



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes May 18, 2006

The Citizens Advisory Board (CAB) met at the CAB office in Paducah, Kentucky, May 18, 2006, at 6 p.m.

Board members present: John Anderson, Judy Clayton, Shirley Lanier, Bobby Lee, Linda Long, John Russell and James Tidwell

Board member absent: Allen Burnett, Chad Kerley, Janet Miller, Elton Priddy, Jim Smart and Rhonda Smith

***Ex Officio* members and related regulatory agency employees present:** Bill Clark and Jon Maybriar, Kentucky Division of Waste Management; Tim Kreher, Kentucky Department of Fish and Wildlife Resources; and David Williams, Environmental Protection Agency

Deputy Designated Federal Official present: Rachel Blumenfeld

DOE Federal Coordinator present: David Dollins

DOE-related employees present: Jeannie Brandstetter, Charles Callis, Kim Crenshaw, Bruce Gardner, Steve Kay, James Miller, Mike Paessun, John Powell, Steve Polston, John Razor and Elizabeth Trawick

Four members of the public attended the meeting.

Introductions

Board facilitator Steve Kay called the meeting to order at 6 p.m. He introduced Clayton and Tidwell, new members of the Board. He stated Elton Priddy, also a new member of the Board, could not attend this Board meeting due to commitments that were scheduled prior to his appointment to the CAB.

Agenda

Kay asked for proposed modifications to the agenda. He said the Chairs Meeting review would be postponed to the June meeting. **The Board adopted the agenda by consensus.**

Minutes

Kay asked for proposed modifications to the draft April minutes. There were none. **The Board approved the minutes as submitted by consensus.**

Deputy Designated Federal Official *Attachment 1*

Blumenfeld provided the project updates to the Board.

Federal Coordinator Comments

Dollins welcomed Clayton and Tidwell to the Board.

Ex-Officio Comments

Russell said he had received some correspondence that referenced drums containing hazardous waste material sent to the C-746-U Landfill for disposal that did not meet waste acceptance criteria (WAC). He said the landfill has had some design problems, Notice of Violations (NOVs), and now this issue is coming up. He said he is concerned that there is not sufficient oversight of the WAC at the landfill. Russell asked if the Board could receive some kind of assurance that the criteria are being met and that there is sufficient oversight from the regulators and DOE. Blumenfeld said anybody is free to make allegations but whether the allegations are true and substantiated by fact is a separate question and one that needs to be pursued through appropriate channels. She said contractors are required to operate DOE facilities in compliance with regulatory laws and requirements. She said the required WAC for the permit is in place and to the best of her knowledge, is being complied with. Blumenfeld said they are subject to regulation, inspection, and oversight by the state regulators. She said DOE and the regulators follow up on allegations and violations. Maybriar said the permit is held by the Solid Waste Branch but he is unaware of any violations of waste accepted under the solid waste criteria going to that landfill that did not meet WAC. If someone has information that they feel needs to be brought forward, he encouraged the information to be submitted to Tony Hatton, Bruce Scott or Ron Gruzsky. He said Kentucky does not normally go out and monitor things that go in each facility around the state but there are periodical spot inspections. Williams said he has received some complaints and he passed them on to a site attorney working with the Department of Justice

on an ongoing investigation of previous waste disposal practices. He said the complaints were also sent to their offsite landfill coordinator and the Resource Conservation Recovery Act (RCRA) permit oversight person.

Lee said she was made aware of a problem with the landfill at the task force meeting by Gary Vanderboegh. She said it sounds like it may be a subcontractor problem not labeling or screening waste to the landfill. She asked if there was any quality control at the landfill and who is overseeing the subcontractors at the landfill to ensure they are bringing waste that meets the WAC. Blumenfeld said there are specific approved procedures on site that each contractor is required to submit to DOE and comply with as a provision in their contract. Bechtel Jacobs Company LLC (BJC) had subcontractors that did work on site so those requirements would include their subcontractors. She said there is a requirement to characterize and certify waste and the waste packages go through that process.

Lee asked who guarantees that process is followed. Blumenfeld said what Lee heard was an allegation that the process was not followed and she said she did not feel comfortable going in depth in terms of trying to defend that. She said those are the requirements that are on site and DOE contractors are required to oversee quality and implementation. Blumenfeld said on a waste management program, a large part of what RCRA relies on is requirements to certify certain things and if someone is found to certify falsely, they are subject to personal criminal liability in the statutes as well as fines and penalties. The certifications have to be relied on and there are periodic inspections where records and activities are reviewed. If there are allegations, that would be looked into specifically.

Russell asked if Blumenfeld is aware of waste coming to the landfill that was rejected for disposal because it did not meet WAC. Blumenfeld said she did not recall having been told that but she does not look at the records every day. She said it would be her hope that if someone showed up with waste that did not meet WAC it would have been rejected.

Long said last month's minutes stated that analysis has been done to determine an acceptable safe level of radioactivity that could go into the landfill to be considered a non-radioactive facility. She said that doesn't make sense. Blumenfeld said it makes sense if you are familiar with the regulatory language. In a radioactive facility, there is waste that goes into it that has higher levels of radioactivity. The statement means you can put waste in the facility that has minimal levels of radioactivity but the analysis has been done to show that it at safe levels. It can go into a facility that is not designated as a radioactive waste facility because it is not required to be disposed of at a radioactive facility.

Lee said the CAB would be concerned if the landfill were taking waste that doesn't meet WAC. Blumenfeld said DOE would be concerned as well. Lee asked that the CAB be kept informed on this issue. Blumenfeld agrees and said she could almost guarantee if someone found that hazardous waste had gone into the facility, DOE would receive a NOV from the state. She said anytime DOE receives a NOV, she reports that to the CAB. Russell said one NOV had been received. Blumenfeld said DOE had received a NOV in the past but follow-up work had been done and the state was satisfied that no hazardous waste had gone into the

facility. She said the NOV's are typically allegations and then a pathway is followed to respond and identify any corrective actions.

Public Comments

Johnson, former DOE contractor employee, said the Paducah plant never complied with 5820.2a or 435.1 as far as having a waste certification program plan in place. He said Portsmouth and Oak Ridge developed those plans but Paducah never did. He said it was DOE's requirement to monitor those contracts and ensure those contracts were being met. Johnson said he tried to encourage DOE to develop this program in Paducah because of the trouble certifying waste to meet criteria for storage. He said the request for disposal allowing the transfer of waste from a generator to this facility certifying what was in the container was true. He said he couldn't find anyone to enforce that requirement because in his experience, for example, one drum labeled "auger cutting" might contain a hand held spray pump with water in it. Someone was violating a contract requirement and the contract was not enforced by DOE or the subcontractor. He said he testified to a criminal federal grand jury to that effect but before that he had told BJC and WESKEM attorneys the same thing and the language may have been taken out of 435.1. He said there used to be a template in there that told who was accepting or generating waste on behalf of DOE and how they were to do that.

Vanderboegh said he was the Landfill Manager for the C-746-S, T, and U Landfills for DOE until April 24, 2006. He said he has worked diligently with Blumenfeld to help get the landfill permitted to save millions of dollars to the taxpayers. He said he wanted to share with the Waste/Water task force some concerns over the last year of operation. Vanderboegh said he has shared these concerns with Mitch McConnell's office. He said the way the program operates is that he was the landfill manager and the primary individual responsible for the landfill and he would make recommendations to DOE the best he could, as a BJC or WESKEM employee.

It became very difficult for him to voice any issues that would then go forward to DOE. He said there was an intermediary group called BJC. He said to answer some of the questions that have been asked by the CAB members, these issues with the landfill are not allegations. He said he has seen waste coming in from BJC that is mislabeled and he has had to stop the truck or turn the truck around. He said he is now hearing that DOE was not aware of that. He said it is shocking because he thought there was a process in place that Blumenfeld just emphasized, for the contractors to be accountable for complying with WAC. Vanderboegh said he guarded that permit with his life because Blumenfeld did not want to catch a NOV that came through the gate that ended up being a hazardous waste issue. He said what happened in the last month or two in the operation with BJC is that he had repeated activity that came to the landfill. He said it has nothing to do with his active whistleblower complaint, which he thought was an employee's concerns complaint. He said all he did was try to protect the landfill from taking the waste that is being discussed. He said in the last few months or weeks at the landfill, which Paducah Remediation Services (PRS) is not at fault, the same project people that are now employed with PRS brought free liquid waste to the landfill, that he had to contact the state and DOE on, because that is what the procedure says to do. He said Blumenfeld just indicated that she was not aware of that. Blumenfeld said

what she said was she did not recall; that does not mean that no one at DOE was notified or that site personnel was not aware. She said she could have received an e-mail; she has over 2,000 emails in her inbox. Vanderboegh said he understands that and he and Blumenfeld go way back to guard that landfill so nothing could come through that could cause a public outcry. Vanderboegh said waste was coming to the landfill brought by a BJC contractor mislabeling the waste boxes so they had to be turned around. He said on an inspection he made on the S-Landfill, drums that were in storage were being processed on a closed landfill, which was not appropriate. If drums are going to be processed on a closed landfill, it has to go through Frankfort and permission has to be granted to do so. The drums were crushed but were relabeled by the BJC generator as rad waste, which meant the drums were uncovered on a closed landfill and they suddenly scrambled to reclassify the waste stream. These may possibly be the drums to which Russell is referring.

Vanderboegh said he understood that Blumenfeld might not have gotten word of that but he start seeing these things happening such as the waste streams mislabeled, generators not wanting to comply with WAC and he gave warnings and those warnings became a workplace violence memo back to the president of his company. He asked where the controls were in the field to ensure that these things did not happen. Kay asked if these issues have been raised to the appropriate personnel. Vanderboegh said these issues were raised to the BJC people that are now employed with PRS. He said that was his point, nothing has changed for improve operations. These situations are real and will continue to happen. Bulk waste has been proposed for disposal in the landfill, which requires certain approvals and conditions, and when these are brought forward as a landfill manager, he has to comply with those requirements so DOE does not lose the permit.

The issues with the leachate are known there were many situations where he or his employees caught waste at the gate. He said there is a process on how this is reported and he doesn't know whether it got to DOE or the proper authorities in Frankfort. He said he knew the free liquid situation did because it instigated a new inspection process on how they were to accept boxes of waste and drums. He said the generator then stopped bringing liquids to the landfill, which is a violation, but the violation is not written so that put him in a situation where violations were happening but not recorded. Maybriar asked who Vanderboegh notified in Frankfort. Vanderboegh said Larry Hamilton from the Solid Waste Branch and Ron Gruzesky was the regulator who approved the liquids going into the landfill. He said a landfill manager is trained that you can't accept waste that contains free liquids, and then you have a state regulator who says there is no harm.

Russell said this advisory Board cannot concern itself with the investigation. He said its role is advisory but the Board should make a statement of their level of interest or concern in the quest of DOE due to the location of the landfill to ensure that the waste acceptance criteria is more than a compliant procedure on a piece of paper. It should be followed to a high degree of compliance from DOE and the regulators. Kay asked Russell if he would like to prepare a formal statement in the Waste/Water task force meeting and bring back to the Board in June for approval. Russell said yes.

Jurka said that in the Halbrook presentation last month one of the metals that he was looking at found in wildlife was mercury. She said people deny that mercury that is found in the ponds and sediments came from the Paducah Gaseous Diffusion Plant (PGDP). She said she asked him if the funding for the project was specific for the PGDP and he said yes it was. She asked if mercury is emanating from the PGDP on-site or off-site and has the site neighborhood ever been sampled for radioactive mercury or Mercury 203. Blumenfeld said she did not know that question was going to be asked and is not prepared to answer. Jurka said when she asks a question it is never answered so she was hoping it could be answered at the meeting. Kay said the question will be added to the action item list for a response at the next meeting.

Kreher said that in one specific site on the Wildlife Management Area, formally used in Kentucky Ordnance Works (KOW) days for WWII, there were fish found that has elevated levels of mercury, however, the origin of that mercury has never been identified, but because of the location where the ponds exist, it is believed that that particular contamination was originated from something on the KOW site and not the PGDP. He said there is a statewide fish consumption advisory for ponds and bodies of water all over the state regarding mercury. He said it is a common practice when looking at fish sampling almost worldwide that mercury is a contaminant that is tested for. On a statewide basis, mercury is a contaminant of interest and on a local basis, we know it has been detected at the site but it is not known if it is coming from the PGDP. Jurka said if the funding is so precious with regard to this site in particular, if mercury was not a contaminant that was specific to PGDP and the money is allocated for surveillance activities for the PGDP then she would expect there might be another contaminant that needed to be looked at instead rather than looking at documents compiled from mercury and other sources.

She said she still wanted to know if there is mercury coming from the PGDP and if Mercury 203 has been tested for on-site and off-site. Maybriar said the state has a contract with the University of Kentucky that sets up four stations on Little Bayou Creek and nine stations at Big Bayou Creek that specifically target certain effluence that may be more problematic for that part of the stream. He said they target those to try to reflect any contamination and sampling is done above and below certain outfalls that discharge process water to Big and Little Bayou Creeks for mercury. There are no levels of mercury coming from the PGDP facility in the fish, surface water or sediment. He said they look for mercury as a metal, but they do not look for radioactive mercury. Maybriar said mercury in the ponds may be atmospherically received but there is no runoff from the plant. He said they feel confident that the mercury is not coming from the PGDP. Jurka said the documents indicate the prevailing wind at the site blows toward the river. She said if it was coming from Joppa or Tennessee Valley Authority, it would be going towards Illinois, not towards Woodville Road where there are a number of ponds contaminated with mercury. She said those ponds have fish advisory levels and something is not correct.

Task Forces/Presentations

Land Acquisition Study Statement of Work

Blumenfeld said the Land Acquisition Study Statement of Work has been finalized. She said DOE has reviewed the comments and revisions have been made in response to some of the comments.

Williams said he would like to reiterate that the U.S. Environmental Protection Agency (EPA) Headquarters does have concerns on the general study. The Land Acquisition Study is viewed as a land use control and it does not replace any type of efforts of remediation of the ground water plume and to return the groundwater to beneficial use.

Waste Disposition/Water Quality Task Force

Lee said the Waste Disposition/Water Quality task force received updates on several ongoing projects and the task force will receive a one page summary sheet on the Southwest Plume at the next meeting.

Lee said Russell submitted additional requests on the overlays for the End State maps. She said the requests include showing the infrastructure, private residences and industrial verses other uses. She asked if the Land Acquisition Study would be developing any maps in their final report that might be useful for the CAB or if they could make a request to DOE for these maps to be included in the study. Blumenfeld said the overlays requested are not in the current scope for the study. The language for the scope of work is from the congressional mandate. She said the schedule has been adjusted due to comments and responses. She said DOE would provide a new schedule to the CAB.

Administrative Issues

Budget Review

Kay said the Executive Committee has not met to discuss the proposed requests by Burnett to indicate on the spreadsheet how much of the budget is EHI's and how much is Board expenditures.

Review of Workplan and June Agenda

Dollins asked to postpone the Site Management Plan presentation until July to allow time for EPA to submit their comments to DOE. He said PRS would make their presentation in July. Lee requested a presentation on the Southwest Plume Site Investigation report in June. Dollins agreed. Dollins suggested that the Land Acquisition Study be added to the June agenda to discuss the status of the study.

Kay asked Dollins to discuss the changes for the CAB's bylaws that were discussed at the Chairs Meeting. Dollins said he was not prepared to discuss that. He said there has been a limit set on the length of service for CAB members. He said the term has been changed from ten years to six but it is flexible for members that have already served longer than six years. Dollins said HQ is trying to draw on fresh and valuable input. He said there may be a change for members that have served their term to attend the Board meeting for newer members to draw upon their knowledge that they have gained from serving on the Board.

Kay said the CAB is still waiting for a letter from Mr. Murphie for the annual report. Dollins said he has made several phone calls to Lexington for the person that is suppose to be writing that. He asked that the support staff contact him to ensure this is followed up on.

Action Items

Brandstetter said the Oak Ridge Environmental Information System data was added to the Community Outreach agenda so that action could be closed. The Community Outreach task force issues have been added to the Executive Committee agenda. Dollins said he has contacted BJC for charges against the CAB's budget but that is still in transition. Dollins said Yvette Cantrell, PRS could be contacted for information on a Paducah Project organizational chart, the Web site for documents, and the discussion of news clips. Anderson suggested giving the CAB's list of needs to John Razor. Long said she was never contacted for sampling to be done on the fish in her pond. Maybriar said he would contact Bill Clark to check when he can do the sampling. He asked if she wanted her fish sampled or the sediment and surface water. She said the soil and water would be fine. Maybriar said he had spoken to Tony Hatton for information on radioactivity appearing in the leachate. He said he has not received a response at this time.

Subcommittee Report

Executive Committee

Kay said the letters in the packet from the Chairs meeting need to be discussed and voted on for Chairs signature. Dollins asked Brandstetter to follow up with Smith on the letters and they could be discussed and voted on at the next meeting. Brandstetter said there is not a designated time limit for the signatures.

Russell said he saw the article where Smith had received an award from DOE on National Volunteer week. Brandstetter said all members at the Chairs meeting received the award. Dollins said he was impressed with Rispoli, DOE Assistant Secretary for EM. He made himself available for questions during the Chairs meeting.

Kay said the Executive Committee meeting has been moved to May 30 at 2 p.m.

The meeting adjourned at 7:35 p.m.

Progress at the Paducah Project



DOE Portsmouth/Paducah Project Office

Update to the Paducah Citizens Advisory Board

May 18, 2006



DUF6 Conversion Project



- Construction project more than 25% completed
- Warehouse projected for June completion
- Administration Building shell completed
- Electrical wiring and walls are being installed in Warehouse and Administration buildings
- Cylinder laydown pad construction initiated



DUF6 Conversion Project

- Conversion activities continuing



A pre-cast concrete panel is lifted into place on the second floor of the conversion building.

Abutments for a railroad bridge over Bayou Creek are under construction.



Northwest Corner Scrap Metal Removal



- 1,305 tons of scrap shipped in April from Northwest Scrap Yards; more than 18,000 tons shipped since project began
- 631 tons of debris shipped from D-Yard
 - More than 7,400 tons shipped to date

A crane loads scrap metal directly into a rail car.



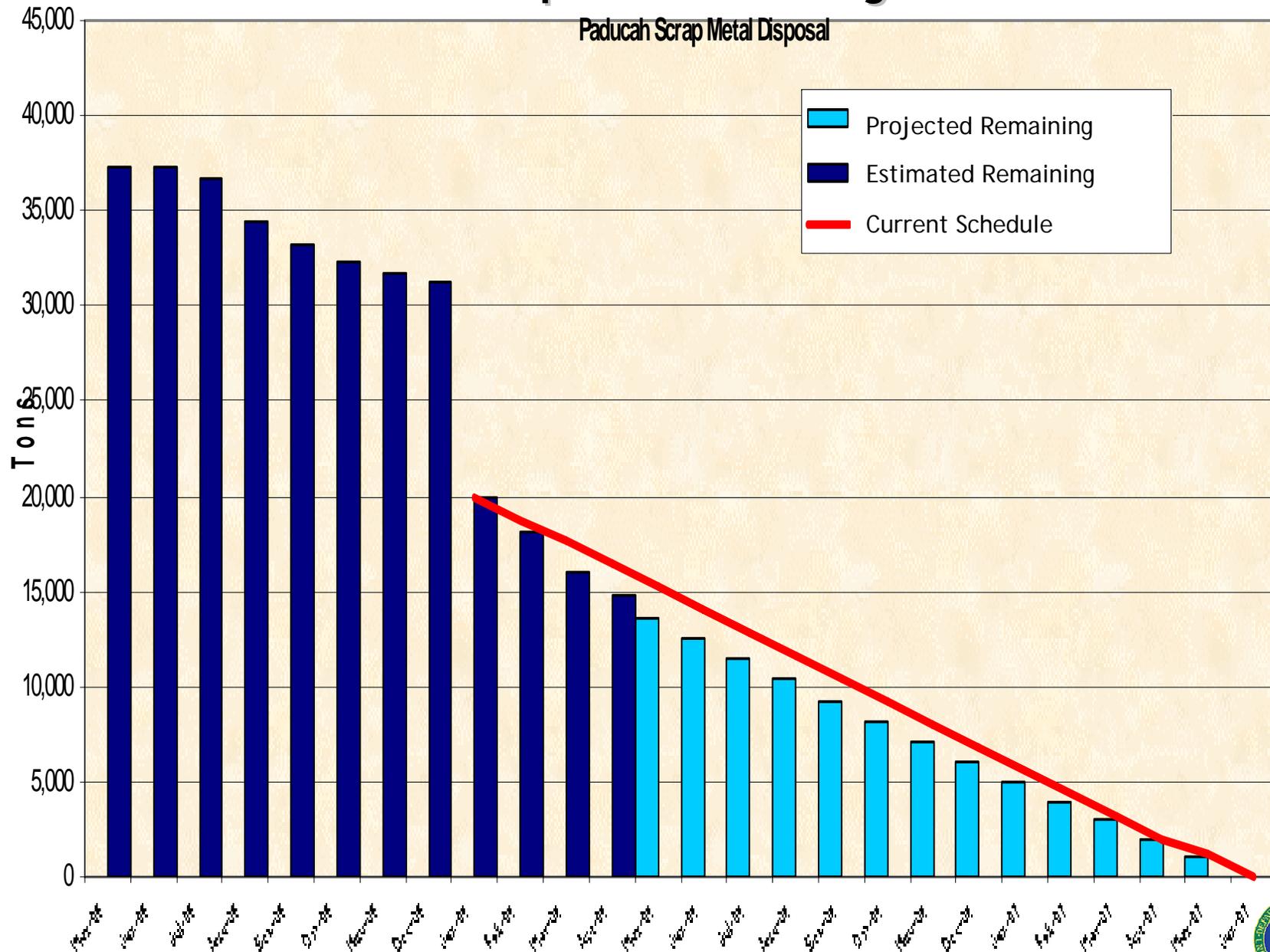
Northwest Corner Scrap Metal Removal



- Switch made from shipping in metal boxes to reusable gondola cars
- Gondolas hold about 25% more than previously used railcars
- Increased project efficiency; lower transportation costs
- Next shipment of 50 gondolas scheduled for end of May



Scrap Metal Project



Legacy Waste Disposition



- Shipped 553 cubic meters of mixed LLW to PermaFix for treatment
- Completed project to disposition ~3,000 containers of LLW stored outside
- Shipped 2,700 ft³ of LLW debris to EnergySolutions in April

Material is scanned as it is removed from a drum for repackaging inside C-752-A.



DOE Material Storage Areas



Metal from a DMSA is resized in OS-06.

- April totals:
 - Characterized 3,396 ft³ -- 654,000 ft³ over project life
 - Packaged 5,046 ft³
 - Disposed of 17,000 ft³ -- 318,000 ft³ over project life
- Completing packaging of OS-4 and OS-14 railcars



Inactive Facilities D&D



A sampling crew prepares to enter the C-405 Incinerator.

- Removal of materials and equipment continues in C-402 Limehouse
- Sampling conducted in C-405 Incinerator to support characterization activities
- Preparing to conduct walkdown at C-746-A West End Smelter to determine extent of sampling necessary



A worker in respirator and PPE enters the C-402 Limehouse.

C-410/420 D&D

- C-410 waste packaging operations have resumed
- 4,500 cubic feet of loose debris from Sector 1 shipped to EnergySolutions and NTS
- Application of fixative to outside metal 60 percent complete



Environmental Projects

Groundwater Operable Unit



- Sampling to support design of C-400 treatment system will begin in June
 - 47 sample borings
 - Up to 100 feet deep
- D2 Southwest Plume Site Investigation Report submitted to regulators May 17

A surveyor marks boring locations at C-400 on May 18.

Environmental Projects

Surface Water Operable Unit

- Site Investigation/Risk Assessment Report due to regulators by August 16, 2006

Burial Grounds Operable Unit

- DOE awaiting final comments from U.S. EPA and Kentucky on the Remedial Investigation/ Feasibility Study Work Plan





DOE Portsmouth/Paducah Project Office

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Solid Waste Contained Landfill**

Contact Persons:

Paducah Remediation Services, LLC: Matt LaBarge

Commonwealth of Kentucky: Todd Hendricks

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: John Russell

Purpose: Waste Disposition

Description: The operating landfill and support facilities are located on 60-acres of DOE property near Ogden Landing Road, operating under a permit from the Kentucky Division of Waste Management (KDWM). Landfill disposal operations began in 1997. DOE uses the landfill for disposal of solid waste generated from its operations at the Paducah site. Examples of wastes accepted include non-hazardous soil and debris from environmental cleanup and other DOE projects, protective clothing worn by workers, paper, packaging, and landfill office wastes. No waste classified as hazardous or radioactive is accepted.

Key documents:

- Environmental Assessment for the Construction, Operation and Closure of the Solid Waste Landfill at the Paducah Gaseous Diffusion Plant (DOE/EA-1046)
- Environmental Assessment on the Implementation of the Authorized Limits Process for Waste Acceptance at the C-746-U Landfill (DOE/EA-1414)
- Waste Acceptance Criteria for the Department of Energy Treatment, Storage, and Disposal Units at the Paducah Gaseous Diffusion Plant (BJC/PAD-111R4)
- C-746-U Landfill Solid Waste Disposal Facility Permit Number 073-00045

Issues:

- The Kentucky Resources Council has petitioned Kentucky for an administrative hearing on permit renewals for the C-746-S and C-746-T landfills and approving the construction and use of a leachate treatment facility for the C-746-U landfill.

Recent accomplishments/activities:

- A&K Construction broke ground for the C-746-U Leachate Treatment Facility in late March and completed utility and foundation construction in early April
- Building construction was completed May 5
- Treatment equipment scheduled for installation in the building on May 16
- Operational testing and training scheduled for completion on July 20
- In April, 20 loads containing 132.9 tons of waste material was deposited in the landfill

Activity over next 60 days:

- Complete installation of the C-746-U Leachate Treatment Facility
- Continue disposal of construction debris and other non-hazardous solid waste streams
- Support the Kentucky Research Consortium for Energy and Environment Holocene Displacement Study
- Initiate construction of leachate treatment facility within two weeks of reissuance of Permit

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Waste Disposition**

Contact Persons:

Paducah Remediation Services, LLC: Matt LaBarge/Greg Shaia

Commonwealth of Kentucky: Jon Maybriar

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: John Russell

Purpose: Waste Disposition

Description: DOE is responsible for disposal and/or recycling of legacy wastes (wastes generated at the PGDP prior to establishment of USEC on July 1, 1993); wastes generated from ongoing DOE projects; and a limited amount of waste generated by USEC. After characterization to assure selection of the appropriate disposition method, non-hazardous and non-radioactive wastes are disposed of in the DOE Solid Waste Contained Landfill. *(Please see landfill update sheet.)* Hazardous and radioactive wastes are treated if necessary and shipped off-site to approved DOE or commercial disposal facilities. Wastewater (collected from sumps in diked areas in DOE waste storage facilities at PGDP) is treated and discharged in accordance with the Kentucky Pollutant Discharge Elimination System permit.

Key documents:

- Paducah Waste Acceptance Criteria (BJC/PAD-11, Revision 4)
- Final Environmental Assessment for Proposed Disposition of Waste from the Paducah Site (DOE/EA-1339 and Addendum DOE/EA-1339-A) (FONSI)
- Agreed Order DWM-31434-042
- Site Treatment Plan (STP) DWM-30039-042

Issues:

- None

Recent accomplishments/activities:

- Shipped 553 cubic feet of mixed low-level waste to Perma-Fix facilities for treatment
- Completed project to disposition approximately 3,000 containers (~24,000 cubic feet) of LLW stored in outside facilities to the C-746-U Landfill and Energy Solutions
- Shipped 2700 cubic feet of metal waste to EnergySolutions

Activity over next 60 days:

- Ship tanker of liquid waste and several trucks of solid waste to TSCA Incinerator
- Repackage and ship mixed low-level waste to treatment/disposal at Energy Solutions and Perma-Fix facilities
- Dispose legacy waste stored in outside locations in C-746-U Landfill

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006**

Project: Decontamination & Decommissioning (D&D)

Contact Persons:

Paducah Remediation Services, LLC: Don Ulrich/Brad Montgomery

Commonwealth of Kentucky: Jon Maybriar

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: The D&D project has completed development of Comprehensive Environmental Response, Compensation, and Liability Act regulatory documentation and has initiated actual D&D of the C-410/420 Feed Plant Complex. The current scope of D&D includes infrastructure removal on the C-410/C-420 complex, as well as ongoing surveillance and maintenance of the C-410/C-420 complex and the C-340 Metals Plant complex. Scope also included development of Safety Basis Documentation for the removal of equipment, piping, and stored material from the C-410 Complex. Operations at both complexes ended in 1977.

The Engineering Evaluation and Cost Analysis and the Action Memorandum for three inactive Facilities, the C402 Limehouse, the C-405 Contaminated Items Incinerator, and the C-746-A West End Smelter, have been completed and approved. The Removal Action Work Plan for the C-402 Limehouse has been approved by the regulatory agencies, and the C-405 and C-746-A West End Smelter RAWP is under development.

Key documents (C-410 and Inactive Facilities):

- Engineering Evaluation/Cost Analysis (EE/CA)
- Action Memorandum
- Removal Action Work Plan (RAWP)
- Cultural Resources Assessment of C-410 Complex
- Agreed Order DWM-31434-042

Issues:

A UF6 release occurred inside C-410 Building on March 1, 2006, when a mechanic snagged an instrument line while routing an air line through the building, resulting in the line breaking. The line contained residual material that was not completely removed when the facility was shut down. Monitoring outside the building indicated no detectable HF outside the building. Implementation of the recovery process is ongoing.

Recent accomplishments/activities:

- Developed and implemented an approach for resuming activities in the C-410 Complex, and Initiated performance of walkdowns inside C-410 to mark identify, mark, and protect potential hazards prior to resuming work in the complex. Completed approximately 1/3 of ground floor of building in April.
- Continued D&D activities in the C-402 Limehouse
- Busswork removal from Sector 2 is approximately 40% complete
- Continued packaging loose debris and waste from Sector 1; shipped two intermodal containers, two SeaLand containers, and fourteen ST-90 containers of debris for disposal from the C-410 Complex
- Continued application of fixative on stacks and painted metal outside building
- Initiated sampling activities in C-405 to support waste characterization

Activity over next 60 days:

- Continue packaging of loose materials in C-410 Complex
- Ship C-411 (Sector 1) demolition debris to EnergySolutions of Utah for disposal
- Continue demolition activities in C-402 Lime House
- Continue fixative application to exterior stacks
- Package demolition debris for shipment to EnergySolutions of Utah
- Submit RAWP for C-405 Incinerator and C-746-A West End Smelter to regulatory agencies for review and approval
- Perform sampling for waste characterization of C-405 Incinerator and C-746-A West End Smelter

Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: DOE Material Storage Areas (DMSAs)

Contact Persons:

Paducah Remediation Services, LLC: John Samples
Commonwealth of Kentucky: Jon Maybriar/Mike Guffey
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: The 160 DMSAs are non-leased areas inside buildings, as well as outdoor areas. DOE accepted the return of the areas, and the material and equipment they contained from USEC on December 31, 1996, to facilitate NRC certification of the gaseous diffusion plants. At that time, most of the contents needed detailed inventory, characterization, and disposition. Since that time, DOE and contractors have been documenting contents, resolving environmental concerns such as draining and disposing of oils from old equipment, and segregating and disposing of wastes.

Key documents:

- PGDP Department of Energy Material Storage Area Characterization/Remediation Plan (BJC/PAD-186/R4), April 2001
- Agreed Order DWM-31434-042
- Documented Safety Analysis (DSA)

Issues:

- Increased rigor in characterizing painted items for PCB content has impacted characterization, packaging, and disposal activities. Effort is under way to resolve different requirements and allowances between Kentucky and EPA regulations for solid waste disposal of painted items.

Recent accomplishments/activities:

- 4,448 ft³ of material characterized (including sampling) during March
- 6,689 ft³ of material packaged for disposal during March
- 7,059 ft³ of material disposed during March
- An additional 8,707 ft³ of metal pallets removed from DMSAs for re-use by other projects

Activity over next 60 days:

- Complete disposition of the remaining DMSA OS-15 material
- Complete the sizing, packaging, and disposition of OS-4 and OS-14 rail cars
- Continue characterization of "Priority B" DMSAs under the Agreed Order
- Initiate final closure certification for approximately 20 DMSA RCRA Closures

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Groundwater Operable Unit**

Contact Persons:

Paducah Remediation Services, LLC: Joe Tarantino/Mike Clark/Mike Troutman

Commonwealth of Kentucky: Jon Maybriar/Todd Mullins

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: Jim Smart

Purpose: Environmental Cleanup

Description: This project addresses environmental remediation of groundwater contamination on a site-wide basis at the Paducah Gaseous Diffusion Plant. The main contaminants of concern are trichloroethylene (TCE) and technetium-99 (⁹⁹Tc). Remedial actions will be designed and implemented after completion and signing of Records of Decision (RODs).

Key documents:

- Feasibility Study of the Groundwater Operable Unit at PGDP (DOE/OR/07-1857)
- Agreed Order DWM-31434-042
- Six-Phase Treatability Report (DOE/OR/07-2113)
- Proposed Remedial Action Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2114)
- Southwest Plume Site Investigation Work Plan (DOE/OR/07-2094)
- S&T Landfill Site Investigation Work Plan (DOE/OR/07-2098)
- Record of Decision for Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2150&D2/R2)
- Remedial Design Work Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2214&D2)
- Remedial Design Support Investigation Characterization Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2211&D2)
- Site Investigation Report for the Southwest Groundwater Plume (DOE/OR/07-2180&D1)
- Site Investigation Report for the C-746-S&T Landfills (DOE/OR/07-2212&D2)
- Land Use Control Implementation Plan: Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Contamination at the C-400 Cleaning Building (DOE/OR/07-2151&D1)

Issues: Discussions with the State of Kentucky and EPA are continuing concerning the use of degradation factors utilized in groundwater modeling to support risk assessment development. The D2 Southwest Plume Site Investigation Report is being updated utilizing revised degradation values in the groundwater modeling.

Recent accomplishments:

- Paducah Remediation Services made a decision to self perform the selected remedy for the C-400 Remedial Action. Preparations are currently being made to begin the Remedial Design Support Investigation.
- Developed Errata Sheet for the D2 Remedial Design Work Plan and submitted to Kentucky and USEPA for acceptance on 3/6/06

- Regulators approved the D2 Site Investigation Report for the C-746-S&T Landfills. Additional environmental restoration activities will be evaluated and implemented as part of the Burial Grounds Operable Unit.
- Received DOE and regulator comments on the D1 Land Use Control Implementation Plan for the C-400 Interim Remedial Action
- Continued Supporting a Department of Energy Headquarters Remedy Review Team in evaluating the status of remediation at PGDP for Burial Grounds and Groundwater

Activity over next 60 days:

- Initiate design and design investigation activities for the implementation of the C-400 Interim Remedial Action
- Begin addressing DOE and regulator comments on the Land Use Control Implementation Plan for the C-400 Interim Remedial Action (DOE/OR/07-2151&D1)
- Issue D2 Site Investigation for the Southwest Groundwater Plume

FFA Milestones:

- Submit D2 Southwest Plume Site Investigation Report by 5/17/06 and D1 Proposed Remedial Action Plan by 7/16/06 (Milestone being modified pending resolution of the degradation factor use in groundwater models)

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Surface Water Operable Unit (On-Site)**

Contact Persons:

Paducah Remediation Services, LLC: Joe Tarantino/Kendall Holt/Jana White
Commonwealth of Kentucky: Jon Maybriar/Brian Baker
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: Jim Smart

Purpose: Environmental Cleanup

Description: The Surface Water Operable Unit (On-Site) Project includes a site investigation to identify hot spots in ditches and outfalls, including Sections 3, 4, and 5 of the North-South Diversion Ditch. The site investigation scope also includes an evaluation of whether additional sediment control measures are needed, as well as actions for potential legacy releases associated with the storm sewer system. The results of the site investigation will be documented in a Site Investigation/Baseline Risk Assessment Report and non-time-critical removal action documentation, as appropriate.

Key documents:

- Sampling and Analysis Plan for Site Investigation and Risk Assessment of the Surface Water Operable Unit (On-Site), DOE/OR/07-2137&D2/R2
- Surface Water Operable Unit (On-site) Site Investigation and Baseline Risk Assessment Report at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0001/D0

Issues: None

Recent accomplishments:

- Prepared Draft Site Investigation/Risk Assessment report for BJC review
- Issuance of the SWOU SI/RA D0 to DOE for review

Activity over next 60 days:

- Prepare Site Investigation/Baseline Risk Assessment Report for DOE review
- DOE technical review of the SWOU SI/RA D0
- Incorporate D0 comments and prepare D1 SWOU SI/RA

FFA Milestones:

- Issue Site Investigation/Risk Assessment Report by August 16, 2006
- Issue Removal Notification by October 12, 2006

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Scrap Metal Removal Project**

Contact Persons:

Paducah Remediation Services, LLC: Chris Marshall

Commonwealth of Kentucky: Jon Maybriar

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: Jim Smart/John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: About 36,000 tons of scrap metal exists at the PGDP, excluding nickel ingots. This project involves the removal of 26,700 tons of general scrap metal, 2,000 tons of aluminum ingots, and approximately 7,412 tons of classified scrap. The project does not include the recycling or disposal of 9,700 tons of nickel. Note the classified scrap total has been revised downward based on field experience.

Key documents:

- Engineering Evaluation and Cost Analysis
- Action Memorandum
- Removal Action Work Plans
- Agreed Order DWM-31434-042
- Documented Safety Analysis (DSA)

Issues: None

Recent accomplishments:

- 367.8 tons of scrap metal were shipped by truck in February and March and 631 tons of debris and soils were shipped in April 2006 from C-746-D yard to NTS. From September 2003 through April 2006, the project made 344 truck shipments carrying over 7,411 gross tons of classified material for disposal. The project worked over 150,000 man hours without a single Lost Work Day Case.
- In April 2006, 1,305 tons of scrap metal were shipped via rail to EnergySolutions
- Since January 1, 2006, 3,358 tons of scrap metal have been shipped via rail to EnergySolutions
- Approval has been granted to begin utilizing High Sided Gondolas for rail shipments

Activity over next 60 days:

- Continue disposition operations by inspecting, sorting, size-reducing and packaging scrap metal
- Continue shipment of scrap metal to EnergySolutions

Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Burial Grounds Operable Unit

Contact Persons:

Paducah Remediation Services, LLC: Joe Tarantino/Kendall Holt/Fraser Johnstone
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: A Remedial Investigation/Feasibility Study (RI/FS) Scoping Document and the RI/FS Work Plan for the investigation of the Burial Ground Operable Unit (BGOU) at PGDP have been developed. The documents utilize a compilation of sampling information collected on and around the PGDP over the course of the last ten years. The BGOU includes Solid Waste Management Units (SWMUs) 2, 3, 4, 5, 6, 7, 30, and 145.

Key documents:

- Scoping Document for the Burial Grounds Operable Unit Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
- Work Plan for the Burial Grounds Operable Unit Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-2179

Issues: None

Recent accomplishments:

- BGOU D2 RI/FS Work Plan was completed and distributed to the Commonwealth of Kentucky and the EPA on December 19, 2005
- Comments from the Commonwealth of Kentucky are scheduled to be received by May 21, 2006

Activity over next 60 days:

- Receive regulator approval of the RI/FS Work Plan

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006
Project: Depleted Uranium Hexafluoride (DUF₆) Project Surveillance &
Maintenance**

Contact Persons:

DOE Site Office: John Sheppard
Uranium Disposition Services: Barry Tilden

Purpose: Maintain safe storage of DOE DUF₆ cylinder inventory pending disposition.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF₆ inventory, which is a by-product from enriching uranium for nuclear fuel. At Paducah, approximately 36,200 cylinders contain approximately 436,400 metric tons of DUF₆. There are also 182 cylinders of low-enriched UF₆, about 1,500 cylinders of "normal" UF₆ (which has not gone through the enrichment process), and 275 empty cylinders. The DOE inventory at Paducah includes the material generated from 1952 until the establishment of USEC in July 1993, and material transferred from USEC to DOE since that time.

Surveillance and maintenance involves safely storing DUF₆. Most of the 60-acre DOE cylinder yard complex now consists of concrete yards, which provide for improved storage and inspection. In recent years, DOE cleaned and painted 3,368 cylinders that had surface corrosion. DOE continually monitors and inspects its cylinder inventory to assure safe storage.

Key Documents for surveillance/maintenance:

- Handling and Inspection of DOE 48-Inch Diameter UF₆ Cylinders at Paducah (PA-2400)
- Agreed Order DWM-31434-030
- Final Environmental Impact Statement for the Construction and Operation of the DUF₆ Conversion Facility at the Paducah Site (DOE/EIS-0359)
- Record of Decision for Construction and Operation of the DUF₆ Conversion Facility
- Documented Safety Analysis for the DOE Cylinder Yards, BJC/PAD-459
- Technical Safety Requirements for the DOE Cylinder Yards, UDS-C-TSR-001

Issues: OIG Review of 30A Cylinders

Recent accomplishments/activities:

- An agreement with the Bonneville Power Administration (BPA) has been approved to transfer 672 cylinders of DUF₆ to BPA to supply power reactor fuel; 513 cylinders have been transferred through April 2006
- An agreement with USEC has been approved to "clean up" 743 cylinders of off-spec "normal" UF₆; 541 cylinders have been transferred through April 2006
- Issued a Characterization Report on the resolution of the phosgene issue in 30A cylinders

Activity over next 60 days for surveillance/maintenance:

- Continue transferring cylinders as per the two previously mentioned agreements

**Project Status Update for DOE Paducah Citizens Advisory Board
May 11, 2006**

Project: Depleted Uranium Hexafluoride (DUF₆) Conversion Facility

Contact Persons:

DOE Site Office: John Sheppard

Uranium Disposition Services: Guy Griswold

Purpose: Design, build, and operate the DOE DUF₆ Conversion Facility.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF₆ inventory, which is a by-product from enriching uranium for nuclear fuel. At Paducah, approximately 36,200 cylinders contain approximately 436,400 metric tons of DUF₆. DOE selected Uranium Disposition Services LLC to design, build, and operate facilities in Paducah and Portsmouth to convert DUF₆ to a more stable form for disposal or recycling.

The project site occupies approximately 11 acres immediately adjacent to DOE's DUF₆ cylinder storage yards. The completed capital costs for the facility at Paducah are estimated to be ≈ \$91,000,000. The major facilities on the DUF₆ project include the Conversion Building, Administration Building, Warehouse and Maintenance Building, KOH Regeneration Building, and the HF Neutralization Building. The project work also includes a railroad connection, rail sidings, load out facilities, roads, storage areas for full and empty cylinders, and all utilities.

Groundbreaking occurred in July 2004 and construction has continued since that time. At the conclusion of construction, all systems will be tested and the plant will undergo an Operational Readiness Review. The facility is expected to commence conversion operations in 2007.

Key Documents for the Conversion Project:

- Final Environmental Impact Statement for the Construction and Operation of the DUF₆ Conversion Facility at the Paducah Site (DOE/EIS-0359)
- Record of Decision for Construction and Operation of the DUF₆ Conversion Facility
- Paducah Conversion Facility Preliminary Documented Safety Analysis, DUF₆-C-G-PSA-001, Rev. F

Issues: None

Recent accomplishments/activities:

- Conversion Building – Placed columns, panels and beams in Converter Area
- Warehouse Building – Continued work on the interior of the facility to install electrical, fire piping, windows and doors, and mud, tape and paint
- Administration Building – Roof deck placed, masonry complete, all siding installed, interior walls and electrical in process
- Construction on Bayou Creek railroad bridge continued
- Continue receiving equipment at site (material received on 30 packages)

Construction activity scheduled over next 60 days:

- Continue interior work on walls, windows and electrical for Administration Building
- Begin construction of offsite rail spur
- Begin construction of balance of plant foundations S-39
- Continue erection of Conversion Building panels and columns
- Receive and erect steel for Bayou Creek railroad bridge and begin earthwork
- USEC to connect 2nd Fire Water connection to UDS

- Begin construction of Power Feed to Facility – S-44
- Mobilize S-33 exterior steel subcontractor

Procurement activity planned next 60 days:

- Award HVAC package – S-42
- Award Piping/Mechanical Equipment package – S-40
- Award Electrical Distribution and Instrumentation – S-43
- Award Conversion Building Roof – S-23
- Re-bid KOH – S-31
- Bid On-Site Railroad – S-34
- Bid Architectural Finishes – S-32
- Continue to Bid and Procure Major Equipment RFPs