



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

NOV 6 1968

Docket No. 50-201

Change No. 8
License No. CSF-1

Nuclear Fuel Services, Inc.
Suite 906
Wheaton Plaza Building
Wheaton, Maryland 20902

Attention: Dr. E. D. North, Director
Technical Administration

AND

New York State Atomic and Space
Development Authority
230 Park Avenue
New York, New York 10017

Attention: Mr. Oliver Townsend
Chairman

Gentlemen:

This refers to:

- (1) Nuclear Fuel Services' letter dated December 20, 1967, supplemented September 27, 1968, which requested approval to use newly installed waste tanks and authorization to process Category III fuel.
- (2) Nuclear Fuel Services' submissions dated May 10, 1965, May 24, 1965, July 2, 1965, January 3, 1968, and October 17, 1968, supporting proposed changes in Technical Specifications 4.4, 4.5, and 6.10 that relate to the use of neutron absorbers in fuel dissolution and feed adjustment vessels;

- (3) The Commission's TWX dated September 13, 1968, as modified by TWX dated September 17, 1968, authorizing resumption of processing operations under interim Technical Specifications 4.14.1, 4.14.2, 4.14.3, 6.10.1, 6.10.2, 6.10.3, and 6.10.4, which is designated as Change No. 7 to Provisional License CSF-1. These specified limits to the operation of exhaust ventilation system filters and surveillance of their operation. Information submitted by NFS' letter dated October 3, 1968, provided bases for replacing these interim Technical Specifications with a new 4.14 and the revisions to Technical Specifications 5.5 and 6.5 included in NFS' submission dated October 17, 1968;
- (4) Nuclear Fuel Services' request dated October 17, 1968 supplemented by TWX received October 26, 1968, for Change No. 8 to Provisional License CSF-1 involving Technical Specifications 2.0, 3.0, 4.4, 4.5, 4.8, 4.14, 4.15, 5.3, 5.4, 6.3, 6.5, 6.8, 6.9, and 6.10 in connection with the foregoing and authorization of facility modifications concerned with load-out, storage, and return for rework of highly enriched uranium product such as will be obtained from processing Category 3 fuel.

These revisions have been designated as Proposed Change No. 8, and have been considered pursuant to the provisions of Section 50.59 of 10 CFR 50.

Acid Waste Tanks

We have reviewed the installation of newly installed waste storage tanks 8D-3 and 8D-4, and have determined that with the incorporation in Provisional License CSF-1 of the Technical Specifications 5.4.1, 5.4.2, 5.4.3, 6.3.1, and 6.9.1 authorized herewith, the use of this installation to store wastes from Category 3 fuel does not present significant hazards considerations not described or implicit in the NFS "Final Safety Analysis Report" and that there is reasonable assurance that the health and safety of the public will not be endangered by this use. Accordingly, the processing of Category 3 fuel is authorized. Specifications 2.1 and 2.2 of Provisional License CSF-1 are replaced by new Technical Specifications 3.1.1, 3.1.2, and 3.1.3.

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Use of Neutron Absorbers in Dissolution

We have reviewed the proposed use of neutron absorbers in the dissolution and feed adjustment steps of the process and have determined that with the replacement of Technical Specifications 4.4.1 and 4.5.1 in Provisional License CSF-1 with 4.4.1, 4.4.2, 4.4.3, 4.5.1 and 4.5.2, and the addition of 6.10.1 and 6.10.2 authorized herewith, the use of fixed neutron absorbers in the dissolver and the use of soluble neutron absorbers in the dissolution and feed adjustment stages of the process does not present significant hazards considerations not described or implicit in the NFS "Final Safety Analysis Report" and that there is reasonable assurance that the health and safety of the public will not be endangered by this use.

Ventilation Systems

We have reviewed the reports of exhaust ventilation filter failures at the West Valley facility and the "Safety Analysis of the Final Filter Systems" prepared by NFS, and have determined that the continued use of the filtered ventilation exhaust systems, with the limits and control measures provided by incorporating revisions of Technical Specifications 4.14.1, 5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.3.5, 6.5.1, 6.5.2, 6.5.3, and 6.5.4 authorized herewith, will provide reasonable assurance that the health and safety of the public will not be endangered, and does not present significant hazards considerations not described or implicit in the NFS "Final Safety Analysis Report." These supersede the interim technical specification authorized September 17, 1968, which are hereby terminated, setting aside the Change to Provisional License CSF-1 designated above as No. 7.

Product Load-out, Storage and Rework

We have reviewed the changes proposed by NFS for the load-out, storage, and return for rework of highly enriched uranium product. As we informed you, insufficient information was provided to support the proposed use of 5.1-inch diameter storage containers encased in concrete. The shipping approval you referenced to support your proposed product storage array of 60 birdcages, limited the concentration of product solution to 350 grams per liter U-235 or to 250 grams per liter for mixtures of U-235 and U-233.

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Since the product of the impending campaign is limited to 225 grams per liter concentration, we have for expedience revised Technical Specifications 4.8.1.3 and 4.8.1.4, which limit the concentrations in the fixed neutron absorber storage tanks, in the birdcages, and in the storage arrays, to the concentration limits authorized in the shipping approval you referenced. This is without prejudice to further revision when supported by an adequate nuclear safety evaluation.

We called to your attention the possibility that requirements for safeguarding special nuclear material product, which are being developed, may be difficult to meet in the Fuel Receiving and Storage Area. Accordingly, we have revised the technical specification authorizing birdcage storage in that area to indicate the interim character of this authorization.

We have determined that the changes to the facility pertaining to product load-out, storage, and rework of enriched uranium do not present significant hazards considerations not described or implicit in the NFS "Final Safety Analysis Report" and that there is reasonable assurance that the health and safety of the public will not be endangered. Operation of the facility with the changes described above is hereby authorized with the revision of Technical Specification 4.8.1 of Provisional License CSF-1 authorized herewith.

A copy of the Safety Evaluation by the Division of Materials Licensing related to the foregoing provisions of Proposed Change No. 8 to Technical Specifications is enclosed.

Editorial Revisions

The following revisions in arrangement and style of some technical specifications are included in Change No. 8. These do not involve significant safety considerations.

- (1) The sequence of the "Authorized Materials" and "Definitions" specifications are reversed, to locate the definitions prior to the matters they define in the other technical specifications. The "Authorized Materials" specification has been changed to a standard format, eliminating fuel description details irrelevant to safety.

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- (2) The specification governing process evaporator steam pressure has been reclassified from Surveillance Requirements (6.9.1) to Safety Limits (4.15.1).
- (3) The Specification 6.8.1 "Blanking-off and Locking-out" has been reworded to more accurately define the conditions subject to inspection.

Pursuant to Section 50.59 of 10 CFR Part 50, the described changes to Technical Specifications of Provisional Operating License CSF-1, Numbers 2.0, 3.1, 3.2, 3.3, 4.4, 4.5, 4.8, 4.14, 4.15, 5.3, 5.4, 6.3, 6.5, 6.8, 6.9, and 6.10 (as set forth on enclosed pages 3, 4, 5, 6, 7, 8, 20, 21, 22, 23, 24, 25, 30, 31, 32, 42a, 42b, 52, 53, 54, 55, 60, 63, 63a, 66, 67, 68, 68a, and 68b) are authorized, and all technical specifications so designated previously are rescinded.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
J. A. McBride

J. A. McBride, Director
Division of Materials Licensing

Enclosures:

1. Change 8 Revision, pages 3, 4, 5, 6, 7, 8, 20, 21, 22, 23, 24, 25, 30, 31, 32, 42a, 42b, 52, 53, 54, 55, 60, 63, 63a, 66, 67, 68, 68a, and 68b
2. Safety Evaluation

cc w/encls:

Mr. B. G. Bechhoefer
Mr. O. M. Ruebhausen
Mr. W. G. Urbon