



ENERGY AND ENVIRONMENT CABINET

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Leonard K. Peters
Secretary

January 3, 2014

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

RE: Submittal of Comments to the Site Management Plan Paducah Gaseous Diffusion Plant Paducah, Kentucky (DOE/LX/07-1292&D1)
Paducah Gaseous Diffusion Plant
Paducah, McCracken County, Kentucky
KY8-890-008-982

Ms. Blumenfeld:

The Kentucky Division of Waste Management (Division) has completed its review of the *Site Management Plan (DOE/LX/07-1292&D1)*, dated December 5, 2013. Due to the collaborative effort by the FFA parties to affect changes to the document prior to its official submittal, many of the Division's concerns have already been addressed. However, there was insufficient time to address all of these concerns. The Division's attached comments reflect primarily those issues that were identified during three party discussions but not formally addressed in the document. Please address these comments in a D2 version of the document.

If you have any questions or require additional information, please contact Todd Mullins at (502) 564-6716, or e-mail at todd.mullins@ky.gov.

Sincerely,



April J. Webb, P.E., Manager
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DWM File #1180, TEMPO: AIN20140001 (2014 SMP)

**Kentucky Division of Waste Management Comments Pertaining to the
2014 Site Management Plan
Paducah Gaseous Diffusion Plant, Paducah, Kentucky
DOE/LX/07-1292&D1
January 3, 2014**

General Comments

1. While reviewing the No Further Action (NFA) section of Appendix 4, it was noted that Kentucky does not have a record of NFA letters for the following twelve SWMUs:
 - 29 (C-746-B TRU Storage Area)
 - 34 (C-746-M PCB Waste Storage Area)
 - 35 (C-337 PCB Waste Storage Area)
 - 36 (C-337 PCB Waste Staging Area)
 - 37 (C-333 PCB Waste Storage Area)
 - 39 (C-746-B PCB Waste Storage Area)
 - 43 (C-746-B Waste Chemical Storage Area)
 - 45 (C-746-R Waste Solvent Storage Area)
 - 51 (C-400-D Lime Precipitation Tank)
 - 52 (C-400 Waste Decontamination Solution Storage Tanks)
 - 53 (C-400 NaOH Precipitation Unit)
 - 96 (C-333 Cooling Tower Scrap Wood Pile)

For the administrative record, Kentucky requests that the DOE attempt to find the NFA letters for these SWMUs, as Kentucky's best efforts to locate them have failed. Additionally, Kentucky could find no record that a SAR for SWMU 90 (C-720 Underground Petroleum Naphtha Pipe) was ever submitted. It is requested that DOE attempt to find and transmit the SAR for SMWU 90 or submit one if, in oversight, it was never submitted.

Specific Comments

1. **Section 3 (OPERABLE UNITS), Page 2, 1st Column, Last Paragraph**

The text states, "Site cleanup activities will occur in a sequenced approach consisting of (1) pre-shutdown scope, (2) post-shutdown scope, and (3) CSOU scope." The Division objects to the use of the word "sequenced" in this context since it implies that OU work must be completed in a sequential fashion. It is understood that by its very nature the CSOU must occur at the end of the Paducah cleanup process. However, now that USEC has announced

its intention to no longer operate the plant, post-shutdown scope such as D&D of the PGDP will need to occur contemporaneously with ongoing pre-shutdown scope. The text should be clear that there will be overlap of pre and post-shutdown scope. Please modify the text accordingly.

2. **Section 3 (OPERABLE UNITS), Page 2, 2nd Column, 3rd Paragraph**

The text states the following:

“Six months prior to plant shutdown, the FFA parties intend to commence planning to further define the implementation approach [for post-shutdown activities], and it will be included in the appropriate annual update of the SMP.”

However, the text fails to define what constitutes “plant shutdown.” This term must be defined in the SMP so that it’s clear when planning for post-shutdown work will begin. Please include an unambiguous definition for plant shutdown in this section of the SMP.

3. **Appendix 3, Page 3-6, “Key DOE Planning Assumptions from Life Cycle Baseline”**

Item #4 under “Key DOE Planning Assumptions from Life Cycle Baseline” speaks to uncertainty that remains with regards to the extent of VOC contamination in areas to the south and east of the SWMU 1 treatment area. DOE noted in its response to Condition #3 of the Division’s conditional concurrence to the SWMU 1 Remedial Design Report that a memo-to-file would be placed in the Soils OU Administrative Record documenting the additional investigative work to be performed under Soils OU RI2. As noted in the response, this will be done to document the specific areas to be investigated along with the basis for this investigation and the manner in which sampling will differ from the standard Soil OU sampling protocol. The Division requests that DOE clearly refer to its commitment to generate the memo-to-file in this section of the SMP. On a separate note, the Division would appreciate the opportunity to collaborate with DOE and EPA in generating the memo prior to its being placed in the Administrative Record.

4. **Appendix 3, Page 3-20, “Key DOE Planning Assumptions from Life Cycle Baseline”**

Item #4 states that “up to” five potential sites for a CERCLA cell were selected to be evaluated under the CERCLA Waste Disposal Alternative Evaluation Feasibility Study. In fact, a total of five sites were selected. Please remove the words “up to” from the text.

5. **Appendix 4, Page 4-3**

Beginning with the 2012 SMP, SWMU 210 (Dissolved-Phase Plumes) has contained the parenthetical reference “(includes SWMUs 1, 136, 211-A and 211-B).” The subsection above the Dissolved-Phase Plumes subsection states that SWMUs 1, 211 A and 211 B belong to the Southwest Plume Sources. The Northwest (SWMU 201) and Northeast (SWMU 202) are not described in terms of the source areas that contribute to them.

Therefore, in the interest of maintaining consistency among the descriptions, please remove the parenthetical reference to SWMUs 1, 136, 211-A and 211-B from SWMU 210.

6. Appendix 4, Page 4-3

SWMU 211 B is (correctly) in the Groundwater Operable Unit (GWOU) – SW Plume Sources Section, and was also added, with a footnote explanation, to the Soils & Slabs OU Section. This is acceptable, but Kentucky does not have any documentation (i.e. Revised SAR) pertaining to this action. Please submit a Revised SAR for SWMU 211 B.

7. Appendix 4, Pages 4-3, 4-5 & 4-11

Kentucky does not have a Revised SAR indicating that SWMU 102 was formally divided into 102 A and 102 B. This subdivision was made in the 2013 SMP, which was acceptable. The revised SARs were requested at that time but have not yet been transmitted. Please submit Revised SARs for both SWMUs 102 A and 102 B explaining the reason for the subdivision and requesting an NFA for SWMU 102 B.

8. Appendix 4, Page 4-6

Kentucky's records show that the decision to remove SWMU 11 from the Soils and Slabs OU was made during a January 19, 2012 FFA Project Manager's Meeting. Please remove SWMU 11 from the Soils and Slabs OU or provide an explanation as to why it should remain.

9. Appendix 4, Page 4-9

SWMU 164 could not be found in Appendix 4. It is believed that prior to submittal of the D1 2014 SMP the FFA parties agreed to retain SWMU 164 in the SWOU only. Please re-insert SWMU 164 under the SWOU.

10. Appendix 4, Page 4-9

The redline-strikeout shows that SWMU 536 was added to the D&D OU, DUF₆ D&D subsection. This SWMU was previously listed in the NFA section. Kentucky has no documentation as to why or when (i.e. Revised SARs) SWMU 536 was transferred from the NFA section to the D&D OU, DUF₆ D&D subsection. Please submit a Revised SAR for SWMU 536.

11. Appendix 4, Page 4-9

SWMU 136 is listed on Page 4-12 in the NFA section. It has been determined that the WAG 1 and 7 Record of Decision did not recommend NFA for this SWMU. Lower levels of VOC contamination were detected at this SWMU during the WAG 1 and 7 RFI. Levels of TCE in UCRS groundwater in excess of 400 µg/L were also detected. What is the basis for granting NFA for this SWMU? DOE should provide this basis in an updated SAR to support potential modification of the Hazardous Waste Management Permit.