

**POLICY ISSUE
NOTATION VOTE**

November 25, 2013

SECY-13-0125

FOR: The Commissioners

FROM: Mark A. Satorius
Executive Director for Operations

SUBJECT: REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND
ENVIRONMENTAL CONDITIONS AT THE GASEOUS DIFFUSION
PLANTS LOCATED NEAR PADUCAH, KENTUCKY, AND
PORTSMOUTH, OHIO

PURPOSE:

This paper seeks Commission approval of the fifth "Report to Congress on the Health, Safety, and Environmental Conditions at the Gaseous Diffusion Plants (GDPs) Located Near Paducah, Kentucky, and Portsmouth, Ohio" for the reporting period from October 1, 2008, through September 30, 2013. The report should be submitted to Congress no later than December 31, 2013.

BACKGROUND:

The Energy Policy Act of 1992 amended the Atomic Energy Act of 1954 (AEA) by adding a new Title II (Sections 1201 through 1805) establishing the United States Enrichment Corporation (USEC), and authorizing USEC to operate the gaseous diffusion uranium enrichment facilities located near Paducah, Kentucky, and Portsmouth, Ohio. Both are owned, and were previously operated by, the U.S. Department of Energy (DOE). As amended in 1992, the AEA required that the U.S. Nuclear Regulatory Commission (NRC) establish safety, safeguards, and security regulations for the GDPs and certify that the GDPs comply with those regulations. The NRC established such regulations in 1994, and they are set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 76.

In 1993, USEC and DOE entered into a lease agreement which, as referenced in 10 CFR 76.35(m-n), is relevant to how depleted uranium at the GDPs is managed, and financial issues regarding the disposal of depleted uranium generated by GDP operations.

Pursuant to 10 CFR Part 76, the initial certifications of the GDPs occurred on November 26, 1996; the NRC assumed regulatory oversight of USEC operations in leased

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areas of the GDPs from the DOE on March 3, 1997. Section 1701 of the AEA (before being further amended by the Federal Reports Elimination Act of 1998) required that the NRC, in consultation with the DOE and the U.S. Environmental Protection Agency (EPA), report at least annually to Congress on the status of health, safety, and environmental conditions at the GDPs. This report to Congress must include a determination of whether the facilities comply with applicable regulations and laws. The first version of this report to Congress-covering the period from March 3, 1997, through September 30, 1997-was provided to the Commission in SECY-97-270, dated November 20, 1997, and was sent to the congressional oversight committees on January 5, 1998.

The President signed into law the Federal Reports Elimination Act of 1998, Public Law 105-362, on November 10, 1998, modifying section 1701b of the AEA to require that, instead of an annual report, the report to Congress be issued "not later than the date on which a certificate of compliance is issued" under section 1701c. Section 1701c was modified to allow a certificate of compliance to be issued at intervals of up to 5 years. Accordingly, the staff provided the second report to Congress to the Commission in SECY-98-275, dated November 24, 1998, in connection with the then-pending recertification of the GDPs. The NRC sent the second report to Congress to the congressional oversight committees on January 15, 1999. The NRC issued renewed certificates of compliance (CoCs) for both GDPs on January 29, 1999, with an expiration date of December 31, 2003. The staff provided the third report to Congress to the Commission in SECY-03-0189, dated October 31, 2003 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML032901096), which covered the period from October 1, 1998, to September 30, 2003. This report was issued to the congressional oversight committees on December 23, 2003. The NRC issued renewed CoCs to USEC for both GDPs on December 29, 2003, with an expiration date of December 31, 2008. The staff provided the fourth report to Congress to the Commission in SECY-08-0176, dated November 10, 2008 (ADAMS Accession No. ML082740436), which covered the period from October 1, 2003, to September 30, 2008. This report was issued to the congressional oversight committees on December 17, 2008. The NRC again issued renewed CoCs to USEC for both GDPs on December 22, 2008, with an expiration date of December 31, 2013.

DISCUSSION:

The fifth report to Congress (Enclosure 1) covers the 5-year period from October 1, 2008, to September 30, 2013. The report to Congress addresses NRC-regulated activities at the GDPs, discusses compliance with NRC regulations, and provides a summary assessment of performance at the GDPs. The discussion of the Paducah and Portsmouth GDPs below briefly summarizes the staff's proposed report to Congress.

The AEA requires that the NRC prepare the report to Congress in consultation with the DOE and the EPA. The NRC staff accomplished this by providing DOE and EPA with preliminary copies of Enclosure 1 for comment, and has incorporated the input provided by DOE and EPA. The staff is also providing as Enclosure 2 the report transmittal letters to the appropriate NRC congressional oversight committees.

A. Paducah Gaseous Diffusion Plant

During the period covered in the enclosed report, the Paducah GDP conducted regulated activities in a manner that adequately protected public health and safety, security, and the

environment. Offsite radiological doses, as well as doses to workers, have been very low, and well within NRC regulatory limits.

The Paducah GDP continued to be a leading supplier of low enriched uranium (LEU) fuel for the commercial nuclear power industry until enrichment operations ceased there earlier this year. During 2012, its last full operating year, the plant produced more than 5 million separative work units (SWU). Operations over the past several years had been the most efficient in the past 25 years, due to keeping a record number of cells in operation. USEC employs approximately 900 personnel at Paducah, but that level will decrease over the coming year as USEC's activities at the site conclude.

With a few exceptions, USEC operated the GDP in full compliance with NRC regulations. To correct instances in which violations of NRC requirements were identified, USEC implemented adequate corrective actions. The NRC conducted two performance reviews to assess USEC's performance at the Paducah GDP covering the period between October 4, 2008, and December 31, 2012. The performance areas evaluated included safety operations, safeguards, radiological controls, facility support, and other areas of interest. The performance reviews determined that the Paducah GDP continued to conduct its activities safely and securely, while protecting public health, and the environment, and that there were no areas needing improvement. In addition, there were no events at the Paducah GDP resulting in a significant release of radioactive material to the environment.

As mentioned above, the 2008 CoC for the Paducah GDP has an expiration date of December 31, 2013. USEC timely submitted its renewal application on April 2, 2013. The NRC accepted USEC's application for docketing and detailed review, and published Notice in the *Federal Register* on May 24, 2013 (78 FR 30342), providing an opportunity for public comment. As discussed in the recently published *Federal Register* Notice dated, October 31, 2013 (78 FR 65389), the NRC suspended its review of USEC's renewal application due to USEC's June 2013 decision to permanently cease its LEU production operations at Paducah, and its intention to return the leased facilities to DOE and request CoC termination in 2014. In accordance with 10 CFR 76.55, the 2008 CoC does not expire until a final determination on the renewal application is made by the NRC. USEC's activities at the Paducah GDP will continue to be governed by the 2008 CoC until it is terminated.

Note that on August 1, 2013, as required by the DOE-USEC lease agreement, USEC provided DOE its two-year notice of USEC's intent to terminate the lease of the Paducah GDP. The DOE has indicated that it expects the return of the Paducah GDP to be in accordance with the terms and provisions of the 1993 lease agreement (as later revised). The staff does not know at this time whether the DOE's enforcement of the lease's two-year notice provision will affect USEC's plan to request the Paducah CoC's termination in 2014.

B. Portsmouth Gaseous Diffusion Plant

The enclosed report provides a description on the health, safety, and environmental conditions at the Portsmouth GDP from October 1, 2008, until its CoC was terminated on October 12, 2011. During this period, the Portsmouth GDP remained in cold shutdown and USEC conducted regulated activities in a manner that adequately protected public health and safety, security, and the environment. Prior to CoC termination, the NRC conducted inspections at the Portsmouth GDP that addressed information security, material control and accounting,

and appropriate disposition of waste. Offsite radiological doses, as well as doses to workers, were very low, and well within NRC regulatory limits.

With a few exceptions, USEC operated the Portsmouth GDP in full compliance with NRC regulations. To correct instances in which violations of NRC requirements were identified, USEC implemented adequate corrective actions. The NRC also conducted a performance review to assess USEC's performance at the Portsmouth GDP for the period of July 6, 2008, to July 10, 2010. The NRC staff evaluated USEC's performance in the areas of safety operations, radiological controls, facility support, and special topics. Based on the results of its performance review, the NRC did not identify any areas needing improvement. There were no events at the Portsmouth GDP which resulted in a significant release of radioactive material to the environment.

By letter dated March 15, 2011, in accordance with 10 CFR 76.66, USEC notified the NRC of its intention to terminate all activities at the Portsmouth GDP that had been authorized under the 2008 CoC. USEC provided a description of its proposed actions to de-lease the GDP facilities and return them to the DOE. Subsequently, by letter dated June 28, 2011, USEC requested the termination of the Portsmouth CoC. The NRC staff determined that a sufficient basis existed to terminate the CoC. After obtaining confirmation from USEC and DOE that the leased facilities and all NRC-regulated material and classified matter had been transferred to DOE, and finding that all applicable regulatory requirements were met, the NRC terminated the CoC for the Portsmouth GDP on October 12, 2011.

RECOMMENDATION:

The attached report to Congress meets the requirements of the AEA and appropriately characterizes the health, safety, and environmental conditions at the GDPs. The staff recommends that the Commission approve the report and provide it to Congress no later than December 31, 2013.

COORDINATION:

The Office of the General Counsel has reviewed this package and has no legal objection.

/RA/

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Enclosure:

1. Report to Congress

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1. Report to Congress

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