September 25, 2014

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Agenda for the September Board Meeting

6:30
Call to order, introductions
Review of agenda

DDFO Comments -- **15 minutes**

Federal Coordinator Comments -- **5 minutes**

Liaison Comments -- **10 minutes**

Administrative Issues -- **10 minutes**

- EM SSAB Chairs update

Subcommittee Chair Comments -- **10 minutes**

Public Comments -- **15 minutes**

Final Comments -- **5 minutes**

Adjourn

PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board
Meeting Minutes
September 25, 2014

The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, May 15th at 6:30 p.m.

Board members present: Judy Clayton, Ben Peterson, Dianne O'Brien, Ralph Young, Robert Coleman, Renie Barger, Ken Wheeler, Jim Tidwell, Tom Grassham, and Mike Kemp.

Board Members absent: Eddie Edmonds, Jonathan Hines, Richard Rushing, David Franklin, Carol Young, Glenda Adkisson and Kevin Murphy.

Board Liaisons and related regulatory agency employees: Todd Mullins, Gaye Brewer (KDWM)

DOE Deputy Designated Federal Official: Jennifer Woodard, DOE

U.S. Department of Energy (DOE) related employees: Buz Smith, Bill Murphie, Robert Edwards, Brad Mitzelfelt, DOE; Joe Walker, Mark Duff, Elizabeth Wyatt, Steve Christmas, Joe Walker, LATA Environmental Services of Kentucky (LATA); Yvette Cantrell, Restoration Services Inc. (RSI); Matt LaBarge, (Waste Control Specialists); Conn Murphy, Gwen Nalls, Jack Williams, Fluor Paducah; Eric Roberts, Jim Ethridge, EHI Consultants (EHI).

Public: Tony Graham

Introductions:

Peterson opened the meeting at 6:30 pm, and asked for introductions and then reviewed the Agenda, which was approved by the Board. He then introduced **Woodard** for a presentation on project status at the site. **Woodard** introduced **Murphy** to introduce himself to the Board about his company and path forward at the site. **Woodard** then made her update presentation.

Clayton: With regard to the oxide that is left, will we be sending that to Andrews, now that that is available?	**Murphie**: Right now there is no firm decision on where we are going with the uranium. Until we get a decision I think it will be a few years before we come back and address that.
Wheeler: Are you saying that decision would rest with the NRC?	**Murphie:** No, but that decision is subject to a decision from the NRC relating to all licensed facilities.
Wheeler: Who has the next step?	**Murphie:** There are several organizations working at the same time, in parallel, before a decision is made. Maybe I can present a strategy of where we are going in a future meeting.

Young: As you start to do borings, have you been surprised by anything?	**Woodard:** The only thing we have run into was at SWMU 1, the soil mixing project, we excavated the top four feet of soil and an old sampling well form the 1988-89 time frame was uncovered. We preformed proper well abandonment on it and have since moved on.

Federal Coordinator comments: none

Board Liaison comments: none

Peterson then reported on the recent EM SSAB Chairs meeting that was held in Idaho. He introduced a Chairs recommendation titled *Initiate Process of Permit Modification for Additional Surface Storage at WIPP*. **Roberts** explained the background for this recommendation.

Wheeler: Is there any indication when the underground storage will be opened up again?	**Roberts**: Maybe around eighteen months. Not anytime soon.
Wheeler: So this affects the whole complex?	**Peterson:** It does in a couple of ways. Not just the disposition, but also budgets and money. The safe storage of the material is key, but the funding of it as well.
Tidwell: What exactly happened at this site?	**Edwards:** Two events happened. They had an underground fire, and they had an indication of an underground release.
Tidwell: How many sites are shipping to that site?	**Edwards:** Pretty much the complex. Any site that has transuranic waste. Fortunately we don't fall into that category.
Tidwell: Is there an alternative site that they could be using?	**Edwards:** Those are some of the options they are looking at. **Roberts**: And it would be fair to say that this site is completely different from the type of waste cell that we would have here.

After discussion of the recommendation, it was moved to vote and was passed unanimously, 10-0.

Peterson then turned the meeting over to **Wheeler** for a report from the Waste Disposal Alternatives subcommittee. **Wheeler** presented a draft recommendation for discussion. It was titled ***Recommendation 14-XX: Construction of a Low-Level Waste Disposal facility at the Paducah Gaseous Diffusion Plant site.*** He suggested continuing to edit the recommendation over the next few weeks to include all Board members suggestions.

Peterson: Where are we with the schedule for this project?	**Woodard:** We are looking at spring for the Proposed Plan. We've made a lot of progress.
Wheeler: I'm having trouble putting the two terms together in the same statement; making progress and asking for an extension.	**Woodard:** We have been resolving comments from the regulators. We have resolved 21 of the 23 comments.
Wheeler: What are the two issues that you have yet to resolve?	**Woodard:** One has to do with how we resolve corrective actions. The other one has to do with how we can utilize the disposal cell. One of them is the Corrective Action Management Unit (CAMU). EPA needs clarification from their headquarters before we can discuss flexibility in

	implementing the CAMU.
Tidwell: Flexibility of what?	**Wyatt:** Treatment of the waste prior to placing it into the cell. **Mullins:** This would be only hazardous waste.
Tidwell: This would not have anything to do with the cell itself, but treatment of the waste going into it.	**Mullins:** Yes.
O'Brien: I think we need to consider the health effects of what we put into the cell. I have a list of substances that are known to be at the site, and I think we need to say that they will not be put into the cell.	
	Murphie: In looking at this, I would argue that site 11 may not be the safest site, considering you are saying that safety is your number one consideration.
Wheeler: I think we all know that safety can be enhanced with engineering techniques. So that site could possibly be brought up to the same safe level at other sites. If that site cannot be brought up to safer standards in any way, we would need to reassess our recommendation. We just tried to identify what the most preferable site is for the community.	**Murphie:** The flexibility in your core values seems to be lost by specifying site 11 as your recommended site.
Kemp: We have been through presentations for months about this. We don't need to sit here all night and worry about how the sentence is stated when we can change the wording to say that the site is a recommendation. **Grassham:** Just take off site 11 and put something like "the chosen site", and in the conclusion state that site 11 is the preferred site. **Clayton:** I think we need to add something about not accepting any foreign waste. Only waste from this site.	

Peterson then said to send in any comments or suggestions on how to best present the recommendation to include everyone's concerns. **Wheeler** suggested moving the subcommittee meeting for October to the 23rd. **Roberts** said that it would be good to check to make sure all parties would be able to attend.

The meeting adjourned at 8:00pm.

Approved by **Ben Peterson, Chairman**

Ben Peterson

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Paducah Gaseous Diffusion Plant

DDFO Presentation

Jennifer Woodard

September 25, 2014

In the Community

- NRC meeting
- Feds Feed Families
- Intern Program
- Deactivation contract awarded

ENVIRONMENTAL MANAGEMENT

EM Update | Vol. 6, Issue 8 | August 2014

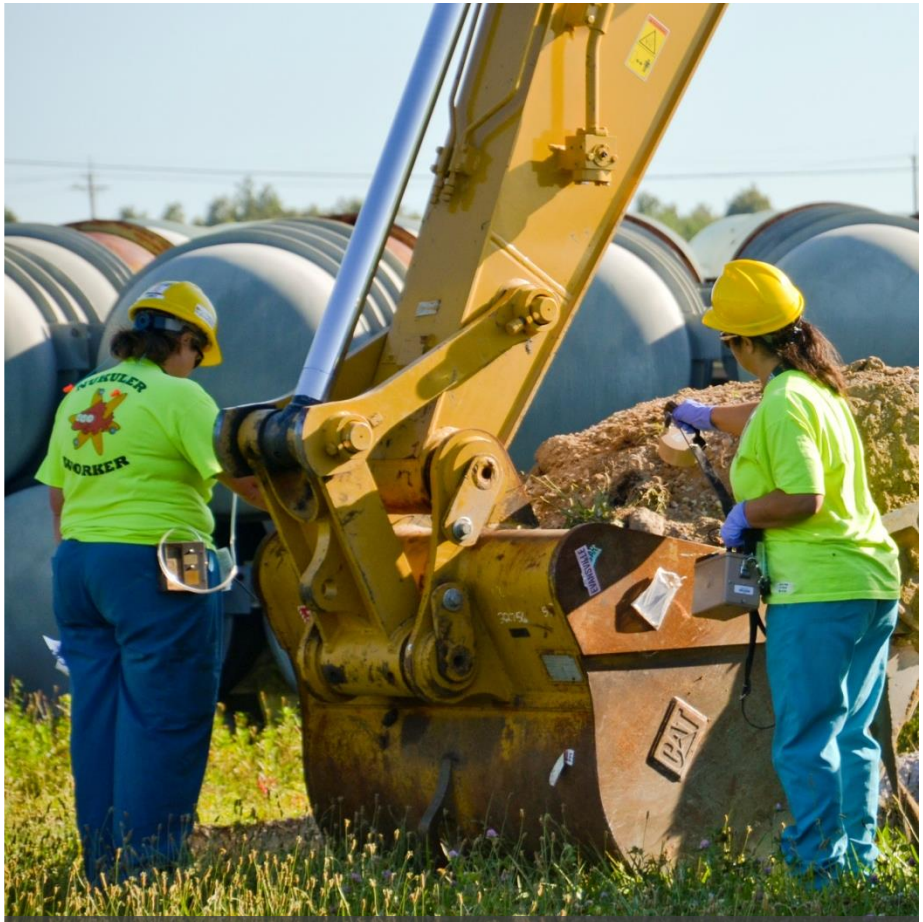
Paducah Site Interns Learn About EM Opportunities

LATA Kentucky groundwater cleanup site superintendent Donnie Bell, far right, describes the project to (from left) Steve Christmas of LATA Kentucky and interns Weston Loyd, Matthew Jehnke, and Wesley Morgan.

PADUCAH, Ky. – Thirteen college students took a break from the books to participate in a summer internship program hosted by LATA Environmental Services of Kentucky, the contractor at EM's Paducah site.

The students, who connected classroom to... University of Kentucky (UK), the ... Western Kentucky...

Southwest Plume

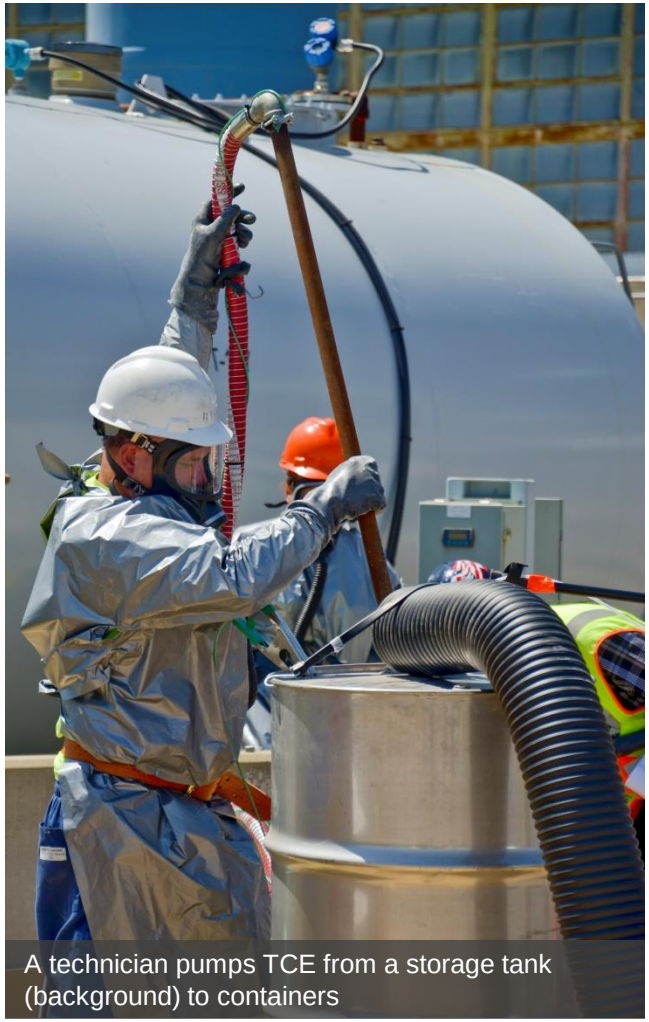


Radiation technicians survey soil from initial excavations before it is sent to the landfill

Excavators and other heavy machinery work together to remove 4 feet of soil from the treatment area

An AccuGrade Global Positioning System is used to move rock for the entrance ramp at the 1% grade necessary to move the crane

C-400 Phase IIa

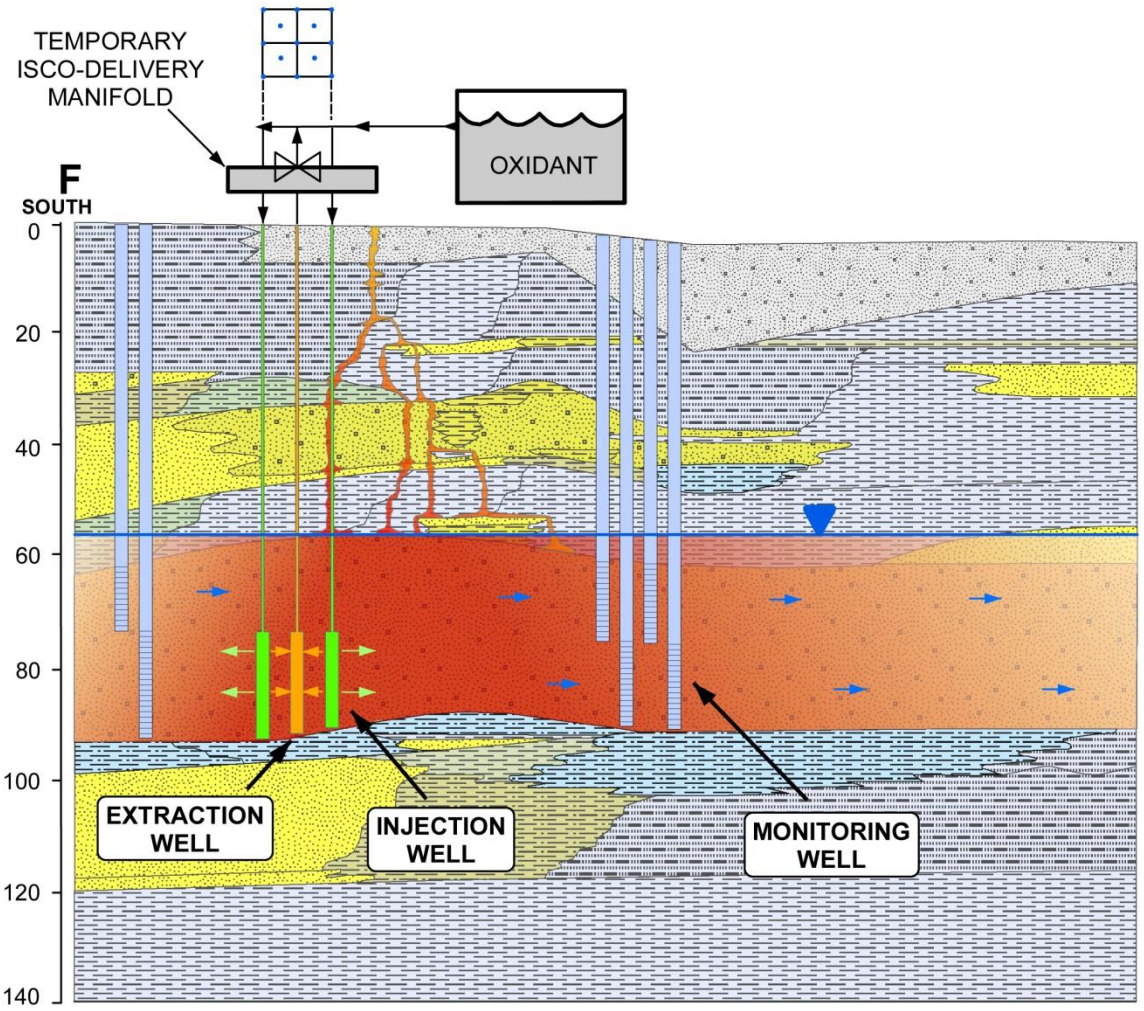


A technician pumps TCE from a storage tank (background) to containers

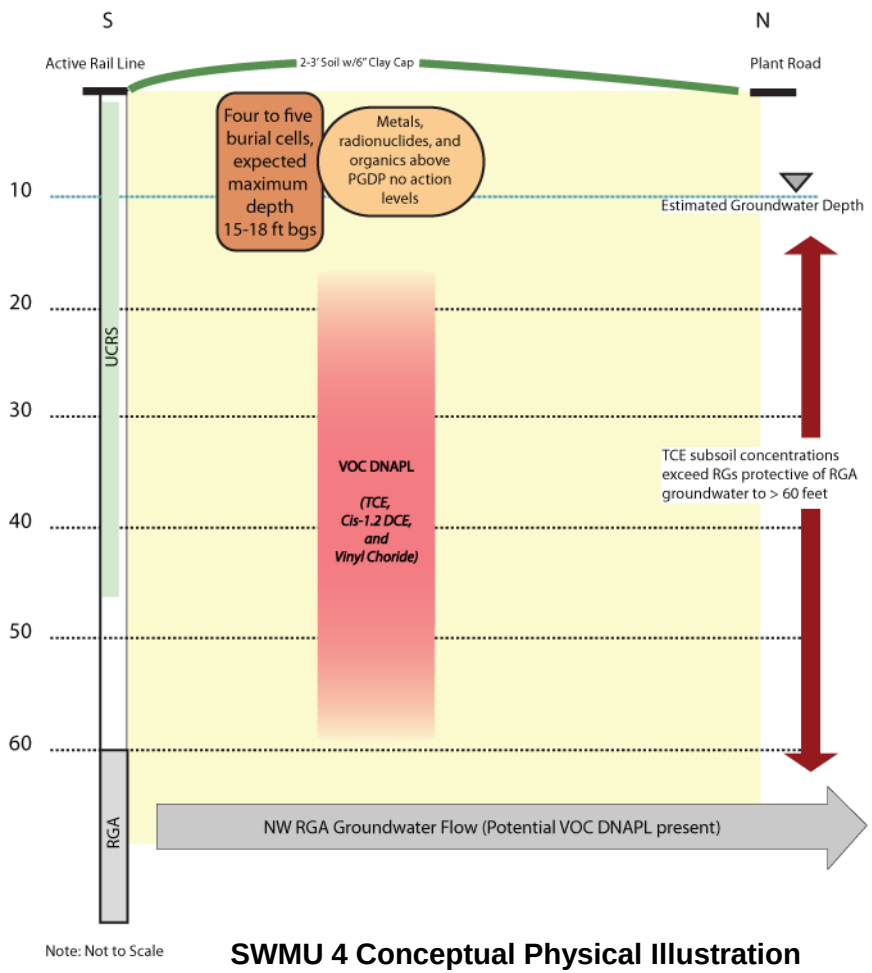
After the containers were filled they were moved by forklift for proper disposition

C-400 Phase IIb

Crews plan to use a similar drilling rig for Phase IIb



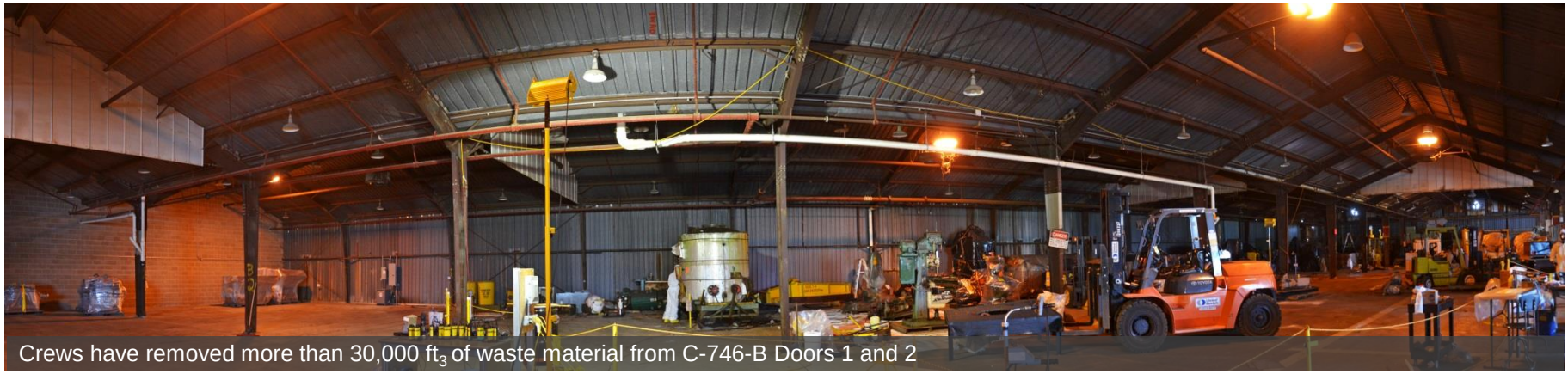
SWMU 4 Sampling



SWMU 4 Conceptual Physical Illustration

SWMU 4 Sampling

C-746-B Warehouse



Crews have removed more than 30,000 ft_3 of waste material from C-746-B Doors 1 and 2

A forklift operator moves waste material

Crews safely characterize and package material

C-410/C-420 Complex

Waste that has been downsized is placed in railcars for shipment off-site

Large process equipment is removed as part of facility deactivation

C-410 Sector VI was demolished to slab August 27, 2014. Transite removal is ongoing on C-420 to prepare it for demolition

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C-410/C-420 Complex

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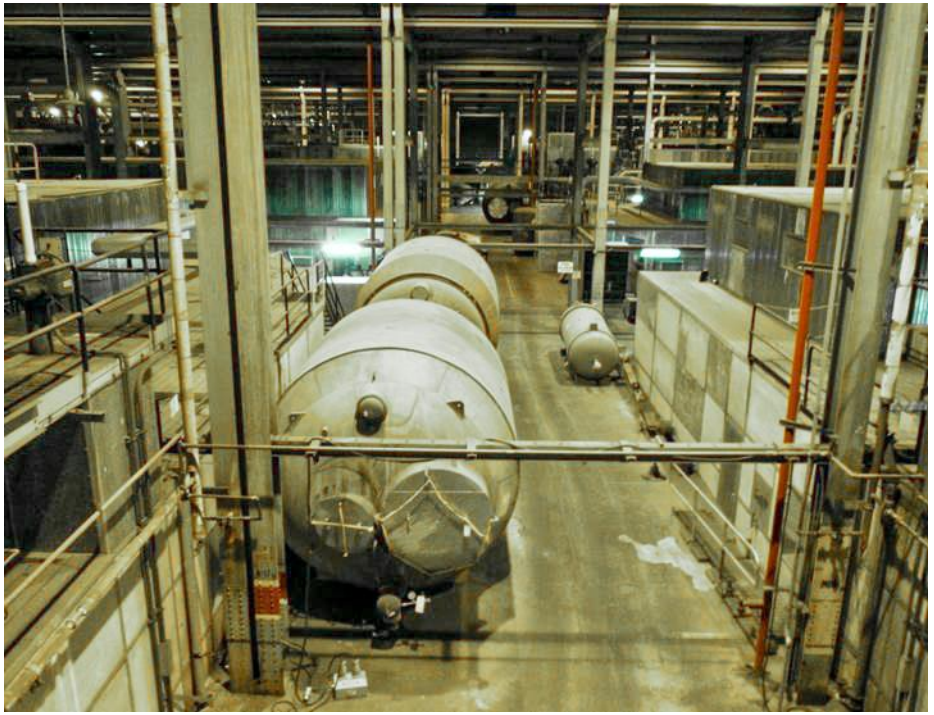
Transition

Walk downs were conducted to ensure lease requirements for enrichment and support facilities.

View from inside a Process Building



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Discussion…

EM SSAB Chairs Meeting
Idaho Falls, Idaho
Draft Chairs Recommendation
September 17-18, 2014

Initiate Process of Permit Modification for Additional Surface Storage at WIPP

Background

The Waste Isolation Pilot Plant (WIPP) has been operating since 1999 as the only underground repository for transuranic (TRU) waste disposal. Having the WIPP facility available for TRU waste disposal has been shown to be extremely important to the Department of Energy (DOE) as well as sites across the United States needing to safely and reliably dispose of TRU waste. WIPP operations on a continuing basis are critical to the success of the DOE Office of Environmental Management's (EM) waste disposal mission.

Observations and Comments

With the recent shutdown of WIPP, DOE efforts to complete programs for the shipment of TRU waste from sites needing this method of waste disposal have been jeopardized. The shutdown of WIPP has rendered these sites unable to complete commitments due to respective state consent orders or regulatory requirements. Planning for future shipments to WIPP is also now on hold with no effective time table of when shipments may be able to resume.

Building of additional TRU waste storage facilities at the various generator sites with limited lifetime expectancies is neither efficient nor cost effective. It would be wise to not duplicate the permitting process at multiple sites and concentrate on one site that can truly facilitate permanent long-term disposal of TRU waste.

Reestablishing the current means and methods of TRU waste transport from sites would maintain the present available transport system readiness, keep personnel training levels and maintain effective use of present facilities. An additional consideration to transporting waste as soon as feasible is that transportation costs will likely rise significantly in the ensuing years.

Recommendation

Due to the serious problems that the shutdown of the WIPP has caused the various DOE facilities that must ship TRU waste, the Environmental Management Site-Specific Advisory Board recommends that DOE-EM Headquarters should immediately prepare to expand the above-ground TRU waste interim storage installation at WIPP so that EM sites can proceed with TRU waste shipments even before the underground WIPP disposal operation is approved for reopening.

Paducah Citizens Advisory Board
"working for the future"

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PREDECISIONAL DRAFT - Recommendation 14-XX: Construction of a Low-Level Waste Disposal facility at the Paducah Gaseous Diffusion Plant site.

Draft: Revision 0, dated 9/21 /14

Background

Studies relating to disposal of the immense volume of material that must be disposed of during the cleanup and preparation for reuse of the Paducah Gaseous Diffusion Plant (GPGP) site have been conducted for at least the past decade. Now, with the closure of the GPDP, coupled with the recent award by the Department of Energy (DOE) of a contract to begin preliminary work towards site restoration, the need to reach a decision on the best alternative for disposition of the large volume of waste that will be generated over the next 20 years while this restoration is proceeding requires prompt resolution. For reference purposes, the size of a waste facility capable of handling the material generated by the cleanup is estimated by DOE to be in the order of 8 million cubic yards, equivalent to filling three football fields to a height of XXXXX ft.

Extensive studies undertaken by DOE have included an analysis of various disposal alternatives (on-site versus off-site) and more detailed studies of various specific waste disposal locations on the property, should this option be approved. The Citizens Advisory board (CAB) has spent several hundred hours in reviewing these studies, and in addition has utilized the services of other technical experts, including the University of Kentucky and the United States Geological Service. In addition, the CAB has made two on-site visits to other waste storage sites at DOE installations. Public meetings held in Paducah have solicited input on these decisions from the community. More recently, three extensive review sessions, summarizing information gained to date, have been held for the CAB. Finally, it should be noted that all decisions relative to waste disposal are being conducted under the CERCLA process, with joint approval required between DOE, the Kentucky Department for Environmental Protection, and the Federal Environmental Protection Agency.

Based upon these reviews, the CAB has developed a set of Core Values that should be applied in the decision making process:

Core Values

- Safety, both to the general population and to the workers engaged in cleanup and remediation, is paramount. (Statement regarding 10 minus 6 risk assessment standard with words from RF/RI).
- Waste disposal operations should be designed such that they minimize the impact to prompt and expedient cleanup operations, in order that a stable workload that is capable of retaining an experienced and well trained workforce is in place during the entire cleanup cycle, which may last for as long as 20 years.
- In the event that onsite waste disposition is selected, DOE has demonstrated the ability to design and construct a cell that is protective of human health and the environment and respective of the geophysical conditions present at the Paducah site.
- Regardless of the waste disposition alternative selected, high-level, transuranic, and spent nuclear fuels (as defined in DOE Order 435.1) are not expected to be generated and are not

included in the estimated waste volume. These waste types, if generated or found during cleanup, will be disposed of off-site no matter which alternative is chosen, because regulations prescribe disposal in special repositories. DOE has reported that approximately 5% of waste generated may fall into this category.

- The location of the CERCLA cell must be subordinate to Adaptive Reuse of the site. The best real estate on the site should be designated for Adaptive Reuse, not waste disposal. Adaptive Reuse of the site includes re-industrialization as well as continuing the management of wildlife areas outside the existing PGDP boundary. The best sites for reindustrialization are 3A, 5A and 1.
- DOE should maximize potential land for reuse. Leaving burial grounds *in situ* has an associated stigma that perpetuates fear of the site, as well as an uncertain, unknown risk for potential additional contamination. Leaving current burial grounds untouched is a limiting factor in adaptive reuse of the site, especially considering the current number of limited access areas within radioactive boundaries located on the adjacent Wildlife Management Area
- The alternative selected should keep environmental contamination and waste footprint as small as possible.
- The large amount of clean landfill that will required for the waste disposal cell offers an excellent opportunity for development of attractive and beneficial wildlife and recreation areas on sites adjacent to the PGDP.
- The final waste disposal decision must include incentives to reduce, recycle, and/or treat waste materials on site to make them safer for disposal or potential reuse. If a waste that is hazardous because of pH, for example, can be neutralized to make the pH acceptable for non-hazardous disposal, then those treatment actions shall be encouraged. If metals can be treated to remove contaminants such that they can be reused, then those actions shall be encouraged.
- If a site other than Site 11 is chosen, then aesthetics become an important community value including the final land form (height, area and shape) and the arrangement of soil borrow pits (ponds, lakes, etc). From an aesthetics perspective, Site 11 is the least obtrusive of the potential sites, while 3A, 5A and 1 are the most obtrusive.
- To support the community's future use vision, cleanup decisions should include anticipated improved roadways, infrastructure optimizations/ partnerships, and transferred land for both reindustrialization and recreational uses.

Conclusion

From the amount of detailed study that has been performed on various waste disposal options, it is obvious that there is no one solution that perfectly satisfies all of the conditions noted above. It is, however, clear that the least satisfactory approach is to do nothing. Allowing the site to remain in its present unstable state will only increase the hazards associated with the eventual cleanup. With this in mind, the Citizens Advisory board submits the following :

Recommendation

Proceed as expeditiously as possible to obtain agreement between the regulatory agencies for approval of an on-site waste disposal cell meeting all CERCLA requirements at Site 11.