



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 18, 2016

Ms. Tracey Duncan
Federal Facility Agreement Manager
United States Department of Energy
Portsmouth/Paducah Project Site Office
5501 Hobbs Road
Kevil, KY 42053

RE: EPA Acknowledgement of Receipt: **Final Characterization Notification for Solid Waste Management Unit 211-A and Solid Waste Management Unit 211-B at the U.S. Department of Energy Paducah Gaseous Diffusion Plant, Paducah, Kentucky (PPPO-02-3287657-16), EPA ID KY8890008982, McCracken County, KY**

Dear Ms. Duncan,

The U. S. Environmental Protection Agency (EPA) Region 4 received the *Final Characterization Notification for Solid Waste Management Unit 211-A and Solid Waste Management Unit 211-B at the Paducah Gaseous Diffusion Plant* on December 17, 2015. The purpose of this letter is to acknowledge receipt of the *Notification* letter and provide preliminary feedback on DOE's proposed remedial alternatives path forward.

In the Section *Recommendation for Remedy Selection*, the text states the Regional Gravel Aquifer (RGA) groundwater quality at both SWMUs 211-A and 211-B potentially is impacted by a TCE dense non-aqueous phase liquid (DNAPL) source in the Upper Continental Recharge System (UCRS) or upper Regional Gravel Aquifer (RGA) soil of SWMU 211-B. The text further indicates the investigation results reveal significant uncertainty as to the magnitude of DNAPL in the UCRS and upper RGA of SWMU 211-B. In the *Notification* letter, the Department of Energy (DOE) recommends subdividing SWMU 211-A and selecting enhanced in-situ bioremediation (EISB) (Alternative 8) for the western portion of the SWMU and long term monitoring (Alternative 2) for the eastern portion of SWMU. EPA agrees with DOE's observation that the sampling results at SWMU 211-B render invalid the Conceptual Site Model for this area of contamination. With the information available at this time, EPA does not concur with DOE's remedial alternatives proposal to bifurcate SWMU 211-A into "east" and "west" areas for long-term monitoring and EISB activities, respectively.

Based on EPA's review of the *Appendix H Addendum to the Final Characterization Report* (DOE/LX/07-1288&D2/A1), uncertainties in local groundwater flow direction(s), the quality of groundwater sample results, and the extent of the DNAPL potentially underlying the C-720 Building are issues requiring discussion in support of remedial alternative selection. Also, the project decision rules do not consider the implications of the invalidation of the Conceptual Site

Model at SWMU 211-B upon the remedial actions at SWMU 211-A. Finally, sample boring 211-A-048, the upgradient sample boring for the west side of SWMU 211-A, appears to be impacted by an upgradient contaminant source.

With these issues in mind, it would be premature to consider remedial alternative recommendations for SWMU 211-A or 211-B until more information and data are presented in the *Appendix H Addendum to the Final Characterization Report* to address these issues and uncertainties. EPA's review comments on *Appendix H* were submitted to the DOE on March 5, 2016, for discussion and resolution in support of future remedial alternative discussions.

If you have any questions about this correspondence, please do not hesitate to contact me at (404) 562-8547 or via electronic mail at corkran.julie@epa.gov.

Sincerely,



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