

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 70-3103; NRC-2010-0264]

**Special Nuclear Material License Amendment from Louisiana Energy Services, LLC,
for the National Enrichment Facility, Hobbs, New Mexico**

AGENCY: Nuclear Regulatory Commission.

ACTION: Publication of environmental assessment and finding of no significant impact.

FOR FURTHER INFORMATION CONTACT: Mary T. Adams, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555; telephone: 301-492-3113; e-mail: Mary.Adams@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC or the Commission) is considering a request to amend special nuclear material license SNM-2010, held by Louisiana Energy Services, LLC, (LES), under which LES operates a uranium enrichment facility in Eunice, New Mexico. On May 6, 2011, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 70.34, LES requested an amendment to SNM-2010 that would extend the license expiration date to recapture the 48 months that elapsed from the 2006 license issuance date to when authorization to introduce uranium hexafluoride (UF₆) into Cascade 1 was granted

on June 10, 2010 (ML11131A048). During this 48-month period, construction, preoperational testing, and an operational readiness review were ongoing. The proposed action would extend the expiration date of SNM-2010 from June 22, 2036, to June 9, 2040. In response to agency questions about the changed operational schedule, LES provided a clarification of the license amendment request, dated November 23, 2011 (ML11329A080).

II. Background

On June 23, 2006, the NRC issued SNM-2010 to LES authorizing the construction and operation of the National Enrichment Facility (NEF) in New Mexico. License Condition 13 of SNM-2010 states that the license will expire 30 years after the date of license issuance. In June 2005, to support the issuance of SNM-2010, the NRC issued a final environmental impact statement (EIS) for the NEF (NUREG-1790) (ML051730238 and ML051730292) in accordance with 10 CFR Part 51 (Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions), which implements the National Environmental Policy Act. The EIS concluded that operation of the NEF for 30 years will generally have small to moderate effects on the public and the environment.

III. Environmental Assessment

In support of the proposed action, the NRC has prepared an environmental assessment (EA), set forth below. Based on the EA, the NRC has concluded that a Finding of No Significant Impact is appropriate regarding the proposed action.

Description of the proposed action

The proposed action is to revise the expiration date of SNM-2010 from June 22, 2036, to June 9, 2040. Table 2-1 of the 2005 EIS (NUREG-1790) set forth an operation schedule for the NEF as follows:

| Task | Start Date |
|---|-------------------|
| Submit license application to NRC | 12/2003 |
| Begin construction of facility | 8/2006 |
| Begin operation of first cascade | 10/2008 |
| Achieve full production output | 10/2013 |
| Operate at full capacity | 10/2013-10/2027 |
| Submit decommissioning plan to NRC | 4/2025 |
| Complete construction of decontamination and decommissioning facility | 4/2027 |
| Cease all operation of cascades | 4/2033 |
| Complete decommissioning of facility | 4/2036 |

In the license amendment request, LES provided an updated schedule of major steps associated with the proposed action, shown on the following table:

| <u>Milestone</u> | <u>Estimated Date</u> <u>(Actual Date)</u> |
|--|---|
| <u>Submit Facility License Application</u> | <u>December 2003</u> <i><u>(December 12, 2003)</u></i> |
| <u>Initiate Facility Construction</u> | <u>August 2006</u> <i><u>(August 2006)</u></i> |
| <u>Start First Cascade</u> | <u>October 2008</u> <i><u>(June 10, 2010)</u></i> |
| <u>Achieve Full Nominal Production Output</u> | <u>May 2014</u> |
| <u>Submit License Termination Plan to NRC</u> | <u>April 2029</u> |
| <u>Complete Construction of D&D Facility</u> | <u>April 2031</u> |
| <u>D&D Completed</u> | <u>April 2040</u> |

Need for the proposed action

In the license amendment request, LES noted that because 48 months of the original license had elapsed before the facility actually began its operations, the facility's operational period would be shorter than the 30 years authorized by the license. LES needs the proposed license expiration date extension to operate the facility for 30 years.

Environmental impacts of the proposed action

The 2005 EIS (NUREG-1790) determined that the environmental impacts of the license issuance that would authorize operation for 30 years were small to moderate. These findings were summarized in Table 2-9 of the EIS. The license extension would shift the operating period by four years (i.e., changing it from 2006-2036 to 2010-2040). Because the facility will still operate for 30 years as originally envisioned in the EIS, environmental impacts relating to the construction of the facility or its duration of operations will not be significantly different from those documented in the EIS. An assessment of each of the environmental impacts examined in Chapter 4 of the EIS is discussed below:

Land use impacts are described in EIS Section 4.2.1. Because the footprint of the LES facility and the duration of its operations will be unchanged by the license extension, there is no impact on land use beyond those previously evaluated in the EIS.

Historical and cultural resource impacts are described in EIS Section 4.2.2. Based on the successful completion of the identification of historic and archaeological sites, National Register of Historic Places evaluations, and effective treatment of potential adverse effects to historic properties, along with the existence of written procedures to provide immediate notification in the event of inadvertent discovery of cultural resources, the potential impacts on historical and cultural resources at the proposed NEF site were expected to be small. No additional impacts will occur due to the license extension because LES will continue to follow the written procedures in the event of an inadvertent discovery of cultural resources.

Visual and scenic resource impacts are described in EIS Section 4.2.3. A delay in decommissioning the LES facility allowed by the license extension would extend the visual impact by 4 years; however, the visual impact of the construction and operation of the facility was initially determined to be small, and will not be significantly changed by the brief license extension.

Air quality impacts are described in EIS Section 4.2.4. A change in the years of enrichment operations will not change the facility's impact on air quality. Air quality impacts are evaluated on an annual basis, and the license extension will only shift the years in which the effluents are released to a later period, but will not change the amount of annual effluents.

Impacts on geology and soils are described in EIS Section 4.2.5. Most impacts on geology and soils occurred during construction, and were determined to be small. Regarding impacts from operations, accumulation of uranium and fluoride in the Treated Effluent Evaporative Basin was evaluated over an operating period of 30 years (EIS Section 4.2.12.2), and since the license amendment will not increase the operating period above 30 years, this accumulation will not change as a result of the license extension.

Impacts on water resources are described in EIS Section 4.2.6. LES will obtain its water from the Eunice and Hobbs city water supplies. Eunice and Hobbs obtain the water from the Ogallala aquifer. LES estimates a peak use of 23.1 million gallons per year, approximately 695 million gallons over the 30-year life of the facility. The EIS adequately evaluated the water use impacts of 30 years of plant operations, and the brief proposed license extension only changes which years the plant will operate, but not the duration of plant operations.

Impacts on ecological resources during operations are described in EIS Section 4.2.7, and were determined to be small because no additional lands will be disturbed beyond those utilized during construction and LES will implement wildlife management practices. The license extension will not change the impact on ecological resources because LES will continue to implement its wildlife management practices during the period of the license extension.

Socioeconomic impacts during plant operation are described in EIS Section 4.2.8. The plant payroll during operations is projected to be approximately \$10.9 million in 2004 dollars per year of operation. Therefore, extension of the license operating term will extend this moderate annual impact on local employment for four more years.

Environmental justice impacts are described in EIS Section 4.2.9. It was determined that there were no disproportionately high and adverse impacts to minority or low-income populations from either construction or normal operations, rather, all impacts were small. Shifting the period of operations by four years will not change the impact on these populations.

Noise impacts are described in EIS Section 4.2.10. They were determined to be small for construction and operations because the nearest resident is approximately 2.6 miles from the facility. The proposed license extension will not significantly change noise impacts because the plant will still operate for 30 years as envisioned in the EIS.

Transportation impacts are described in EIS Section 4.2.11. Impacts during post-construction normal operations were found to be small. The likelihood of transportation accidents with chemical or radiological consequences were evaluated on an annual basis and the impacts were found to be small to moderate. Shifting the plant's period of operation by four years will not change the annual likelihood or the consequences of transportation accidents.

Public and occupational health impacts are described in EIS Section 4.2.12. The radiological and non-radiological impacts of normal operations were evaluated on an annual basis, found to be small, and during the brief license extension, annual exposure to both workers and the public will remain the same as previously evaluated in the EIS.

EIS Section 4.2.13 describes public and occupational impacts from accidents during operations. These impacts were determined to be small to moderate, and will not significantly change during the period of license extension. The impacts of industrial accidents, including rupture of an overfilled and/or overheated cylinder, were determined to be small to moderate.

The likelihood of accidents is significantly reduced by specified design features and will not significantly change during the period of the license extension.

EIS Section 4.2.14 describes waste management impacts. The impacts of solid wastes on local land disposal capacity were evaluated on an annual basis, were determined to be small, and will not be increased by the license extension because the previously evaluated annual volume of solid wastes is a small fraction of the Lea County landfill capacity and will not change. The impacts of DUF₆ waste management were determined to be small to moderate, and will not be changed by the license extension because the plant will not generate any more DUF₆ than was originally evaluated in the EIS.

The EIS considered cumulative impacts in Section 4.4. The license extension would not increase any cumulative environmental impacts because the EIS previously evaluated cumulative impacts for a full 30 years of facility operations.

Environmental Impacts of Alternatives to the Proposed Action

An alternative to the proposed action is for the NRC to deny the request for the license extension. If this “no-action” alternative were adopted, LES would need to cease operations after 26 years in accordance with the original license expiration date (i.e., in 2036). Although the environmental impacts that would be caused by 26 years of operation would be slightly less than those that would be caused by the full 30 years of operation previously evaluated in the EIS, the difference is not significant. Therefore, denial of the amendment request would result in no significant change in the environmental impacts previously evaluated in the EIS.

Alternative Use of Resources

The proposed action does not involve the use of any different resources than those considered in the EIS for NEF (NUREG-1790).

List of agencies and persons consulted and identification of sources used

The NRC staff consulted the New Mexico Environment Department (NMED) in December 2011 for their review and comment on the draft EA/FONSI. In an email response dated December 28, 2011 (ML120370017), the NMED indicated that it had no comments on the EA and supported approval of the license amendment.

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The NRC staff has determined that consultation with the U.S. Fish and Wildlife Service for compliance with Section 7 of the Endangered Species Act is not necessary because the proposed action does not have the potential to affect listed species or critical habitat.

The NRC staff has determined that the proposed extension of the license expiration date is not a type of activity that has potential to cause effects on historic properties because it will not authorize any additional activities that were not previously evaluated in the final EIS for NEF (NUREG-1790) in Section 4.2.2, and because, as noted above, LES will continue to follow the written procedures in the event of an inadvertent discovery of cultural resources. Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

FINDING OF NO SIGNIFICANT IMPACT

The NRC reviewed LES's license amendment request to revise license condition 13 to extend the expiration date from 2036 to 2040, and found no significant environmental impacts from the shift in enrichment operation dates. On the basis of this EA, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an EIS for the proposed action.

IV. Further Information

Documents related to this action, including the application for license amendment and supporting documentation are available online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The ADAMS accession numbers for the documents related to this Notice are:

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| ML11131A048 | License Amendment Request to Revise License Condition 13 (LAR 10-13), May 6, 2011 |
| ML11329A080 | Clarification of License Amendment Request 10-13, November 23, 2011 |
| ML051730238 | 2005/06/30-NUREG-1790, Vol. 1, "Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico, Chapters 1 through 10 and Appendices A through G. Final Report." |
| ML051730292 | 2005/06/30-NUREG-1790, Vol. 2, "Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico, Appendices H through J. Final Report." |

