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**Date:** Fri, Nov 5, 2004 2:55 PM  
**Subject:** U.S. Department of the Interior Comments, Draft EIS for the Proposed National Enrichment Facility in Lea County, NM [Virus checked]

9/17/04  
69FR56104

Please find attached the U.S. Department of the Interior comments on the proposed project. Please confirm receipt of this comment letter by replying to this e-mail. Please feel free to contact me if there is a need for further information.



(See attached file: ER04685 UraniumEnrichment.pdf)

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**Creation Date:** Fri, Nov 5, 2004 2:52 PM  
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# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
P.O. Box 26567 (MC-9)  
Albuquerque, New Mexico 87125-6567



November 5, 2004

9043.1  
ER 04/685

Chief, Rules Review and Directives Branch  
U. S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555-0001

Dear Sir/Madam:

The U.S. Department of the Interior has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed National Enrichment Facility (NEF) to Produce Enriched Uranium, Lea County, New Mexico (Document No. NUREG-1790). In this regard, we offer the following comments.

The primary function of the NEF is to enrich natural uranium hexafluoride by separating a feed stream containing the naturally occurring proportions of uranium isotopes into a product stream enriched in  $^{235}\text{U}$  and a tails stream depleted in the  $^{235}\text{U}$  isotope. The enrichment process is a mechanical separation of isotopes using a fast rotating cylinder (centrifuge) based on a difference in centrifugal forces due to molecular weight of the uranium isotopes. To perform this process, the NEF would incorporate a number of structures on a 543-acre site, including buildings, cooling towers, storage areas, fences, and a road network. The NEF also will include one liquid effluent treatment basin and two stormwater treatment basins.

The DEIS identifies that there are no surface water features on the existing site. However, the proposed action would create three artificial water features and the management of these water bodies should be further addressed to reduce potential effects to human health and the environment. The NEF will discharge 7.6 million gallons of wastewater into two of these basins per year (DEIS, page 4-11). Approximately 0.6 million gallons will be disposed into the lined and netted Liquid Effluent Treatment Basin. Approximately 5.1 million gallons of wastewater, mainly cooling tower blow down, will be disposed into the lined Uranium Byproduct Cylinder (UBC) Storage Pad stormwater basin. An additional 46 million gallons of stormwater will be discharged to both stormwater basins, with 163 million gallons of site runoff (DEIS, page 4-12) expected to percolate downward and form a perched layer below the NEF. The UBC stormwater basin would be expected to contain trace amounts of oil and grease, any chemicals associated with the cooling tower process (e.g., salts, corrosion inhibitors, metals, disinfectants, de-scaling compounds), and any pollutants that are either wet- or dry-deposited from the atmosphere.

We are concerned that ponded wastewater may attract wildlife and pose a risk to their health and the environment. Even if waters are temporary, constructed wetlands, ponds, and lagoons can nonetheless attract amphibians, insects, crustaceans, algae, and migratory birds. The UBC stormwater basin has the potential to contain wastewater with salts and brine, trace elements, nutrients, heavy metals, organic chemicals, petroleum, solvents, pesticides, or pathogenic microorganisms that may pose a health risk to migratory birds and other wildlife. Migratory birds often do not distinguish between these wastewater lagoons and natural water bodies and can be attracted to these open lagoons to drink, rest, and perhaps feed on any algae and invertebrates found there. Migratory birds are protected under the Migratory Bird Treaty Act and it is unlawful to create conditions that kill migratory birds.

Depending on the duration and season of filling, these basins may also become thermally stratified. Under the right conditions (e.g., with excess biochemical or chemical oxygen demand) these ponds can become stagnant. Stagnant water can foster conditions where mosquitoes thrive and breed, providing the potential for exposure to West Nile Virus and other arboviruses that may be lethal to migratory birds, as well as people. Potential mitigating actions to reduce these conditions, can include, but are not limited to:

1. Stormwater and wastewater management (e.g., treatment, recycling or reuse);
2. Stormwater basin design that discourages wildlife visitation (i.e., more rectangular and narrow shapes rather than oval, playa-like shapes);
3. Wildlife exclusion technologies (e.g., netting, amphibian and reptile barriers);
4. Mosquito management programs (e.g., integrated pest management, predators); and
5. Engineering solutions to keep water moving (e.g., aerators or aerating fountains).

The NEF also includes two 115-kilowatt overhead transmission lines and 8 miles of power support structures and lines along Highway 234. Birds of prey such as eagles, hawks, and owls frequently use power lines and support structures for perching and nesting. These raptors can be electrocuted while using power lines, thus contributing to the cumulative mortality factors affecting these biologically important and environmentally sensitive birds. Standard techniques have been developed to prevent raptor electrocutions at electric distribution lines. This latest guidance is included in the publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996," by the Avian Power Line Interaction Committee. The document may be requested from Edison Electric Institute, P. O. Box 266, Waldorf, Maryland, 20604-0266, Telephone 800-334-5453; from the Raptor Research Foundation at 12805 St. Croix Trail, Hastings, Minnesota 55033, Telephone 612-437-4359; or by e-mail to [jmfitzptrk@aol.com](mailto:jmfitzptrk@aol.com). New or modified electric distribution lines should be designed and constructed to prevent the electrocution of raptors by using the above-referenced guidance. Proper design should include adequate separation of energized hardware or insulation of wires where sufficient separation cannot be attained. Closely spaced transformer jumper wires, bushing covers, protective cutouts, or surge arresters can be made safe for raptors by the use of special insulating material. The use of grounded steel cross arm braces should be avoided. These measures should be implemented on each line and pole associated with your new or converted lines, as necessary.

### Specific Comments:

The proposed project area is close in proximity to a number of National Park Service units including Carlsbad Caverns National Park in New Mexico and Guadalupe Mountains National Park in Texas, both of which are Class I air quality areas, as well as White Sands National Monument in New Mexico, which is a Class II area. Given the proximity to these parks, we encourage you to consider the following specific comments.

Page 2-11 - We commend the Nuclear Regulatory Commission (NRC) for including the impacts that construction emissions will have on air quality. We would like to point out that construction emissions will be more than dust as mentioned on Page 2-11. Emissions will vary depending on the type of construction equipment that is utilized, the controls that are instituted on the equipment and the fuel types used, as well as the length of time that construction activities occur. We would like to see these impacts accounted for in the EIS.

Page 4-66 - Examining cumulative impacts is an important facet to determine how the impacts from the facility, when combined with other operations in the same area, will contribute to the overall air quality of the region. The NRC has made an effort to examine cumulative emissions; however, it seems as if the NRC solely examined the combined impact of the various operations involved in its own facility. For a complete cumulative impact analysis, these emissions would need to be looked at in conjunction with emissions that are being emitted from other nearby facilities.


Page 5-4, 5.1 Mitigation Measure Proposed by LES (Louisiana Energy Services), Table 5-1 Summary of Potential Mitigation Measures Proposed by LES for Construction and Table 5-2 Summary of Potential Measure Proposed by LES for Operations, Ecological Resources - Both tables identify mitigation measures to enhance habitats "defined as rare or unique or that support threatened or endangered species." Although use of native plants is proposed for disturbed land restoration, no mention is made of potential incidental encroachment of non-native vegetation. We suggest that weed monitoring and control be considered in keeping with native habitat enhancement.

In summary, we suggest the final EIS and/or mitigation plan should address:

1. the potential water quality conditions in the wastewater treatment basins;
2. provisions for a mosquito management program;
3. reduction of any nuisance conditions posed to migratory birds and other wildlife;
4. prevention of the electrocution of raptors;
5. incorporation of weed monitoring;
6. emissions during construction activities; and
7. emissions in the cumulative impact analysis.

Thank you for the opportunity to review and comment on this Draft EIS.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen R. Spencer". The signature is written in a cursive style with a large initial 'S'.

Stephen R. Spencer, Ph.D.  
Regional Environmental Officer