

**PGDP Citizens Advisory Board
Water Task Force
August 1, 2003 * CAB Office**

CAB Members Present: Linda Long
Dorothy Starr
Bill Tanner

DOE Representatives Present: David Dollins

KY Division of Waste Mgt: Janet Miller
Todd Mullins (via telephone)

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

Support Staff Present: Melanie Brewer
Kendra Payne

Public: Vicki Jurka

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

Kentucky Pollutant Discharge Elimination System (KPDES) Permit Update

Mullins said there was no new information regarding the KPDES permit.

Tanner said he was told that the Kentucky law, which requires sites to certify that their sewers do not leak prior to being issued a permit, does not apply to the Paducah site. He asked for an explanation. Mullins said since the U.S. Department of Energy (DOE) Paducah site has known surface contamination, it is not covered under the existing permit. Mullins said he will contact Larry Sowder, the KPDES permit writer, for more information. Tanner said he would like the opportunity to discuss the issue with Sowder.

Six-Phase Heating Treatability Study Update

Farrell reported the Six-Phase Heating System is working properly. He said the temperature is rising one or more degrees daily at the base of the Regional Gravel Aquifer (RGA). He reported the influent levels have increased over the last few days, which may suggest trichloroethylene (TCE) is being boiled off at the base of the RGA. He also reported that another granulated activated carbon (GAC) vessel was filled and replaced.

Farrell reported the July 29 Six-Phase Heating System Technology Review was successful. There was discussion on the Six-Phase Heating System design, operating

challenges, and the characterization attempts of TCE. He said there was also a presentation on the crosswell seismic study, discussion on how DOE Headquarters would evaluate the system, and a site tour. He said Bechtel Jacobs Company LLC (BJC) and the Six-Phase Heating System team will provide data to DOE Headquarters in preparation for a report to Bill Murphie and the DOE contracting officer.

Tanner asked if the Six-Phase Heating System is running longer than anticipated. Farrell said a 45-day extension was granted from the Kentucky Division of Waste Management (KDWM) and the Kentucky Division of Air Quality (KDAQ) to keep the system operating. The extension was requested to makeup for lost days in May due to technical difficulties. Tanner asked if the temperature is still being increased in the RGA and if the system will have to run longer to reach temperature. Farrell said due to the operational problems, there was a significant temperature loss and that they are in the process of rebuilding the temperature.

Tanner asked if there are high concentrations of TCE remaining. Farrell said over 95 percent of TCE has been removed in the test area. Farrell said if the decision is to extend the study, it will be applied in a larger area. It is Farrell's understanding that there are three areas on-site where the system could be applied.

Tanner asked if the test array will be left in service if the system is successful. Farrell said the Commonwealth of Kentucky will not allow the system to run past September 6, due to air quality issues. He said the air emissions are below levels agreed to by DOE and the KDAQ; however, the levels are a little higher than what KDAQ would normally allow. Tanner inquired about the GAC system that is currently being used to control air emissions. Mullins said if the decision is made to turn this into a full-scale system, other options will be explored. Tanner asked if the other options would clean the air more effectively than carbon. Farrell said other options have been proven successful at other sites.

Jurka said she was told that the carbon system would capture most of the air emissions. Tanner said he was told air emission levels for this project fall under a permit for the entire facility. Wheeler said the GAC units are removing TCE very effectively. He said the air emissions are low and below Kentucky's regulatory limits. Mullins said the programmed trigger levels are protective of anyone off-site. Mullins reiterated that the Six-Phase Heating System is a test project.

Tanner asked when a decision will be made as to whether or not the Six-Phase Heating System will develop into a full-scale project. Farrell said a decision should be made six months to a year after shutdown of the pilot project. Tanner suggested the Board receive a presentation once the pilot test is complete.

North-South Diversion Ditch (NSDD) Update

Dollins reported that the formal dispute between DOE and the U.S Environmental Protection Agency (EPA) and the Commonwealth of Kentucky has been unofficially resolved. He said DOE is waiting for a letter of approval from the Commonwealth of

Kentucky. Dollins stated that once DOE receives approval, fieldwork could begin in two weeks. The fieldwork will focus on the detention basin and must be completed within 224 days.

Tanner asked if dirt excavated from the ditch would be placed in the C-746-U Landfill. Dollins said DOE is waiting for approval from Kentucky. Tanner was concerned with the issue that the dirt was hazardous enough to be excavated, but safe enough to be placed in a sanitary landfill. Dollins said the soil is a surface exposure issue to the workers and that once it is dispositioned it no longer poses a risk. Jurka inquired about the volume of dirt from the project that will be sent to the C-746-U Landfill. Dollins said the total volume will be approximately 34,000 cubic yards.

Jurka asked if the access soil resulting from the construction of the basin will be placed in the C-746-U Landfill. Dollins said a portion of the soil from the basin could possibly be reused on-site. He said DOE believes the soil is clean, but that the soil will still be sampled prior to reuse. Mullins asked if DOE has another source of soil for reuse if the basin soil is contaminated. Dollins said DOE has already anticipated using other soil. Wheeler said clay will be brought in off-site to be used for backfill.

End State Vision of Ground and Surface Water

The task force discussed the role they will play in determining a path forward to assist the Long Range Strategy/Stewardship Task Force in making a recommendation on the end state of the Paducah site. Tanner said he emailed the Board, Ex-Officios, the EPA, the Commonwealth of Kentucky, and concerned citizens asking for input on the end-use of the site. He said he expects to receive responses by August 11.

It was Tanner's understanding if the area were to become recreational, then cleanup standards would be less because there would be fewer workers on-site. He was concerned about the safety of the Kentucky Department of Fish and Wildlife (KDFWR) employees and the people who use the recreational area on a regular basis.

Long said she agreed with Wayne Davis' email about turning the area into a wildlife management area. As for the area inside the fence, Long said it should be cleaned up to the highest levels possible and that there should be federal presence for the monitoring and security of the area. Starr said she would also like the area returned to a wildlife management area. She asked if the buildings would still be left standing. Tanner said that most of the buildings would be torn down during decontamination and decommissioning (D&D); however, the depleted uranium hexafluoride (DUF₆) Conversion Facility would operate long after the plant is no longer operational.

Next Month's Agenda

The task force decided that next month's agenda should consist of the following items:

1. Kentucky Pollutant Discharge Elimination System (KPDES) Permit Update
2. Six-Phase

- A. Update
- B. How Success is Determined
- C. Air Quality
- 3. North South Diversion Ditch (NSDD) Update
- 4. End State Vision of Ground and Surface Water
 - A. Water Cleanup Level (How clean should water be?)
- 5. Next Month's Agenda

The meeting adjourned at 1:10 p.m.

Action Items

Staff: Add the air quality issue to next month's agenda.

Mullins: Mullins said he would contact the KDAQ and request that someone talks to the Water Task Force regarding Six Phase Air Emissions.