



## ENERGY AND ENVIRONMENT CABINET

**Steven L. Beshear**  
Governor

**Department for Environmental Protection**  
**Division of Waste Management**  
200 Fair Oaks, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601-1190  
[www.kentucky.gov](http://www.kentucky.gov)

**Leonard K. Peters**  
Secretary

July 24, 2015

Ms. Jennifer Woodard, Site Lead  
US Department of Energy  
Portsmouth/Paducah Project Site Office  
5501 Hobbs Road  
Kevil, Kentucky 42002

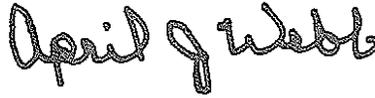
**RE: Comments to the Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant – Human Health (DOE/LX/07-0107&D2/R5/V1)**  
Paducah Site  
Paducah, McCracken County, Kentucky  
KY8-890-008-982

Ms. Woodard:

The Kentucky Division of Waste Management (Division) has completed its review of the *D2/R5/V1 Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant – Human Health*, dated June 26, 2015. Please find the attached comments on the subject document. As discussed and agreed upon by the FFA parties, these comments will be considered by the Risk Working Group during a future update of the Methods Document.

If you have any questions or require additional information, please contact April Webb at (502) 564-6716, or e-mail at [april.webb@ky.gov](mailto:april.webb@ky.gov).

Sincerely,



April J. Webb, P.E., Manager  
Hazardous Waste Branch

AJW:lww:jdm

Ec: Julie Corkran, US EPA – Region 4; [corkran.julie@epa.gov](mailto:corkran.julie@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)  
Jennifer Woodard, DOE – Paducah, [Jennifer.Woodard@lex.doe.gov](mailto:Jennifer.Woodard@lex.doe.gov)  
Rich Bonczek, DOE – Lexington, [Rich.Bonczek@lex.doe.gov](mailto:Rich.Bonczek@lex.doe.gov)  
Kim Knerr, DOE – Paducah, [kim.Knerr@lex.doe.gov](mailto:kim.Knerr@lex.doe.gov)  
Mark 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)  
Joseph Towarnicky, LATAKY – Kevil; [Joseph.towarnicky@lataky.com](mailto:Joseph.towarnicky@lataky.com)  
Craig Jones, LATAKY – Kevil, [craig.jones@lataky.com](mailto:craig.jones@lataky.com)  
Karen Walker, LATAKY – Kevil; [Karen.walker@lataky.com](mailto:Karen.walker@lataky.com)  
Sunny Osborne, LATAKY – Kevil; [sunny.osborne@lataky.com](mailto:sunny.osborne@lataky.com)  
Leanne Garner, LATAKY – Kevil; [Leanne.garner@lataky.com](mailto:Leanne.garner@lataky.com)  
LATAKY – General; [latacorrespondence@lataky.com](mailto:latacorrespondence@lataky.com)  
Karla Morehead, P2S – Paducah; [karla.morehead@lex.doe.gov](mailto:karla.morehead@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)  
Paige Sullivan, P2S – Paducah; [paige.sullivan@lex.doe.gov](mailto:paige.sullivan@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)  
Brian Begley, KDWM – Frankfort; [brian.begley@ky.gov](mailto:brian.begley@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 Williamson, KDWM – Frankfort, [Leo.Williamson@ky.gov](mailto:Leo.Williamson@ky.gov)  
DWM File #820-B; Graybar: ARM20150005 (Risk Methods – Human Health)  
Attachment: Kentucky Comments

**Kentucky Risk Assessment Branch (RAB) Comments Pertaining to the  
Methods for Conducting Risk Assessments and Risk Evaluations  
At the Paducah Gaseous Diffusion Plant (Volume 1: Human Health)**

**Paducah Gaseous Diffusion Plant, Paducah Kentucky**

**(DOE/LX/07-0107&D2/R5/V1)**

**July 17, 2015**

**Specific Comments:**

Comment #1: Appendix B, Pg. B-11, Table B.4 (Exposure Parameters Used in Calculation of Human Health PRGS)

- Dermal Contact with RGA Groundwater (showering)
  - Child Resident: 0.71 hour/event should be changed to 0.54 hour/event (this needs to be changed in Table D.3 as well)
  
- Dermal Contact with Soil/Sediment
  - Default Industrial Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day
  - Outdoor Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day
  - Excavation Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day
  - Child Resident: 0.269 m<sup>2</sup>/day should be changed to 0.2373 m<sup>2</sup>/day (this needs to be changed in Table D.5 as well)
  - Child Recreational user: 0.269 m<sup>2</sup>/day should be changed to 0.2373 m<sup>2</sup>/day (this needs to be changed in Table D.15 as well)
  
- Dermal Contact with Surface Water
  - Default Industrial Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day (this needs to be changed in Table D.32 as well)
  - Outdoor Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day (this needs to be changed in Table D.35 as well)
  - Excavation Worker: 0.347 m<sup>2</sup>/day should be changed to 0.3527 m<sup>2</sup>/day (this needs to be changed in Table D.35 as well)

Comment #2: Appendix B, Pg. B-14, Table B.5a (Toxicity Values and Information Used in PRG Derivation)

- KY ABS (Unitless)
  - Acenaphthylene: 2.5E-01 should be changed to 1.3E-01

- Dioxins/Furans: Why are there no KY ABS listed for the Hp- and Hx-dioxins and furans? Shouldn't all of these be 3.0E-02 to mirror RAGS E?
- Pentachlorophenol: 1.00E-01 should be changed to 2.5E-01
- Phenanthrene: 2.5E-01 should be changed to 1.3E-01

Comment #3: Appendix B, Pg. B-22, Second Paragraph

“The PGDP median value for lead in surface soil from DOE 1995 (17.5 mg/kg) and the value for lead in RGA groundwater from Appendix A, Table A.13 (0.129 mg/L) should be used in place of the model default value.”

Why are the background concentrations in surface soil from Table A.12 (36 mg/kg) not being used?

- End of Kentucky RAB Comments -