

From: Timothy Johnson
To: INTERNET:pharb2@msn.com
Date: 9/10/04 1:24PM
Subject: Responses to your email questions

Attached is a response to several emails you have sent to NRC with technical questions related to the proposed Louisiana Energy Services uranium enrichment plant. We recognize that you are being represented by one of the admitted petitioners to the hearing. We hope these responses answer your questions.

CC: INTERNET:Brozowski.George@epamail.epa.gov;
INTERNET:Ned.Farquhar@state.nm.us

Responses to Questions from P. Barr Email to George Brozowski,
U.S. Environmental Protection Agency, Dated July 16, 2004; Emails dated August 6 and
August 26; and Email to the Chairman, Dated August 24, 2004

A. Email to George Brozowski, U.S. Environmental Protection Agency, Dated July 16, 2004

1. P. Barr Statement: Louisiana Energy Services wants to build an uranium enrichment plant near Eunice, New Mexico. LES is a shell company of Urenco.

Response: In December of 2003, LES submitted a request to build and operate an uranium enrichment facility near Eunice, New Mexico. LES is a limited partnership comprised of the general partners Urenco and Westinghouse. Limited partners include the utilities Duke, Entergy, and Exelon.

2. P. Barr Statement: They want to get rid of the water they make radioactive by the use of lined open pits. They want to let it evaporate into the air. This will be like five miles from Eunice. I believe this is a health risk for the people of Eunice (we have a lot of wind in this area.)

Response: One of the important aspects in preparing the Environmental Impact Statement (EIS) and Safety Evaluation Report (SER) for the proposed Louisiana Energy Services uranium enrichment facility in Eunice, NM, is to evaluate routine and accidental releases of radioactive materials. Our objective for routine releases is to meet the radiation protection standards in 10 CFR Part 20. Releases of radioactive materials meeting the standards in 10 CFR Part 20 are considered to be acceptable. The 10 CFR Part 20 standards are intended to ensure that releases from radioactive materials are protective of public and worker health and safety. These standards are based on recommendations from the National Committee of Radiation Protection and the International Commission on Radiation Protection. For accidents, the performance requirements are in 10 CFR Part 70, Subpart H.

LES contends that water resources at the site are virtually nonexistent. There are no surface waters on the site and appreciable groundwater resources are only at depths greater than approximately 800 ft. The site region has semi-arid climate, with low precipitation rates and minimal surface water occurrence. Thus, LES concludes that the potential for negative impacts on those water resources are very low due to lack of water presence and formidable natural barriers to any surface or subsurface water occurrences.

The NEF design precludes operational process discharges from the plant to surface or groundwater at the site other than into engineered basins. Liquid waste is routed to collection tanks, neutralized and treated through a combination of precipitation, evaporation, and ion exchange to remove most of the radioactivity prior to release to the onsite Treated Effluent Evaporative Basin. Effluents unsuitable for the evaporative disposal will be removed off-site by a licensed contractor in accordance with regulatory requirements. Only uncontaminated liquid wastes are released directly to the Treated Effluent Evaporative Basin for evaporation without treatment. The Treated Effluent Evaporative Basin employs two synthetic liners and a leak detection system to prevent

the intrusion of collected wastewater into the ground layers below the basin, thereby limiting the potential for soil and groundwater contamination. A leak detection system is also part of the basin design features to provide early indication of any failure of the basin barriers to restrict liquid effluent waste from entering the soil or groundwater regime below the site.

The LES analyses evaluated airborne particle releases from the Treated Effluent Evaporative Basin. The dose equivalent impacts were assessed for the nearest resident location, nearby businesses and site boundary locations. In Section 4.12 of the Environmental Report, LES estimates that for gaseous effluents, the maximum annual dose to a nearby resident was 1.7×10^{-3} mrem. The annual dose for this resident location from liquid releases is 2.8×10^{-3} mrem. For liquid effluents which result in resuspended airborne particles from the dry out of the Treated Effluent Evaporative Basin, the maximum annual dose of 1.7×10^{-4} mrem was estimated for a nearby resident location. LES stated that these doses due to normal operations are small fractions of the normal background radiation range of 200 to 300 mrem that an average individual receives in the US, and is within regulatory limits.

U.S. Nuclear Regulatory Commission (NRC) staff are currently evaluating this information and will document its review in the Environmental Impact Statement and the Safety Evaluation Report.

3. P. Barr Question: It's my belief that a lined pit is an unsafe way to dispose of radioactive water and the water table will be contaminated. The water table there serves Lea county New Mexico, and Andrews County, Texas. This is the only source of water.

The water the LES plant near Eunice would use comes from the same source that Hobbs uses. I'm worried about pollution to the water I will drink. I don't think pit liners are adequate. Concrete? In the heat we have here, concrete will crack after a while. This is our only water source. As I understand it, it is shared by Andrews County, Texas. I do not have an idea how far the aquifer extends into Texas.

Response: Information on water use by LES is provided in Section 3.4 of the Environmental Report and in Section 3.2.4 of the Safety Analysis Report. NRC staff are currently evaluating this information and will document its review in the Environmental Impact Statement and the Safety Evaluation Report.

Because ground water under the proposed LES site is not potable, LES is making arrangements through the Lea County Water Commission to obtain water from wells near Hobbs. This is the same source of water used by residents of Eunice because ground water quality in the Eunice area is unsuitable for human consumption. The Hobbs water system uses water from the Ogallala Aquifer. This aquifer does not extend to the area of Eunice, but does extend into Texas.

Groundwater investigations at the proposed site have concluded that the Santa Rosa formation at about 800 ft. below the surface is the first occurrence of a well-defined aquifer. Between the surface and the Santa Rosa formation is a thick layer of clay having a very low permeability. The water quality of the Santa Rosa is unsuitable for human consumption. The ground water systems below the proposed plant site are not connected to the ground water source in Hobbs.

In the LES plant design, LES is proposing to construct three evaporation ponds and a septic tank system for water discharges. LES is not proposing to use concrete as its liner material. Effluents from treatment of radioactive wastes is proposed to be piped to the Treated Effluent Evaporation Basin, which has two synthetic liners and a leak detection system. Effluents released to this evaporation basin will meet NRC requirements for effluent discharges in 10 CFR Part 20. LES will keep this pond from drying out to prevent the dispersal of contaminated soils.

The second evaporation pond is the Uranium Byproduct Cylinder (UBC) Storage Pad Retention Basin. This basin takes effluents from the Cooling Tower Blowdown System and rainwater runoff from the UBC storage pad. It is not expected that the water in this basin will be radioactive, however, water monitoring will take place to confirm this. This basin has a single synthetic liner.

The third evaporation pond is an unlined pond for general, non-radioactive site stormwater drainage. The septic tank system is for plant non-radioactive sanitary wastes.

4. P. Barr Statement: NRC did tell me there would be no full time NRC people at the plant.

Response: At this time, NRC does not plan to have a full-time resident inspector at the LES facility. However, NRC will conduct regular inspections during construction and operation of the facility. The NRC's inspection program ensures that a licensee meets NRC regulations and its commitments in its license. The inspection program focuses on worker and public safety, the environment, and national security. During the construction phase, inspectors would evaluate the construction program to ensure that the facility is built to meet licensee commitments made in its application. During operations, inspections would be conducted in the areas of radiological and chemical safety, safeguards, criticality safety, transportation, waste management, maintenance, training, and quality assurance. Inspections would be conducted by NRC's regional office in Atlanta, Georgia and by Headquarters staff from Rockville, Maryland.

5. P. Barr Question: We have high winds here at different times of the year, 50 mph +. Any radioactive emissions or dust particles could go a long way toward population areas.

Response: In Section 4.12 of the Environmental Report, LES estimates that for gaseous effluents, the maximum annual dose to a nearby resident was 1.7×10^{-3} mrem. The annual dose for this resident location from liquid releases is 2.8×10^{-3} mrem. For liquid effluents which result in resuspended airborne particles from the dry out of the Treated Effluent Evaporative Basin, the maximum annual dose of 1.7×10^{-4} mrem was estimated for a nearby resident location. LES stated that these doses due to normal operations are small fractions of the normal background radiation range of 200 to 300 mrem dose that an average individual receives in the US, and is within regulatory limits.

NRC is reviewing releases from various release points including the evaporation ponds (both vapor and particulate releases) as part of the ongoing licensing review. The results of these reviews will be documented in the EIS and SER. At this time, NRC staff has not completed its evaluation, and has not made its determination.

6. P. Barr Question: I believe the construction of LES in Lea County so close to two planned nuclear waste dumps in Andrews County will cause problems for both Texas and New Mexico. If the water table under LES gets polluted, LES will claim the waste dumps run by Waste Control in Andrews County are responsible. If the water table under Waste Control's dump site is contaminated or if any contamination is found, they will claim LES is responsible. The two sites are too close to each other.

Response: In the Environmental Impact Statement to be prepared by NRC, NRC will address cumulative impacts from nearby facilities. Information in the Environmental Report and the Safety Analysis Report prepared by LES concludes that the thick layer of low permeability clay between the surface and Santa Rosa Aquifer, will make ground water contamination unlikely. NRC staff is currently evaluating this information and will document its findings in its Environmental Impact Statement and Safety Evaluation Report.

7. P. Barr Question: I had a talk with a LES representative here yesterday. He told me there was going to be two pit liners plus a leak alarm in between the liners on the evaporation ponds. He was vague about the amount of radioactivity that the smaller of the evaporative ponds would have. I've never seen pit liners that have lasted in this country.

Response: See previous response to Questions 2 and 3 on use of evaporation ponds.

8. P. Barr Question: I am also concerned about the two planned Waste Control nuclear dumps just across the border in Texas. A uranium enrichment plant and one waste storage dump on the New Mexico side and two (planned) nuclear waste dumps on the Texas side-sitting on top of two aquifers. The city of Hobbs has told me the Ogallala runs down near Eunice. I understand from Mr. Cheney the EPA's interest is in the water part of this.

Response: Waste Control Specialists (WCS), which operates a hazardous chemical disposal facility about a mile east of the proposed LES facility, possesses a radioactive materials license from Texas, which is an NRC Agreement state, to treat and temporarily store low-level radioactive waste. It recently submitted a license application to the Texas Commission on Environmental Quality to operate a low-level radioactive waste disposal site. Because NRC has no jurisdiction over this licensing action, questions related to the proposed WCS facility should be addressed to the Texas Commission on Environmental Quality.

The Ogallala aquifer does not extend to the area of Eunice and does not underlie the proposed LES site. Lea County and the State of New Mexico are responsible for regulating water use and issuing permits for the proposed LES facility.

9. P. Barr Question: I have asked Louisiana Energy Services and the NRC how they can be sure the radiation the plant in New Mexico would release would be safe for pregnant women, children, the elderly and people with impaired immune systems.

Response: NRC, through its licensing and inspection program, will be ensuring that LES activities are adequately safe, both for those who work at the facility, and those that

may live in the area. Safety is based first on ensuring that any exposures are within nationally established limits in 10 CFR Part 20 (note that 10 CFR Part 20 regulation is available at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/> and rulemaking statement of consideration is available in 56 Federal Register 23360, May 21, 1991), and then by further requiring that additional reductions are made if it is reasonably possible to do so. NRC uses both studies and recommendations from both national and international organizations to set the limits for any member of the public. These studies have included consideration of special or sensitive populations, such as pregnant women or children, and validated the adequacy of the recommended exposure limits. The result is exposures that are only a very small fraction of what each of us receives each year due to naturally existing sources.

NRC has adopted the dose limit of 100 mrem/yr to members of the public recommended, and now used worldwide, by the International Commission on Radiological Protection, of which the United States is a member. In selecting this limit, the Commission considered the risks of radiation exposure over a lifetime to all age groups, starting at birth. The limit was selected because it represented a very small risk. The limit is also about the same level as the background radiation exposure (i.e., exposure to naturally occurring radioactive material, cosmic sources, and global fallout) received by members of the public during a year, and in many cases is much lower than background exposure, and therefore does not add a significant risk beyond that already incurred by the public. In addition, releases of materials to the environment are normally restricted to maximum levels that are substantially below the dose limit of 100 mrem/yr, usually around 25 mrem/yr, which further reduces any risk to the public. Finally, all operators are required to put in place procedures and equipment that further reduce doses to the smallest level that is achievable with a reasonable expenditure of funds and effort. In most cases, this results in doses to the public that are only a small fraction of the limit, and far below normal background exposure levels.

Regarding the question of the effect on the embryo or fetus and people with impaired immune systems, there are no known added risks from exposure at these low levels of radiation that is different from that in the general population. The risks to the embryo and fetus and to people with impaired immune systems becomes important only at much higher exposure levels that are many times, by several hundred, higher than the dose limit.

As part of NRC's review of the LES application, NRC staff will address both routine and accidental releases of radioactivity in the Safety Evaluation Report and in the Environmental Impact Statement. LES must demonstrate that all routine releases of radioactivity are in accordance with 10 CFR Part 20 and be As Low As Reasonably Achievable (ALARA). Accidental conditions must be in accordance with 10 CFR Part 70, Subpart H, which addresses consequences and likelihood categories for accidents.

10. P. Barr Question: When LES first came here they stated that the evaporation ponds at their plant might have radioactive water in them. Now they say the smaller pond WILL have radioactive water in it. How radioactive will the water be? Now as that water evaporates, won't the water vapor in the air be radioactive? Regardless of the amount this vapor will be carried by the wind over Eunice and Hobbs.

Response: The discussions of the liquid waste treatment system are in Section 3.12.2 in the Environmental Report and in Section 3.5.12 of the Safety Analysis Report. These discussions are largely unchanged in the two revisions to these documents. We addressed the radiation protection aspects of this question in preceding paragraphs. LES estimated that the maximum annual dose to a member of the public will be less than 19 mrem/year. This estimate which includes the combined impact of radiation from all liquid, gas and fixed radiation sources is below the health risk criteria found in the NRC regulations. For liquid effluents which result in resuspended airborne particles from the dry out of the Treated Effluent Evaporative Basin, the maximum annual dose of 1.7×10^{-4} mrem was estimated for a nearby resident location.

11. P. Barr Question: NRC or LES can't quite say how the radiation will be safe for everyone. Now LES has stated there will be two pit liners in their evaporation ponds plus a leak alarm installed. Pit liners have been known to leak in this country.

Response: According to the LES estimates, the combined potential radiological impacts associated with the small quantity of uranium in effluent discharges are expected to be a small fraction of the general public dose limits established in 10 CFR 20 "Standards for Protection Against Radiation." NRC will be evaluating the suitability of the evaporation ponds with the two synthetic liners and the leak detection strategies in the SER. The other evaporation ponds are not expected to have radioactive materials.

12. P. Barr Question: LES is supposed to pay for all the cleanup its plant will require. How much is that and have they deposited that money in the bank anywhere?

Response: The decommissioning costs are described in Section 10 of the Safety Analysis Report. The LES cost estimate for decommissioning is \$837 million and includes decontamination of buildings and equipment and costs for dispositioning all the depleted uranium generated during the 30-year lifetime of the plant. To meet the NRC decommissioning financial assurance requirements, LES is proposing to use a surety bond for the amount of the estimated cost of decommissioning, and would, therefore, not have to prepay the financial assurance amount in a bank as is done with a prepaid trust fund. A surety bond is one of the acceptable mechanisms for assuring the availability of decommissioning funds (see 10 CFR 70.25(f)(2)). See also our Requests for Additional Information (RAI), dated April 19, 2004 (ADAMS Accession No. ML041100816), RAIs D-1, D-2, D-3, and D-4, and LES' response dated May 19, 2004 (ADAMS Accession No. ML041480416).

13. P. Barr Question: In the event of a pollution problem in Texas caused by the LES plants proximity to the Texas border would LES be required to pay for that also or in case of default by LES would the State of New Mexico be liable?

Response: LES would be responsible for the remediation of any contamination from its site. LES must also obtain public liability insurance for the facility.

B. Email dated August 6, 2004

1. P. Barr Question: One LES official now states the smaller of their plant's evaporation ponds will be radioactive. That means radioactive water vapor in the air can be carried

by the wind over Eunice and Hobbs. How can prolonged low-level exposure to radiation in the air be good for anyone?

Response: See responses above to Questions A.2, A.3, and A.9.

2. P. Barr Question: The water table is in decline here. We have no other sources. In case the water table gets polluted by LES, would the federal government provide water for everyone here? People and industry? No comment by the NRC to date.

Response: See response to Question A.3 above. Responses to ground water pollution problems are coordinated with Federal, State, and County authorities, but it would be premature to predict a response to a hypothetical problem where the aquifer underlying the proposed LES site is unconnected to local sources of ground water.

3. P. Barr Question: How can it be called good regulation or even common sense by the NRC to allow one uranium enrichment plant and nuclear waste dump in New Mexico near two nuclear waste dumps across the line in Andrews County?

Response: See response to Question A.8 above.

4. P. Barr Statement: I had one government official tell me yesterday not to call Washington about LES.

Response: Any member of the public is welcome to contact NRC about licensing issues.

C. Email to Chairman dated August 24, 2004

1. P. Barr Question: The NRC and LES state that the radiation their plant will release will be safe for everyone.

I was sent this by email last night. I understand this is public record.

"Radiation is capable of causing a broad range of illnesses, even at the lowest doses. Hanford, Op. 8700. (Hanford Nuclear reservation litigation). "

This has been recognized by scientific and legal authority (See In re Three Mile Island Litigation, 193 F.3d at 643; (there is scientific consensus that ionizing radiation can cause cancer) Wash. Rev. Code Sect. 70.99.010 (2002) ([r]adioactive wastes are highly dangerous, in that releases of radioactive materials and emissions to the environment are inimical to the health and welfare of the people of the state of Washington, and contribute to the occurrences of harmful diseases, including excessive cancer and leukemia).

Timothy Johnson and Melannie Wong with the NRC will not comment on how prolonged low-level exposure to radiation can be safe for everyone. How about the chairman of the NRC?

Governor Richardson, How about some concern for the people of the state? Or maybe that new airplane you want to buy with road funds is more important?

Response: NRC, through its licensing and inspection program, will be ensuring that LES activities are adequately safe, both for those who work at the facility, and those that may live in the area. Safety is based first on ensuring that any exposures are within nationally established limits in 10 CFR Part 20 (note that 10 CFR Part 20 regulation is available at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/> and rulemaking statement of consideration is available in 56 Federal Register 23360, May 21, 1991), and then by further requiring that additional reductions are made if it is reasonably possible to do so. NRC uses both studies and recommendations from both national and international organizations to set the limits for any member of the public. These studies have included consideration of special or sensitive populations, such as pregnant women or children, and validated the adequacy of the recommended exposure limits. The result is exposures that are only a very small fraction of what each of us receives each year due to naturally existing sources.

NRC has adopted the dose limit of 100 mrem/yr to members of the public recommended, and now used worldwide, by the International Commission on Radiological Protection, of which the United States is a member. In selecting this limit, the Commission considered the risks of radiation exposure over a lifetime to all age groups, starting at birth. The limit was selected because it represented a very small risk. The limit is also about the same level as the background radiation exposure received by members of the public during a year, and in many cases is much lower than background exposure, and therefore does not add a significant risk beyond that already incurred by the public. In addition, releases of materials to the environment are normally restricted to maximum levels that are substantially below the dose limit of 100 mrem/yr, usually around 25 mrem/yr, which further reduces any risk to the public. Finally, all operators are required to put in place procedures and equipment that further reduce doses to the smallest level that is achievable with a reasonable expenditure of funds and effort. In most cases, this results in doses to the public that are only a small fraction of the limit, and far below normal background exposure levels.

D. Email date August 26, 2004

1. P. Barr Question: As I understand it the LES plant will have radioactive emissions. Also, at least one of the evaporative ponds will have radioactive water. Considering the high winds and dust storms we have in this area and if the emissions are known, Would the NRC do a computer projection of how much radioactive material would be carried by the winds from the LES site over Eunice and Hobbs in the course of a thirty year period?

Response: According to the Environmental Report Section 3.12, LES proposes to construct three evaporation ponds and a septic tank system for water discharges. All radioactive wastes are treated to remove most of the radioactivity, before being piped to the proposed Treated Effluent Evaporative Basin (TEEB). Effluents released to this evaporation basin will meet NRC requirements for effluent discharges in 10 CFR Part 20.

The second evaporation pond is the Uranium Byproduct Cylinder (UBC) Storage Pad Retention Basin. This basin takes effluents from the Cooling Tower Blowdown System and rainwater runoff from the UBC storage pad. It is not expected that the water in this basin will be radioactive, however, water monitoring will take place to confirm this. This basin has a single synthetic liner.

The third evaporation pond is an unlined pond for general, non-radioactive site stormwater drainage. The septic tank system is for plant non-radioactive sanitary wastes.

In Section 3.6 of the Environmental Report, LES used regional meteorological data (including wind) from the National Weather Service to predict the dispersion of gaseous effluents from the proposed National Enrichment Facility (NEF) site. LES collected monthly mean wind speeds and prevailing wind directions from Midland-Odessa, Texas Wind Data and from Roswell, New Mexico Wind Data. NRC performs confirmatory analyses to verify that potential releases to the environment do not exceed regulatory criteria. These analyses often include the use of state-of-the-art computer radiological assessment models. The results of such analyses will be discussed in the NRC's Environmental Impact Statement and the Safety Evaluation Report

2. P. Barr Question: Also how radioactive will the emissions be, type of emissions and the specific material the emissions will be from?

Response: Section 4.1 of the LES Environmental Report states that the facility uses, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as reasonably achievable (ALARA).

In Section 4.12 of the Environmental Report, LES reports that for gaseous effluents, the location of highest calculated offsite dose is the South site boundary with an annual dose of 1.7×10^{-2} mrem. The nearest resident location had maximum annual dose of 1.7×10^{-3} mrem, or about a factor of 10 lower than the site boundary. The annual dose for this location from liquid releases is 2.8×10^{-3} mrem. For liquid effluents which result in resuspended airborne particles from the dry out of the Treated Effluent Evaporative Basin, the location of highest calculated offsite dose had an annual dose of 1.7×10^{-3} mrem. For this scenario, the nearest resident location had maximum annual dose of 1.7×10^{-4} mrem. These doses due to normal operations are small fractions of the normal background radiation range of 200 to 300 mrem dose that an average individual receives in the US, and is within regulatory limits.

According to Section 4.6 of the LES Environmental Report, the principle isotopes of uranium: ^{238}U , ^{235}U , and ^{234}U , are expected to be the primary nuclides of concern in both gaseous effluent and liquid waste discharged from the plant.

NRC is still reviewing the LES reports. The results of our review will be discussed in the Environmental Impact Statement and the Safety Evaluation Report.

3. P. Barr Question: Are there any plans to take blood samples from livestock that will be downwind of this plant over the course of its operation? To see if the food chain is being affected.

Response: Section 6.1 of the Environmental Report states that operational monitoring surveys will also be conducted annually (except semiannually for birds and reptiles/amphibians and mammals). These surveys are intended to be sufficient to characterize gross changes in the composition of the vegetative, avian, mammalian, and reptilian/amphibian communities of the site associated with operation of the facility. In

addition, Section 6.1 of the Environmental Report that for gaseous effluents, continuous air sampler filters are analyzed for gross alpha and beta each week. An isotopic analysis of the filters are performed quarterly. For liquids, a grab sample is taken for isotopic analysis post-treatment prior to discharge to the Treated Effluent Evaporative Basin.

NRC requires that licensees conduct surveys necessary to demonstrate compliance with 10 CFR Part 20 and to demonstrate that the amount of radioactive material present in effluent from the facility has been kept as low as reasonably achievable (ALARA). In addition, the NRC requires pursuant to 10 CFR 70, that licensees submit semiannual reports, specifying the quantities of the principal radionuclides released to unrestricted areas and other information needed to estimate the annual radiation dose to the public from effluent discharges.

4. P. Barr Question: Will the other evaporative ponds at the site contain radioactive water as well?

Response: In Section 3.12 of the Environmental Report, LES stated that the Treated Effluent Evaporative Basin will meet NRC requirements for effluent discharges in 10 CFR Part 20. The second evaporation pond is the Uranium Byproduct Cylinder (UBC) Storage Pad Retention Basin. This basin takes effluents from the Cooling Tower Blowdown System and rainwater runoff from the UBC storage pad. It is not expected that the water in this basin will be radioactive, however, water monitoring will take place to confirm this. This basin has a single synthetic liner.

The third evaporation pond is an unlined pond for general, non-radioactive site stormwater drainage. The septic tank system is for plant non-radioactive sanitary wastes.

5. P. Barr Question: Pit Liners - The evaporative ponds will have liners as I understand it. Will the NRC or the State give a 100 per cent guarantee that these liners will never leak?

Response: NRC's mission is to ensure adequate protection of public health and safety and the environment. Our license application reviews and inspections are aimed at ensuring that regulated material activities are undertaken consistent with applicable statutes and regulations. In so doing, the NRC provides reasonable assurance that adverse impacts from licensees' use of byproduct, source, and special nuclear material will be prevented.

According to the Environmental Report, Section 4.122, the basin will include a double-layer membrane liner with a leak detection system that will provide early indication of any failure of the basin barriers to prevent infiltration of basin water into the ground. Section 6.1 states that the design status of leak detection (and mitigation procedures) for ponds and tanks has not yet progressed to final design. The facility will conform with leak detection recommendations found in the NRC's NUREG-1520.

Additionally, in Section 4.122 the applicant proposed a combination of effluent monitoring and environmental monitoring/sampling programs that will provide data to identify and assess the plant's contribution to environmental uranium at the NEF site.

Both monitoring programs have been designed to provide comprehensive data to demonstrate that plant operations have no adverse impact on the environment

6. P. Barr Question: Where will the nearest official be located at that will inspect this plant for safety?

Response: NRC's Regional office in Atlanta, Georgia will be responsible for conducting routine inspections. Headquarters staff will also perform inspections.

7. P. Barr Question: Does the NRC agree with LES that if a waste container was ruptured that no matter the weather condition, that no material would ever leave the plant grounds?

Response: Neither LES or NRC have said that no material would ever leave the plant grounds under any conditions. To obtain a license, LES must demonstrate that it can meet the requirements for effluent releases in 10 CFR Part 20 for routine operations and the performance requirements in 10 CFR Part 70, Subpart H for accidents. The NRC is still evaluating accident scenarios. This evaluation will be documented in our Safety Evaluation Report.