[redacted]

June 22, 2005

Ms. B. Marie Moore, Vice President
Safety and Regulatory
Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NUCLEAR FUEL SERVICES, INC., ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT CONCERNING REQUEST TO INCREASE POSSESSION LIMIT (TAC L31887)

Dear Ms. Moore:

We have performed an environmental assessment of your request to increase the U-235 possession limit in Materials License SNM-124, dated April 22, 2005 (NFS no. 21G-05-0082) and supplemented on May 23, 2005 (NFS no. 21G-05-0106). Our assessment and finding of no significant impact is enclosed.

If you have any questions concerning this letter, please contact Kevin Ramsey at (301) 415-7887 or e-mail to kmr@nrc.gov.

[redacted]

[redacted]

[redacted]

[redacted]

Sincerely,

/RA/

Gary S. Janosko, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-143
License No.: SNM-124

Enclosure: EA and FONSI

[redacted]

[redacted]

[redacted]).

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Docket No.: 70-143
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Enclosure: EA and FONSI

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NUCLEAR REGULATORY COMMISSION

DOCKET NO. 70-143

NUCLEAR FUEL SERVICES, INC.,
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT RELATED TO
PROPOSED LICENSE AMENDMENT AUTHORIZING
INCREASED POSSESSION LIMIT

AGENCY: Nuclear Regulatory Commission

ACTION: Environmental assessment and finding of no significant impact

FOR FURTHER INFORMATION CONTACT: Kevin M. Ramsey, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Mail Stop T-8F42, Washington, D.C. 20555-0001, telephone (301) 415-7887 and e-mail kmr@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction:

The Nuclear Regulatory Commission (NRC) staff is considering the issuance of a license amendment to Materials License SNM-124, issued to Nuclear Fuel Services, Inc. (the licensee), to authorize an increase in the possession limit from [redacted] to [redacted] The NRC has prepared an Environmental Assessment (EA) in support of this action. Based upon the EA, the NRC has concluded that a Finding of No Significant Impact (FONSI) is appropriate and, therefore, an Environmental Impact Statement (EIS) will not be prepared.

II. Environmental Assessment:

Background

The Nuclear Fuel Services (NFS) facility in Erwin, Tennessee is authorized under License SNM-124 to manufacture high-enriched nuclear reactor fuel. In addition, NFS is authorized to blend HEU with natural uranium and manufacture low-enriched nuclear reactor fuel. License SNM-124 limits the amount of high-enriched uranium NFS may possess for these operations to [redacted] On April 22, 2005, NFS requested a license amendment to increase its possession limit to [redacted] of high-enriched uranium. On May 23, 2005, NFS provided additional information to support the request.

Enclosure

[redacted]

[redacted]

Review Scope

The purpose of this EA is to assess the environmental impacts of the proposed license amendment. It does not approve the request. This EA is limited to the proposed possession limit increase and any cumulative impacts on existing plant operations. The existing conditions and operations for the Erwin facility were evaluated by the NRC for environmental impacts in a 1999 EA related to the renewal of the NFS license (Ref. 1) and a 2002 EA related to the first amendment for the Blended Low-Enriched Uranium (BLEU) Project (Ref. 2). The 2002 EA assessed the impact of the entire BLEU Project using information available at that time. A 2003 EA (Ref. 3) and a 2004 EA (Ref. 4) related to additional BLEU Project amendments confirmed the FONSI issued in 2002. This assessment presents information and analysis for determining that issuance of a FONSI is appropriate and that an EIS will not be prepared.

Proposed Action

The proposed action is to amend NRC Materials License SNM-124 to authorize an increase in the possession limit for uranium enriched up to [redacted]. The increase would raise the limit from [redacted] to [redacted] The proposed action is limited to possession and [redacted] only. No changes to processing operations are requested, and no construction of new facilities are requested.

Need for Proposed Action

The proposed action is being requested because a larger inventory of [redacted] is needed to support NFS operations. Two factors are driving this need. One factor is a request from the [redacted] for NFS to establish [redacted] that would allow continuous operations for six to twelve months of processes that support [redacted] programs. This would allow NFS to continue operating [redacted]. Another factor is the lower-than-planned processing rate at the Blended Low-Enriched Uranium Preparation Facility (BPF). BPF operations support a program with Framatome ANP that is separate from [redacted] programs. NFS had intended to begin operations in the BPF in early 2004. However, difficulties with equipment and operations have caused delays and low processing rates [redacted].

Alternatives

The alternatives available to NRC are:
1. Approve the license amendment as described; or
2. No action (i.e., deny the request).

Affected Environment

The affected environment for the proposed action and the alternative is the NFS site. The affected environment is identical to the affected environment assessed in the 2002 EA related to the first amendment for the BLEU Project (Ref. 2). A full description of the site and its

[redacted]

[redacted]

characteristics is given in the 2002 EA. Additional information can be found in the 1999 EA related to the renewal of the NFS license (Ref. 1). [redacted]

Effluent Releases and Monitoring

A full description of the effluent monitoring program at the site is provided in a 2002 EA related to the first amendment for the BLEU Project (Ref. 2). Additional information is available in the 1999 EA related to the renewal of the NFS license (Ref. 1). The NFS Erwin Plant conducts effluent and environmental monitoring programs to evaluate potential public health impacts and comply with the NRC effluent and environmental monitoring requirements. The effluent program monitors the airborne, liquid, and solid waste streams produced during operation of the NFS Plant. The environmental program monitors the air, surface water, sediment, soil, groundwater, and vegetation in and around the NFS Plant.

Airborne, liquid, and solid effluent streams that contain radioactive material are generated at the NFS Plant and monitored to ensure compliance with NRC regulations in 10 CFR Part 20. Each effluent is monitored at or just before the point of release. The results of effluent monitoring are reported on a semi-annual basis to the NRC in accordance with 10 CFR 70.59.

Airborne and liquid effluents are also monitored for nonradiological constituents in accordance with State discharge permits. For the purpose of this EA, the State of Tennessee is expected to set limits on effluents under its regulatory control that are protective of health and safety and the local environment.

Impacts of Proposed Action

1. Normal Operations

The proposed action is limited to increasing the authorized amount of [redacted]. No construction of new facilities is proposed and no changes to processing operations have been requested. Based on the information provided by NFS, the safety controls to be employed for the proposed action appear to be sufficient to ensure that planned operations will have no significant impact on the environment.

[redacted]

[redacted]

Radiological Impacts: The proposed action involves no changes processing operations. No increase is expected in effluent air emissions discharged through stacks at the site. In addition, no increase is expected in liquid effluents discharged to the sanitary sewer. Therefore, the proposed action will have no impact on the total annual dose estimate for the maximally exposed individual from all planned effluents. The dose to workers may increase slightly because more radioactive material will be stored at the site. However, occupational dose is monitored and controlled in accordance with applicable NRC regulations; therefore, no adverse impacts are expected. Surface water quality at the NFS site is currently protected by enforcing release limits and monitoring programs. No change in surface water impacts is expected. The proposed action will not discharge any effluents to the groundwater; therefore, no adverse impacts to groundwater are expected.

The proposed action involves transportation of radioactive feed material to the NFS site which will lead to transportation of radioactive products and waste material from the NFS site. All transportation will be conducted in accordance with the applicable NRC and U.S. Department of Transportation regulations; therefore, no adverse impacts from transportation activities are expected.

Land Use: The proposed action involves [redacted] of radioactive material in existing facilities. No new facilities will be constructed; therefore, no adverse impact to land use is expected.

Cultural Resources: The proposed action involves [redacted] of radioactive material in existing facilities. The NRC staff considers this a type of activity that does not have the potential to affect historic properties. No adverse impact to cultural resources is expected.

Biotic Resources: The proposed action will not change current land use or effluents at the site. Therefore, the NRC finds the proposed action will not affect any Federally endangered or threatened species.

2. Potential Accidents

The proposed action will not result in any new or modified accident sequences. The Integrated Safety Analysis performed by NFS already considers all authorized [redacted]. The NRC finds that the safety controls to be employed in the proposed action appear sufficient to ensure planned activities will be safe.

3. Cumulative Impacts

NRC has considered the impacts of the proposed action together with the known impacts of the existing facility. After reviewing the information provided, the NRC concludes that the cumulative impacts represent an insignificant change to the existing conditions in the area surrounding the NFS site.

[redacted]

[redacted]

Impacts of No Action Alternative

Under the no action alternative, NFS would not be able to increase its inventory of [redacted] to support current operations. This would require NFS to stop receiving [redacted] shipments until enough material has been processed and removed from the site to allow another shipment to be received. Failure to fulfill its role in the [redacted] programs could cause these customers to select other alternatives that may be less cost effective and incur greater environmental impacts. If NFS is unable to fulfill its [redacted] obligations, customers may transfer work to other facilities.

Conclusion

Based on its review, the NRC has concluded that the environmental impacts associated with the proposed action are not significant and, therefore, do not warrant denial of the proposed license amendment. The NRC has determined that the proposed action, approval of the license amendment as described, is the appropriate alternative for selection. Based on an evaluation of the environmental impacts of the proposed license amendment, the NRC has determined that the proper action is to issue a FONSI.

Agencies and Persons Contacted

On May 20, 2005, the NRC staff contacted the Deputy Director of the Division of Radiological Health in the Tennessee Department of Environment and Conservation (TDEC) concerning this EA. On June 7, 2005, the Deputy Director responded that TDEC had reviewed the draft EA and had no comments (Ref. 7).

The NRC staff has determined that the proposed action will not affect listed species or critical habitat. Therefore, no consultation is required under Section 7 of the Endangered Species Act. Likewise, the NRC staff has determined that the proposed action is not the type of activity that has the potential to cause effects on historic properties. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

References

1. U.S. Nuclear Regulatory Commission, "Environmental Assessment for Renewal of Special Nuclear Material License No. SNM-124," January 1999, ADAMS No. ML031150418.

2. U.S. Nuclear Regulatory Commission, "Environmental Assessment for Proposed License Amendments to Special Nuclear Material License No. SNM-124 Regarding Downblending and Oxide Conversion of [redacted]," June 2002, ADAMS No. ML021790068.

[redacted]

[redacted]

3. U.S. Nuclear Regulatory Commission, "Environmental Assessment and Finding of No Significant Impact for the BLEU Preparation Facility," September 2003, ADAMS No. ML032390428.

4. U.S. Nuclear Regulatory Commission, "Environmental Assessment and Finding of No Significant Impact for the Oxide Conversion Building and the Effluent Processing Building at the [redacted]," June 2004, ADAMS No. ML041470176.

5. Nuclear Fuel Services, "Amendment Request to Increase [redacted] for the NFS Site," April 22, 2005, ADAMS no. ML051170273.

6. Nuclear Fuel Services, "Additional Information to Support Increasing [redacted] for the NFS Site," May 23, 2005, ADAMS no. ML051540113.

7. D. Shults, Tennessee Division of Radiological Health, e-mail to K. Ramsey, U.S. Nuclear Regulatory Commission, "State Consultation re: Environmental Assessment for NFS Possession Limit Increase," June 7, 2005, ADAMS no. ML051600523.

III. Finding of No Significant Impact:

Pursuant to 10 CFR Part 51, the NRC staff has considered the environmental consequences of amending NRC Materials License SNM-124 to increase the possession limit. On the basis of this assessment, the Commission has concluded that environmental impacts associated with the proposed action would not be significant and the Commission is making a finding of no significant impact. Accordingly, the preparation of an EIS is not warranted.

[redacted]