



Department of Energy

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MAR 20 2020

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By Carolee.Thompson at 7:57 am, Mar 23, 2020

Mr. Jon Maybriar
Division of Waste Management
Kentucky Department for Environmental Protection
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601

PPPO-02-10004583-20

Dear Mr. Maybriar:

**2019 ANNUAL SITE TREATMENT PLAN UPDATE AND WASTE MINIMIZATION
PROGRESS REPORT FOR THE U.S. DEPARTMENT OF ENERGY, PADUCAH
GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY**

References:

1. E-mail from L. Williamson to M. Redfield, "RE: PGDP Site Treatment Plan Reporting Requirements," dated April 20, 2012
2. Letter from A. Webb to R. Knerr, "RE: Approval of the Department of Energy's 2010 Site Treatment Annual Update Report and Request to Cease Quarterly Site Treatment Plan Reporting Requirements, Paducah Gaseous Diffusion Plant, Paducah, McCracken County, Kentucky, KY8-890-008-982," dated July 28, 2011

Background

The September 10, 1997, Agreed Order (File No. DWM-30039-042) between the Kentucky Department for Environmental Protection (KDEP) and the U.S. Department of Energy (DOE) requires submittal of an annual update regarding implementation of the Site Treatment Plan (STP). Additionally, the Agreed Order requires that DOE implement a Waste Minimization and Pollution Prevention (WM/PP) Awareness Program to minimize the amount of new wastes added to the STP each year. The Agreed Order requires that a progress report be submitted annually on or before March 31 of each year for the previous calendar year (CY).

On July 9, 2009, discussions between Paducah DOE Site Office personnel and KDEP personnel resulted in agreement that both the quarterly progress report and the required annual STP update could be submitted in letter format. It subsequently was agreed that the Waste Minimization Annual Progress Report could be included also in letter format with this submittal.

On July 28, 2011, KDEP approved the suspension of the quarterly and annual reporting requirements in the Agreed Order until any additional waste is added to the STP. In further discussions, KDEP requested an annual letter confirming no waste was added. This letter constitutes the submittal of DOE's annual update for the reporting period January 1, 2019, to

December 31, 2019, confirming no addition of mixed low-level waste (MLLW) to the STP. Four Rivers Nuclear Partnership, LLC (FRNP), is the contractor responsible for performing Resource Conservation and Recovery Act generator requirements on behalf of both FRNP and DOE for all activities under the scope of FRNP's contract. FRNP is responsible for ensuring overall compliance with the STP/Agreed Order.

Annual STP Update

Approved Amendments or Revisions: No amendments or revisions were approved by the Cabinet during CY 2019.

Volume of STP MLLW: Currently, no waste is managed under the STP at the Paducah Gaseous Diffusion Plant (PGDP).

Waste Minimization Annual Progress Report

The waste minimization goals specifically related to the STP are as follows:

- Minimize the generation of hazardous and mixed waste;
- Segregate hazardous waste from radioactive mixed waste; and
- Reduce the volume, toxicity, and mobility of waste generated.

Implementation of these goals continues to ensure that the amount of waste that requires being added to the STP each year is minimized to the extent practicable.

Information regarding the PGDP WM/PP Program is provided in the current version of CP2-WM-0001, *Four Rivers Nuclear Partnership, LLC, Paducah Deactivation and Remediation Project Waste Management Plan*. All PGDP projects are evaluated for WM/PP opportunities. WM activities at PGDP related to the STP WM goals include the following:

- Reducing the quantity of wastes generated at their sources;
- Draining, decanting, drying, dewatering, evaporating, and otherwise removing liquid from wastes when possible;
- Segregating, sorting, consolidating, and reducing the volume of like wastes; and
- Reusing or recycling materials that otherwise would be managed as hazardous or radioactive mixed waste.

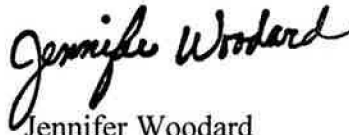
The following is a brief discussion of the main STP WM accomplishments in CY 2019.

- Regenerated 10,540 pounds of activated carbon, averting disposal;
- Recycled/reclaimed 6 pounds of mercury-containing items;
- Recycled 1,535 pounds of various light bulbs;
- Recycled 39,423 pounds of various batteries;
- Recycled 296,645 gallons of non-polychlorinated biphenyl oil from a C-360 transformer and the C-533 Switchyard;

- Reduced the amount of hazardous chemicals at PGDP by neutralizing 175 pounds of fluorine and the 260 pounds of chlorine trifluoride inventory on-site. This neutralization process also yielded a significantly less hazardous material facilitating packaging and shipment off-site for disposal; and
- Shipped 17,252 pounds of miscellaneous liquids from radiological areas to be burned for energy recovery.

If you have any questions or require additional information, please contact Tracey Duncan at (270) 441-6862.

Sincerely,



Jennifer Woodard
Paducah Site Lead
Portsmouth/Paducah Project Office

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