



September 15, 2010
GDP 10-1036

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

**Paducah Gaseous Diffusion Plant (PGDP)
Docket No. 70-7001, Certificate No. GDP-1
Submission 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.

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:

"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.

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

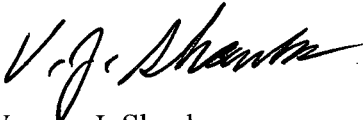
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Correspondence and reports to or from the NRC which contain information or records concerning a licensee's or applicant's physical protection, classified matter protection, or material control and accounting program for special nuclear material not 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 Jere Bracey at (270) 441-5928.

Sincerely,



Vernon J. Shanks
Manager, Regulatory Affairs

Enclosure: As Stated

cc: J. Henson, Chief, Fuel Facility Inspection Branch 2, NRC Region II
T. Liu, NRC Project Manager PGDP, NRC-HQ
M. Miller, NRC Senior Resident Inspector, PGDP
T. Pham, NRC Senior Safeguards Analysis, NRC-HQ