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Subject: Comments on Draft Report for Comment, NUREG-1790, Docket Number70-3103

January 7, 2005

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By email to: nrcrep@nrc.gov

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

Re: Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico: Draft Report for Comment, NUREG-1790, Docket Number 70-3103

Dear Chief,

The undersigned organizations submit the following general and specific comments regarding the Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico: Draft Report for Comment, NUREG-1790, published September 2004, Docket Number 70-3103.

The Draft Environmental Impact Statement (DEIS) indicates that impacts from the National Enrichment Facility (NEF) will be small to moderate. Nevertheless, we know from experience at similar uranium enrichment facilities nationwide that this process can be extremely damaging, not only to surrounding communities but also to worker and public health and safety. Many of these effects cannot be estimated in the context of a DEIS. Therefore, we recommend that the Nuclear Regulatory Commission (NRC) pursue the [3]No Action Alternative[2] presented in the document.

Furthermore, it is our belief that there was a clear conflict of interest in the preparation of the DEIS and that the document should be rejected. Section 1506.5(c) of the National Environmental Policy Act (NEPA) specifies

[3]...a consulting firm preparing an EIS must execute a disclosure statement [and] does not define Œfinancial or other interest in the outcome of the project.[1] The Council interprets this term broadly to cover any known benefits other than general enhancement of professional reputation. This includes any financial benefit such as a promise of future construction or design work on the project, as well as indirect benefits the consultant is aware of (e.g., if the project would aid proposals sponsored by the firm[1]s other clients). For example, completion of a highway project may encourage construction of a shopping center or industrial park from which the consultant stands to benefit. If a consulting firm is aware that it has such an interest in the decision on the proposal, it should be disqualified from preparing the EIS, to preserve the objectivity and integrity of the NEPA process.

[3]When a consulting firm has been involved in developing initial data and plans for the project, but does not have any financial or other interest in the outcome of the decision, it need not be disqualified from preparing the EIS. However, a disclosure statement in the draft EIS should clearly state

E-RIDS = ADM-03

SISP Review Complete
Template = ADM-013

Add A. Bradford (AHB1)
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the scope and extent of the firm's prior involvement to expose any potential conflicts of interest that may exist.[2] (http://ceq.eh.doe.gov/nepa/regs/40/11-19.htm).

We believe that there was a conflict of interest in the preparation of this document as it was prepared by a private firm called Advanced Technologies and Laboratories International (ATLI). ATLI lists among its clients Westinghouse and Oak Ridge National Laboratories, at which British Nuclear Fuels Limited and Westinghouse are contractors, and others.

Westinghouse and British Nuclear Fuels Limited are members of the Louisiana Energy Services (LES) consortium, which has proposed the uranium enrichment facility for Lea County, NM. As such, ATLI would benefit from the licensure of the facility through its various associations with the organizations proposing the facility. Therefore, ATLI should not have been contracted by NRC to prepare the DEIS without a disclosure statement as required under NEPA. As no disclosure statement was released, we recommend that the DEIS be rejected and rewritten by a new organization, absent of conflict of interest issues.

Moreover, Paul Abramson, one of the associate chief administrative judges on the Atomic Safety and Licensing Board (ASLB) of the NRC, which will ultimately decide whether to license the uranium enrichment facility, is a former partner of the Winston and Strawn law firm of Washington, D.C. Winston and Strawn is now the legal representative for the LES consortium. We believe that, due to his prior associations with Winston and Strawn, Mr. Abramson should be disqualified from deciding whether to issue an operating license to LES.

As a result, we find the DEIS to be inadequate, incomplete and lacking disclosure. Therefore, we make the following specific comments on the DEIS with the caveat that we are not aware of specific examples of conflicting interests within the document, and many of our concerns may be a result of conflicting interests by ATLI.

We submit the following comments specific to the content of the DEIS and request that these issues be thoroughly addressed in the final EIS:

1.) The statement of Purpose and Need for the facility, found in the Executive Summary of the DEIS, states that [3]only about 15 and 14 percent of the enrichment services that were purchased by U.S. nuclear reactors in 2002 and 2003, respectively, were provided by enrichment plants located in the [U.S.].[2] (pg. xix).

Later, the DEIS states, [3][United States Enrichment Corporation, which operates uranium enrichment facilities in Portsmouth, Ohio and Paducah, Kentucky] provides approximately 56 percent of the U.S. enrichment market needs.[2] (pg. 1-4). This is an obvious discrepancy. We request that NRC not only clarify the amount of domestically produced enriched uranium currently used, but also indicate the specific foreign sources of the enriched uranium on which the U.S. currently relies.

2.) The DEIS states, [3]The NRC staff reviewed the site selection process and determined that none of the candidate sites were obviously superior to the LES preferred site in Lea County, New Mexico, therefore no other site was selected for further analysis.[2] (pg. xx)

This statement is patently false, as it is well known that two sites were investigated prior to the selection of Lea County, New Mexico. The NRC ASLB charged LES with environmental racism during the license application process for a similar facility in Louisiana. LES later withdrew its license application. Further, LES withdrew its interest in proposing a similar facility for Hartsville, Tennessee after public officials in the area refused to allow it to locate there. (http://www.nirs.org). In the interest of full disclosure and providing a clear picture of the history of LES and NEF, we request that the NRC include this information in the EIS.

3.) Please indicate in the sidebar entitled, ³Determination of the Significance of Potential Environmental Impacts² on pg. xx, the number of Latent Cancer Fatalities (LCFs) that are considered ³small,² ³moderate,² or ³large.² On pg. xxiii, the DEIS indicates that there will be two LCFs over the lifetime of the NEF as a result of vehicle emissions during shipment of materials to and from the NEF. Although NRC considers this a ³small² impact, others may disagree. Please explain how this determination is made, providing methodology used.

4.) Please correct the spelling of ³predominantly² on page xxii.

5.) Assuming peak production at the NEF during the entire projected 30-year lifetime of the facility, a generous estimate, the NEF would produce 3,270,000 separative work units (SWUs) of enriched uranium per year. (pg. 2-6). This represents an average of approximately 24% of the total enriched uranium required for the U.S. as estimated by the Energy Information Agency. (pg. 1-4). This number will be far smaller considering that NEF will reach peak operating capacity for only 14 years, from 2013 to 2027. This means that, according to pg. 1-4, more than 20% of U.S. enriched uranium needs will continue to be fulfilled by foreign sources for at least 16 years during the lifetime of the facility.

Given this information, please explain how NEF is anticipated to increase U.S. independence from foreign enriched uranium sources. Please provide a table showing the total estimated amount of enriched uranium that will be required for U.S. energy production by year as compared to the amount that will be produced by NEF.

The DEIS states that nuclear generating capacity is going to increase by 2020, which would further dilute the effect that the NEF will have on creating U.S. energy independence. (pg. 4-73). What is the total yearly percentage of U.S. enriched uranium supply that the NEF is expected to produce?

6.) Please define the phrases used on pg. 1-5, ³short-term uses of the environment² and ³long-term productivity.² If 30 years, the operating lifetime of the facility, is considered ³long-term,² then should many of the environmental effects of the NEF, particularly the constant emissions of uranium to the air and water, also be considered ³long-term² and the impacts thereof considered as such? Please identify points in the document in which these are being considered.

7.) During the EIS scoping process, at a public meeting conducted in Eunice, New Mexico on March 4, 2004, commentator Pat McCasland asked whether NRC would provide a full-time inspector for the facility. Tim Johnson, of

NRC, responded that there would be inspectors during construction and periodically during operations. (Official Transcript of Proceedings, Nuclear Regulatory Commission, Louisiana Energy Services National Enrichment Facility Public Meeting on the EIS, Docket Number 71-3103, pg. 125, lines 8-13).

The DEIS fails to outline NRC's proposed inspection schedules and procedures, saying only, "The NRC is responsible for regulating the activities performed within the proposed NEF through its licensing review process and subsequent inspection program." (1-19). NRC's inspection program must be outlined in either the final EIS or the Safety Evaluation Report (SER). If it is outlined in the SER, we request that the public be allowed to review and comment on the SER in order to make certain that NRC is adequately ensuring the health and safety of community members through proper and timely inspections.

8.) The DEIS indicates that the NEF will include a Visitor Center near the boundary of the facility. (pg. 2-4). Do dose estimates in the DEIS include estimated exposure to workers at the Visitor Center and community members that use the Visitor Center? If so, please specify more clearly which exposure estimates are specifically related to the Visitor Center. If not, please include dose estimates for workers at or community members using the Visitor Center and clearly indicate that those estimates relate to the Visitor Center.

9.) The DEIS indicates that the NEF will be constructed on 611,000 cubic meters of fill. (pg. 2-8). Structures built on fill can occasionally experience settling and structural movement that may compromise the integrity of the facility.

We understand that with regard to the earthwork required to construct the facility, some portion of the facility would be built on fill (embankment) and some on cut (excavation) areas. This is not uncommon and can be accomplished with good results as long as the material is adequate for the intended purposes (generally clays are bad and silty sands, sand and gravelly materials are good).

It is also important that earthwork operations are monitored closely to ensure that the embankments are placed and compacted properly. We understand that these large construction projects where many contractors are working simultaneously and usually quickly because of deadlines, oversight is not what it should be and problems due to settlement from improper compaction appear following construction.

We request that NRC include its plans for inspection during construction, including a requirement for inspecting the earthwork operations required to construct the NEF, in order to ensure the structural stability of the facility. Furthermore, we request that any contractor for this project will perform the greatest oversight possible.

10.) The DEIS states that approximately 25 miles of pipeline would be constructed in order to provide the NEF with potable water. (pg. 2-14). The environmental impacts of the construction of this pipeline should be included in the final EIS.

11.) LES argued at the March 4, 2004 EIS scoping meeting in Eunice, New

Mexico that impacts on the Eunice and Hobbs municipal water systems would be minimal given that the facility would use an average 72 acre-feet of water per year. This argument, while technically correct, is disingenuous.

The DEIS states, the average and peak potable water requirements for operation of the proposed NEF would be approximately 63,423 gallons per day (72 acre-feet) average and 539,000 gallons per day at peak operation. (pg. 2-14). Therefore, during 14 years of peak operation, from 2013 to 2027, NEF will be using nearly 604 acre-feet of water per year.

Although the DEIS estimates that the impacts of the NEF on the Eunice and Hobbs water supplies will be small, the DEIS does not clarify if this determination is made according to the 72 acre-feet per year average estimate, or 604 acre-feet per year peak estimate. The final EIS must include a detailed, yearly water usage plan for the NEF, incorporating the impacts of the NEF according to its actual usage and future water demand and availability.

12.) The DEIS indicates that the NEF will require 30 megawatts of electricity to be supplied through two new synchronized 115-kilovolt overhead transmission lines. These lines would have to be constructed, and would require that two new independent substations be constructed by Xcel Energy, which supplies the area with energy. Additional power-support structures would be installed along the highway near the NEF. (pg. 2-14). Please include any environmental impacts expected as a result of this construction.

13.) The DEIS states, [3]Waste treatment systems, including treatment ponds or lagoons designed to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR § 423.11 (m) which also meet the criteria of this definition), are not surface waters of the State, unless they were originally created in surface waters of the State or resulted in the impoundment of surface waters of the State. (NMWQCC, 2002).[2] (pg. 2-21).

Does this mean that the State of New Mexico does not have authority over permitting and/or regulating the waste treatment systems, treatment ponds or lagoons associated with the NEF? If not, who will have such authority?

14.) The DEIS mentions several times the possibility of locating a private depleted uranium hexafluoride (DUF6) conversion facility near the NEF. (pg. 2-30). We believe that this option is far too speculative to be considered an option for conversion. Further, such a requirement would not fulfill the requirements of the State of New Mexico, as the waste from the NEF would remain in New Mexico, albeit moved offsite, which would be contrary to assurances to Governor Bill Richardson by LES. This proposal is not a sufficient conversion option and should not be considered further.

15.) In its discussion of waste conversion and disposal options (pp. 2-27 - 2-33), the DEIS mentions Envirocare in Utah and U.S. Ecology in Richland, Washington as two potential sites to which to ship the triuranium octaoxide (U3O8) produced as a result of conversion of DUF6 at the potential conversion facility at ConverDyne in Metropolis, Illinois.

The DEIS does not indicate that negotiations between LES and any of these facilities are underway. Without the consent and participation of these facilities, there is no viable solution to the waste problem that NEF

presents. The State of New Mexico, and the citizens it represents, has asked multiple times that an NRC operating license not be granted to LES unless a viable waste solution is presented.

LES must provide NRC a documented waste disposal solution otherwise all waste disposal plans included in the DEIS are speculative and do not meet NRC requirements. A thorough, complete and feasible waste disposal plan must be included in the final EIS, including all negotiations between LES and the facilities that will be converting and disposing of the large quantities of waste.

16.) In its discussion of waste disposal options, the DEIS says repeatedly that, "the NEF would not be able to ship depleted uranium directly to Barnwell, SC, Nevada Test Site or Waste Control Specialists (WCS). (pg. 2-32, emphasis added). Are there instances in which such waste could be shipped indirectly to Barnwell, Nevada Test Site, or WCS?

For example, if the Department of Energy (DOE) were to take ownership of this waste, could it be shipped to the Nevada Test Site? Is NRC obliquely referring to the Congressional initiative proposed by Senator Pete Domenici that would require the DOE to take ownership of the depleted uranium waste generated by the NEF? If this is the case, we request that NRC be more explicit in its discussion of these waste disposition options and thoroughly outline this proposal by Senator Domenici and analyze its environmental impacts.

17.) The DEIS states that sites under consideration by LES were disqualified if they were in proximity to operating nuclear power plants because they would require additional security measures. (pg. 2-35). How did this rationale not disqualify the Lea County, New Mexico site given that it is approximately 60 miles away from the Waste Isolation Pilot Plant (WIPP), which is an operating nuclear waste repository for plutonium contaminated waste that may require additional security measures as well?

18.) The Bellefonte, Alabama site was removed from consideration for location of the NEF because it would have necessitated relocating high-voltage transmission lines that cross the proposed site. (pg. 2-38). Similarly, the Lea County, New Mexico site would necessitate relocation of a high-pressure carbon dioxide pipeline that crosses the site. Why does this fact not remove the Lea County, New Mexico site from consideration? The final DEIS should outline the methods by which this relocation will be funded and the potential environmental impacts from this relocation.

19.) The DEIS states that the Carlsbad, New Mexico site was disqualified because soil on the site is contaminated with oils, solvents and industrial waste products as a result of potash mining and oil-field welding services in the area. (pg. 2-38).

The DEIS does not make mention of the effects of the oil and gas industry, which is also prominent in Lea County, New Mexico, on the soil characteristics at the proposed NEF site in Section 3: Affected Environment. Please include a soils chemistry analysis including potential oil and gas contamination for the NEF site in Lea County, New Mexico.

20.) The DEIS states that the Carlsbad, New Mexico site was disqualified because LES would have to pay for Xcel Energy to install new transmission

lines and a new substation to service the NEF. (pg. 2-39). The same is true of the Lea County, New Mexico site, (see #12 above). We believe that this should disqualify the Lea County, New Mexico site as well.

21.) The DEIS states, "Consequently, the NRC staff has assumed that all of the DUF6 to be generated by the proposed NEF would be converted to U3O8 and disposed of in a licensed disposal facility." (pg. 2-44). Given that the DEIS never once details a viable disposal option, but rather a myriad of incomplete and speculative options proposed by LES but not verified, why does NRC assume this? Given the limited information in the DEIS, there is no foundation for such an assumption. Please provide more substantial rationale for this assumption.

22.) Because storm events and their effects are not limited to their immediate vicinity, we request that NRC expand the meteorological investigation to a 50-mile radius surrounding the proposed NEF site in Section 3.5.2.5: Severe Weather Conditions. (pg. 3-19). The proposed site could be adversely effected by flash flooding and high winds generated by tornadoes that occur in the vicinity of the NEF, although not on the site specifically.

23.) In NRC's analysis of tornado frequency and effects on pg. 3-19, we request that NRC include data collected from Andrews County, Texas as Andrews County is very close to the NEF site and high winds generated by a tornado in Andrews County may effect the NEF site.

24.) There have been 88 tornadoes in Lea County, New Mexico since 1954. Those tornadoes have caused more than $26,000,000 in damage. (http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms ~nm~lea~tornado). Given this information, NRC must justify the statement, "All the reported tornadoes were associated with very light damage." (pg. 3-19).

25.) The "Description of Alternative Sites" on pg. 2-38 of the DEIS indicates that the Carlsbad, New Mexico site was disqualified because of prior environmental contamination on the site as a result of potash mining and the oil and gas industry. Was this determination made based only on soil contamination or also ground and surface water contamination?

Table 3-11, "Chemical Analysis of Proposed NEF Site Ground Water," (pg. 3-42) indicates that there are eight ground water contaminants in the ground water on the proposed NEF site that exceed a regulatory standard up to five times, including total dissolved solids, iron, manganese, gross alpha and uranium-234. Why does this contamination not preclude the Lea County, New Mexico site from consideration for the NEF?

26.) A letter in Appendix B from Lisa Kirkpatrick, Chief of the Conservation Services Division of the Department of Game and Fish of the State of New Mexico, states in regard to the threatened sand dune lizard, "If there is in fact suitable habitat, the Department requests information as to the qualifications of the individual(s) conducting the survey. Sand dune lizards are extremely difficult to identify and there are only a very few people qualified to conduct a presence/absence survey. October is rather late in the year for a survey; the lizards are likely to be dormant at that time." (pg. B-45)

The DEIS does not directly address Ms. Kirkpatrick's concerns in its discussion of ecological resources on pg. 3-48. Who conducted the survey for the sand dune lizard and what were their qualifications? Was an additional survey performed when the lizard was more likely to be active? What was the result of that survey?

27.) Ms. Kirkpatrick also expressed concerns about the impacts of the NEF on the lesser prairie chicken, a federal Species of Concern, saying, "According to our prairie chicken biologist, the area around the project has not been adequately surveyed for lek sites ... Lesser prairie chickens will use an area within two miles of the lek for nesting and rearing. Birds have been reported from the Eunice area. Since there is a large acreage of contiguous habitat, and a lek within four miles, it is reasonable to assume these birds may be impacted by development." (pg. B-46).

Again, the DEIS does not directly address Ms. Kirkpatrick's concerns in its discussion of ecological resources on pg. 3-47. The NRC should integrate Ms. Kirkpatrick's assessment more thoroughly in its discussion of the lesser prairie chicken.

28.) Figure 3-29, "Population Density Surrounding the Proposed NEF Site" (pg. 3-51) seems to indicate that there is a population density of 110,000 to 120,000 in a small area in the North-Northwest sector around the proposed NEF site. Certainly this is not correct, as that sector would exceed the reported population density of all of Lea County. Please correct this figure.

29.) The U.S. Census of 2000 states that of the populations of the cities of Hobbs, Eunice and Jal, on average 65.4% have completed high school and only 10.4% have attained a Bachelor's degree or higher. This is far lower than the statewide averages of 78.9% and 23.5% respectively. (http://quickfacts.census.gov/qfd/ states/35000.html). The DEIS mentions this fact, stating, "The population surrounding the proposed NEF site generally has a lower level of educational attainment than the State averages." (pg. 3-53).

However, this information is not mentioned when considering the socioeconomic impacts of the NEF in Section 4.2.8 on pg. 4-19. What level of educational achievement will be required to fill the positions created by the NEF? Please include this information divided into each of the job types the NEF is expected to create, construction, management, professional, skilled and administrative. How many of these jobs will not be able to be filled in the vicinity of the NEF and will have to be imported from surrounding communities? What effects will that have on the overall socioeconomic impact of the NEF?

30.) In the analysis of Environmental Justice impacts of the proposed NEF, the DEIS states, "It should be noted that for this analysis, the State was used as the area of geographic comparison." (pg. 3-62). We request that the final EIS evaluate environmental justice issues in geographic comparison with national rates given that the NEF is a project that was considered for multiple sites nationwide, not only in the State of New Mexico.

Residents of the State of New Mexico must be assured that the site was not chosen for its abnormally high minority and low-income populations, which in the area of influence, represent 48.3% and 20% of the population

respectively. Compared with national averages of 30.9% and 12.4% respectively, it is clear that Lea County is home to a disproportionately large number of minority and low-income community members and thus will be impacted disproportionately by the construction and operation of the NEF. Therefore, NRC must justify its claim on pg. 4-26 that environmental justice impacts would be small.

31.) The DEIS states in Section 4.2.2, 'Historical and Cultural Resources Impacts,' that a Memorandum of Agreement will be developed between LES, the New Mexico State Historic Preservation Office, the New Mexico State Land Office, the Advisory Council on Historic Preservation, NRC and Lea County to address the seven sites on the proposed NEF site that are considered eligible for listing on the National Register of Historic Places. The Memorandum will record the terms and conditions agreed upon between the consulting parties to resolve adverse effects to historic properties at the proposed NEF site. (pg. 4-4). We request that this Memorandum be included in the final EIS.

32.) In Section 4.2.4, 'Air Quality Impacts,' the DEIS states, 'Because the diesel generators have the potential to emit more than 91 metric tons (100 tons) per year of a regulated air pollutant, LES proposes to run these diesel generators only a limited number of hours per year for the above emission rates to avoid being classified as a Clean Air Act Title V source.' (pg. 4-9). What is the basis for this statement? How will this be verified? What disciplinary measures will be taken should LES exceed its 91 metric ton standard and who will be responsible for implementing disciplinary action?

We recommend that as a mitigation measure, LES be required to obtain a Clean Air Act Title V permit regardless of its assurances that these generators will not exceed the 91 metric ton standard.

33.) In Section 4.2.5.1, 'Site Preparation and Construction,' the DEIS states, 'Although not presently foreseen, if final design studies indicate the necessity to extend footings through the sand into the Chinle Formation, then more soils would be disturbed and the clay layer could be penetrated.' (pg. 4-10). Such action may compromise the integrity of the Chinle Formation, which was shown through visual inspection to be continuous, solid and tight with few fracture planes. (pg. 3-35).

NRC claims that, 'Using the largest measured Chinle Formation permeability, vertical ground water velocity through the clay is conservatively estimated as 0.04 meters per year (0.13 feet per year); the resulting travel time from the surface of the clay to its base (the top of the Santa Rosa Formation) would be greater than 8,000 years.' (pg. 3-36). Would penetrating the Chinle Formation, and possibly creating fractures in the formation, change this estimate? How would travel times be increased if permeability of the Chinle Formation were increased as a result of penetration?

34.) The DEIS indicates that wastewater will be disposed of through evaporation in the Treated Effluent Evaporative Basin, the UBC Storage Pad Stormwater Retention Basin and the Site Stormwater Detention Basin. The DEIS states, 'Net evaporation/transpiration is estimated at 65 inches per year.' (pg. 3-32). The DEIS also estimates monthly evaporation of 6.7 inches per month. (pg. 4-13). This figure is incorrect as, assuming that NRC estimated the inches per month figure by dividing 65 inches per year by

12 months, evaporation would, in fact, be 5.4 inches per year, not 6.7 inches per year.

Furthermore, due to the monsoon rain season, there are several months during the summer when evaporation could be much lower than this net estimation. This is of particular concern when considering the UBC Storage Pad Stormwater Retention Basin. The DEIS states that this basin will receive 5.1 million gallons of effluent annually, but will be dry for 11 to 12 months per year due to precipitation and evaporation. (pg. 4-13). The basin will receive not only stormwater runoff but also cooling tower blowdown water.

Please state the amount of wastewater in this basin that is expected to be cooling tower blowdown water? Please include monthly averages for the amount of cooling tower blowdown water expected to be stored in the UBC Storage Pad Stormwater Retention Basin as compared to the monthly amount of anticipated evaporation, taking into consideration low evaporation rates during wetter months. Please include this information as presented in the water balance prepared by LES for the NEF.

35.) NRC should require a shielding structure around each evaporative pond and basin to ensure that dry solids remaining in those ponds and basins on the NEF site are not vulnerable to being scattered by the high and strong winds that are prevalent in the area.

36.) In Section 4.2.8.2, Operations: Employment and Economic Activity, the DEIS states, [3]Ten percent of the skilled positions are expected to be in management, 20 percent in professional occupations, 60 percent in various skilled positions, and 10 percent in administrative positions.[2] (pg. 4-21). According to these percentages, the average 210 permanent operating employees would consist of 21 managers, 42 professional employees, 126 skilled employees and 21 administrators. The DEIS states that this is approximately 1% of the workforce in Lea, Andrews and Gaines Counties, and thus the NEF would have a moderate impact on the socioeconomics of the area.

However, as much as 60% of the workforce is expected to come from outside of the area of influence, according the DEIS, which states, [3]The majority of these higher paying skilled jobs would be expected to be filled outside of the immediate area surrounding the proposed site, but within the [75-mile] region of influence....[2] (pg. 4-19). A 75-mile radius around the site would include Eddy and Chavez Counties in New Mexico and Cochran, Culberson, Davison, Ecktor, Hockley, Loving, Lynne, Martin, Midland, Reeves, Terry, Yoakum and Winkler Counties in Texas. Therefore, given that these counties may provide the majority of the workforce, they must be included in the analysis of socioeconomic impact. This may effect the 1% figure mentioned above and thus the impact estimated by NRC may be much smaller.

36.) In Section 4.2.8.3, Employment and Economic Activity Mitigation Measures, the DEIS states, [3]Educational programs coordinated by LES with local colleges would help develop a pool of qualified local workers.[2] (pg. 4-22). This measure is an effort to draw more highly skilled technical workers from the area. Please include any communiqué between local colleges and LES in developing these educational programs. Also, please document the capacity for these local colleges to train the workforce in nuclear materials handling and uranium enrichment processes. Are these local colleges prepared to handle such curriculum? If not, when will they be and

how will those preparations be funded?

37.) Pg. 4-24 of the DEIS states that the NEF will use up to 687 million gallons of water from the Ogallala aquifer over its lifetime, while pg. 4-15 states that the NEF will use 695 million gallons of water from the Ogallala aquifer over its lifetime. Please explain this discrepancy. How much water from the Ogallala aquifer will the NEF use over its lifetime?

38.) The DEIS states, [3]The DUF6 would be placed in Type 48Y cylinders for either temporary storage onsite or shipment offsite. If the DUF6 were shipped offsite, 157 rail shipments with four cylinders per railcar would be used to transport the cylinders to Paducah, Kentucky; Portsmouth, Ohio; or Metropolis, Illinois, where it would be converted into U3O8. After conversion, the U3O8 would be shipped from either Paducah or Portsmouth to Envirocare in Clive, Utah, or the Nevada Test Site for disposal or it would be shipped to Envirocare from Metropolis in gondola railcars with four bulk bags per car. The hydrofluoric acid generated during the process of converting the DUF6 to U3O8 could be reused in the process of generating UF6 or neutralized to CaF2 for potential disposal at the same site as the U3O8. If the DUF6 were converted to the more chemically stable form of U3O8 at an adjacent conversion facility to the proposed NEF, the conversion products of U3O8 and CaF2 would be shipped to a disposal site in 137 and 116 gondola railcars respectively.[2] (pg. 4-37)

Not only is this paragraph so poorly written as to be nearly unintelligible, but it also illustrates clearly that the NEF proposed by LES is ill-planned, ill-conceived, ill-timed and ill-prepared. It is clear from this paragraph that LES has no plans whatsoever for disposal of the waste to be generated by the NEF. Although it has outlined its options, not a single option has been identified as a realistic solution to the thousands of tons of waste to be generated by the facility.

The problems that we note include the fact that there is no private conversion facility for the waste and that no private conversion facility is planned. There is no disposal facility for the converted waste and the only disposal facility contacted by LES or NRC in the preparation of this DEIS is Envirocare of Utah. Their response to this proposal is not documented in the DEIS.

Also, the DEIS unfairly considers DOE disposal a viable solution, although the energy bill that includes the provision that would pass ownership of LES waste to DOE has been stalled in Congress for more than one year. Furthermore, the provision is widely contentious, not only among the public but also among members of Congress.

Given the fact that LES has clearly not defined its solution to the waste problem, we believes that it is extremely premature for the NRC to issue any preliminary recommendations about the NEF, as it does on pg. 2-44, saying, [3]The NRC staff recommends that, unless safety issues mandate otherwise, the proposed license be issued to LES.[2] NRC has clearly made this determination without reviewing a clear and detailed plan for one of the most critical environmental and safety concerns regarding the NEF, waste disposition. NRC should be more thorough and careful in its determinations when considering the waste problem than it is in the DEIS.

NRC is showing blatant disregard for the people of the State of New Mexico,

which has made it clear from the initial proposal by LES that support for the project is contingent upon a viable waste solution. NRC ignores completely the fact that the DEIS in no way presents a viable waste solution. Therefore, we respectfully disagree with NRC and believe that no operating license should be issued to LES until such time that the waste problem is solved and disposition plans be detailed clearly, including the location of a conversion facility and a location for permanent disposal outside of the State of New Mexico.

We believe that the NEF should not and cannot progress until there are assurances from owners and/or operators of a conversion facility and disposition facility, including contracts, construction plans, environmental impact statements, etc.

As the waste disposition proposal by LES is clearly inadequate and may do nothing to remove the waste from the NEF site, we request that NRC outline the potential environmental impacts of indefinite storage of UBC tails on the proposed NEF site. This should include an analysis of corrosion of storage containers and its effects on soil, groundwater and air quality at the NEF site and within a 50-mile radius. Further, the analysis should include cumulative health effects on community members within a 50-mile radius of the site as a result of indefinite storage of this waste.

39.) Table 4-12, 'Estimated Occupational Dose Rates for Various Locations or Buildings Within the Proposed NEF,' indicates that empty used UF6 shipping cylinders would release less radioactivity than full UF6 shipping containers (10 millirem per hour and 5 millirem per hour respectively). (pg. 4-46). This is counterintuitive. Please explain in the final EIS why this is the case.

40.) We oppose NRC's considering a conversion facility adjacent to the NEF as a viable waste conversion strategy and believe that it should not be considered in the context of the DEIS.

However, if it continues to be considered, its environmental effects must be considered cumulatively with those of the NEF. The DEIS states, 'Therefore, the NRC staff considers the impacts for these resources from the construction and operation of an adjacent conversion facility to be bounded by the impacts considered in this [DEIS] for the proposed NEF.' (pg. 4-55). While the environmental effects of a conversion facility may not exceed those of the NEF, they would also not occur independently of the environmental effects of the NEF and must be considered cumulatively.

41.) The DEIS states that the evaporative ponds and retention basins around the site will create pools of perched water in the ground beneath the site. (pg. 4-13). The water is not expected to migrate and LES estimates, optimistically, that most of it will be absorbed in the root systems of vegetation in the area. We believe that there must be a method for monitoring the perched water that will be created by these ponds. NRC must include this information in Section 6, Environmental Measurements and Monitoring Programs.

42.) Who will be collecting and analyzing the environmental samples from the NEF site? Will this be an independent contractor to the NRC or LES itself? If it is expected to be LES, we are concerned about the independence and credibility of the results. Will there be quality control

and assurance measures implemented by NRC, or will the contractors responsible for quality control and assurance (listed on pg. 6-14) be enlisted by LES?

43.) The DEIS states, [3]Each year, the proposed NEF would submit a summary report of the Environmental Sampling Program to NRC.[2] (pg. 6-14). How will this information be made available to the State of New Mexico and the public? How will the State of New Mexico and the public participate in environmental oversight of the facility?

44.) The DEIS indicates that ground water monitoring wells will monitor at the 220 foot zone. (pg. 6-13). However, the DEIS also states, [3]...[T]he first occurrence of a well-defined aquifer capable of producing significant volumes of water is the Santa Rosa Formation.[2] (pg. 3-36). Will there be any monitoring of the ground water in the Santa Rosa Formation, which is located at approximately 1,115 feet below the ground surface?

45.) The DEIS states, [3]The limits [on chemical discharges] would be specified in the U.S. Environmental Protection Agency (EPA) Region 6 National Pollutant Discharge Elimination System (NPDES) General Discharge Permits as well as the New Mexico Environment Department/Water Quality Bureau Ground-Water Discharge Permit/Plan. Therefore this [DEIS] does not specify administrative action levels for physiochemical constituents.[2] (pg. 6-15).

LES must consult with EPA Region 6 and the New Mexico Environment Department prior to the production of the final EIS to determine the administrative action levels for physiochemical constituents according to each agency and report those levels for NRC to consider when determining whether to license this facility. Without this information, impacts of the NEF on surface and ground water resources is incomplete, and therefore NRC cannot adequately determine whether to license the facility.

46.) The DEIS states regarding effluent monitoring, which includes air and water, [3]Corrective actions would be instituted when an administrative action level is exceeded for any of the measured parameters....[2] (pg. 6-19). What agency will oversee these corrective actions and what will these corrective actions be? Is there a mechanism in place for an operating license to be suspended or revoked? Please clarify what safeguards are in place should environmental emissions of radioactive and hazardous constituents exceed federal and/or state regulatory standards.

47.) Would environmental monitoring at the NEF site continue beyond decontamination and decommissioning activities? Who would be responsible for long-term stewardship of the site?

48.) In Section 7, Cost-Benefit Analysis (pg. 7-5), the DEIS states that DUF6 disposition will cost approximately $5.50 per 2.2 pounds or $731 million in 2002 dollars. In order to gauge accurately the benefit of the NEF, NRC must also include the amount of enriched uranium estimated to be produced by the facility and the amount of profit LES anticipates that it will earn through its sale per pound.

49.) The DEIS states that LES has proposed to allocate $5.50 per kilogram for disposition of depleted uranium waste. (pg. 7-4) Is this figure presented in 2002 dollars, as dollar figures are represented in the rest of

the DEIS? The DEIS states that the NRC will evaluate the adequacy of this figure in the SER. We request that disposition costs be considered with due consideration to inflation in the SER.

50.) The DEIS indicates that ConverDyne and U.S. Ecology were not consulted in the production of the DEIS. (pg. 8-3) If their facilities are considered options for conversion and disposal, should they not be consulted in the production of this document? They must be consulted in the production of the final EIS and their response to LES's proposals must be included.

51.) The DEIS overlooks a critical comment received during its scoping period, which recommends that LES and NRC consult the Western Interstate Energy Board, which is responsible for communication and cooperation among its membership with specific regard to the development and management of nuclear energy products. (Scoping Summary Report, pg. 11) Why was this Board not consulted? We reiterate the request that the Board be consulted and their analysis of the proposal be included in the final EIS.

53.) The DEIS notes that the SER will outline safety evaluation and procedural requirements or license conditions to ensure the protection of the health and safety of workers and the general public. The SER will also address the adequacy of funding provided by LES in compliance with NRC's financial assurance regulations. We request that the SER also thoroughly address the emergency preparedness of first responders in the Lea and Eddy Counties in New Mexico and Andrews County in Texas. This analysis must also address the adequacy of the Lea County Regional Medical Center, which according to the DEIS has a capacity for only 250 patients (pg. 3-56), which may be far fewer than those who would be impacted in case of emergency at the NEF.

Also, the SER must address the adequacy of the fire and police departments of Lea and Eddy Counties in New Mexico and Andrews County in Texas to address potential radiological emergencies at the NEF. Who will provide funding for the proper equipment and training for these departments? What are the capacities of additional response services, including hospitals, in surrounding communities?

Through personal communication with Tim Johnson, of NRC, we have learned that the SER will not be released for public comment as per NRC's internal protocol. What is NRC's rationale for this protocol? Is there a regulatory requirement for producing the SER? If so, which regulatory agency authorizes the SER? If not, is it simply an NRC initiated document? Will the information contained in the SER be sensitive or classified, thus necessitating that there be no public comment period? We request that the SER be released for a thorough public review and comment period.

53.) In a letter to NRC, Cheryl Eckhardt, of the United States Department of the Interior, noted that several Urban Park and Recreation Recovery Programs in the Eunice and Hobbs area may be adversely effected by the NEF. (pg. B-42). Has LES addressed Ms. Eckhardt's concerns? How have these potential effects been mitigated?

54.) Table C-2, [3]Population Within 80 Kilometers (50 Miles) of the Proposed NEF,[2] (pg. C-5) seems to be inaccurate in the same way as noted in comment #28 above. Please correct this error.

55.) In Table C-3, 'Ingestion Parameters Used in GENII to Calculate Collective Radiological Dose to the Public,' (pg. C-6), please clarify the heading of the fourth column, 'Holdup Time,' in laypersons' terms.

56.) Section C.4.1.1, 'Selection of Representative Accident Scenarios,' include only an analysis of the effects of an earthquake on the NEF. Given that there have been 120 tornadoes in Lea and Andrews Counties since 1954, as noted above, we request that NRC also evaluate for effects related to tornadoes within the vicinity of the NEF.

57.) Section C.4.2.1, 'Inadvertent Nuclear Criticality,' outlines the potential consequences of an inadvertent nuclear criticality incident at the NEF, postulated to be the accident scenario with the most severe consequences. (pg. C-22). What are the chances of this type of an accident? Has this type of accident occurred before in similar facilities?

58.) The DEIS claims that in the event of an inadvertent nuclear criticality, the west sector of Eunice would be most effected because it is closest to the facility and 'short-lived radionuclides' would not have completely decayed before reaching the west sector. (pg. C-23)

What type of radionuclides will be released in the event of inadvertent nuclear criticality? What are their rates of decay? If it is uranium or its decay products, it is disingenuous for NRC to claim that these isotopes are 'short-lived' given that uranium 234, 235 and 238 have half-lives of 4.46 billion, 704 million and 245,000 years respectively. This would mean that these particles would be dispersed long before they ceased to be dangerous. If decay products are released in such an incident, half-lives could range from 75,400 years for thorium-230 to 163 microseconds for polonium-214. (http://www.ieer.org/fctsheet/uranium.html). Please revise your estimate regarding 'short-lived' radionuclides.

59.) The DEIS states, 'To reduce the magnitude of fires resulting from the presence of transient combustible material, LES would rely on administrative controls. The purpose of these controls is to prevent large fires that could result in the release of large inventories of UF6.' (pg. C-26). This statement is quite vague. NRC must outline the nature of these administrative controls.

60.) The DEIS states, 'Acute effects evaluated were assumed to estimate a threshold nonlinear relationship, or quadratic approximation, with exposures; that is, some low level of exposure can be tolerated without inducing a health effect.' (pg. D-26).

Although the theory of a nonlinear relationship between exposure and health effects has been validated by some studies, it has yet to be proven accurate for human subjects. According to the Committee Examining Radiation Risks of Internal Emitters (CERRIE), the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) reported in 2000 that some animal data show linear dose-response relationships for cancer induction by alpha-emitting radionuclides over the dose ranges studied. (Report of the Committee Examining Radiation Risks of Internal Emitters, October 2004, http://www.cerrie.org).

Given this genuine disagreement amongst experts, we request that NRC not

assume that the threshold theory is applicable when considering radiation exposures to members of the public during transportation of materials to and from the NEF.

We reiterate our request that NRC pursue the No Action Alternative in the case of the NEF.

Thank you for your consideration of our comments. We request that NRC enter these comments into the official record of the proceeding. Should you have any questions or comments, please contact Amy Williams, of Concerned Citizens for Nuclear Safety.

Sincerely,

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