



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

March 22, 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 Reply to: **Response to the U.S. Environmental Protection Agency Status Request for the Vapor Intrusion Study at the C-400 Maintenance Building, U.S. Department of Energy Paducah Gaseous Diffusion Plant, Paducah, Kentucky (PPPO-02-344502298-16)**  
EPA ID KY8890008982, McCracken County, KY

Dear Ms. Duncan,

The U. S. Environmental Protection Agency (EPA) Region 4 has reviewed the Department of Energy's (DOE) response (hereafter, the "Response") to EPA Region 4's request (February 25, 2016) for an update on DOE's efforts to meet the March 31, 2016, deadline established by EPA for submitting the results of a C-400 Building Vapor Intrusion (VI) Study to EPA and the Kentucky Department for Environmental Protection (KDEP). The C-400 VI Study is a required Addendum to the Paducah Gaseous Diffusion Plant (PGDP) 2013 Five Year Review of CERCLA remedy protectiveness at the Paducah Gaseous Diffusion Plant (PGDP). DOE's Response includes a set of proposals to complete the required Five Year Review Addendum scope of work and reporting to EPA and KDEP: the proposal details, and EPA's responses, are provided below.

1. **DOE Proposal:** *"Submit by March 31, 2016, an Addendum to the 2013 Five-Year Review that includes the water policy additional actions that have been completed. These actions include (1) the water policy educational mailer, (2) the water policy VI screening study report, and (3) the demonstration that all residents located above the contaminated groundwater plume are not using groundwater from their wells."*

**EPA Response:** EPA acknowledges the DOE proposal to meet the original deadline of March 31, 2016, established by EPA (R. Chaffins, September 30, 2014) to provide a draft (D1) Addendum to the 2013 Five Year Review for EPA and KDEP review and comment/approval that includes the three (3) elements listed above.

2. **DOE Proposal:** *“DOE will finalize a draft C-400 VI Study Work Plan that incorporates available historic data, including a revised CSM for EPA and KDEP review and comment. DOE anticipates submittal of the requested work plan no later than May 1, 2016.”*

**EPA Response:** EPA accepts the DOE proposal to submit, not later than May 1, 2016, a draft (D1) Investigation Work Plan that incorporates available historic data, including a revised Conceptual Site Model (CSM), for EPA and KDEP review and comment/approval.

3. **DOE Proposal:** *“Submit, within 90 calendar days of completion of the C-400 VI study fieldwork, an Addendum to the 2013 Five-Year Review that documents the C-400 VI study results. Upon approval of the C-400 VI Work Plan, field work would commence; a second Addendum to the 2013 Five-Year Review, containing the report for the C-400 VI study would be submitted within 90 calendar days of field work completion. Field work completion is defined as receipt of last analytical result from the laboratory.”*

**EPA Response:** DOE is requesting a deadline extension. The deadline for which DOE is seeking an extension is the original March 31, 2016, deadline for submittal of the draft (D1) C-400 Vapor Intrusion Study Addendum. However, the Extension Request language contained in the DOE Response did not adequately address the proposed schedule of work (FFA Section XXIX (A)(4)): *Any related timetable and deadline or schedule that would be affected if the extension were granted.* The schedule of work should be based on normal FFA schedule logic for work plan development, review, approval, implementation, and reporting) with specific dates (mm/dd/yyyy) that can be incorporated as deadlines into the FY2016 Site Management Plan (SMP). (Only the dates (mm/dd/yyyy) for the draft (D1) C-400 Work Plan and draft (D1) Water Policy Addendum are addressed in the DOE Response.) Absent DOE provision of the schedule with dates, EPA is unable to evaluate this element of the DOE proposal, including identification of deadlines within the three-year rolling milestone window of the SMP and when the C-400 D1 Vapor Intrusion Study Report will be available for review *relative to the next required Five Year Review* in FY2018. It may be appropriate and necessary to negotiate accelerated reporting and review timeframes to ensure that potential risks posed by Vapor Intrusion at the C-400 Building are understood by the FFA Parties prior to scoping of the FY2018 D1 Five Year Review. Scoping of the FY2018 Five Year Review report, the next periodic review of CERCLA remedy protectiveness at this Superfund site, should take place at least one year in advance of the FY2018 D1 submission date.

EPA notes that the DOE Response does not identify or establish the “good cause” for the extension request to submit the draft (D1) C-400 VI Study Addendum (*“The request shall specify....”*: FFA Section XXIX (B)(1-6), *Extensions*). The DOE Response does include, however, an (incomplete) history of tri-party scoping discussions in support of DOE meeting their March 31, 2016, deadline for submitting the complete (Water Policy and C-400 Vapor Intrusion scopes of work) draft (D1) Addendum to the Five Year Review Report. EPA clearly stated the expectation in our protectiveness determination letter 1.5 years ago (R. Chaffins, September 30, 2014) that the C-400

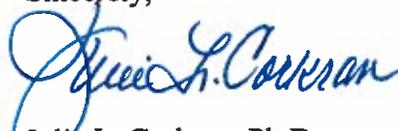
Vapor Intrusion Study be conducted “consistent with EPA protocol and based on current toxicity values and risk assessment methodology”. It is EPA’s view that DOE’s proposals in Fiscal Years 2015-2016 to substitute a demonstration of the robustness of the DOE industrial hygiene program at the C-400 Building in lieu of collecting samples to assess the vapor intrusion pathway from subsurface TCE sources to indoor air at C-400 in a manner consistent with EPA’s protocols (including incorporation of historic data and an updated C-400 CSM, to include the recently disclosed C-400 tunnel) is the reason why DOE has yet to develop a Work Plan for this investigation (let alone conduct the investigation and report the results by the March 31, 2016, deadline). Nevertheless, it is EPA’s view that the VI study to determine whether this potential pathway presents an unacceptable risk to human health (to the office, laundry, and deactivation workers in and around the C-400 building, for example) should not be further delayed. However, future deadline extension requests from DOE should follow the FFA requirements in Section XXIX (B), *Extensions*.

In summary, EPA accepts DOE’s proposal for two enforceable deadlines for incorporation into the FY2016 D2 Site Management Plan. The deadlines are bulleted below. In addition, DOE shall provide a schedule of work for completing the 2013 Five Year Review effort (Ref: FFA Section II.BBB, *Timetables and Deadlines*, Section XXX, *Five Year Review*, and Section XXIX (A)(4), *Extensions*).

- D1 Water Policy Addendum to the Five Year Review: **March 31, 2016**
- D1 C-400 Vapor Intrusion Study Work Plan: **May 1, 2016**
- D1 C-400 Vapor Intrusion Study Report: DOE, EPA and KDEP are scheduled to discuss DOE’s responses to the EPA and KDEP comments on FY2016 D1 Site Management Plan in Nashville, TN, on March 30, 2016. Prior to that date, DOE will provide a draft schedule for completion of the 2013 Five Year Review effort. The schedule will apply normal FFA schedule logic and include dates (mm/dd/yyyy) for those activities within the three-year window of rolling milestones, including the deadline for DOE submission of the draft (D1) C-400 Vapor Intrusion Study Addendum and will include the due date for the next D1 Five Year Review Report in FY2018.

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](mailto:corkran.julie@epa.gov).

Sincerely,



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Federal Facility Agreement Manager  
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