



Department of Energy

Portsmouth/Paducah Project Office
1017 Majestic Drive, Suite 200
Lexington, Kentucky 40513
(859) 219-4000

FEB 08 2017

Mr. Brian Begley
Federal Facility Agreement Manager
Division of Waste Management
Kentucky Department for Environmental Protection
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601

PPPO-02-4036918-17

Ms. Julie Corkran
Federal Facility Agreement Manager
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Dear Mr. Begley and Ms. Corkran:

PADUCAH FEDERAL FACILITY AGREEMENT—SIGNED MEMORANDUM OF AGREEMENT FOR RESOLUTION OF FORMAL DISPUTE FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0244&D2)

Please find enclosed the signed *Memorandum of Agreement for Resolution of Formal Dispute of the Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2. The Senior Executive Committee has resolved the formal dispute successfully and reached a unanimous decision to defer establishment of radiological effluent limits from the Waste Disposal Alternatives project until the Proposed Plan and Record of Decision stages of remedy selection.

The U.S. Department of Energy (DOE) has agreed not to identify the referenced applicable or relevant and appropriate requirements in the Feasibility Study based on the agreement to defer the establishment of effluent limits and DOE maintains its position that effluent limits based on Nuclear Regulatory Commission regulations and DOE Orders are protective.

DOE appreciates the U.S. Environmental Protection Agency's and the Kentucky Department for Environmental Protection's efforts in resolving this matter.

If you have any questions or require additional information, please contact Jennifer Woodard at (270) 441-6820.

Sincerely,



Tracey Duncan
Federal Facility Agreement Manager
Portsmouth/Paducah Project Office

Enclosure:

Signed Memorandum of Agreement

e-copy w/enclosure:

aaron.keatley@ky.gov, KDEP/Frankfort
april.webb@ky.gov, KDEP/Frankfort
brian.begley@ky.gov, KDEP/Frankfort
bruce.ford@ffspaducah.com, FFS/Kevil
christopher.jung@ky.gov, KDEP/Frankfort
corkran.julie@epa.gov, EPA/Atlanta
ffscorrespondence@ffspaducah.com, FFS/Kevil
gaye.brewer@ky.gov, KDEP/PAD
heard.anne@ky.gov, EPA/Atlanta
hill.franklin@epa.gov, EPA/Atlanta
jana.white@ffspaducah.com, FFS/Kevil
jennifer.woodard@lex.doe.gov, PPPO/PAD
karen.walker@ffspaducah.com, FFS/Kevil
kim.knerr@lex.doe.gov, PPPO/PAD
leo.williamson@ky.gov, KDEP/Frankfort
mike.guffey@ky.gov, KDEP/Frankfort
myrna.redfield@ffspaducah.com, FFS/Kevil
nathan.garner@ky.gov, KYRHB/Frankfort
pad.rmc@swiftstaley.com, SSI/Kevil
richards.jon@epamail.epa.gov, EPA/Atlanta
robert.edwards@lex.doe.gov, PPPO/LEX
stephaniec.brock@ky.gov, KYRHB/Frankfort
tony.hatton@ky.gov, KDEP/Frankfort
tracey.duncan@lex.doe.gov, PPPO/PAD

MEMORANDUM OF AGREEMENT FOR RESOLUTION OF FORMAL DISPUTE
for the Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-0244&D2)

Background

On July 25, 2013, the U.S. Department of Energy (DOE) submitted the *Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (DOE/LX/07-0244&D2). There is a separate, ongoing, dispute regarding the Waste Disposal Alternatives (WDA) Remedial Investigation/Feasibility Study (RI/FS) on Conditions for Approval issued by the Kentucky Department for Environmental Protection (KDEP) on October 23, 2013, and the Environmental Protection Agency (EPA) on March 19, 2014. DOE invoked informal dispute resolution for these Conditions on May 19, 2014, and formal dispute resolution at the Dispute Resolution Committee (DRC) level on May 13, 2016. Negotiations on these disputed Conditions have continued at the informal and DRC dispute levels. This Memorandum of Agreement (MOA) does not resolve the dispute invoked on May 19, 2014.

On November 19, 2015, the EPA issued an Additional Condition to be met for Agency approval:

"EPA is requiring that text in Section 5.4.2.8, *Support Facilities*, and text in Appendix G Section G. 2.7 *Action -Specific ARARs* be revised by the Department of Energy (DOE) to include:

- (i) Additional language to better reflect that any wastewater generated (including, but not limited to, collected leachate, decontamination wastewater and contact water collected from areas within the landfill) requires treatment of any hazardous substance (including radionuclides) prior to discharge into surface water to ensure such discharge either meets ARARs/TBC or meets effluent limitations that are protective of human health and the environment.
- (ii) Text must be added to the document that states that actual effluent limits for any radionuclide(s) discharged into surface water from the Leachate Treatment Facility will be established in accordance with ARARs, TBC guidance and/or EPA-approved risk methodologies and specified in the Record of Decision (ROD).
- (iii) Such effluent limits for radionuclides must be within EPA's generally accepted risk range under CERCLA and such effluent limits must be derived in a manner consistent with the Commonwealth of Kentucky (KY) 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 (AWQC).
 - Also, the Kentucky Pollutant Discharge Elimination System (KPDES) effluent regulations that are currently included in the Appendix G ARARs table for discharge of pollutants could be identified as 'relevant and appropriate' for the radionuclide-contaminated wastewater (these regulations are not 'applicable' due to the definition of 'pollutants') because such regulations are well-suited for this activity considering the factors for determining 'relevance and appropriateness' in 40 CFR 300.400(g)(2).

- (iv) Consistent with a previous EPA Condition on the FS for the Burial Grounds Operable Unit Solid Waste Management Units 2, 3, 7, and 30, the EPA does not consider effluent limits that are based upon annual dose limits of 50 mrem/yr and 100 mrem/yr, (from the NRC regulation [10 CFR Part 20, Appendix B, 902 KAR 100:019 Section 44(7)(a)] and DOE Order 5400.5 respectively) to be protective of human health and the environment. The EPA final "Radiation Risk Assessment Guidance for CERCLA Sites: Q&A" guidance documents on cleanup of radionuclides at Superfund Sites (Office of Solid Waste and Emergency Response Memorandum 9285.6-20, June 2014), specifies that dose-based ARARs that do not equate to a 12 mrem/yr dose (or lower) should not be identified in a CERCLA response action as basis for a cleanup level. Accordingly, the NRC regulation and DOE Order should not be cited in the Appendix G ARARs/TBC table or referenced in the document text."

Pursuant to Section XXV.A of the Paducah Gaseous Diffusion Plant (PGDP) Federal Facility Agreement (FFA), DOE invoked informal dispute resolution on January 5, 2016. On February 19, 2016, DOE elevated the dispute to the Dispute Resolution Committee as described in Section XXV.B.1 of the FFA. On May 23, 2016, the EPA Region 4 Superfund Division Director issued a Written Position on the establishment of radiological effluent discharge limits for the WDA RI/FS and the Burial Grounds Solid Waste Management Units (SWMUs) 2, 3, 7, and 30 FS documents in support of tri-party dispute discussions. (It is noted that this is not an FFA prescribed step in the DRC dispute resolution process.) The FFA parties were not able to resolve the dispute at the DRC level. On June 1, 2016, DOE elevated the dispute to the Senior Executive Committee (SEC) as described in Section XXV.B.3 of the FFA. Further discussions at the SEC level have resulted in the following resolution of DOE's dispute of EPA's November 19, 2015, Additional Condition for document approval.

Resolution Terms and Conditions

It is the intent of the three parties to defer the establishment of any radiological effluent limits for the Waste Disposal Alternatives (WDA) project within the revised D2 RI/FS. As a result, the D2 RI/FS will be revised as indicated below.

- The FFA parties agree the following sentence will be incorporated into Sections 6.4.2, 7.2, G.2.1, and G.2.7.1 of the revised D2 RI/FS:

"The FFA parties have agreed to defer the establishment of radionuclide effluent limits for discharges of wastewater from this CERCLA project until the Proposed Plan and Record of Decision stage of remedy selection. Effluent limits for radionuclides will be established in accordance with CERCLA, the NCP and EPA guidance."

References and associated appendices related to specific radiological effluent limits will be removed from Table G.2 (page G-78) and Section G.2.7.3 of the D2 RI/FS.

- The FFA parties agree that the ARARs table and text in the revised D2 WDA RI/FS will not identify or cite: 1) the NRC regulation [10 CFR part 20 Appendix B, Table 2 Effluent Concentrations; 901 KAR 100:019 Section 44(7)(a)] and will not identify or cite: 2) any effluent limit requirements in the DOE Order 458.1.
- The FFA parties agree, that after all of the agreed upon changes related to EPA and KDEP's conditional approval of the D2 RI/FS are incorporated, the revised D2 WDA RI/FS will be approved and placed in the Administrative Record, recognizing that the FFA provides the necessary mechanisms for modifying the approved WDA D2 RI/FS at a later date.

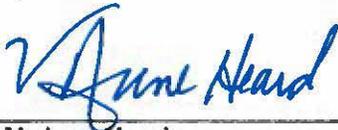
Additional Disputes Related to Radionuclide Effluent

In response to conditions issued by KDEP on November 12, 2014, and by EPA on December 19, 2014, DOE invoked informal dispute resolution on March 27, 2015 for the Burial Grounds SWMUs 2, 3, 7, and 30 FS and formal dispute at the DRC level on December 22, 2015. EPA's Condition 3 concerned radionuclide effluent limits for that project. The parties are currently attempting to resolve this dispute at the DRC level. This MOA does not resolve the disputed condition related to radionuclide effluent limits for Burial Grounds SWMUs 2, 3, 7, and 30 FS, but is expected to be informative to the FFA parties in reaching a mutually agreeable resolution.

Other Terms and Conditions

Pursuant to Section XXV.B.10 of the FFA, the agreed upon written decision (as evidenced by the SEC member's signatures below) constitutes a final resolution of the dispute, which resolution is incorporated into, and becomes a term and condition of the FFA. Nothing in this MOA modifies other FFA Terms and Conditions or other CERCLA projects at the PGDP except as specifically stated above.

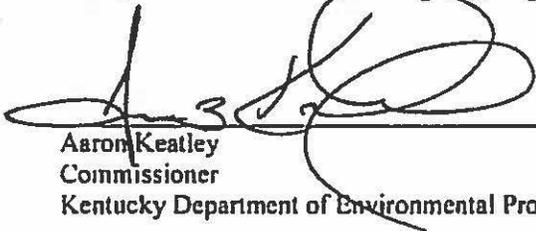
To the extent authorized under the FFA, nothing in this MOA shall prevent any of the Parties from disputing any other matters related to the aforementioned projects.



V. Anne Heard
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 4

2/3/17

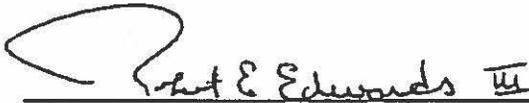
Date



Aaron Keatley
Commissioner
Kentucky Department of Environmental Protection

1-31-17

Date



Robert E. Edwards, III
Manager, Portsmouth/Paducah Project Office
U.S. Department of Energy, Portsmouth/Paducah Project Office

1/27/17

Date