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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSIONOFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

Docket No. 70-3103

Louisiana Energy Services, L.P.
National Enrichment Facility

ASLBP No. 04-826-01-ML

RESPONSE BY PETITIONERS
NUCLEAR INFORMATION AND RESOURCE SERVICE
AND
PUBLIC CITIZEN
TO APPLICANT'S MOTION TO COMPEL
RESPONSES TO INTERROGATORIES

Preliminary statement

This memorandum is filed on behalf of Petitioners Nuclear Information and Resource Service and Public Citizen ("NIRS/PC") in response to contentions contained in Applicant's Motion to Compel Responses to Interrogatories by Nuclear Information and Resource Service and Public Citizen, dated October 4, 2004, pursuant to the Order of the Atomic Safety and Licensing Board (the "Board") dated October 5, 2004.

Factual background

The Applicant, Louisiana Energy Services, L.P. ("LES") seeks an order from the Board, directing NIRS/PC to respond in detail to questions asking for the testimony that expert witnesses will present at the hearings in this matter, which are scheduled to take place in February and October, 2005. To put LES's request in perspective, some background is necessary.

The Memorandum and Order dated August 16, 2004, contains a schedule for further proceedings in accordance with the hearing order of the Commission, dated January 30, 2004 (69 Fed. Reg. 5873)(Feb, 6, 2004). Under the August 16 schedule, 10 CFR 2.704(a) document production took place on September 2, 2004; interrogatories were propounded by September 9, 2004; and interrogatory responses were due on September 23, 2004. In addition, depositions are to be concluded by October 18, 2004.

Applicant produced certain documents on September 2, 2004. Many of these documents are marked as "proprietary" by LES; clearly, almost none of the LES documents were publicly available. These documents were needed for expert preparation. The documents were copied, shipped by express, and arrived at the offices of the NIRS/PC experts on September 7, 2004. Thus, the expert witnesses—other than those retained by Applicant—first received the documents produced by Applicant after the Labor Day weekend.

Two days later, on September 9, Applicant propounded interrogatories asking NIRS/PC, with respect to each contention, to "[p]rovide the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, including the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony." (See, e.g., LES interrogatory, EC-1, Sept. 9, 2004). Answers were due on September 23, 2004. NIRS/PC respectfully suggest that to expect that all investigation would be conducted and opinions finalized within two weeks, so that definitive statements of testimony could be delivered by that date, is unrealistic.

In any case, the August 16 Memorandum and Order does not require that all experts finish all of their work by the date of the interrogatory answers, nor that of their depositions. The August 16 order provides for the filing of prefiled direct testimony on December 30, 2004, at

which time experts will express their opinions in support of the environmental contentions. At that time it may be hoped that opinions can be set forth, but the order still does not require that experts discontinue their investigations at that date.

Moreover, some information needed to prepare expert testimony has not yet been produced by the Applicant. The Applicant has refused discovery about price and cost matters, and such information must be sought by motion, which NIRS/PC have done by Motions to Compel, filed on October 4, 2004, and October 8, 2004. The Applicant has also declined to answer several interrogatories about its asserted “plausible strategy” for disposition of depleted uranium, and, again, such information must be obtained by motion. See NIRS/PC Motion to Compel, served October 4, 2004. Further, at the deposition of Applicant’s experts, George Harper and Roger Peery, on September 17, 2004, counsel for NIRS/PC first learned that a geologic fault—a potential fast flow path—had been located close to the proposed site of the National Enrichment Facility. (Tr., Sept. 17, 2004, at 91). Counsel for the Applicant was asked to produce the report concerning the fault and said that it would be done. (id.) These materials have not been produced.

On September 23, 2004, NIRS/PC filed interrogatory answers, disclosing in substance the status of its experts’ preparation. Such answers reflected the extent of the witnesses’ conclusions at the time of the answer. Under the rules, a party is required to answer an interrogatory with “factual information reasonably related to a party’s position in the proceeding, including data used, assumptions made, and analyses performed by the party” (10 CFR 2.705(b)(5), and that has been done.

Further, after responding, a party is required to respond with information thereafter acquired within a reasonable time after learning that the previous “response is in some material respect incomplete or incorrect.” (10 CFR 2.705(e). The rule states:

“(e) Supplementation of responses. A party who responded to a request for discovery with a response is under a duty to supplement or correct the response to include information thereafter acquired if ordered by the presiding officer or, with respect to an answer to an interrogatory, request for production, or request for admission, within a reasonable time after a party learns that the response is in some material respect incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing.”

Under these rules, NIRS/PC will supplement its interrogatory answers when its expert witnesses form their opinions.

Argument

In this situation, NIRS/PC address the matters raised by LES:

Contention EC-1 – Impacts Upon Ground and Surface Water: In answer to the request to summarize testimony in support of this contention, NIRS/PC stated that the hydrologist, George Rice will testify as follows:

“As stated in NIRS/PC Contention EC-1, LES has not adequately characterized existing conditions at the proposed site and has not adequately evaluated how its operations will affect groundwater quality in the future.”

Contention EC-1 states as follows, quoting from the Petition:

“As background, the proposed NEF site is underlain by 10 to 30 feet of alluvium (ER 3.3-6).¹ The alluvium is underlain by the Dockum Group, which is composed of two subunits: the Chinle Formation and the Santa Rosa Aquifer. The Chinle immediately underlies the alluvium (ER 3.3-2). Water exists in the Chinle at a depth of about 220 feet (ER 3.4-12). The top of the Santa Rosa is about 800 feet below land surface (ER 3.4-12).^{2,3}

¹ Alluvium is stream deposited clay, silt, sand, and gravel.

² The Santa Rosa Aquifer is used as a source of domestic and livestock water (Leedshill-Herkenhoff et al., 2000, page 6-12). LES does not believe the Santa Rosa can be affected by the proposed NEF. Thus, it does not intend to investigate this unit (ER 3.4-12 and 3.4-13).

³ The 800 foot figure is inconsistent with the depth reported for the top of the Permian units (760 feet, ER page 3.3-3). The Santa Rosa is above the Permian (Nicholson and Clebsch, 1961, table 3). See discussion below.

"The NEF will generate waste waters (treated effluent from the plant operations and sewage) and stormwater runoff. LES intends to discharge plant effluents and runoff to evaporation basins on the plant. Sewage will be discharged to a septic leach field. Treated effluent from the plant will be discharged to a double lined evaporation basin (ER 8.8-3). Approximately 2535 m³ of effluent will be discharged to the basin each year (ER 8.8-3). Stormwater runoff from the uranium byproduct cylinder ("UBC") storage pad and cooling tower blowdown will be directed to a single lined evaporation basin (ER 8.8-3). This basin will be able to hold approximately 53,600 m³ of runoff (ER 8.8-3). Stormwater runoff from the plant (except the UBC storage pad) will be directed to an unlined evaporation basin (ER 8.8-3). This basin will be able to hold approximately 23,350 m³ of runoff (ER 3.4-6). Overflow from the basin will be discharged to ground surface (ER 4.4-7). Sewage will be discharged either to an above ground leach field (drain pipes buried beneath a mound of sand and soil) or a below ground leach field (ER 4.1-3). Approximately 7250 m³ of sewage will be discharged annually (ER 3.12-4).

"Some water from the evaporation basins and septic leach field will infiltrate into the alluvium. A number of things may happen to the water after it enters the subsurface. It may be removed by evapotranspiration, pond on the surface of the Chinle Formation and flow along the alluvial/Chinle contact, flow into the groundwater system that exists in the Chinle Formation, or flow into the Santa Rosa Aquifer.

"A. Basis: In this situation, the ER has several serious shortcomings: The ER fails to demonstrate that there has been any evaluation of the fate of waste waters and runoff that enter the subsurface at the NEF. To determine where this water will go, LES should answer the following questions:

- a. How much water would infiltrate into the alluvium from:
 - The treated effluent basin?
 - The UBC storage pad and cooling tower blowdown basin?
 - The stormwater basin?
 - The septic leach field?
- b. Where would water flowing along the alluvial/Chinle contact be discharged?
- c. How long would it take for water from the NEF to reach the discharge area?
- d. Are there subsurface fractures or other fast pathways that would allow water to flow rapidly from the alluvium to the Chinle, or from the Chinle to the Santa Rosa?

It should be noted that a pesticide has been detected in a groundwater sample collected from Chinle monitor well (MW-2) (ER 3.4-7). This finding may indicate a connection to the surface such as a fast flow path from the alluvium to the Chinle. LES says only that the detection is probably a false positive (ER 3.4-7).

e. LES also should have determined the ages of water in the Chinle and Santa Rosa. Relatively young water would indicate that water reaches these units along fast flow paths.

f. LES has also failed to adequately address whether groundwater exists in the alluvium at the proposed NEF site. LES has installed three Chinle monitor wells (ER 3.2-17) and drilled 14 borings at the site (ER 3.2-20). LES has provided logs for five borings (ER figures 3.2-10 – 3.2-14), but not for the other nine borings or the monitor wells. LES should provide all logs and descriptions of subsurface materials so that its claim that there is no groundwater in the alluvium (ER 3.4-5) can be thoroughly

evaluated. The five logs that were provided indicate that the borings were backfilled on the same day they were drilled (ER figures 3.2-10 – 3.2-14). Thus, LES may not have allowed sufficient time for water to enter the borings. Water levels in the alluvial groundwater system at the WCS site are known to recover slowly (ER 3.2-15). Further, the clay at the bottom of boring B-2 was described as “moist” (ER figure 3.2-11). This could be due to the presence of water in the alluvium. In addition, groundwater is known to exist in the alluvium at three places near the NEF site: 1) about ½ mile north at the Wallach sand and gravel quarry (ER 3.4-2), 2) about ½ mile northeast at Baker Spring (ER 3.4-2 and 3.4-3), and 3) about 2/3 mile east at the WCS site (ER 3.4-3 and 3.4-4). In this situation, the ER should also have addressed questions such as: What are the sources (recharge points) of groundwater in the Chinle and Santa Rosa? How will LES distinguish between groundwater contamination caused by the NEF and contamination caused by other potential sources (e.g., Wallach quarry, WCS site, Lea County Landfill⁴)?

g. There are other questions not adequately addressed in the ER which demand answers before the ER can be considered a complete and adequate assessment of potential impacts on groundwater. For example, there is a mystery as to the depth of the Santa Rosa Aquifer at the NEF site. LES states that the depth is 800 feet (SAR 1.3-9). This is contradicted by the statement that the top of the Permian is at a depth of 760 feet (ER 3.3-3). The Santa Rosa is above the Permian.⁵ According to ER table 3.3-1, the top of the Santa Rosa is approximately 450 feet below land surface. There is a Dockum Group well approximately 3 miles from proposed NEF site (T22S, R38E Sec. 18, 234).⁶ The water-bearing unit is at a depth of 325 feet. This may be the Santa Rosa Aquifer.

h. In addition, LES does not intend to investigate the Santa Rosa Aquifer at the proposed NEF site (ER 3.4-13). LES plans to install only two monitor wells (ER 6.1-7 and figure 6.1-2). Presumably, these wells will be completed in the alluvium. This does not appear to be adequate. There will be at least four potential sources of groundwater contamination at the site (three evaporation basins and the septic leach field). At least one well should be up gradient of the site (background).

i. Further, the detection limit for most metals in groundwater will be 5 ppm (ER table 6.2-1). This is much higher than the health-based standards established for many metals (e.g., arsenic = 0.05 ppm, chromium = 0.1 ppm).⁷ The detection limits for each metal should be no higher than the health-based standard.

j. Also, the full composition of the UF₆ feedstock has not been specified (ER at 1.2-2). LES should identify the other hazardous materials that may be contained in the feedstock (e.g., metals).

k. The permeabilities presented in ER table 3.3-2 of the Environmental Report may be derived from laboratory measurements. Laboratory measurements often underestimate the bulk permeability of a rock body because they do not account for fractures and other features that may act as fast flow paths.⁸

⁴ The Lea County Landfill is less than 500 feet from the southeast corner of the proposed NEF site.

⁵ Nicholson and Clebsch, 1961, table 3.

⁶ Nicholson and Clebsch, 1961, plate 2.

⁷ EPA 1998.

⁸ Linsley, Kohler, and Paulhus, 1958, page 131; Davis and DeWiest, 1966, page 165.

1. LES states that water in the Santa Rosa Aquifer is “considered not potable.” (ER 4.12-9) The basis for this statement is not given. The Santa Rosa Aquifer is used as a source of domestic and livestock water in Lea County.⁹”

LES asserts that this response is “evasive and incomplete” (LES Mot. 3). To the contrary, it is detailed and pointed and specifies the matters to be presented in testimony. There is certainly additional information to be obtained from LES, which may cause Mr. Rice to elaborate his testimony, but the statement quoted above is a sufficient interrogatory answer.

Contention EC-2 – Impacts Upon Water Supplies: In answer to the request to summarize expert testimony, NIRS/PC stated that the hydrologist, George Rice, will testify as follows:

The water used at the proposed facility would be pumped from the Hobbs well field (Lea Count Underground Water Basin, Ogallala Aquifer). Groundwater in the Basin is being pumped at a rate faster than it is being recharged. LES has not determined how this pumpage would affect water levels and the long-term productivity of the Hobbs well field or the Lea County Underground Water Basin.

The National Enrichment Facility (“NEF”) is expected to operate for the period approximately 2008 through 2038. (Environmental Report (“ER”), Figure 1.1-7). The NEF requires an uninterrupted supply of water. In that time frame, the NEF will regularly withdraw a substantial quantity of water, and other users will also take water from the Lea County Underground Water Basin. (ER Table 3.4-4). What is missing from the ER is an analysis of the effect of the NEF on the basin throughout the period of operation, during which shortages will become more acute. These are among the effects that LES has failed to analyze. (See Rice dep., Tr.26-31, Sept. 17, 2004). The contention asserts a failure of analysis, and the testimony on the failure need not be elaborate.

In response to question 5, contained in Interrogatory EC-2, NIRS/PC stated that “significant water needs” means water needs that are “substantial in volume and require an

⁹ Leedshill-Herkenhoff et al., 2000, page 6-12.

uninterruptible priority for an extended period of time, i.e., decades.” LES asks for a further definition of “substantial,” but plainly the needs of the NEF—i.e., 63.423 gallons per day (ER Table 3.4-4)—are significant. The concept of “uninterruptible priority” is well known in utility businesses and means that service which must be continued regardless of needs of other users.

In response to question 6, NIRS/PC explained that a “projected water shortage is an anticipated situation in which some current and expected water users may be required to curtail their usage.” LES requests that this explanation be supplemented. NIRS/PC have already stated as follows in the Petition:

“The *Lea County Regional Water Plan*, a comprehensive survey of water resources, shows that most potable water in Lea County is drawn from the Lea County Underground Water Basin (UWB), which is part of the Ogallala Aquifer—an essential water source for agricultural irrigation. The water plan states that groundwater in the UWB is being withdrawn faster than it is being recharged, causing the water level to drop of as much as 70 feet since the 1920s. The report projects a doubling of water usage by 2040 and warns that “there is physically not enough water in the Basin to maintain an annual diversion of this magnitude.”¹⁰ An adequate ER would set forth the impact of the NEF in contributing to such foreseeable shortage of a vital resource.” (Pet. at 24).

NIRS/PC have provided to LES a clear idea of the bases underlying this contention, and no further answer is required at this time.

Contention EC-5/TC-2; AGNM TC-i – Decommissioning Costs: The Applicant complains that the information provided concerning the substance of the facts and opinions of the expert witness Dr. Charles Komanoff states that the answer is in development as Komanoff researches and prepares his testimony. The answer is, of course, truthful at the date it was given. LES points out that under 10 CFR 2.704(a)(3), a party must answer even if its investigation is incomplete, and even if the opposing party’s disclosure is incomplete. (LES Mot. at 5). However, the rule applicable to interrogatories is 10 CFR 2.705. Under Rule 705, a party must

¹⁰ *Lea County Regional Water Plan*, Prepared for the Lea County Water Users Association by Leedshill-Herkenhoff, Inc., John Shomaker & Associates, Inc., and Montgomery & Andrews, P.A. 7 Dec. 2000.

disclose facts, data, assumptions, and analyses. LES's September 2 document production contained significant material on the subject of decommissioning costs, and Dr. Komanoff had hardly begin review of that material when it was necessary to draft interrogatory answers; thus, there was not much to disclose. At the same time, under 10 CFR 2.705(e), supplementation will be provided when Dr. Komanoff has progressed to the point of forming his views. In addition, the August 16, 2004 order requires the submission of prefiled direct testimony on December 30, 2004, and September 16, 2005. The discovery rules have been honored. There is no need for a direction to make a further answer.

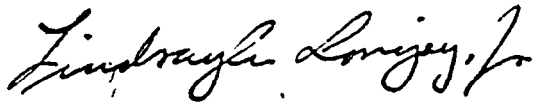
Contention EC-7 – Need for the Facility: The Applicant requests an order directing NIRS/PC to answer further as to the testimony of Dr. Komanoff concerning the need for the facility. NIRS/PC had answered that the testimony of Dr Komanoff is under development. Much of the information needed for testimony on this issue has still not been disclosed by LES. On October 4 and again on October 8, 2004, NIRS/PC moved for disclosure of information in LES's possession concerning, inter alia, the costs of production of uranium enrichment and the prices expected to prevail in the enrichment market. That information has, plainly, not been received. Dr. Komanoff has started to review documents, to the extent they have been produced, but has not yet done enough to state his opinion. As with regard to Contention EC-5/TC-2 and AGNM TC-i, the interrogatory response will be supplemented after his opinions have firmed up, and prefiled direct testimony will be filed. There is no need for an order at this time.

Conclusion

The interrogatory answers filed by NIRS/PC under the schedule for this proceeding conform to the rules. The rules also require supplementation when the experts' testimony has

further developed. However, there is no necessity for an order requiring further answers at this time, and the motion should be denied.

Respectfully submitted,



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October 12, 2004

CERTIFICATE OF SERVICE

Pursuant to 10 CFR § 2.305 the undersigned attorney of record certifies that on October 12, 2004, the foregoing Response by Petitioners Nuclear Information and Resource Service and Public Citizen to Applicant's Motion to Compel Responses to Interrogatories was served by electronic mail and by first class mail upon the following:

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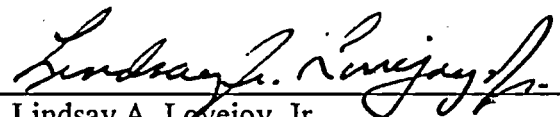
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