



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

Dec. 19, 2014

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

**Letter of Conditional Concurrence for the Feasibility Study for the Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant (DOE/LX/07-1274&D2); Paducah Gaseous Diffusion Plant, Paducah, KY, KY8-890-008-982**

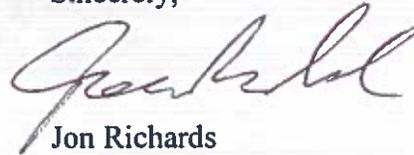
Ms. Woodard:

The EPA has completed review of the *Feasibility Study for the Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2* received on June 12, 2014. Despite the Department of Energy's (DOE) best efforts to revise the Feasibility Study per EPA and the Commonwealth of Kentucky comments (especially on documenting uncertainties with amount of disposed wastes and/or levels of contamination), several significant issues remain that must be satisfactorily addressed before EPA can approve the document. Nevertheless, there are some remedial alternatives that EPA believes could be carried forward to remedy selection for each of the burial grounds that satisfy all of the unit-specific remedial action objectives. Additionally, because of the major revisions made by DOE to the D1 Feasibility Study (FS) to address EPA's extensive comments [24 General Comments and 224 Specific Comments], this document contains new text that EPA does not necessarily agree is appropriate and informative text from previous FS versions has been unnecessarily deleted. In other words, EPA does not agree with some of the DOE's response to EPA comments and the resultant changes made to the FS. In an effort to simplify finalization of this document that has taken over three years to get to this Draft Final (D2) version, EPA is providing Conditions related to significant issues without additional specific comments on problematic text or deletions contained throughout the document. Notwithstanding, several Conditions require global changes to the document without specifying all of the affected Sections that EPA expects DOE to address in the subsequent revision.

In accordance with the PGDP Federal Facility Agreement (FFA) Section XX.I, Finalization of Documents, EPA is issuing a conditional concurrence on the *Feasibility Study for the Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2*. Please revise this Primary Document as specified in EPA's Conditions [attached]. Revisions to the Feasibility Study (to be submitted as a D2R1 document), satisfying the attached Conditions, shall be submitted to EPA by DOE on or before February 19, 2015 (unless another due date is approved by the FFA parties), for the Agency's review and approval.

If you have any questions or require additional information, please contact me at (404) 562-8648.

Sincerely,



Jon Richards  
Remedial Project Manager  
Federal Facilities Branch

ec: Jennifer Tufts, US EPA - Region 4, [Tufts.Jennifer@epa.gov](mailto:Tufts.Jennifer@epa.gov)  
Jon Richards, US EPA – Region 4; [Richards.jon@epa.gov](mailto:Richards.jon@epa.gov)  
William E. Murphie, DOE – Paducah, [William.murphie@lex.doe.gov](mailto:William.murphie@lex.doe.gov)  
William Creech, DOE - Lexington; [William.creech@lex.doe.gov](mailto:William.creech@lex.doe.gov)  
Rich Bonczek, DOE – Lexington, [Rich.Bonczek@lex.doe.gov](mailto:Rich.Bonczek@lex.doe.gov)  
Lisa Santoro, DOE – Paducah; [lisa.santoro@lex.doe.gov](mailto:lisa.santoro@lex.doe.gov)  
Jennifer Woodard, DOE – Paducah, [Jennifer.Woodard@lex.doe.gov](mailto:Jennifer.Woodard@lex.doe.gov)  
Rachel Blumenfeld, DOE – Lexington, [Rachel.Blumenfeld@lex.doe.gov](mailto:Rachel.Blumenfeld@lex.doe.gov)  
Kim Knerr, DOE – Paducah, [kim.Knerr@lex.doe.gov](mailto:kim.Knerr@lex.doe.gov)  
Mark J. Duff, LATAKY – Kevil; [mark.duff@lataky.com](mailto:mark.duff@lataky.com)  
Myrna Redfield, LATAKY – Kevil, [Myrna.Redfield@lataky.com](mailto:Myrna.Redfield@lataky.com)  
John Wesley Morgan, LATAKY – Kevil, [John.Morgan@lataky.com](mailto:John.Morgan@lataky.com)  
Jana White, LATAKY – Kevil; [jana.white@lataky.com](mailto:jana.white@lataky.com)  
Bruce Ford, LATAKY – Kevil; [bruce.ford@lataky.com](mailto:bruce.ford@lataky.com)  
Jim Erickson, LATAKY – Kevil, [Jim.Erickson@lataky.com](mailto:Jim.Erickson@lataky.com)  
Frazier Johnstone, LATAKY – Kevil, [Edward.Johnstone@lataky.com](mailto:Edward.Johnstone@lataky.com)  
Greg Shaia, LATAKY – Kevil, [Greg.Shaia@lataky.com](mailto:Greg.Shaia@lataky.com)  
John Samples, LATAKY – Kevil, [John.Samples@lataky.com](mailto:John.Samples@lataky.com)  
Craig Jones, LATAKY – Kevil, [craig.jones@lataky.com](mailto:craig.jones@lataky.com)  
Darla Bowen, LATAKY – Kevil; [darla.bowen@lataky.com](mailto:darla.bowen@lataky.com)  
Sunny Osborne, LATAKY – Kevil; [sunny.osborne@lataky.com](mailto:sunny.osborne@lataky.com)  
LATAKY – General; [latacorrespondence@lataky.com](mailto:latacorrespondence@lataky.com)  
Tracey Duncan, P2S – Paducah; [tracey.duncan@lex.doe.gov](mailto:tracey.duncan@lex.doe.gov)  
Rebecca Wren, P2S – Paducah, [Rebecca.Wren@lex.doe.gov](mailto:Rebecca.Wren@lex.doe.gov)  
Christa Dailey, P2S – Paducah, [christa.dailey@lex.doe.gov](mailto:christa.dailey@lex.doe.gov)  
Bethany Jones, P2S – Paducah; [Bethany.jones@lex.doe.gov](mailto:Bethany.jones@lex.doe.gov)  
Jim Ethridge, CAB – Paducah; [jim@pgdpcab.org](mailto:jim@pgdpcab.org)  
Matt McKinley, CHFS – Frankfort, [matthewW.mckinley@ky.gov](mailto:matthewW.mckinley@ky.gov)  
Stephanie Brock, CHFS – Frankfort, [StephanieC.Brock@ky.gov](mailto:StephanieC.Brock@ky.gov)  
Nathan Garner, CHFS – Frankfort; [Nathan.garner@ky.gov](mailto:Nathan.garner@ky.gov)  
Todd Mullins, KDWM – Frankfort; [Todd.Mullins@ky.gov](mailto:Todd.Mullins@ky.gov)  
Gaye Brewer, KDWM – Paducah, [gaye.brewer@ky.gov](mailto:gaye.brewer@ky.gov)  
Mike Guffey, KDWM-Frankfort, [mike.guffey@ky.gov](mailto:mike.guffey@ky.gov)  
Leo W. Williamson, KDWM – Frankfort, [Leo.Williamson@ky.gov](mailto:Leo.Williamson@ky.gov)

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

1. **Waste Descriptions** – Despite text on source term, soil contaminants, and summary of historical information on the types of wastes disposed in each of the burial grounds, DOE has not provided an adequate description of the wastes in terms of regulatory classification including RCRA hazardous waste (listed and characteristic), low-level radioactive waste (LLW), TSCA PCB waste, or mixtures thereof. EPA has previously submitted comments [reference SC1 and SC 15] to DOE on this topic on earlier versions of the BGOU FS documents and yet DOE once again avoided providing a sufficient level of detail which thereby appears to minimize the risks that these types of wastes present to human health and the environment. This level of detail is especially important since there is very little characterization (sampling and analysis) of the actual buried wastes. All of the radioactively contaminated waste in each of the burial grounds would be considered LLW as opposed to just industrial solid waste. However, many of the tables for estimating costs of disposal of this waste do not indicate that it is LLW. Moreover, text throughout the document suggests that much of the buried wastes that would be generated as result of the excavation and disposal alternatives are simply solid waste that could be disposed in the C-746-U Landfill. EPA believes that based on the historical wastes descriptions that indicate radioactive contamination is present in/on most of the wastes, DOE’s assumption is not necessarily supported. Also, some of the buried wastes and contaminated sub-surface soil in SWMUs 2 and 3 are considered RCRA hazardous wastes or media that contains hazardous waste. In particular for SWMU 3 (that Kentucky has determined was used for disposal of RCRA hazardous waste and has issued a post-closure permit), the RCRA waste codes and description of the wastes disposed in the burial ground must be provided in this document. TCE DNAPL and contaminated soil from spent solvent or solvent product disposal constitutes media containing F001, F002 or RCRA U Listed hazardous waste and may also be characteristic waste due to toxicity. This type of waste and contamination is present (or suspected) at several of the SWMUs. Depending on the levels of metal constituents such as arsenic and lead, the soil and/or debris in the burial grounds could be RCRA characteristic waste. In addition, soils or wastes (e.g., disposed oils in the drums with uranium shavings) with PCB concentrations at or greater than 50ppm are regulated for disposal as TSCA PCB waste if generated by the response action.

Information and descriptions of the regulatory classification of the wastes disposed and/or media generated by excavation alternatives is important to the public in terms of informing them on how “bad” these wastes/contamination are (including the increased requirements for treatment and disposal at certain landfills) relative to industrial solid waste that can be disposed of in the C-746-U Landfill. This level of detailed information is also important to the FFA parties in identification and application of ARARs or To Be Considered guidance, as well as important in their decision on the Preferred Alternatives for the respective burial grounds. Generally, excavation (and treatment/disposal) of RCRA hazardous waste, LLW and PCB waste (including mixtures thereof) from unlined burial grounds that is a source of

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

releases to sub-surface soil and groundwater is preferred by EPA over leaving these wastes in-place with a containment remedy due to the increased permanence and reduction in toxicity, mobility and volume of wastes requiring treatment. Moreover, this level of waste description and classification will be necessary in the ROD and required in order to dispose at an off-site permitted landfill or the OSWDF (if built). Accordingly, descriptions of waste buried in these SWMUs (as well as contaminated media that would be excavated in certain alternatives) provided in Section 1.3 and Sections 5.1.1, 6.1.1, 7.1.1, and 8.1.1 for each SWMU must be revised to include any regulatory classifications that would apply to the wastes and contaminated media. A boiler plate paragraph similar to that used for the SWMUs 5&6 FS is not sufficient to meet this Condition, except where only a summary level description is appropriate.

2. **Land Use Controls** – The general response action for LUCs that is used in the Alternatives that rely on containment (i.e., capping waste in-place) should include placement of permanent boundary markers that are mapped by a land survey and can be easily located. These requirements originate from the 902 KAR 100:22 Section 24 (7), (8),(9), and (10) that is identified as an ARAR in Appendix F, Table F.2. This type of physical control is actually an information tool for recordation of proprietary controls (e.g., deed notice, environmental covenants) and also serves as a warning of sorts for the capped waste disposal units.

In addition, EPA does not agree with DOE's response to EPA SC 66 and thus an environmental covenant drafted and recorded in accordance with the KY Uniform Environmental Covenants Act (UECA) should be identified along with the deed record notice, deed and/or lease restrictions as a proprietary control that DOE must comply with in the event of transfer of property with a contamination remaining in place. EPA is not aware of any agreement in the BGOU dispute resolution agreement and since a ROD has not been signed for any of the burial grounds, inclusion of this LUC can be addressed. DOE has agreed to use the KY UECA at the Interim Action for the C-400 Building and details on its application are in the Land Use Control Implementation Plan. Basically, the deed would include information and requirements on land use restrictions that are required by the environmental covenant and DOE would coordinate with the KY Attorney General's Office compliance with other aspects of the UECA. Revise Section 2.4.1.1 and all other relevant Sections to include these two additional LUCs.

3. **Discharge of Wastewater and Effluent Limits for Rad** – Section 2.4.1.9.2 must be revised to reflect that any wastewater (including groundwater collected from excavation areas) generated from any of the Alternatives that requires treatment prior to discharge must be hard-piped to and from the treatment unit. Use of open ditches including unlined earthen ditches is not acceptable to EPA because of concerns with cross-media

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

contamination and non-compliance with the RCRA exemption of management of wastewaters in an on-site waste water treatment unit (which includes a tank) subject to a NPDES permit. In addition, EPA does not consider dilution of contaminated wastewaters originating from CERCLA response action in existing lagoons at PGDP as treatment unless otherwise specified in a CERCLA decision document approved by EPA.

The entries in ARARs Table F.2 for *Effluent limits for radionuclides in wastewaters* references the NRC regulation and DOE Order that are based upon annual dose limits (50 mrem and 100mrem, respectively) that can (without adequate partitioning between all sources at the PGDP and application of ALARA that uses treatment) result in levels of radionuclides that EPA does not consider protective of human health and the environment. DOE must either delete these entries or alternatively add the following NOTE: to the requirements columns that states: “NOTE: Actual effluent limits for any radionuclide discharged into surface water will be established in accordance with ARARs, TBC and/or risk methodologies and listed in the ROD. Such limits must be within EPA’s generally accepted risk range under CERCLA and derived in a manner consistent with the designated use classifications of the receiving surface water body. These limits may be technology based and/or based upon ambient water quality equivalent levels derived using EPA and KY standard methodology used for calculating ambient water quality criteria.” In addition, Section 2.4.1.9.2 and Section F.4.5 *Waste Water Treatment* must be revised to include language consistent with this condition and the explanatory NOTE language. EPA recognizes that resolution of the formal dispute for the Northeast Plume ESD related to Tc-99 discharges and/or the resolution of the Stop Work Order issued by EPA on accumulated radioactively contaminated water in the Bldg. C-410 basement may be relevant to how the FFA parties decide to address effluent limits for radionuclides in wastewater discharged into surface waters.

- 4. Treatment of excavated wastes/media considered RCRA hazardous waste** – There are numerous sections (such as Section 3.4.5.7) of the document that includes the following statement: “Treatment is assumed to be necessary to address principal hazardous constituents.” This statement is an oversimplification of the RCRA requirements (many identified as ARARs in Table F.2) related to meeting LDR treatment standards for RCRA hazardous wastes or alternatively, the CAMU treatment standards for any CAMU eligible RCRA hazardous wastes generated from the response action activities. The statement also suggests mistakenly that EPA has agreed to the use of a CAMU for disposal on-site. In the absence of EPA approval of the OSWDF (designated as a CAMU) in a ROD, remediation wastes that are RCRA hazardous waste (including soils and debris) in summary must meet either the treatment standards in 40 CFR Part 268 for the constituents making the waste hazardous along with any underlying hazardous constituents or the alternative treatment standards for soil at 40 CFR 268.49 and debris treatment standards at 40 CFR 268.45. Text

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

must be revised in the aforementioned Section (as well as any other Sections) to better reflect the ARARs in Table F.2 and fact that generated RCRA hazardous wastes will have to be treated to meet LDR treatment standards or alternatively CAMU treatment standards, if approved by EPA and an OSWDF is constructed which is also designated as a CAMU.

- 5. Installation of intruder barrier** – As stated in several previous EPA comments [GC7, SC 83 and SC 109], an intruder barrier is required to be installed as part of the cap for any containment remedy at SWMUs 2 and 3 that leave long-lived uranium wastes that the FFA parties have agreed (through dispute resolution process) are PTW and present a significant risk to human health should exposure occur. Although EPA maintains that the NRC regulation at 10 CFR 61.42 and KY equivalent at 902 KAR 100:022 Section 19 *Protection of inadvertent intrusion* is relevant and appropriate for containment alternatives, we have agreed to language in the RI/FS for the CERCLA OSWDF that clearly indicates that the bio-intrusion layer (aka intruder barrier) is necessary and considered protective of human health by limiting exposure to the waste in the event any intruder scenarios are realized. Had DOE included the aforementioned regulation as an ARAR, then compliance with the ARAR would have necessitated installation of an intruder barrier. EPA is troubled with DOE’s responses and language throughout the FS that reads: “The cover system design could also include a surface barrier (rip rap) which would be contingent upon transfer of the property.” As explained in KY General Condition #3 (from its November 12, 2014 letter) and EPA’s previous comments on this issue, the intruder barrier must be installed at the time of final cap construction to ensure protectiveness of human health, long-term effectiveness and permanence of the remedy. EPA does not accept DOE’s proposition of delaying installation of the barrier until property transfer is expected. Such delay would result in a remedy that is not protective of human health if LUCs failed and DOE presence was significantly reduced (as anticipated once the plant shut down complete and D&D has occurred). Moreover, as a practical matter adding a barrier after the final cap has been installed could result in additional modifications or even damage to the cap that are eliminated with design and construction of all of the cap layers at the same time. EPA will require that the conceptual design of the cap (including the intruder barrier) be included in the Proposed Plan and ROD. Although EPA acknowledges the rip rap specifications (size and thickness) contemplated in the FS for cost estimation purposes, the Agency (as stated in previous SC 83) does not necessarily agree that material of that size/shape/depth is adequate and will be the barrier required by EPA in the event a containment remedy is selected for SWMU 2 and/or SWMU 3. DOE must revise the FS (in all relevant Sections) to remove the contingency language and make clear that the surface barrier is a bio-intrusion layer designed to prevent inadvertent intrusion into the PTW and is required as part of the cap/final landfill cover installation for long-term protection of human health.

**EPA Conditions for Approval of the  
Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2**

- 6. Alternative 3 Containment, Surface Controls, LUCs, Monitoring for SWMU 2** – This Alternative does not satisfy the Remedial Action Objective (RAO) on treatment or removal of PTW [reference p. 5-13 redline D2 FS]. There are several types of PTW present in SWMU 2 that are both toxic and highly mobile including the 59,00 gallons of oil (possibly PCB contaminated), the documented 35 (30 gal.) drums of uranyl fluoride disposed, and uranium contaminated TCE, and high concentrations of TCE and DCE in soil. EPA does not believe that containment is an appropriate response action for these types of waste, nor effective in the long-term at protecting HH&E. As shown in the other Alternatives with treatment options for some of the PTW, there are technologies available which are effective at reducing toxicity, mobility or volume and thus treatment is practicable. The implementation costs for these treatment technologies are not prohibitive. Alternative 3 should be screened out during the comparative analysis of Alternatives because it does not satisfy the aforementioned RAO, or alternatively it should be ranked so low compared to the other Alternatives that include treatment and/or removal of the PTW. Without being pre-decisional, EPA does not believe that Alternative 3 can be a Preferred Alternative for this SWMU. Accordingly, all relevant text and tables should indicate that the RAO is not met.
  
- 7. SWMU 3 Releases and Alternative 3** – The historical operations at SWMU 3 include use as a surface impoundment, disposal of uranium contaminated wastes and sludges as well as disposal of wastes that are RCRA hazardous waste in an unlined landfill that does not include a RCRA leachate collection system with leakage detection. Instead, the unit appears to have a gravity fed drainage layer that collects water (leachate) in a sump. As result of the past operations, releases to underlying subsurface soils and UCRS groundwater is likely and monitoring to date suggest that the unit (even with the RCRA Subtitle cap) is not fully effective at mitigating releases from the unit. Contaminated water (leachate) collected from the unit drainage layer and detections in UCRS groundwater adjacent to the unit have been reported and are described in the FS also suggest there may be lateral groundwater flow through the unit or infiltration. Alternative 3 – *Containment, LUCs and Monitoring* is essentially a No Action remedy that leaves the unit “as is” with the exception of the additional intruder barrier. The FFA parties have determined that a CERCLA response action is required and deferred any additional RCRA corrective action that otherwise could be required under the HSWA portion of the KY RCRA permit to CERCLA response action authority under the FFA. EPA questions whether Alternative 3 meets the threshold criteria and in particular whether it is protective of human health and the environment considering the aforementioned suspected releases from the unit. Any final remedy for this burial ground (including all of wastes and contamination from former operations) must be fully protective of human health and the environment and ideally should mitigate any releases from the buried wastes and subsurface contamination. EPA believes that the Alternative should be screened out or language added to appropriate

**EPA Conditions for Approval of the  
Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2**

Sections of the FS that better describe how the existing RCRA Subtitle C cap mitigates any releases from the entire unit, not just the top waste in the former impoundment that is covered. Without being pre-decisional, EPA does not believe that Alternative 3 can be a Preferred Alternative for this SWMU.

- 8. SWMU 3 and Alternative 5** – This alternative includes Excavation, Disposal, Treatment, LUCs and Monitoring. EPA believes that monitoring of groundwater should not be necessary once the buried wastes and subsurface soils are removed. Post-excavation sampling to verify attainment of PRGs or extent of residual contamination is not monitoring in the normal use of this term as a remedy component. Long-term monitoring should be used as a remedy component for containment of buried wastes to determine whether contaminant releases are occurring from the unit into groundwater. The levels of contamination at depth that could remain following excavation are an uncertainty that will not be known unless this Alternative is selected as the final remedy. However, EPA believes that contamination at levels that could leach into groundwater (i.e. source of groundwater contamination) would have to be addressed and that monitoring would not be effective or a protective remedy component. If this condition was present then an Amendment to the remedy would be necessary or alternatively the groundwater contamination could be addressed in the Dissolved Phase GWOU for a separate response action. Inclusion of long-term monitoring adds cost to the remedy which in EPA opinion should not be included and therefore should be removed from the Alternative. These additional costs drive the overall cost of the remedy upward and prevent an accurate comparison to other Alternatives that may be less costly. Decision makers should be presented with accurate estimated costs of the remedy that reflects appropriate scope for excavation of the burial ground. Accordingly, revise the title of this Alternative to remove the Monitoring component and delete and/or revise any discussion of monitoring in the relevant Sections of the FS.
  
- 9. Future Excavation Worker in Appendix C of the Feasibility Study:** EPA agrees with KY Condition #1 (from November 12, 2014 letter) on the “2 men and a backhoe” scenario and rejects the use of *unit-specific* exposure assumptions to modify PRGs for the excavation worker. The “2 men and a backhoe” construct assumes that the worker in question is exposed to one area of a certain size for a unit-specific period of time and then is never exposed again to this or any other contaminated site. EPA’s primary concern with this approach stems from the inability to predict with any certainty over long periods of time the number of contaminated areas with which this future excavation worker may come into contact. At smaller sites it may be appropriate to use a “2 men and a backhoe” type scenario to estimate reasonable maximum exposure for an excavation worker. Under such conditions this scenario could likely be considered site-specific rather than unit-

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

specific since the likelihood of further exposure to other areas of a small site would be minimal. However at a large site like the PGDP where the public has a strong interest in seeing the property redeveloped, it cannot be assumed, in the absence of durable long-term land use controls that a future excavation worker will work only at a single SWMU over the course of his or her career. Similarly, it cannot be reasonably assumed that this worker will properly disposition the excavated soils instead of simply depositing them on the land surface where greater levels of exposure would be possible.

EPA guidance suggests that it is appropriate to assume exposure durations of between 1 to 5 years for a construction/ excavation worker. For the reasons stated above, EPA agrees with KY and favors using conservative exposure duration of 5 years coupled with an exposure frequency of 185 days/ year as a site-specific (rather than unit-specific) reasonable maximum exposure assumption for the excavation worker.

EPA requests that DOE revise the PRGs for the excavation worker presented in the document by setting the exposure duration to a fixed value of 5 years, regardless of which SMWU is being evaluated. The exposure frequency and all other exposure parameters used in the calculations should remain consistent with those assumed under the Outdoor Worker scenario. The resulting PRG values will then be viewed by EPA as being truly site-specific in nature. In addition, DOE must make any necessary changes (i.e., deletions) to the document reflecting the unit-specific approach and additions to the document to reflect the site-specific approach with the revised exposure assumptions.

- 10. Appendix F. Location-specific ARARs** – Text only references the requirements for wetlands that are included in the Table F.1. Given the location of some of the burial grounds to surface water bodies including the Ohio River, EPA believes that they may be within a 100yr or 500 yr. floodplain as depicted in FEMA maps. Accordingly, DOE should add the requirements related to conducting federal action in a floodplain in both the text and the Table F.1.
  
- 11. Appendix F. Table F.2 RCRA Subpart F Groundwater Monitoring Requirements** – The RCRA Subpart F requirements included in Table F.2 appear to include only selective parts of the Detection and Compliance Monitoring regulations. In addition, the Corrective Action regulations are not included. Given that SWMU 3 is a RCRA regulated unit and is already in post-closure care and DOE is conducting Subpart F groundwater monitoring, the EPA believes that all of the applicable Subpart F groundwater monitoring substantive requirements should be identified as ARARs on the Table F.2. The FFA parties are currently scheduled to meet in January 2015 as part of the dispute resolution process for the RI/FS for CERCLA OSWDF and have agreed to discuss the extent to which the RCRA Subpart F regulations will be identified as ARARs for a closed RCRA hazardous waste

**EPA Conditions for Approval of the  
*Feasibility Study for the SWMUs 2, 3, 7, and 30 of the Burial Grounds Operable Unit D2***

landfill. Any agreement reached by the FFA parties on this matter at that meeting will be informative on the extent to which the Subpart F regulations are included as ARARs for any containment remedy for SWMU 3. The entries on Table F.2 should be updated to reflect such an agreement.

- 12. Appendix F, Table F.2 CAMU ARARs** – Table F.2 includes several entries [e.g., 40 CFR 264.552(g)] for a CAMU used for disposal of RCRA remediation waste that is not appropriate for the scope of the BGOU response actions contemplated in this D2 FS that include excavation and on-site treatment. In the event that EPA approves the CERCLA OSWDF (designated as a CAMU for disposal), then CAMU eligible wastes originating from the burial grounds response actions would need to meet CAMU treatment standards and treatment could occur in a CAMU designated for Storage/Treatment. Accordingly, those entries related to on-site disposal CAMU should be removed from the table and, if approved by EPA, will be included along with other disposal CAMU requirements in the ARARs for the OSWDF. It is acceptable for the entry related to shipment of CAMU-eligible wastes (that are treated) to an off-site facility that is approved by EPA to remain on the table. Inclusion of the definition of CAMU-eligible waste in the table is not necessary and could instead be provided in the Appendix F text discussing treatment of RCRA wastes as well referenced in the Prerequisite column with relevant citation. Moreover, the types of RCRA remediation wastes that will be generated from excavation alternatives should be described in the Appendix F text as stated in above EPA Condition 1 along with an explanation on whether DOE believes these wastes are CAMU-eligible.

Despite the inclusion of the exceptions (i.e., adjusted treatment standards) to the CAMU treatment standards at 40 CFR 264.552(e)(4)(iv), DOE has not included the CAMU treatment standards in the table. The CAMU treatment standards must be included in Table A.2 and described in the Appendix F text along with the LDR treatment standards as stated above in Condition 4. In addition, the NOTE included in the entry for a CAMU used for Storage/Treatment must be revised to state that any extension to the 2 year storage limitation will be documented in a CERCLA decision document (AROD or ESD) as opposed to a memorandum placed in the administrative record file.