** – A building, structure, or installation where a **hazardous substance** has been treated, stored, or disposed of. TSDFs are regulated by EPA and states under the **Resource Conservation and Recovery Act**.