

Dear Mr. Barr:

I am responding to your messages sent on April 27th and 29th to the U.S. Nuclear Regulatory Commission (NRC) staff regarding the Louisiana Energy Services (LES) proposed National Enrichment Facility (NEF) near Eunice, NM. Attached are your questions as well as the NRC staff's responses.

The NRC staff is currently reviewing the LES application. As noted in the Environmental Scoping Summary Transmittal Letter and Report provided to you on April 27th, the next step in the environmental review process is the issuance of a draft Environmental Impact Statement (EIS). The draft EIS will assess the potential impacts on groundwater quality and water use due to the implementation of the proposed action. The draft EIS will also address concerns about the depleted uranium hexafluoride material, or tails, resulting from the enrichment operation over the lifetime of the proposed plant's operation. These concerns include the safe and secure storage and ultimate removal of this material from New Mexico, and potential conversion of UF₆ to U₃O₈ and ultimate disposition.

Availability of the draft EIS, the dates of the public comment period, and information about the public meeting will be announced in the Federal Register, on NRC's LES website (<http://www.nrc.gov/materials/fuel-cycle-fac/lesfacility.html> <<http://www.nrc.gov/materials/fuel-cycle-fac/lesfacility.html>>) and in the local news media when the draft EIS is distributed. After the issuance of the draft EIS, a public meeting will be scheduled in Eunice, NM. After evaluating comments on the draft EIS, the NRC staff will issue a final EIS that will serve as the basis for the NRC's consideration of environmental impacts in its decision on the proposed NEF.

We are in the process of updating the frequently asked questions on the NRC's LES website and, in the future, we plan to post relevant questions from the public and the NRC staff's responses to those questions on that website so that everyone can benefit from the dialogue. Thus, we recommend that you visit that website periodically to obtain the NRC staff's responses to questions from you or other members of the public.

I trust that this information fully responds to your questions. If you have any additional questions, please feel free to contact us at LES_EIS@nrc.gov.

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Question 1: Uranium-235 has a half life of over 700 million years correct? (This material would be in the waste LES produces).

Response: During the enrichment process, uranium isotopes are separated to increase the concentration of one isotope relative to another. The enriched fraction has increased U-235. The process produces waste products or tailings that are depleted in U-235, but are almost pure U-238, called depleted uranium. The table below shows the percentage of natural abundance of each natural uranium isotope, and their respective half-lives.

Isotope	U-238	U-235	U-234
Natural Abundance (%)	99.27	0.72	0.0055
Half-life (years)	4.47 billion	700 million	246,000

Source: <http://www.epa.gov/radiation/radionuclides/uranium.htm>

Question 2: LES official told me they had no plans to deal with any water shortages in this area. Is this true?

The LES Environmental Report, in Sections 3.4.7 and 4.4.5, contains information on the projected water usage at the proposed facility. Please note that the NRC environmental review team is currently evaluating this data and will discuss its findings in the forthcoming draft EIS. The draft EIS will assess the potential impacts on groundwater quality and water use due to the implementation of the proposed action.

Furthermore, as you know, issues relating to water use have been raised in the NRC proceeding. Additionally, information regarding this issue was also provided to you in an email from Ms. April Wade of LES, dated October 22, 2003.

Question 3: I understand 14 boreholes were drilled at the LES plant site and 3 wells completed. But only 5 logs were turned over to the NRC, I understand also some of the holes were filled in the same day they were drilled. Some mention in the records that LES managed to turn in mentioned moist dirt. Where are the missing logs?

Response: The LES Environmental Report in Section 3.3 provides information on recent borings initiated by LES on the proposed NEF site in September 2003. Section 3.4.1.1.1 of the Environmental Report discusses the site groundwater investigation initiated at the NEF site. Please note that the NRC environmental review team is currently evaluating this data and will discuss its findings in the in the forthcoming draft EIS. The draft EIS will assess the potential impacts on groundwater quality and water use due to the implementation of the proposed action. To the extent the NRC staff determines that additional information is necessary to support the NRC staff's preparation of this Draft EIS, the NRC staff will request such information from LES.

Question 4: Why were the drill holes filled in the same day? They should have been left open to see if any water collected at the bottom.

Response: The LES Environmental Report in Section 3.4.1.1.1 discusses the proposed NEF site investigation initiated in September 2003. You may wish to contact LES, directly, for a response to this question.

Question 5: Is that freshwater under the site? I have been told by one official here in Hobbs that there is no water under the plant site. LES says now the water is not potable ranchers use it to water livestock.

Response: The LES Environmental Report in Section 3.4 provides information describing the proposed NEF site's surface water and groundwater resources. [Table 3.4-3](#) presents a summary of results from analyses of a groundwater sample from NEF monitoring well MW-2 and regulatory limits of the New Mexico Water Quality Control Commission and the EPA Safe Drinking Water Act. Please note that the NRC environmental review team is currently evaluating this data and will discuss its findings in the in the forthcoming draft EIS. The draft EIS will assess the potential impacts on groundwater quality and water use due to the implementation of the proposed action.

Question 6: Didn't the state of Tenn have to threaten a lawsuit to get the DOE to agree to move the waste by 2009?

Response: The NRC does not have jurisdiction over U.S. Department of Energy (DOE) so I am not in a position to respond to this question. Information regarding a consent order entered into between DOE and Tennessee Department of Environment and Conservation (TDEC) is included in the DOE/EIS-0359, "Draft Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, Kentucky, Site (December 2003)."

Question 7: Where will the waste go that the LES plant would produce here? The DOE and Domenici will not say where the waste will go.

Response: [On December 6, 2003 and January 9, 2004 you submitted similar questions and comments to Mr. Tim Johnson, NRC Project Manager for the review of the LES license application, (i.e., "Where would the nuclear waste from that plant [proposed NEF] be moved to and when would it be moved?" LES "promised the Governor no waste materials will be stored in the State of New Mexico.")]

I have nothing to add to Mr. Johnson's response dated January 15, 2004, in which he explained:

"NRC will consider the commitments made by LES to the Governor of New Mexico. These commitments are in a letter from James Ferland to Governor Richardson, dated August 6, 2003. In the letter, Mr. Ferland made a commitment "that there will be no disposal or long-term storage (beyond the life of the plant) of UBCs [uranium byproduct cylinders] in the State of New Mexico." In the LES application of December 12, 2003, LES proposed a life-of-plant of 30 years and a storage of UBCs for no longer than 30 years. NRC staff will review the application as proposed to ensure that the storage plan will be sufficient to protect public and worker health and safety.

In the LES application, LES proposed two tracks for disposition of its depleted uranium tails. One track is to use the requirements in the US Enrichment Corporation Privatization Act, Section 3113, that requires the Department of Energy (DOE) to accept depleted uranium tails from a uranium enrichment facility licensed by the NRC. LES would need to pay DOE at their costs for this service.

LES also proposed a second track to use a commercial disposition path. This path would involve developing a commercial depleted uranium conversion plant and using commercial disposal means for the converted product. LES thought that an old uranium mine in Colorado might be a potential disposal site. NRC staff recognizes that the commercial track would require new licensing for the facilities proposed by LES."