



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 9 TO FACILITY LICENSE NO. TR-3

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

DOCKET NO. 50-30

1.0 INTRODUCTION

By letter dated November 4, 1996, as supplemented on December 20, 1996, September 18, 1997, March 30, 1998, and April 13, 1998, National Aeronautics and Space Administration (NASA or the licensee) submitted a request for amendment to Facility License No. TR-3 and Appendix A, Technical Specifications (TSs). The requested changes would provide administrative changes to the possession only license and TS of the Plum Brook Reactor Facility (PBRF), as well as additional specifications for the selective testing, operability and replacement of components and systems. The PBRF includes all associated and site support facilities except for the Mock-Up Reactor (MUR) which is under separate possession only status License No. R-93, Docket No. 50-185. There is no reactor fuel at the facility.

2.0 EVALUATION

2.1 Changes to License Conditions

The licensee has proposed changes to paragraph 2.A of the license. The first change is to specify that the reactor is a test reactor by removing reference to it as a research reactor. The second change is to specify that the MUR is not part of the PBRF. The final licensee proposed change to this license condition is to include the previous license amendments as part of the PBRF description. These changes are consistent with the facility configuration and condition, and are therefore acceptable.

With regard to the license expiration date, the licensee has provided commitments in the March 30, 1998, supplement to provide a decommissioning plan to the NRC by the end of calendar year 1999, and to complete decommissioning activities by the end of 2007 in a move to terminate the license. Therefore, in accordance with the provisions of 10 CFR 50.51(b) for a facility that has permanently ceased operations, the licensee is authorized to own and possess the PBRF until the Commission notifies the licensee in writing that the license is terminated.

2.2 Changes to Technical Specifications

The proposed changes to the TSs table of contents are editorial to make them match other proposed changes, and are therefore acceptable. Also, the licensee has retyped the TS in

their entirety which provided changes in format and page numbering which is also editorial and acceptable.

The proposed changes to TS 1, TS 1.3.1, and TS 4 are to update the use and reference of the American National Standards Institute/American Nuclear Society Standard 15.1 (ANSI/ANS 15.1) from a 1982 version to a 1990 version. The use of the 1990 version is consistent with the NRC Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors (NUREG-1537), and is, therefore, acceptable.

The proposed change to TS 1.2 is to include appropriate reference to proposed TS 2.21 through 2.23, is editorial in nature, and, therefore, is acceptable.

The proposed addition of TS 2.8.c requires that all seals on hot sumps and drains, and all plugged floors hot drains be checked annually to ensure integrity. These checks have been done in the past as part of the licensee's Inspection and Test Report (ITR) procedures. The licensee has conservatively proposed to formally require this annual check which is acceptable.

TS 2.12.b and associated bases have been updated to refer to the current version of 10 CFR 20, Appendix B for effluent releases which is acceptable.

TS 2.15.b has been modified to reference the ITR used for the associated radiological monitoring. This additional detail is therefore acceptable.

The licensee proposed the addition of TS 2.21 on the Nitrogen Purge System, TS 2.22 on the Cathodic Protection System, and TS 2.23 on the Primary Pumphouse Roof Plug. The addition of TSs 2.21 and 2.22 provide for the operability and monitoring of the applicable systems. These systems are designed to control degradation of facility components. Similarly, TS 2.23 provides for the operability, monitoring and replacement of the weather seals for the Primary Pumphouse Roof Plug. These seals provide assurance that no water enters the associated area. The addition of these requirements provides acceptable assurance that these protective functions will be satisfied.

TS 3.1.1 proposed changes include changing the word "He" to the words "He or she." This change is acceptable. The proposed changes also add a statement that the "Directorate shall provide the resources to maintain the PBRF in protected safe storage." This added delineation of responsibilities is also acceptable.

The former TS 3.1.2 related to the "Aeropropulsion Facilities and Experiments Division" was deleted as it is no longer appropriate to the organization. Also, the organization chart was revised to delete this division. Based on the update of the organization, these changes are acceptable.

The proposed TS 3.1.2 changes provide provisions that the Chairman and members of the internal audit committee shall not be directly associated with the facility. This independence is consistent with the guidance of NUREG-1537, and, therefore, is acceptable.

The change to TS 3.1.3 is editorial and therefore is acceptable.

The change to TS 3.3.2.b removes reference to reactor fuel which is no longer at the facility. This change is consistent with the facility situation and therefore is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes in inspection and surveillance requirements. The staff has determined that this amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released off site, and there is no significant increase in individual or cumulative occupational radiation exposure. The amendment also involves changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, on the basis of the considerations discussed above, that (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously evaluated, or create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed activities, and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

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Date: May 19, 1998