July 13, 2007

Mr Stephen A. Toelle
Director Nuclear Regulatory Affairs
United States Enrichment Corporation
2 Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: CERTIFICATE AMENDMENT REQUEST FOR DEPARTMENT OF ENERGY RADIOLOGICAL HELICOPTER SURVEY AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT

Dear Mr. Toelle:

By letter dated June 21, 2007, the United States Enrichment Corporation (USEC) submitted a certificate amendment request for the Department of Energy (DOE) to perform a radiological survey at the Portsmouth Gaseous Diffusion Plant (PORTS). The amendment request is to allow the DOE to use a helicopter for a radiological survey over PORTS.

The staff reviewed the provided justification and risk assessment, and determined that the amendment request has a negligible increase in risk to the worker, and public health and safety, and the issuance of this amendment request would not be inimical to either the common defense and security of the United States or the maintenance of a reliable and economical domestic source of enrichment services as required by 10 CFR 76.22. This amendment request is approved.

The Certificate Evaluation Report of the proposed changes to your Certificate has been completed and is attached as Enclosure 1. Enclosure 2 contains Revision 5 to your Certificate of Compliance.

If have any questions concerning this action, please contact the Project Manager, Mike Raddatz, by telephone at (301) 492-3108, or by e-mail, to mgr@nrc.gov

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the Nuclear Regulatory Commission's (NRC) Public Document Room or from the Publicly Available Records component of NRC's document system Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA, by B. Smith for/

Gary S. Janosko, Deputy Director
Fuel Cycle Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-7002
Certificate: GDP-2
Amendment 5

Enclosures:
1. Compliance Evaluation Report
2. Certificate of Compliance GDP-2

cc: Randall M. DeVault, DOE-Oak Ridge

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Gary S. Janosko, Deputy Director
Fuel Cycle Licensing Directorate
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cc: Randall M. DeVault, DOE-Oak Ridge

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DOCKET NUMBER: 70-7002

CERTIFICATE HOLDER: United States Enrichment Corporation
Portsmouth Gaseous Diffusion Plant
Portsmouth, Ohio

SUBJECT: CERTIFICATE AMENDMENT REQUEST FOR DEPARTMENT OF ENERGY RADIOLOGICAL HELICOPTER SURVEY AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT

PROPOSED CHANGES

By letter dated June 21, 2007, the United States Enrichment Corporation (USEC) submitted a certificate amendment request for the Department of Energy (DOE) to perform a radiological helicopter survey at the Portsmouth Gaseous Diffusion Plant (PORTS). The amendment is for a change to the PORTS Certificate of Compliance to allow for a one time only helicopter fly-over. Currently, PORTS has a no fly zone restriction.

The staff reviewed the provided justification and risk assessment and determined that the amendment request has a negligible increase in risk to the worker, and public health and safety, and the issuance of this amendment request would not be inimical to either the common defense and security of the United States or the maintenance of a reliable and economical domestic source of enrichment services as required by 10 CFR 76.22.

REGULATORY REQUIREMENTS

10 CFR 76.68 provides the regulatory basis for changes to the plant's design that do not need pre-approval by the Nuclear Regulatory Commission (NRC). This restriction prevents USEC from making changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided if the changes involve an unreviewed safety question. Since this change involves an unreviewed safety question, USEC has requested an amendment to its Certificate of Compliance.

DISCUSSION

The staff's evaluation of the proposed activities found that USEC had adequately described the operational changes so that potential accidents resulting from those operations could be evaluated. The staff found that the accident of concern for the helicopter survey is an aircraft crash.

The primary requirement for this accident scenario is to ensure that the risk associated with an aircraft crash is minimized. USEC performed an analysis for this accident scenario using methodology based on the distance between the site and the aircraft hazard.

The data used to determine the probability of a helicopter crash is from the Helicopter Association International and is based on National Transportation and Safety Board preliminary accident report data. This data reports that the average total accident rate per 100,000 hours of flight time for multi-engine turbine helicopters is approximately 3.47 over a ten-year period. The area that will be surveyed is approximately 2,800 feet by 6,000 feet. The average velocity of the helicopter is approximately 70 knots, which is 118 feet per second. The helicopter will perform the survey at 250 foot intervals across the 2,800 foot width, which results in approximately 15 intervals. The time required to perform a single interval is approximately one minute. The probability of a helicopter crashing while performing the radiological survey is low, approximately 8×10^{-6} occurrences per survey.

In the event that the helicopter would crash and strike an area that contained radioactive or other hazardous material, the resulting material release would be small. This is due to the fact that most of the radioactive material at the facility is in a solid form, which is not easily dispersed. Also, there are limited activities being performed at PORTS, which will further decrease the likelihood of the helicopter striking radioactive or other hazardous material. The consequences of a fire started by a helicopter crash are bounded by the consequences of a large fire as previously analyzed by USEC in the Safety Analysis Report for PORTS.

The staff determined that the applicant's physical security assessment of the helicopter radiological survey is acceptable. During the survey, the Plant Shift Superintendent (PSS) will oversee the flight mission. Prior to the flight, the credentials of the flight crew will be verified and the flight path will be established, and any potential hazards will be identified to the flight crew. The PSS will maintain radio contact with the flight crew while the helicopter is in flight. If at any time the PSS determines that the flight should be aborted, the flight crew will return to the local airport. The physical security requirements at the site will be maintained during the helicopter survey. The proposed activities do not reduce the effectiveness of the security controls in place to protect Special Nuclear Material of Low Strategic Significance and classified matter contained within the USEC leased area. The helicopter survey will not be inimical to the common defense and security of the United States.

FINDINGS

The staff's analysis confirms that the applicant's assessments of a helicopter crash demonstrate a low probability of occurrence and that there is a minimal increase in risk to the worker, public, and the environment. The proposed change will have no impact on plant effluents or on the programs and plans in place to implement physical security, protection of classified matter, transportation security, or special nuclear material accountability.

The approval of this amendment request is documented in the Certificate of Compliance GDP-2 by the addition of a reference to the June 21, 2007, letter from USEC describing the helicopter survey.

ENVIRONMENTAL REVIEW

Issuance of the requested amendment to Certificate of Compliance GDP-2 is subject to the categorical exclusion provided in 10 CFR 51.22(c)(19) and will not have a significant impact on the human environment. Therefore, in accordance with 10 CFR 51.22(b), neither an environmental assessment nor an environmental impact statement is required for the proposed action.

CONCLUSIONS

Based on its review and evaluation of the information provided by USEC in its certificate amendment request of June 21, 2007, the NRC staff finds that the amendment request has a negligible increase in risk to the worker, the public health and safety, safety and safeguards, and concludes that the amendment is acceptable, consistent with the requirements of 10 CFR Part 76, and should be approved.

Principal Contributors

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