



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 12, 1997

DOCKET: 70-7001

CERTIFICATE HOLDER: United States Enrichment Corporation
Paducah Gaseous Diffusion Plant
Paducah, Kentucky

SUBJECT: COMPLIANCE EVALUATION REPORT: APPLICATION DATED
MARCH 4, 1997, REVISIONS TO FUNDAMENTAL NUCLEAR
MATERIAL CONTROL PLAN AND COMPLIANCE PLAN

BACKGROUND

By letter dated March 4, 1997, the United States Enrichment Corporation (USEC) requested an amendment to the Certificate of Compliance for the Paducah Gaseous Diffusion Plant (PGDP). The request pertains to revisions to the Fundamental Nuclear Material Control (FNMC) Plan and the Compliance Plan associated with the use of dimensional measurement calculations to determine equipment volumes in the C-400 building. Specifically, proposed wording changes to Section 4.4.3 of the FNMC Plan and related Issue A.2 of the Compliance Plan were submitted to be consistent with Section 4.1.1 of the FNMC Plan and to reflect current and approved practices.

DISCUSSION

Section 4.1.1, "Equipment Volumes," of the PGDP's FNMC Plan states that system volumes will be determined by dimensional measurement calculations. This conforms to the facility's current and longstanding method and practices in the determination of tank volumes in the C-400 building. PGDP uses a standardized formula for standard disk head on tanks from the Chemical Engineers' Handbook (page 6-87 - Fifth edition - McGraw-Hill Book Co. - Robert Perry & Cecil Chilton) to calculate volumes of partially filled horizontal cylinders. In addition, with the aid of a Lotus spreadsheet calculation program and Procedure CP4-CU-CH1476, "Nuclear Material Inventories," the facility performs monthly inventories on a total of 55 tanks in the C-400 building, including error calculations supported by the Nuclear Material Control & Accounting (NMC&A) group. This routine method provides adequate results and no anomalies were observed.

However, Section 4.4.3 of the FNMC Plan along with Change A of Issue A.2 in the Compliance Plan, which addressed items of noncompliance, did not clearly define and describe the current method of tank volume determination, and consequently was not consistent with the commitment specified in Section 4.1.1 of the FNMC Plan. Therefore, these wording changes have been requested, and no other modifications or charges in equipment or practices are involved.

ENVIRONMENTAL REVIEW

Issuance of an amendment to Certificate of Compliance GDP-1 to revise the FNMC plan and the Compliance Plan on the tank volume determination is subject to the categorical exclusion provided in 10 CFR 51.22(c)(19). Therefore, neither an environmental assessment nor an environmental impact statement is warranted for this action.

CONCLUSION

The staff concludes that the proposed wording changes to the FNMC Plan and the Compliance Plan will be consistent with a longstanding and acceptable method of volume determination and do not decrease the effectiveness of the facility's safeguards program. The staff recommends that the revised changes be approved.

The Operations Branch (FCOB) and Region III inspection staffs have no objection to this proposed action.

Principal Contributor

Thomas N. Pham

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CONCLUSION

The staff concludes that the proposed wording changes to the FNMC Plan and the Compliance Plan provide the consistency with a longstanding and acceptable method in volume determination and do not decrease the effectiveness of the facility's safeguards program. The staff recommends that the revised changes be approved.

The Operations Branch (FCOB) and Region III inspection staffs have no objection to this proposed action.

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