



ENERGY AND ENVIRONMENT CABINET

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Leonard K. Peters
Secretary

May 2, 2014

Ms. Rachel H. Blumenfeld
US Department of Energy
Portsmouth/Paducah Project Site Office
PO Box 1410
Paducah, Kentucky 42002-1410

RE: Conditional Concurrence for the Five-Year Review of Remedial Actions at the Paducah Gaseous Diffusion Plant (DOE/LX/07-1289&D2)
Paducah Gaseous Diffusion Plant
Paducah, McCracken County, Kentucky
KY8-890-008-982

Ms. Blumenfeld:

The Kentucky Division of Waste Management (Division) is in receipt of the D2 *Five-Year Review of Remedial Actions at the Paducah Gaseous Diffusion Plant*, dated April 2, 2014. The Division has completed its review of the subject document and is hereby submitting conditions necessary for concurrence. Please submit a revised document subject to the enclosed conditions by May 28, 2014.

The attached conditions concern protectiveness determinations for those response actions where evaluation of additional action (including characterization, further remediation or implementation of permanent and durable land use controls) is necessary as part of a final remedial action for the units in question and any determination of long-term protectiveness. Therefore, protectiveness determinations of "short-term protective" are appropriate for the subject response actions.

In addition to the attached conditions, the Division is providing comment on the recommendation for modification of the North-South Diversion Ditch (NSDD) Land Use Control Implementation Plan (LUCIP) contained in the document. Prior to any submittal for modification to the LUCIP, the FFA parties should convene and discuss consistency in LUCIPs with regard to access controls, administrative controls and inspection/verification frequencies.

If you have any questions or require additional information, please contact Mike Guffey at (502) 564-6716, or e-mail at mike.guffey@ky.gov.

Sincerely,



April J. Webb, P.E., Manager
Hazardous Waste Branch

AJW:tm:lww:mg

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DWM File: #730, Graybar ARM20130008 (2013 Five-Year Review Report)
Attachment: Kentucky Conditions for Concurrence

**Kentucky Division of Waste Management Conditions for Concurrence to the
Five-Year Review of Remedial Actions at the Paducah Gaseous Diffusion Plant**

Paducah Gaseous Diffusion Plant, Paducah, Kentucky

DOE/LX/07-1289&D2

May 2, 2014

Specific Conditions:

**1. Executive Summary; Pg. xxiv, 20.1.5; Protectiveness Statement Groundwater OU-C-400
Electrical Resistance Heating:**

Additional evaluation for remedy performance (treatability study) is ongoing. The remedy is limited in scope for SWMUs 11 and 533 due to the presence of infrastructure (C-400 building). Additional actions for SWMUs 11 and 533 require evaluation under a separate remedial decision-making process. The restrictive covenant specified in the decision and LUCIP has yet to be implemented. Therefore:

Revise the Protectiveness Determination to Short-term protective. Revise the Protectiveness Statement to read as follows: The remedy for the volatile organic compound (VOC) contamination at C-400 is protective of human health and the environment in the short term. Remedy performance is currently being evaluated through development and implementation of a treatability study. Exposure pathways that could result in unacceptable risk are currently being controlled. The project is not a comprehensive final action for SWMUs 11 and 533. Additional actions as part of the GDP Groundwater Sources Operable Unit need to be evaluated for long-term protection.

**2. Executive Summary; Pg. xxv, 20.2.2; Protectiveness Statement Surface Water OU,
North-South Diversion Ditch Sections 1 and 2:**

The restrictive covenant specified in the decision and LUCIP have yet to be implemented. Administrative controls specified in the decision (e.g. excavation/penetration permits) in their current form are neither durable nor enforceable upon a prospective property transferee. Additional actions for SWMU 59 require evaluation under a separate remedial decision process. Therefore:

Revise the Protectiveness Determination to Short-term protective. Revise the Protectiveness Statement to read as follows: The remedy for the NSDD Sections 1 and 2 is protective of human health and the environment in the short term. Exposure pathways that could result in unacceptable risk are currently being controlled. The project is not a comprehensive final action for SWMU 59. Additional actions as part of the Surface Water Operable Unit need to be evaluated for long-term protection.

3. **Executive Summary; Pg. xxv; Protectiveness Statement Surface Water OU, Fire Training Area:**

Without further action and/or evaluation to demonstrate SWMU 100 allows for unlimited use/unrestricted exposure, a restrictive covenant will be required to establish long term protection. Therefore:

Revise the Protectiveness Determination to Short-term protective. Revise the Protectiveness Statement to read as follows: The remedy for the Fire Training Area is protective of human health and the environment in the short term. Exposure pathways that could result in unacceptable risk are currently being controlled. The project is not a comprehensive final action for SWMU 100 and was not designed to return the area to unrestricted use.

4. **Executive Summary; Pg. xxvi; Protectiveness Statement Surface Water OU, On-Site Sediment Removal:**

The response action relies on interim controls for protectiveness. Without further action and/or evaluation to demonstrate the SWMUs allow for unlimited use/unrestricted exposure, permanent durable land use controls will be required to assure long term protection. Additional actions for the subject SWMUs require evaluation under a separate remedial decision process. Therefore:

Revise the Protectiveness Determination to Short-term protective. Revise the Protectiveness Statement to read as follows: The remedy for the Surface Water OU On-site Sediment Removal is protective of human health and the environment in the short term. Exposure pathways that could result in unacceptable risk are currently being controlled. The project is not a comprehensive final action for the SWMUs addressed under this action. Additional actions as part of the Surface Water Operable Unit need to be evaluated for long-term protection.

5. **Executive Summary; Pg. xxvi; Protectiveness Statement Burial Grounds, C-749 Uranium Burial Ground:**

The current controls in place to provide protection are neither durable nor permanent. Additional actions for SWMU 2 require evaluation under a separate remedial decision process. Therefore:

Revise the Protectiveness Determination to Short-term Protective. Revise the Protectiveness Statement to read as follows: The remedy for the C-749 Uranium Burial Ground is protective of human health and the environment in the short term. Exposure pathways that could result in unacceptable risk are currently being controlled. The project is not a comprehensive final action for the SWMU 2. Additional actions as part of the Burial Grounds Operable Unit need to be evaluated for long-term protection.

(End of KDWM Conditions)