



March 25, 2014
GDP 14-1012

Attention: Document Control Desk
Ms. Catherine Haney
Director, Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**Paducah Gaseous Diffusion Plant (PGDP)
Docket No. 70-7001, Certificate No. GDP-1
Submittal of NRC Form 327, "Special Nuclear Material (SNM) and Source Material (SM)
Physical Inventory Summary Report"**

INFORMATION TRANSMITTED HERewith IS PROTECTED FROM PUBLIC
DISCLOSURE AS CONFIDENTIAL COMMERCIAL OR FINANCIAL
INFORMATION AND/OR TRADE SECRETS PURSUANT TO
10 CFR 2.390(d)(1)

Dear Ms. Haney:

As required by 10 CFR 74.17(a) and the Fundamental Nuclear Material Control Plan (FNMCP), the United States Enrichment Corporation (USEC) is submitting to the United States Nuclear Regulatory Commission (NRC) the SNM and SM Physical Inventory Summary Report for the Paducah Gaseous Diffusion Plant. The Form 327 document in Enclosure 1 covers the bimonthly inventory period stated therein.

The dynamic, regulatory inventory for this period resulted in a uranium inventory difference (line 9) that exceeded the alarm (significant) ID problem limit (3xSEID) in the gain direction. Prior losses from FY2013 were partially mitigated by this recovery.

As required by our FNMCP, an extensive investigation was conducted, however no issues were identified. It is assumed that following plant shutdown through the evacuation of UF₆ from the systems in order to obtain UF₆ negatives, some previous freeze out deposits were recovered. Details of the investigation are documented in ATRC-14-0244 in the plant's corrective action system.

Enclosure 1 contains information concerning USEC's material control and accounting program for special nuclear material at the plant. As such, Enclosure 1 contains confidential commercial or financial information that is exempt from public disclosure pursuant to 10 CFR 2.390(d)(1). USEC hereby requests that Enclosure 1 be withheld from public disclosure based on 10 CFR 2.390(d)(1), which states, in part:

United States Enrichment Corporation
Paducah Gaseous Diffusion Plant
P.O. Box 1410, Paducah, KY 42002

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“The following information is considered commercial or financial information within the meaning of §9.17(a)(4) of this chapter and is subject to disclosure only in accordance with the provisions of § 9.19 of this chapter.

Correspondence and reports to or from the NRC which contain information or records concerning a licensee's or applicant's physical protection, classified matter protection, or material control and accounting program for special nuclear material not otherwise designated as Safeguards Information or classified as National Security Information or Restricted Data.”

There are no new commitments contained in this submittal. Should you have any questions or comments on the enclosed information, please contact Darrin English at (270) 441-6182.

Sincerely,

A handwritten signature in black ink, appearing to read "V. J. Shanks", with a long horizontal flourish extending to the right.

Vernon J. Shanks
Manager, Regulatory Affairs

Enclosure: As Stated

cc: M. Sykes, Chief, Fuel Facility Inspection Branch 2, NRC Region II
T. Pham, NRC Senior Safeguards Analysis, NRC-HQ
O. Siurano-Perez, NRC Project Manager PGDP, NRC-HQ