

**PGDP Citizens Advisory Board
Water Task Force
September 5, 2003 * CAB Office**

CAB Members Present: Linda Long
Jim Smart, Chair
Dorothy Starr
Bill Tanner

DOE Representatives Present: Gary Bodenstein

**Commonwealth of Kentucky
Representatives Present:** Gaye Brewer
Stan Cook
Jon Maybriar (via telephone)
Todd Mullins (via telephone)
Lori Veal (via telephone)

BJC Representatives Present: John Farrell (via telephone)
Tom Wheeler (via telephone)

Support Staff Present: Melanie Brewer
Kendra Payne

Public: Bill Dayton, Shaw Environmental (via telephone)
Vicki Jurka

The meeting was called to order at 12:00 p.m.

Kentucky Pollutant Discharge Elimination System (KPDES) Permit Update

Maybriar reported that Larry Sowder, the KPDES permit writer, said the existing KPDES permit would remain in place until the new permit is written, which could possibly be in one year.

Six-Phase Heating Treatability Study Update

Farrell reported the Six-Phase Heating System would be shut down on September 6. He said once the system is shut down, the vacuum blowers would run for approximately 48 hours. He also reported there would be three post-operational sampling events.

Smart inquired about the amount of trichloroethylene (TCE) that each vessel could hold. Farrell said there is approximately 1,100 to 1,300 pounds of TCE per carbon vessel. Smart asked if there were any air quality issues. Cook said he was at the Paducah

Gaseous Diffusion Plant (PGDP) on September 2 to conduct an inspection of the project. Prior to the inspection, certain guidelines were established by the Commonwealth of Kentucky regarding stack emission. These limitations have not been exceeded. The Commonwealth of Kentucky recommended that DOE calibrate the photoacoustic analyzer four times a year. Cook reported DOE has calibrated for TCE three different times but not vinyl chloride or dichloroethylene. Cook said they had also requested that sampling for radionuclides be done once a week. Farrell said DOE had worked with Kentucky to establish emissions guidelines.

Mullins asked when DOE intended to begin the post-operational sampling events. Farrell said groundwater sampling will begin on September 8. Tanner asked if the temperature in those two days after the power is shut down would drop so that TCE is not volatilized. Farrell said the wells will be closed off and no TCE can escape to the surface. Tanner expressed his concern about shutting down the exhaust fans too soon. Farrell said Thermal Remediation Services (TRS) typically does post operation testing and they have no concerns. Bodenstein asked that Farrell ask TRS where the volatile material is going. Farrell said he would contact TRS.

North-South Diversion Ditch (NSDD)

Wheeler said equipment has been mobilized and construction of the detention basin began on September 2. Clay has been received to line the basins and a radiological walk through survey has been conducted to verify no contamination. The burrito bags have been ordered for the ditch material and extensive testing will be done on each bag. He reported January 2004 is the expected completion date, weather permitting.

Wheeler said, due to the recent dispute resolution, 1500 burrito bags will be scanned for radiological material and sampled for TCE. Five percent of the samples will be tested for metals, radionuclides and organics. The In-Situ Object Counting System will be the scanning device used. He said a Remedial Design and Remedial Action Workplan has been developed for Section 1 remediation. Once the basin is finished, excavation of Section 1 will begin. Wheeler said he does not expect any volatile organic chemical emissions and they will start lining the basin once excavation is complete. Wheeler anticipates the basin to be completed and functional in four or five months.

Jurka asked if the majority of the excess dirt would meet the requirements for disposal in the C-746-U Landfill. She said she was aware the fly ash is a major contaminant in the ditch. Wheeler said based on data, most of the soil will meet the requirements. Wheeler said fly ash is a contaminant in the ditch and that is one of the reasons for excavating the ditch. It is his understanding that the fly ash would not prohibit the waste from going into the landfill. Tanner inquired about the pH of the soil due to fly ash. Wheeler said he would look into it and discuss it at the next meeting.

Task Force Vision of End Quality of Ground and Surface Water

Jim Smart asked Kentucky how they would see the end quality of groundwater and surface water at the Paducah site.

Maybriar, in regards to surface water, said the regulations they would apply to DOE is the Warm Water Quality Criteria. They would like to see the waters in Little and Big Bayou Creek returned to the correct limits. This level is for recreational users with no source of contamination.

Mullins, in regards to groundwater, said he hopes the primary sources to groundwater contamination will be removed that present a risk at the security fence line, even those that are associated with burial grounds such as Solid Waste Management Unit 4. Kentucky would also like to see something done to prevent higher levels of dissolve phase from getting outside the fence and moving towards the Ohio River. Technologies such as Permeable Treatment Zone and C-Sparge could be implemented. However, off-site contamination will also be a challenge.

Smart said the vision might include that DOE may have to continue supplying water to all the neighbors on a long term basis. Jurka said the water policy members are subject to a five-year renewal. She said something should be in writing for those affected to get city water that is not subject to renewal. Tanner agreed. Bodenstein said he was writing a policy decision for Murphie on this subject.

Mullins stated that the Northwest Plume is discharging in Little Bayou Creek. He said Kentucky and DOE are continuing to monitor the creek. Mullins reported TCE is close to exceeding the criteria. He said if higher levels of TCE should mobilize, then that portion of the creek may require remediation.

Smart and Tanner agreed to submit to the Long-Range task force the following points to be included in the end state vision:

1. Continue to supply water to water policy box participants through a long-term agreement.
2. Remediate all sources of surface water contamination.

Next Month's Agenda

1. Six-Phase Update
2. North-South Diversion Ditch
 - a. pH of material due to fly ash
3. Task Force Vision of End Quality of Ground and Surface Water
 - a. Review last month's suggestions
4. Next Month's Agenda

The meeting adjourned at 1:35 p.m.

Action Items

Staff: Provide copy of Future Land Use Document 1997/1998.

Wheeler: Discuss pH of the material due to fly ash in the NSDD.