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

June 15, 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 Comments: Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant (DOE/LX/07-2306&D2/A1), Primary Document, transmittal dated March 18, 2016 (PPPO-02-3458054-16)

Dear Ms. Duncan,

The U. S. Environmental Protection Agency (EPA) Region 4 has reviewed the Department of Energy's (DOE) *Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant* (DOE/LX/07-2306&D2/A1). This draft report was submitted for review and comment under cover dated March 18, 2016. Comments generated during this review are provided as an enclosure to this letter.

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,

Julie L. Corkran, Ph.D.
Federal Facility Agreement Manager
Superfund Division

Enclosure

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United States Environmental Protection Agency (EPA)
Comments on:

Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant (DOE/LX/07-2306&D2/A1), Primary Document (March 18, 2016)

McCracken County, Kentucky
EPA ID KY8890008982

General Comments

1. D.3.4 Identification of Exposure Pathways (Pages D-30 through D-34). Inhalation of vapors emitted by surface soil was considered for multiple receptors in the Solid Waste Management Unit (SWMU) 229 Baseline Human Health Risk Assessment (BHHRA). However, it appears that the potential for vapor migration from contaminated groundwater, including groundwater in the Upper Continental Recharge System (UCRS), was not evaluated for any of the potential receptor populations. (See Sections D.3.4: D.3.5; and D.7.2). Section D.3.4.2 of the report - *Delineation of Exposure Point/Exposure Routes - Vapor Intrusion* - states:

   Transport of vapors in subsurface soils and shallow groundwater into buildings is considered a potential future exposure pathway. The POE–location where this is complete–is focused at the source areas where volatile compounds were release. These are the primary locations where VOCs may be in the soils or upper groundwater layer where a building may be constructed in the future. Although future residential use is not considered likely, this exposure route was considered in this BHHRA for rural residential scenario. No additional contribution via inhalation of vapors that may be transported into basements is expected.

   However, the lines of evidence used by the Department of Energy to evaluate (or decide not evaluate) inhalation of vapors related to a potential "upper groundwater layer" release to indoor air vapor intrusion exposure pathway are not clearly presented in the report. Additional detail is needed in the report (Section D.3.4 – Identification of Exposure Pathways; elsewhere as appropriate following tri-party discussion of this comment) to clarify this issue for the reader.