

May 6, 2004 (3:37PM)

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

BEFORE THE COMMISSION

In the Matter of:

Louisiana Energy Services, L.P.

(National Enrichment Facility)

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)  
)

Docket No. 70-3103-ML

ASLBP No. 04-826-01-ML

ANSWER OF LOUISIANA ENERGY SERVICES, L.P. TO  
THE REQUESTS FOR HEARING AND PETITIONS FOR LEAVE TO INTERVENE  
OF THE NEW MEXICO ATTORNEY GENERAL AND  
NUCLEAR INFORMATION AND RESOURCE SERVICE AND PUBLIC CITIZEN

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May 3, 2004

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NUCLEAR INFORMATION AND RESOURCE SERVICE AND PUBLIC CITIZEN

I. INTRODUCTION

In accordance with 10 C.F.R. § 2.309(h)(1), Louisiana Energy Services, L.P. (“LES”), applicant in this matter, hereby files its answer to the Requests for Hearing and Petitions for Leave to Intervene of the New Mexico Attorney General (“AG”)<sup>1</sup> and Nuclear Information and Resource Service and Public Citizen (“NIRS/Public Citizen” or “Petitioners”).<sup>2</sup> As discussed below, LES accepts that the AG, NIRS, and Public Citizen have standing to participate in this proceeding pursuant to 10 C.F.R. § 2.309(d). However, LES opposes admission of all of the proposed contentions proffered by the AG, NIRS, and Public Citizen. Accordingly, the Petitions should be rejected.<sup>3</sup> LES would emphasize, however, that it has had

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<sup>1</sup> See “The New Mexico Attorney General’s Request for Hearing and Petition for Leave to Intervene,” dated April 5, 2004 (“AG Petition”).

<sup>2</sup> See “Petition to Intervene by Nuclear Information and Resource Service and Public Citizen,” dated April 6, 2004 (“NIRS/Public Citizen Petition”).

<sup>3</sup> The New Mexico Attorney General (AG) stated in its April 23, 2004 “Supplemental Request of the New Mexico Attorney General for Hearing and Petition for Leave to Intervene” that it wished to adopt contention 5(e) of the New Mexico Environment Department (NMED) related to estimating occupational and public radiation doses. Neither the Applicant nor the NRC Staff is contesting the standing of the Attorney General to participate in this proceeding or the admissibility of NMED Contention 5(e). As a result, in the event that the Board rules that contention 5(e) is admissible, the

extensive discussions with the AG relative to most of the issues that have been raised by the AG in this proceeding and, notwithstanding that the contentions proffered by the AG do not satisfy the applicable legal standard for admissibility, LES remains committed to continuing the active discussions with the AG in an effort to reach a mutually agreeable resolution of the issues that have been raised, as the licensing proceeding goes forward.

## **II. BACKGROUND**

On December 12, 2003, LES submitted an application for the specific Nuclear Regulatory Commission ("NRC") license necessary to authorize construction and operation of the National Enrichment Facility ("NEF"), a gas centrifuge uranium enrichment facility, to be located in Lea County, New Mexico. If granted, the license will authorize LES to construct and operate the facility, which will enrich uranium for conversion into fuel to be used in nuclear power reactors. A license would be issued in accordance with 10 C.F.R. § 70.31(d), upon appropriate findings that the facility would not be inimical to the common defense and security or constitute an unreasonable risk to the health and safety of the public.<sup>4</sup> A Notice of Hearing<sup>5</sup> and Commission Hearing Order were published in the *Federal Register* on February 6, 2004.<sup>6</sup> In

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Attorney General could, if designated as the single representative for this contention by the petitioners and/or the Board, participate as a party in this proceeding with respect to NMED contention 5(e), even though all of the contentions proffered by the Attorney General in her Petition of April 5, 2004 might be found inadmissible. In the alternative, in the event that the Attorney General is not designated as the single representative with regard to NMED Contention 5(e), if all contentions proffered by the Attorney General are ruled inadmissible, the Attorney General could still elect to participate in this proceeding as an interested governmental participant pursuant to 10 C.F.R. § 2.315(c).

<sup>4</sup> Licenses would also be issued under 10 C.F.R. Parts 30 and 40 for possession and use of source and byproduct materials.

<sup>5</sup> Pursuant to Section 193(b) of the Atomic Energy Act of 1954, as amended ("AEA"), a hearing on this application is required.

<sup>6</sup> In the Matter of Louisiana Energy Services, L.P. (National Enrichment Facility); Notice of Receipt of Application for License; Notice of Availability of Applicant's

response to the Notice of Hearing, the AG filed its Petition on April 5, 2004.<sup>7</sup> NIRS/Public Citizen filed their Petition on April 6, 2004. The Commission Hearing Order addressed several important threshold issues and defined the scope of issues that are the subject of this NRC proceeding.

### **III. STANDING**

#### **A. New Mexico Attorney General**

The AG states that it is required by State statute to “appear before local, state and federal courts and regulatory officers, agencies and bodies, to represent and to be heard on behalf of the state when, in [her] judgment, the public interest of the state requires such action.” (AG Petition ¶ 2, at 2 quoting NMSA 1978, § 8-5-2(J)(1975).) Further, as the statutorily designated representative of New Mexico, the AG states that it need not address the standing requirements under Section 2.309(d)(2)(i).

LES does not contest the AG’s standing in this proceeding. The Commission has long acknowledged the benefits of participation in licensing proceedings by interested States. *See, e.g., Fansteel Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 202 (2003).* LES respects the right of the State of New Mexico to participate in this proceeding where its issues

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Environmental Report; Notice of Consideration of Issuance of License; and Notice of Hearing and Commission Order, 69 Fed. Reg. 5,873 (Feb. 6, 2004) (“Hearing Order”).

<sup>7</sup> As noted above, the AG filed a supplemental petition on April 23, 2004, in response to the Licensing Board’s Initial Prehearing Order dated April 15, 2004. In accordance with that order, the AG assigned each of its already-specified contentions a separate numeric designation within one of the following categories: (1) Technical, (2) Environmental, and (2) Miscellaneous. Although the citations in this Answer are to the AG’s April 5, 2004 Petition, this Answer does identify the Board-requested designations assigned by the AG to its nine proposed contentions.

relate to public health and safety or the protection of the environment within the zone of interests of the AEA or the National Environmental Policy Act of 1969 (“NEPA”).<sup>8</sup>

**B. NIRS and Public Citizen**

For a private petitioner, a request for hearing or petition for leave to intervene must state:

- (i) The name, address and telephone number of the petitioner;
- (ii) The nature of the petitioner’s right under the [AEA] to be made a party to the proceeding;
- (iii) The nature and extent of the petitioner’s property, financial or other interest in the proceeding; and
- (iv) The possible effect of any decision or order that may be issued in the proceeding on the petitioner’s interest.

10 C.F.R. § 2.309(d)(1). When determining whether a petitioner has established the necessary “interest” under Section 2.309 (formerly Section 2.714), licensing boards are directed to look for guidance to judicial concepts of standing. *See, e.g., Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998). Accordingly, to demonstrate standing a petitioner must allege (1) a concrete and particularized injury that is (2) fairly traceable to the challenged action and (3) likely to be redressed by a favorable decision. *See, e.g., Steel Co. v. Citizens for a Better Env’t.*, 523 U.S. 83, 102-04 (1998).

In support of its standing, Public Citizen relies upon the affidavit of a member of its organization, Rose Gardner. Ms. Gardner states in her March 25, 2004 affidavit that she

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<sup>8</sup> In its March 23, 2004 Petition, the NMED states that “[t]he Governor of the State of New Mexico has designated NMED as the single representative for the State for the hearing in this matter.” The AG Petition, however, states that the Attorney General is the “statutorily designated representative of the State in which LES’s proposed Facility is to be located . . .” (AG Petition ¶ 2, at 2.) The appearance of two parties on behalf of the State of New Mexico is addressed in the Licensing Board’s Initial Prehearing Order of April 15, 2004.

resides within 4.9 miles of the proposed NEF site. With respect to injury, Ms. Gardner states, *inter alia*:

I am concerned that if an accident involving atmospheric release of radiation . . . were to occur, my family and I could be killed or become very ill. I am also concerned about the impact of slow releases of radioactivity to air or ground water, such as the releases that might occur if a depleted uranium container in storage should corrode or leak. I understand that long-term disposal of the waste from the proposed plant has not been arranged for, and I am concerned that waste may remain in the vicinity of the plant for decades or more, threatening the health of those who live nearby, such as me and my family.

Declaration of Rose Gardner at ¶ 3. Similarly, in support of its standing, NIRS has submitted ten affidavits, substantively similar to that of Ms. Gardner, of members residing between 2.5 and 22 miles of the proposed facility. All affiants have authorized Public Citizen or NIRS, respectively, to represent them in this proceeding.

Based upon these representations, LES does not contest the standing of NIRS and Public Citizen in this proceeding, given the proximity of the identified members to the proposed facility. *See Pac. Gas & Elec. Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation)*, LBP-02-23, 56 NRC 413, 427-28 (2002) (finding proximity-based standing within 17 miles of a proposed independent spent fuel storage installation); *Louisiana Energy Servs., L.P. (Claiborne Enrichment Center)*, Memorandum and Order, 1991 WL 317034 (July 16, 1991), at \*2-\*3; *citing Va. Elec. & Power Co. (North Anna Nuclear Power Station, Units 1 & 2)*, ALAB-522, 9 NRC 54 (1979).

#### **IV. PROPOSED CONTENTIONS**

To be admissible in NRC licensing proceedings, proposed contentions must satisfy 10 C.F.R. § 2.309(f)(1), which states that a petitioner must provide:

- (i) a *specific statement of the issue of law or fact* to be raised or controverted;

- (ii) a brief explanation of the *basis* for the contention;
- (iii) a demonstration that the issue raised in the contention is *within the scope of the proceeding*;
- (iv) a demonstration that the issue raised in the contention is *material* to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) a concise statement of the *alleged facts or expert opinions which support the petitioner's position on the issue* and on which the petitioner intends to rely at hearing, together with references to the *specific sources and documents* on which the petitioner intends to rely to support its position on the issue; and
- (vi) sufficient information to show that a *genuine dispute exists with the applicant on a material issue of law or fact*. This information must include references to *specific portions of the application* (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, *the identification of each failure and the supporting reasons for the petitioner's belief*.

10 C.F.R. § 2.309(f)(1) (emphasis added). These provisions “incorporate the longstanding contention support requirements of former 10 C.F.R. § 2.714 — no contention will be admitted for litigation in an NRC adjudicatory proceeding unless these requirements are met.”<sup>9</sup> The Commission has emphasized that its rules on admission of contentions establish an evidentiary threshold more demanding than a mere pleading requirement and are “strict by design.” *Dominion Nuclear Conn. Inc.* (Millstone Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001). The rules require precision in the contention pleading process and require that a proposed contention have plausible and relevant factual support. The rules provide that if the contention and supporting material fail to demonstrate a genuine dispute as required by Section 2.309(f)(vi), the presiding officer must refuse to admit the contention. *See also Ariz. Pub. Serv.*

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<sup>9</sup> Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004).

Co. (Palo Verde Nuclear Generating Station, Units 1, 2 & 3), CLI-91-12, 34 NRC 149, 155 (1991) (citing Final Rule, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989)). Additionally, the petition must demonstrate that the issue raised by each contention is within the scope of the proceeding and is material to the findings the NRC must make to support the granting of a license. See *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 164 (2000). Similarly, under longstanding Commission precedent, proposed contentions must fall within the scope of the issues set forth in the notice of hearing. See *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), LBP-90-6, 31 NRC 85, 91 (1990) (citing *Pub. Serv. Co. of Ind., Inc.* (Marble Hill Nuclear Generating Station, Units 1 & 2), ALAB-316, 3 NRC 167, 170 (1976)).

A. **NIRS/Public Citizen Proposed Contention 1.1 – Environmental Impacts on Ground and Surface Water**

In proposed Contention 1.1, NIRS/Public Citizen argue that the Application “does not contain a complete or adequate assessment of the potential environmental impacts of the proposed project on ground and surface water, contrary to the requirements of 10 C.F.R. 51.45.” (NIRS/Public Citizen Petition at 19.) The premise underlying this contention is Petitioners’ belief that “[s]ome water from the evaporation basins and septic leach field will infiltrate into the alluvium” that underlies the site. (*Id.* at 20.) Petitioners allege that, once in the alluvium, the water 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.<sup>10</sup> (*Id.*) The proposed contention has one basis –

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<sup>10</sup> The ER states that the site is underlain by alluvial deposits 30-60 feet thick. The alluvium rests on the Chinle Formation, a silty clay with lenses of sandy clay or claystone and siltstone. ER at 3.3-2. The most shallow strata to produce measurable quantities of

Basis A – which is a list of several questions and statements of issues that Petitioners assert will assist in the “evaluation of the fate of waste waters and runoff that enter the subsurface at the NEF.” (*Id.* at 20.)

To address this proposed contention, it is important to understand the nature of the information in the ER. The ER discusses, in detail, the facility discharges in relation to hydrologic systems. First, there is no surface water on the NEF site. *See* ER at 3.4-1. Second, discharge of routine plant liquid effluents will be to the Treated Effluent Evaporative Basin on the site, and only after the discharge is verified to meet all applicable regulatory discharge requirements for discharge to a public sewer system. *See* ER at 3.4-6, 4.4-2, 6.1-4 to 6.1-5; SAR at 3.5-55. The ER states as follows with respect to the Treated Effluent Evaporative Basin:

The Treated Effluent Evaporative Basin is utilized for the collection and containment of waste water discharge from the Liquid Effluent Collection and Treatment System. The ultimate disposal of waste water will be through evaporation of water and impoundment of the residual dry solids byproduct of evaporation. . . . Evaporation will provide the only means of liquid disposal from this basin. The Treated Effluent Evaporative Basin will include a double membrane liner and a leak detection system. . . . [O]nly uncontaminated liquid wastes are released to the Treated Effluent Evaporative Basin for evaporation without treatment. Contaminated liquid waste is neutralized and treated for removal of uranium, as required.

ER at 3.4-6. Therefore, because the NEF will not discharge process effluents to groundwater and surface water, no impacts on natural water systems due to facility water use are expected. ER at 4.4-4. This Treated Effluent Evaporative Basin is designed to retain the plant effluent under the conservatively-estimated precipitation conditions so as to preclude any release to the ground. These representations are consistent with those made by LES to the State of New Mexico in

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water is an undifferentiated siltstone seam of the Chinle approximately 200 to 240 feet below ground surface. ER at 3.3-3. The uppermost aquifer capable of producing significant volumes of water is the Santa Rosa Formation, located approximately 800 feet below ground surface. *Id.*

LES' application for a Ground Water Discharge Permit, which LES submitted in accordance with New Mexico law.<sup>11</sup>

Similarly, stormwater from the site will be collected in one of two basins. The Site Stormwater Detention Basin at the south side of the site will collect runoff from various developed parts of the site, such as parking areas and building roofs. This basin is unlined, and will have an outlet to control overflow and drainage. The normal discharge will be through evaporation/infiltration into the ground. *Id.* No wastes from facility operational systems will be discharged into this stormwater. ER at 4.4-4. A Stormwater Pollution Prevention Plan will be implemented for the NEF to assure that runoff released to the environment will be of suitable quality. *Id.* at 4.4-7. In any event, impact from stormwater runoff generated during plant operations is not expected to differ significantly from impacts currently experienced at the site. *Id.* at 4.4-2.<sup>12</sup>

The Uranium Byproduct Cylinder ("UBC") Storage Pad Stormwater Retention Basin will be utilized for the collection and containment of (1) cooling tower blowdown discharges, (2) heating boiler blowdown discharges, and (3) stormwater runoff from the UBC Storage Pad. ER at 3.4-6. Disposal of this basin water will be through evaporation of water and impoundment of the residual dry solids after evaporation. *Id.* The basin is designed with a membrane lining (synthetic fiber with soil cover), and without an outfall, to preclude any

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<sup>11</sup> As stated in ER Section 4.4, the New Mexico Water Quality Board requires that facilities that discharge an aggregate waste water of more than 7.6 m<sup>3</sup> (2,000 gal) per day to surface impoundments or septic systems apply for and submit a groundwater discharge permit and plan, respectively. This requirement is based on the *assumption* that these discharges have the *potential* to affect groundwater. See ER at 4.4-1 (citing Section 20.6.2.3104 of New Mexico Water Quality Control Commission Regulations).

<sup>12</sup> Stormwater runoff during facility construction will be controlled through the use of best management practices, to assure that runoff related to construction activities will be detained prior to release to the surrounding land surface. In addition, LES is required to obtain an NPDES General Permit for Industrial Stormwater. ER at 4.4-1-4.4-2.

infiltration into the ground.<sup>13</sup> *Id.* at 3.4-6, 4.4-4. This basin also is designed to retain the runoff and blowdown under the conservatively-estimated precipitation conditions so as to preclude any release to the ground. *See* ER at 4.4-3 to 4.4-4 (stating that the UBC Storage Pad Stormwater Retention Basin will be designed to retain a volume of water slightly more than twice that for the 24-hour duration, 100-year frequency storm, plus an allowance for cooling tower blowdown (53,607 m<sup>3</sup> or 43.46 acre-ft) for the area served).

A standard septic system is planned to dispose of sanitary wastes at the site. In lieu of connecting to the local sewer system, three onsite underground septic tanks with a common leach field will be installed for the treatment of sanitary wastes. ER at 4.1-2. Water discharged to the site septic system will meet required levels for all contaminants stipulated in any permit or license required for the system, including applicable NRC regulatory limits set forth in 10 C.F.R. Part 20, and a Groundwater Discharge Permit issued by the State of New Mexico. ER at 4.4.7 to 4.4-8.

In summary, the NEF will not extract any ground or surface water from the site, or discharge any facility-treated effluent to the site, other than into the engineered basins. As a result, effects on natural water systems will be precluded. ER at 4.4-9.

At bottom, the premise for proposed Contention 1.1 is that “some” water from the basins and septic leach field will seep into the alluvium. However, Petitioners do not provide any basis whatsoever for their belief. Petitioners fail to acknowledge any of the information set forth in the ER, discussed above, or to explain how the engineered basins will fail, leak, or

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<sup>13</sup> The runoff into the UBC Storage Pad Retention Basin has the remote potential to contain low-level radioactivity from cylinder surfaces or leaks. ER at 4.4-4. LES performed an assessment that assumed a conservative level of radioactive contamination on cylinder surfaces and 100% washoff to the UBC Storage Pad Stormwater Retention Basin from a single rainfall event. Results demonstrated that the radioactivity level in such a discharge would be well within NRC regulatory criteria. *Id.* at 4.4-5.

otherwise be insufficient to capture contaminated effluent. While the contention rule does not necessarily require a specific allegation or citation of a regulatory violation, a petitioner is obliged, pursuant to Section 2.309(f)(1)(vi), either to “include references to the specific portions of the application (including the applicant’s environmental report . . .) that the petitioner disputes *and the supporting reasons* for each dispute,” or, if a contention alleges that an application “fails to contain information on a relevant matter as required by law” (*id.*), to identify “each failure *and the supporting reasons* for the petitioner’s belief.” *Id.* (emphasis added). *Dominion Nuclear Conn., Inc.* (Millstone Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81, *aff’d*, CLI-03-14, 58 NRC 207 (2003) citing *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 361-62 (2001). Even though Petitioners claim that their allegations are based upon “analyses prepared by . . . an experienced groundwater hydrologist” (NIRS/Public Citizen Petition at 19.), the allegations in the Petition – whatever their origin – are not supported by facts sufficient to demonstrate a genuine dispute *on the application*. See *Millstone*, CLI-03-24, 58 NRC at 216 (“To trigger an adjudicatory hearing, a petitioner must do more than submit ‘bald or conclusory’ allegations of a dispute with the applicant.”) Petitioners’ recitation of questions and issues – directed at effects on groundwater – does not serve to provide any support for the premise underlying their contention, *i.e.*, that there will be leakage into the groundwater in the first place. Each sub-basis offered in the proposed contention is taken in turn below. None provides sufficient information to demonstrate a genuine dispute on a material issue of fact or law.

The contention’s first four sub-bases simply pose a series of open-ended questions; they do not provide additional facts or expert opinion in support of the contention’s

underlying premise. Petitioners maintain that LES should answer these questions to determine where water that enters the subsurface at the NEF “will go”:

- 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; and 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?<sup>14</sup>

(NIRS/Public Citizen Petition at 20-21.) These questions ignore the fundamental design approach discussed in the ER. Petitioners do not substantiate their assertion that contaminated water will enter the alluvium at the site and potentially connect with site groundwater. Without more, these open-ended questions fail to provide the requisite support for the contention.

The proposed contention’s second four sub-bases likewise do not contain any support for Petitioners’ underlying assumption that “some water” from the engineered basins and septic leach field “will infiltrate into the alluvium” beneath the site. In sub-basis (e), Petitioners state, “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.” (*Id.* at 21.) In sub-basis (f), Petitioners argue that LES has “failed to adequately address whether

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<sup>14</sup> Sub-basis (d) also notes that a pesticide was detected in one groundwater sample. *See* ER at 3.4-7 (“A very minor level of a pesticide was detected in the sample, likely due to field or laboratory contamination.”). Petitioners claim that this finding “may indicate a connection to the surface such as a fast flow path from the alluvium to the Chinle.” (NIRS/Public Citizen Petition at 21.)

groundwater exists in the alluvium at the proposed NEF site.”<sup>15</sup> (*Id.*) In sub-basis (g), Petitioners complain that there is ambiguity in the Application with respect to the depth of the Santa Rosa Aquifer at the NEF site. (*Id.* at 22.) Finally, in sub-basis (h), Petitioners take issue with LES’s decision not to install a monitoring well up gradient of the site. (*Id.*)

Even assuming the truth of these asserted bases, Petitioners have not articulated a dispute on a material issue, because they have failed, as stated above, to demonstrate a genuine dispute as to whether – and how – radiologically contaminated water from the NEF will infiltrate the alluvium in such a fashion that it could communicate with site groundwater. Water is expected to leave the lined basins through evapotranspiration. Indeed, water is expected to leave even the unlined stormwater basin primarily through evapotranspiration, rather than by infiltration into the alluvium. See ER at 4.4-3, 4.4.5. Thus, given the lack of surface water on or near the site, and absent a dispute as to the communication of the two lined surface effluent

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<sup>15</sup> In connection with sub-basis (f), Petitioners make the following observations:

- (1) LES has provided logs for five soil borings, 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.
- (2) The five boring logs that were provided indicate that the borings were backfilled the same day they were drilled; thus LES may not have allowed sufficient time for water to enter the borings.
- (3) The clay at the bottom of boring B-2 was described as “moist” [ER figure 3.2-11], which could be due to the presence of water in the alluvium.
- (4) Groundwater is known to exist in the alluvium at three locations within a mile of the NEF site.
- (5) The ER should address the following questions: 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 Landfill)? (NIRS/Public Citizen Petition at 21-22.)

basins with groundwater, the Petitioners' issues (which pertain to how surface discharges will communicate with groundwater under the site) lack sufficient foundation to establish a genuine material dispute. *See* 10 C.F.R. § 2.309(f)(1)(vi).

In sub-basis (i), the Petitioners argue that the detection limit “for most metals in groundwater,” at 5 parts per million (“ppm”), is too high. (NIRS/Public Citizen Petition at 22-23.) Petitioners contend that the detection limits for each metal should be no higher than the “health-based standard.” (*Id.*) This assertion does not raise an issue within the scope of this NRC proceeding. In actuality, it raises a concern with respect to a state-required monitoring program. LES is required to have a New Mexico Water Quality Board Groundwater Discharge Permit/Plan which will comply with state discharge limits for metals, organics and pesticides. *See* ER at 6.2-3 (“Final constituent analysis requirements will be in accordance with permit mandates.”). Rather than providing specific limits for particular constituents, the statement in Table 6.2-1 that limits for “most” metals are 5 ppm is a generalization. The particulars of that permit fall within the regulatory jurisdiction of the State of New Mexico. Although NRC regulations in Part 51 mandate discussion of the status of compliance with applicable environmental quality requirements and standards, the NRC has no jurisdiction over such compliance. *See* 10 C.F.R. § 51.45(d); *Fansteel Inc.* (Muskogee, Oklahoma Facility), LBP-03-22, 58 NRC 363, 366-67, 370 (2003) (dismissing an area of concern regarding regulation of non-radiological material as beyond the scope of the proceeding). For this reason, this sub-basis fails to support an admissible contention.

Sub-basis (j) argues that the ER should identify “other hazardous materials that may be contained in UF<sub>6</sub> feedstock (e.g., metals).” (NIRS/Public Citizen Petition at 23.) First, the Application states that the feedstock is natural uranium hexafluoride only. *See, e.g.*, ER at

1.2-2. Furthermore, this sub-basis does not raise a genuine dispute on a material issue of law or fact, because Petitioners have not stated how the failure to list metallic components of uranium feedstock would have any bearing on the proposed facility's impact on ground or surface water.

In sub-basis (k), Petitioners state that the permeabilities presented in Table 3.3-2 ("Measured Permeabilities Near the NEF Site") "may be derived from laboratory measurements." (*Id.*) Petitioners continue, "[l]aboratory 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." (*Id.*) This statement does not, however, provide sufficient information to show that a genuine dispute exists on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi). Petitioners have not alleged – much less provided any evidence – that the sediment permeabilities listed in Table 3.3-2 are in any way inaccurate. Absent such argument, the Petitioners' observation does not provide sufficient information to demonstrate a genuine dispute. Moreover, for the reasons discussed above, absent a challenge (with a basis) to the ability of the engineered systems to prevent the release of facility-treated effluents, the permeabilities are not a material issue.

Finally, sub-basis (l) notes that, while the ER states that the water in the Santa Rosa Aquifer is considered not potable, the Lea County Regional Water Plan (2000) states that the aquifer is used as a source of domestic and livestock water in Lea County. (NIRS/Public Citizen Petition at 23.) Although this sub-basis presents a factual dispute, it is not a dispute on a *material* issue of fact, as required by Section 2.309. Again, Petitioners have not demonstrated a genuine dispute on the issue of whether groundwater will be impacted by the proposed facility. Absent a challenge (with a basis) to the approach taken by LES to avoid any impact on the aquifer, whether the Santa Rosa Aquifer is considered potable or not is of no moment.

**B. NIRS/Public Citizen Proposed Contention 1.2 –  
Environmental Impacts of the Proposed Project Upon Water Supplies**

In Contention 1.2, Petitioners contend that the ER does not contain a complete or adequate assessment of the potential environmental impacts of the proposed project upon water supplies in the area of the project, contrary to 10 C.F.R. § 51.45. (NIRS/Public Citizen Petition at 24.) Petitioners note that the ER states that the NEF will draw its water from the cities of Eunice and Hobbs, New Mexico. As a basis for this contention, Petitioners cite the *Lea County Regional Water Plan* for the proposition that the primary source of potable water for Lea County, the Lea County Underground Water Basin (“UWB”), is losing water faster than it is being recharged. Petitioners note that the *Regional Water Plan* 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.’” (*Id.*) Petitioners argue that the ER should set forth the impact of the NEF in contributing to this foreseeable water shortage.

This contention falls beyond the scope of this proceeding. The NEF will draw its process and fire water supply from the municipal water systems of Eunice and/or Hobbs, New Mexico, pursuant to contracts with those municipalities.<sup>16</sup> As stated in the ER (at 4.4-6), average and peak potable water requirements for operation of the NEF are well within the capacities of both water systems.<sup>17</sup> To the extent an issue arises with respect to the NEF’s water usage, it is

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<sup>16</sup> In fact, LES already has entered into memoranda of understanding (“MOUs”) with Hobbs and Eunice regarding LES’s use of those municipalities’ water systems. See Letter from Tim Woomer (City of Hobbs, New Mexico) to John Shaw (LES), “RE: NEF Memorandum of Understanding – November 14, 2003” (Dec. 30, 2003); Letter from John Shaw (LES) to Mayor James Brown (City of Eunice, New Mexico), “Subject: National Enrichment Facility (NEF) Memorandum of Understanding” (Jan. 21, 2004).

<sup>17</sup> As stated in the Application, current capacities for the Eunice and Hobbs, New Mexico municipal water supply systems are 16,350 m<sup>3</sup>/day (4.32 million gpd) and 75,700 m<sup>3</sup>/day (20 million gpd), respectively. Current usages are 5,600 m<sup>3</sup>/day (1.48 million gpd) and 23,450 m<sup>3</sup>/day (6.2 million gpd), respectively. Average and peak potable water

within the purview of the municipal authorities and beyond the scope of this NRC proceeding.<sup>18</sup> See *Fansteel Inc.* (Muskogee, Oklahoma Facility), LBP-03-22, 58 NRC 363, 366-67, 370 (2003) (dismissing an area of concern regarding regulation of non-radiological material as beyond the scope of the proceeding).

**C. NIRS/Public Citizen Proposed Contention 2.1 –  
Plausible Strategy for Disposal of Depleted Uranium Hexafluoride**

In this proposed contention, Petitioners assert that “LES does not have [a] sound, reliable, or plausible strategy for disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF<sub>6</sub>”) waste that the operation of the plant would produce.” (NIRS/Public Citizen Petition at 25.) At the outset, LES notes that many of the contentions raised by both NIRS/Public Citizen and the New Mexico Attorney General pertain to the use and application of the “plausible strategy” standard in this proceeding. See NIRS/Public Citizen Contentions 2.1 (Bases A through D), 2.2 (Basis B), 4.1 (Bases G and H); New Mexico Attorney General Contentions C, D (Bases 1 and 2), and G (Basis 2). Therefore, LES first discusses the meaning and intended application of the “plausible strategy” standard in this proceeding, before addressing Petitioners’ specific bases for proposed Contention 2.1.<sup>19</sup>

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requirements for the operation of the NEF are expected to be approximately 240 m<sup>3</sup>/day (63,423 gpd) and 85 m<sup>3</sup>/hr (378 gpm), respectively.

<sup>18</sup> Significantly, on September 29, 2003, the Lea County Water Users Association issued a press release, which states, in part: “When you compare the figures [*i.e.*, LES’s estimated annual water usage and the numbers contained in the *Lea County Regional Water Plan*], you quickly see that the NEF water usage is actually very small. We have worked closely with NEF to review their water needs. We can easily meet their requirements.”

<sup>19</sup> The related New Mexico Attorney General Contentions C (Bases 1 and 2) and G (Basis 2) are addressed in Sections E, F, and G below. The discussion of the meaning and intended application of the “plausible strategy” standard in this section is directly relevant to the discussion of the AG contentions.

1. *The "Plausible Strategy" Standard*

In Section IV of the Hearing Order, which sets forth "applicable requirements," the Commission provided specific "direction for licensing uranium enrichment facilities." 69 Fed. Reg. 5,873, 5,877 col. 3. With respect to the treatment of DUF<sub>6</sub> tails, in particular, the Commission stated:

As to the treatment of the disposition of depleted uranium hexafluoride tails (depleted tails) in these environmental documents, unless LES demonstrates a use for the uranium in the depleted tails as a potential resource, the depleted tails may be considered waste. In addition, if such waste meets the definition of "waste" in 10 CFR 61.2, the depleted tails are to be considered low-level radioactive waste within the meaning of 10 CFR Part 61 in which case an approach by LES to transfer to DOE for disposal by DOE of LES' depleted tails pursuant to Section 3113 of the USEC Privatization Act constitutes a "*plausible strategy*" for dispositioning the LES depleted tails. The NRC staff may consider the DOE EIS in preparing the staff's EIS. Alternatives for the disposition of depleted uranium tails will need to be addressed in these documents. As part of the licensing process, LES must also address the health, safety, and security issues associated with the storage of depleted uranium tails on site pending removal of the tails from the site *for disposal or DOE dispositioning*.

*Id.* (emphasis added).

Implicit in the Commission's Hearing Order is its acceptance of the "plausible strategy" standard as the standard to be applied in this proceeding with respect to the ultimate disposition of depleted uranium tails. Moreover, in referring to DOE disposition of the DUF<sub>6</sub> tails pursuant to Section 3113 of the USEC Privatization Act as a "plausible strategy," and to the possibility of removal of the tails from the site "for disposal *or* DOE dispositioning," the Commission tacitly acknowledged that multiple strategies for DUF<sub>6</sub> tails disposition exist. However, by the terms of the Hearing Order, LES need only demonstrate that the DUF<sub>6</sub> tails meet the Part 61 definition of "waste." Once that is done, the disposition of those depleted uranium tails by transfer to DOE pursuant to Section 3113 already has been established, by the

Hearing Order, as a “plausible strategy.” Per the terms of the Hearing Order, LES is only required to consider in the ER alternatives for the disposition of depleted uranium tails, which it has done in its Application. *See* 69 Fed. Reg. 5,873, 5,877 col. 3; ER at 4.13-9 to 4.13-14.

While the Hearing Order does not define “plausible strategy,” this standard is not a novel one devoid of any prior explication. Indeed, the standard has its origin in the first proceeding involving the licensing of a proposed enrichment facility, in which LES sought NRC approval to construct and operate the Claiborne Enrichment Center (“CEC”) in Homer, Louisiana. Specifically, in anticipation of the submittal of the CEC license application by LES, the NRC Staff issued SECY-91-019, in which the Staff discussed issues related to the disposition of depleted uranium tails from enrichment plants. *See* SECY-91-019, “Disposition of Depleted Uranium Tails from Enrichment Plants” (Jan. 25, 1991). As part of that effort, the Staff “[gave] the Commission a general idea of plausible strategies” for depleted tails disposition, “based on present state-of-the-art technology.” *Id.* at 4-5. The Commission, in turn, incorporated the “plausible strategy” concept in the notice and hearing order for the CEC licensing proceeding. In Section IV (“Applicable Rules and Regulations”) of that order, the Commission stated as follows:

These regulations also require that the applicant address the technical, financial, and insurance provisions and resources for dealing with the disposition of depleted uranium hexafluoride tails. *Plausible strategies* for the disposition of tails include: storing, as a potential resource, uranium hexafluoride tails at the plant site; continuously [de]converting uranium hexafluoride tails to uranium oxide (or tetrafluoride) as a potential resource or for disposal; *and* a combination of both – onsite storage with [de]conversion of uranium hexafluoride at the end of plant life. SECY-91-019, a Commission paper in which these strategies and issues relating to the disposition of depleted uranium tails from enrichment plants are discussed, is available for public inspection . . . .<sup>20</sup>

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<sup>20</sup> Notice of Receipt of Application for License; Notice of Availability of Applicant’s Environmental Report; Notice of Consideration of Issuance of License; and Notice of

Significantly, in considering an intervenor contention that alleged deficiencies in LES's decommissioning plan for the proposed CEC, the Licensing Board administering that proceeding considered the meaning of the term "plausible strategy." While the Licensing Board's statements in this regard do not constitute binding legal precedent, they do provide practical, logical insights into the "plausible strategy" standard that are still germane to the application of the standard in this proceeding.<sup>21</sup> Importantly, the Licensing Board, in ruling on the admissibility of intervenor contentions, noted that:

The NRC has *no regulatory requirement that there must be a concrete plan for the disposal of the depleted uranium* that the facility would generate each year and that before a license may issue such a disposal plan must comply with all applicable environmental laws. The Commission in noticing the application for hearing indicated that the applicable regulations *only require that the applicant have a plausible strategy* for the disposition of depleted uranium hexafluoride tails. . . . In licensing matters the hearing notice published by the Commission for the proceeding defines the scope of the proceeding and thus binds this licensing board. *Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear-1), ALAB-619, 12 NRC 558, 565 (1980); Commonwealth Edison Co. (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980).*<sup>22</sup>

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Hearing and Commission Order; Louisiana Energy Services, L.P.; Claiborne Enrichment Center, 56 Fed. Reg. 23,310, 23,313 (May 21, 1991) (emphasis added).

<sup>21</sup> In CLI-98-5, the Commission granted LES's motion to withdraw its license application for the CEC and terminate the proceeding, thereby rendering moot all remaining issues in the case. The Commission expressly dismissed any pending petitions for review and vacated LBP-97-3, LBP-97-22, and an unpublished Licensing Board memorandum and order dated March 2, 1995. See *Louisiana Energy Servs. (Claiborne Enrichment Center), CLI-98-5, 47 NRC 113, 114 (1998)*. Each of the cited Licensing Board orders is discussed to some extent below. While the Commission chose "as a policy matter to vacate them and thereby eliminate any future confusion and dispute over their meaning and effect," it clarified that "[o]ur decision to vacate the Board's orders 'does not intimate any opinion on their soundness.'" *Id.* (citing *Kerr-McGee Chemical Corp. (West Chicago Rare Earths Facility), CLI-96-2, 43 NRC 13, 15 (1996)*).

<sup>22</sup> In other words, in the CEC proceeding, the Licensing Board found that the Commission had construed its regulations to require only a "plausible strategy," as opposed to a "concrete plan." The regulations did not contain a specific reference to "plausible strategies;" rather, the Commission included this concept in the 1991 Hearing Order (and now in the 2004 Hearing Order).

*Louisiana Energy Servs. (Claiborne Enrichment Center)*, LBP-91-41, 34 NRC 332, 337-38 (1991) (emphasis added).

The Licensing Board then acknowledged the link between the “plausible strategy” standard and the NRC’s decommissioning funding regulation, specifically 10 C.F.R. § 70.25(a) and (e), as it existed at the time. The current regulation similarly requires that a license applicant submit a decommissioning funding plan that contains a cost estimate for decommissioning, a description of the method of assuring funds for decommissioning, and a means for adjusting cost estimates and associated funding levels periodically over the life of the facility.<sup>23</sup> 10 C.F.R. § 70.25(a) and (e). As such, the Licensing Board concluded, “[f]or the regulation [10 C.F.R. § 70.25] to have meaning, the cost estimate should contain reasonable estimates for an adequately described decommissioning strategy.” In a later decision in that proceeding, the Licensing Board stated its understanding of the relationship between the “plausible strategy” standard and NRC decommissioning requirements as follows:

The purpose of the Applicant’s tails disposal strategy is to enable the computation of reasonable cost estimates for the various essential elements of the decommissioning plan, thereby ensuring compliance with the Commission’s regulatory requirement that during the CEC’s life, LES escrows sufficient funds to cover, *inter alia*, the cost of tails disposal.”<sup>24</sup>

*Louisiana Energy Servs. (Claiborne Enrichment Center)*, LBP-97-3, 45 NRC 99, 108 (1997), vacated by CLI-98-5, 47 NRC 113 (1998).

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<sup>23</sup> As amended in October 2003, 10 C.F.R. § 70.25(e) now requires that cost estimates be adjusted at intervals not to exceed 3 years. *See generally* Final Rule, “Financial Assurance for Materials Licensees,” 68 Fed. Reg. 57,327 (Oct. 3, 2003).

<sup>24</sup> In the same decision, the Licensing Board observed that, although the Commission listed “a number of possible generic tails disposal strategies,” it did not specifically define what constitutes a “plausible strategy.” Notwithstanding, the Board concluded that “[t]he plain meaning of these terms, however, provides the answer,” as “plausible” means “reasonable” or “credible,” and “strategy” denotes a “plan.” LBP-97-3, 45 NRC at 105 (1997) (citing Webster’s Third New International Dictionary 1736 (1971)).

In the prior proceeding, the appropriate focus thus was on (1) whether the funding plan contained a reasonable or credible (“plausible”) plan to dispose of the DUF<sub>6</sub> tails generated at the facility, and (2) whether the Applicant’s cost estimates for the components of the plan were reasonable. *See id.* at 105. In this respect, the Licensing Board also observed, in an earlier order, that “[o]bviously, costs play a significant part in any plausible disposal strategy, so the strategy must consider the various factors that influence costs and appropriately bound the costs for a particular type of disposal.” *Louisiana Energy Servs. (Claiborne Enrichment Center) Licensing Board Memorandum and Order (Ruling on Intervenor’s Petition to Waive Certain Regulations)* (unpublished order, dated March 2, 1995), at 19, *vacated by* CLI-98-5, 47 NRC 113 (1998). The Licensing Board added, however, that “*a specific licensed site and actual disposal costs are not required,*” as “[t]o hold otherwise would disregard the Commission’s hearing notice for this proceeding.” *Id.* (emphasis added).

Although the foregoing Licensing Board determinations are not binding on the Licensing Board in this proceeding, the approach outlined there seems inherent in the Commission’s Hearing Order in this proceeding. In short, the “plausible strategy” standard does *not* require the level of specificity sought by Petitioners in their various proposed contentions. The admissibility of these proposed contentions is discussed in detail below.

## 2. *Specific Bases for NIRS/Public Citizen Contention 2.1*

In support of proposed Contention 2.1, NIRS/Public Citizen presents four bases. Insofar as these contentions and supporting bases challenge the use or proper application of the “plausible strategy” standard, or seek the imposition of requirements beyond those embodied in the standard, they constitute impermissible challenges to the Commission’s Hearing Order. As the Licensing Board noted in LBP-91-41, “the standards articulated in the Notice of Hearing and

Commission Order are the appropriate standards,” and “[t]he hearing notice defines the scope of the issues in the proceeding.” LBP-91-41, 34 NRC at 345 (citing *Northern Indiana Pub. Serv. Co.* (Bailly Generating Station, Nuclear-1), ALAB-619, 12 NRC 558 (1980); *Commonwealth Edison Co.* (Carroll Country Site), ALAB-601, 12 NRC 18, 24 (1980)). Contentions contrary to the Commission order instituting the proceeding, therefore, must be rejected. *See id.*

a. Basis A

In Basis A, Petitioners characterize LES’s preferred “plausible strategy” option as “wishful thinking.” (NIRS/Public Citizen Petition at 25.) Citing the fact that DOE is building its own deconversion facilities to process its inventory of approximately 700,000 metric tons of DUF<sub>6</sub> tails, Petitioners contend that the need for taxpayer funding of the capital costs of these facilities “is a strong indication that the private sector does not believe that construction of a [de]conversion facility would make economic sense.” (*Id.* at 26.)

This portion of Basis A is insufficient to support admission of Contention 2.1. First, this argument rests on the notion that LES is required to demonstrate the economic “sense” or viability of constructing a facility for the “deconversion” of DUF<sub>6</sub> to a uranium oxide, *i.e.*, a deconversion facility. In view of the foregoing discussion, it is clear that the “plausible strategy” standard requires no such demonstration. Indeed, in view of certain NRC Staff and licensing board actions in the CEC proceeding, which are noted below, onsite storage followed by offsite deconversion of DUF<sub>6</sub> to a uranium oxide is clearly a “plausible strategy” for depleted tails disposition. This portion of Basis A, therefore, raises an issue that is not within the scope of the proceeding, and which constitutes a challenge to the Commission’s Hearing Order. Accordingly, it should be rejected.

Alternatively, even *assuming* that such a demonstration is required, this portion of Basis A lacks sufficient supporting reasons for the Petitioners' belief. See 10 C.F.R. § 2.309(f)(1)(v) and (vi). Petitioners merely infer, without providing supporting facts or analysis, that the allocation of funds by the federal government to subsidize construction of deconversion facilities at Paducah, Kentucky and Portsmouth, Ohio is a "strong indication" that private sector entities lack any economic incentive to construct comparable facilities. Petitioners, however, provide no explanation for this inference, *i.e.*, why accrual of funds by the Government for this purpose is somehow symptomatic of an economic environment – present or future – that would render construction of a non-federally-funded deconversion facility implausible. Importantly, "[t]he bald assertion that a matter ought to be considered or that a factual dispute exists so as to warrant further consideration of that matter is not sufficient." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (citations omitted). Rather, "a petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention." *Id.* (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995)).

Basis A contains an additional, unrelated assertion that purportedly supports admission of proposed Contention 2.1. Petitioners contend that "LES's [de]conversion strategy would be far more plausible if [LES] were proposing to actually build the facility as an integral part of the enrichment plant." (NIRS/Public Citizen Petition at 26.) However, the "plausible strategy" standard does not require LES to present a specific proposal or plan for the construction of a deconversion facility. Construction of an onsite deconversion facility would

require a fundamentally different, if not entirely separate, licensing action that is not contemplated in either the Application or the Hearing Order.

Additionally, Petitioners argument is premised on the belief that onsite deconversion of  $\text{DUF}_6$  would be "far less risky" insofar as it would avoid "the hazards of transporting  $\text{DUF}_6$ ." (Petition at 26.) Petitioners posit that, in the event of a transportation accident and the puncture of cylinders, even a modest fire would cause rapid volatilization and hydrolysis of  $\text{DUF}_6$  and lead to the formation of uranyl fluoride and hydrofluoric acid. (*Id.*) Such an accident, Petitioners further assert, would result in the dispersal of both hazardous and radioactive materials "over considerable areas and would severely affect motorists present on the road." (*Id.*)

At best, this portion of Basis A is a chain of unsubstantiated assertions. Petitioners fail to provide any factual support for these assertions, nor any references to the specific sources and documents on which the Petitioners intend to rely to support its position. See 10 C.F.R. § 2.309(f)(1)(v) and (vi); *Private Fuel Storage, L.L.C., supra*, 42 NRC at 180. There is no indication as to what information Petitioners rely on to conclude that: (1) an accident may cause puncture of the uranium byproduct cylinders; (2) the puncture would result in the "rapid" formation and dispersal of hazardous and radioactive materials "over considerable areas;" and (3) these materials would "severely affect" motorists. Clearly, such a scenario assumes the occurrence of complex and interdependent physical, chemical, and radiological phenomena. Petitioners, however, provide no indication as to the nature or basis for its assumptions. Dr. Makhijani's opinion alone does not suffice, as the Licensing Board "is not to accept uncritically that a document or other factual information or an expert opinion supplies the basis for a contention." *Private Fuel Storage, L.L.C., supra*, 42 NRC at 181. Therefore, "an

expert opinion that merely states a conclusion (e.g., the application is 'deficient,' 'inadequate,' or wrong') without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion as it is alleged to provide a basis for the contention." *Id.*

Also, Petitioners fail to dispute specific portions of the Application that contain information relevant to the Petitioners' concerns, in accordance with 10 C.F.R. § 2.309(f)(1)(vi). Where the license application addresses an issue that a petitioner wishes to contest in a hearing, Commission regulations require the petitioner to examine the application, identify the specific deficiencies it wishes to address, and provide support for its contention that the application is deficient. *See Baltimore Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 & 2), CLI-98-19, 48 NRC 132, 134 (1998); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 & 3), CLI-99-11, 49 NRC 328, 333 (1999). In this case, Petitioners overlook ER Chapter 4.2, "Transportation Impacts." ER Section 4.2.7.3, for example, states that depleted uranium will be transported via truck in 48Y cylinders that are designed, fabricated, and shipped in accordance with ANSI N14.1. *See* ER at 4.2-5. ER Section 4.2.2.7 addresses the environmental impacts of the transportation of radioactive materials. This section notes that radioactive shipments from the proposed facility will be classified as low-level waste only, and that the associated impacts will be well within the scope of the environmental impacts previously evaluated by the NRC in NUREG-0170, NUREG/CR-4829, 10 C.F.R. §§ 51.52(c) and 51.53(c), and in NUREG-1437. ER at 4.2-7. Petitioners raise no specific objections to the information and conclusions provided in ER Chapter 4.2 and, therefore, on the basis proffered, fail to define an admissible contention.

Finally, DOE also has assessed the impacts of transporting DUF<sub>6</sub> cylinders by both truck and rail. *See, e.g., DOE Final Programmatic Environmental Impact Statement for*

*Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride* (1999) (“DOE PEIS”), §§ 5.2.2, 5.3.2, 5.4.2, and Appendix J. DOE’s assessment includes evaluation of impacts from both incident-free transportation operations as well as accidents. This is significant insofar as the Hearing Order states that “[t]he NRC staff may consider the DOE EIS in preparing the staff’s EIS.” 69 Fed. Reg. 5,877 col. 3. Petitioners do not acknowledge, let alone dispute, this DOE assessment of DUF<sub>6</sub> transportation impacts.

b. Basis B

In Basis B, Petitioners argue that the Application’s reference to the potential access of ConverDyn partner, General Atomics, to an exhausted uranium mine in which depleted U<sub>3</sub>O<sub>8</sub> could be disposed “represents a grossly inadequate *certitude* for a ‘plausible strategy’ determination, particularly for a radioactive and hazardous substance which has been accumulating in massive quantities in the U.S. for 57 years without a plausible disposal program.” (NIRS/Public Citizen Petition at 26) (emphasis added.) Petitioners cite a January 7, 2004 article published in the *Albuquerque Journal* as confirmation that the president of Cotter Corporation has publicly denied that Cotter would or could accept the LES depleted uranium waste. (*Id.*) Finally, Petitioners assert that “[n]either has LES made a serious argument, much less *demonstrated*, that the Cotter Mines site meets technical and environmental criteria for [depleted uranium] disposal.” (*Id.*) (emphasis added).

Basis B should be rejected as an impermissible challenge to the Hearing Order and the NRC regulatory process in general, insofar as it seeks the imposition of requirements beyond those associated with the “plausible strategy” standard and applicable NRC regulations. The “plausible strategy” standard does not require the “certitude” sought by Petitioners. As discussed above, the purpose of the Applicant’s tails disposal strategy is to allow the

computation of reasonable cost estimates for the various essential elements of the decommissioning plan. LES is not required, by this standard or by NRC regulations, to demonstrate the existence of a specific licensed (or licensable) site for the disposal of depleted U<sub>3</sub>O<sub>8</sub>. Petitioners cite no NRC regulation that would impose such a requirement. Thus, even if Petitioners were correct in their assertion that Cotter Mines is averse to, or incapable of, accepting LES depleted uranium waste,<sup>25</sup> this assertion fails to raise a genuine dispute of fact or law that is *material* to the NRC's findings on the Application.<sup>26</sup> See 10 C.F.R. § 2.309(f)(1)(iv) and (vi); *Private Fuel Storage, L.L.C., supra*, 42 NRC at 179 (stating that “[a]ny issue of law or fact raised in a contention must be material to the grant or denial of the license application in question, *i.e.*, they must make a difference in the outcome of the licensing proceeding so as to entitle the petitioner to cognizable relief”).

Petitioners arguments are also directly contrary to determinations made by the Licensing Board and NRC Staff in the CEC proceeding. While these determinations are not binding on the Licensing Board in this proceeding, they do underscore the flaws in Petitioners' rationale, *i.e.*, that the level of specificity sought by Petitioners with respect to a “plausible strategy” is unwarranted. For example, in the prior proceeding, the Licensing Board concluded

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<sup>25</sup> The president of Cotter Corporation, Richard Cherry, has indicated to LES that the *Albuquerque Journal* article cited by Petitioners in Basis B misquoted him. According to Mr. Cherry, he stated that “disposal of tails material is not something that we are pursuing at this time,” and that “there are regulations which would allow for the placement of this type of material in a mine, but Cotter is not currently licensed to do this type of activity.” See E-mail from Richard Cherry (Cotter Corporation) to Rod Krich (LES), “Subject: LES” (Jan. 13, 2004).

<sup>26</sup> The ER states only that General Atomics “*may* have access to an exhausted uranium mine (the Cotter Mines in Colorado) where depleted U<sub>3</sub>O<sub>8</sub> could be disposed.” ER at 4.13-8 (emphasis added). In making this statement, LES did not intend to suggest that it has a specific plan or proposal to dispose of depleted uranium in the Cotter Mines. Indeed, no such plan or proposal is required under the “plausible strategy” standard. Rather, LES viewed Cotter Mines as one potential example of a western underground mine in which disposal of depleted uranium could occur if certain additional steps were taken.

that, "in light of the numerous existing uranium and other mines in the United States, it is reasonable to assume an appropriate site for deep burial of U<sub>3</sub>O<sub>8</sub> will be available in the future." LBP-97-3, 45, NRC at 108. Accordingly, the Licensing Board accepted the NRC Staff's evaluation of the dose impacts from disposal of U<sub>3</sub>O<sub>8</sub> in a *hypothetical* deeper-than-near-surface disposal site.<sup>27</sup> *Id.* ER Section 4.13.3.1.5 specifically references and summarizes the Staff's evaluation of disposal of depleted uranium waste in "assumed generic disposal sites," as set forth in Section 4.2.2.8 and Appendix A of the Staff's final environmental impact statement for the proposed CEC facility (NUREG-1484). *See* ER at 4.13-13. Petitioners, however, fail to mount any specific objections to the Staff's earlier analyses, which LES describes and incorporates by reference.

Petitioners' statement in Basis B regarding the accumulation of "massive quantities [of DUF<sub>6</sub>] in the U.S. for 57 years without a plausible disposal program" is presumably a reference to DOE's sizable inventory of DUF<sub>6</sub>. Petitioners appear to suggest that the continued accumulation of tails by DOE renders disposition of the quantities to be generated by LES implausible. Absent supporting information or analysis, however, Petitioners' suggestion cannot serve as the basis for a contention. Indeed, in the CEC proceeding, the Licensing Board took the opposite view, stating that "the reasonableness and credibility of the

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<sup>27</sup> In short, the NRC Staff modeled a hypothetical deep disposal site. The Staff assumed that the site would be in an existing cavity, such as an abandoned mine, located in the United States, and that it would have geological characteristics similar to those of two representative sites that previously have been characterized for disposal of radioactive waste (*i.e.*, a granite formation overlain by a thin layer of glacial till or a sequence of interbedded sandstone and basalt layers). The Staff's analysis led it to conclude that all estimated dose impacts were less than those set forth in 10 C.F.R. Part 61. *See* NUREG-1484, *Final Environmental Impact Statement for the Construction and Operation of Claiborne Enrichment Center, Homer Louisiana*, Docket No. 70-3070, Louisiana Energy Services L.P., NRC/NMSS (Aug. 1994), Vol. 1, Section 4.2.2.8 and Appendix A.

LES disposal strategy is enhanced by the Department of Energy's clear need to address the disposal options for its huge inventory of DUF<sub>6</sub> . . . ." LBP-97-3, 45 NRC at 108. Moreover, since the time of the Licensing Board's observation in 1997, DOE has undertaken significant steps toward the dispositioning of its DUF<sub>6</sub> inventory, including the issuance of a final programmatic environmental impact statement that considered alternative strategies for the long-term management and use of DUF<sub>6</sub> (the DOE PEIS), the issuance of a Record of Decision and final plan for the deconversion of DUF<sub>6</sub>, and the award of an 8-year contract to Uranium Disposition Services for the construction and operation of deconversion facilities at Portsmouth, Ohio and Paducah, Kentucky.

c. Basis C

As set forth in Basis C, Petitioners assert that LES's reference to recent discussions with Cogema concerning construction of a private deconversion facility is "without substance." (Petition at 26.) In particular, Petitioners cite a lack of information regarding the outcome of the discussions with Cogema, the nature of Cogema's interest in the construction of a deconversion facility, and whether Cogema believes such a project would be profitable.<sup>28</sup> (*Id.* at 27.) Underlying this basis, however, is Petitioners' assertion that "[h]olding discussions is hardly the same as a *substantive commitment* to build and operate such a facility." (*Id.*; emphasis added).

This basis likewise fails to support the admissibility of proposed Contention 2.1. The existence of a "substantive commitment" to build and operate a deconversion facility is not material to any finding that the NRC is required to make in connection with the LES Application. To the extent that this basis argues that a "substantive commitment" to build and

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<sup>28</sup> As stated in the Application, Cogema has experience with a deconversion facility that currently processes DUF<sub>6</sub> in France. ER at 4.13-8.

operate a deconversion facility is required, this basis impermissibly challenges the Hearing Order, in that the “plausible strategy” standard does not require LES to show that it has obtained such a commitment. Indeed, with respect to the CEC license application, neither the NRC Staff nor the Licensing Board required LES to make such a demonstration. Notably, in LBP-97-3, the Licensing Board concluded that, “the Applicant ha[d] presented a plausible disposal strategy.” LBP-97-3, 45 NRC at 108. The Board specifically noted that LES’s proposed strategy to deconvert  $\text{DUF}_6$  to  $\text{U}_3\text{O}_8$  at an offsite facility in the U.S. and then ship that material as waste to a final site for deeper-than-surface burial (an approach evaluated by the Staff in NUREG-1484) was “a reasonable and credible plan for tails disposal,” despite the lack of any extant deconversion facilities in the U.S. *Id.* Accordingly, Basis C should be rejected.

d. Basis D

In Basis D, the final basis proffered in support of Contention 2.1, Petitioners challenge the transfer of  $\text{DUF}_6$  from the NEF to DOE for deconversion and ultimate disposition, pursuant to Section 3113 of the USEC Privatization Act of 1996, as a “plausible strategy.” (NIRS/Public Citizen Petition at 27-31.) Petitioners argue that DOE acceptance of  $\text{DUF}_6$  waste is “plausible” only if the NRC makes a formal determination that depleted uranium is low-level radioactive waste. (*Id.* at 27-28.) The crux of Petitioners’ argument is that such a determination would be inappropriate, in that the “radiological hazards” of depleted uranium require that it be “classified . . . in a category that would mark it for deep geological disposal” of the type ordinarily contemplated for Greater-than-Class C (“GTCC”) waste. (*Id.* at 30-31) To support this position, Petitioners set forth the following additional points, or sub-bases:

- (1) LES erroneously concludes that depleted uranium waste falls, by default, into the low-level waste category. (*Id.* at 28)

- (2) LES omits to note that it is the NRC, not LES, that determines waste classification. (*Id.*)
- (3) The classification of low-level waste can apply only to waste that would clearly be appropriate for (a) shallow land disposal and (b) 100-year institutional control, and depleted uranium meets neither criterion. (*Id.*)
- (4) The fact that depleted uranium has a specific activity greater than 100 nanocuries per gram, and that its three uranium isotopes all are alpha emitters with long half-lives, "all point to the classification of [depleted uranium] as GTCC waste." Such wastes are clearly comparable to the wastes defined as transuranic ("TRU") wastes by DOE and EPA. (*Id.* at 29-30.)
- (5) GTCC waste requires "special disposal methods," *i.e.*, disposal in a "deep geologic repository." (*Id.* at 28, 30)

LES opposes admission of Basis D, on the ground that it constitutes an impermissible attack on the Hearing Order and the NRC's Part 61 regulations. In addition, Basis D contains factually and legally incorrect assertions and fails to properly challenge the Application. Accordingly, it should be rejected as failing to provide a sufficient basis to demonstrate the existence of a genuine dispute on a material issue of fact or law.

On the issue of the classification of depleted uranium as radioactive waste, the Hearing Order provides clear direction. It states:

[U]nless LES demonstrates a use for the uranium in the depleted tails as a potential resource, the depleted tails may be considered waste. *In addition, if such waste meets the definition of "waste" in 10 CFR 61.2, the depleted tails are to be considered low-level radioactive waste within the meaning of 10 CFR Part 61* in which case an approach by LES to transfer to DOE for disposal by DOE of LES' depleted tails pursuant to Section 3113 of the USEC Privatization Act constitutes a "plausible strategy" for dispositioning the LES depleted tails.

69 Fed. Reg. 5877, col. 3 (emphasis added). Thus, the only cognizable issue is whether the waste meets the definition of "waste" in 10 C.F.R. § 61.2. The regulation states:

*Waste* means those low-level radioactive wastes containing source, special nuclear, or byproduct material that are acceptable for disposal in a *land disposal facility*. For the purposes of this definition, low-level waste has

the same meaning as in the Low-Level Waste Policy Act, that is, radioactive waste *not* classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in section 11e.(2) of the Atomic Energy Act (uranium or thorium tailings and waste).<sup>29</sup>

10 C.F.R. § 61.2 (emphasis added).

In ER Section 4.13.3.1.3, LES shows that the depleted uranium to be generated at the NEF meets the 10 C.F.R. Part 61 definition of low-level radioactive waste. *See* ER at 4.13-6 to 4.13-7. Petitioners' assertion that LES "erroneously" concludes that depleted uranium waste falls, by default, into the low-level waste category is itself erroneous on its face. By its terms, the definition of "waste" in Section 61.2 dictates such a "default" approach. If radioactive waste is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or 11e.(2) byproduct material, then, for purposes of Part 61, it is classified as low-level radioactive waste.<sup>30</sup>

At bottom, Petitioners argue in Basis D that the NRC should "ignore" the terms of its own regulations in evaluating the waste classification of depleted uranium under Part 61. Petitioners contend that, given the decay mode, specific activities, and half-lives of its isotopes, depleted uranium "cannot *logically* be classified" as anything other than "transuranic" or GTCC waste. (Petition at 30; emphasis added.) To this end, Petitioners state that "[t]he conclusion that

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<sup>29</sup> Section 61.2 defines "land disposal facility" as land, building, structures, and equipment which are intended to be used for the disposal of radioactive wastes, but excluding a "geologic repository" as defined in 10 C.F.R. Parts 60 or 63.

<sup>30</sup> LES does not dispute Petitioners' observation that the NRC makes the ultimate determination as to the proper waste classification. As Petitioners themselves acknowledge, however, the NRC Staff previously stated its expectation that LES would "demonstrate in its application, given the expected constituents of its depleted tails, that the tails meet the definition of low-level radioactive waste in 10 C.F.R. Part 61." Letter from Robert C. Pierson (NRC) to Rod Krich (LES), "Subject: Louisiana Energy Services Policy Issues" (Mar. 24, 2003), at 2. Contrary to Petitioners' suggestion, the analysis presented by LES in ER Section 4.13.3.1.3 is not intended to supplant any determination of the NRC Staff; rather, it is intended to comply with the Staff's request of March 24, 2003 and to support the Staff's classification of depleted uranium as a radioactive waste under Part 61.

[depleted uranium] is GTCC fits squarely within the NRC definition for that category, *if we ignore the nomenclatural difference between uranium and transuranium radionuclides and focus on the substance.*” (*Id.*) Petitioners’ reference to “the nomenclatural difference between uranium and transuranium radionuclides” is an allusion to the waste classification scheme established in 10 C.F.R. § 61.55.<sup>31</sup>

The waste classification scheme set forth in Section 61.55 is based on the concentrations (in curies per cubic meter) of specific “long-lived” and “short-lived” radionuclides in the waste. These radionuclides and their concentrations are listed in 10 C.F.R. § 61.55(a)(3), Table 1 (long-lived radionuclides) and Table 2 (short-lived radionuclides). The radionuclides listed in Tables 1 and 2 do not include any isotopes of uranium.

Section 61.55 also establishes three classes of waste – A, B, and C – depending on the concentration of radioactivity in the waste for the radionuclides listed in Tables 1 and 2, with Class A waste exhibiting the lowest concentrations. *See* 10 C.F.R. 61.55(a)(2). For waste with radionuclide concentrations that exceed the limit specified for Class C waste, *i.e.*, GTCC waste, Section 61.55(a)(iv) provides that such waste is “generally not acceptable for near-surface disposal,” and must be disposed of in a “geologic repository” (as defined in 10 C.F.R. Part 60 or 63), unless the Commission approves of disposal in a facility licensed under Part 61. For radioactive waste that does not contain any of the specific radionuclides listed in Table 1 or Table 2, Section 61.55(a)(6) provides that the waste “is Class A” waste. Because neither depleted uranium nor its associated uranium isotopes is listed in Table 1 or Table 2 of Section 61.55(a)(3), depleted uranium is Class A waste under the terms of Section 61.55(a)(6).

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<sup>31</sup> Part 61 does not expressly identify a “transuranium” or “transuranic” class of radioactive waste.

Indeed, in the CEC proceeding, the Licensing Board reached this same conclusion in ruling on a Section 2.758 petition filed by intervenor Citizens Against Nuclear Trash ("CANT"). *Louisiana Energy Servs.* (Claiborne Enrichment Center) Licensing Board Memorandum and Order (Ruling on Intervenor's Petition to Waive Certain Regulations) (unpublished order dated March 2, 1995), *vacated by* CLI-98-5, 47 NRC 113 (1998). In its petition, CANT requested that the NRC *waive* the waste classification provisions of 10 C.F.R. § 61.5(a)(3) and (a)(6) for that proceeding, such that the depleted uranium to be generated by CEC operations could be classified as GTCC and require disposal in a "geologic repository." This is the same end sought by NIRS and Public Citizen in this proceeding.

The Licensing Board in the CEC proceeding denied CANT's petition, holding that CANT failed to meet the specific requirements of the waiver provision.<sup>32</sup> *Id.* at 21. The Licensing Board concluded that depleted uranium from the LES facility would be classified as Class A low-level waste under the terms of 10 C.F.R. § 61.55(a)(6).<sup>33</sup> *Id.* at 4. This determination is consistent with an earlier determination made by the NRC Staff. Namely, in SECY-91-019, the NRC Staff noted that "depleted uranium tails from the enrichment process are source material and, if waste, are included within the definition of [low-level waste], and could

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<sup>32</sup> *See id.* at 4, 21. In CLI-95-7, the Commission later denied CANT's petition for Commission review of the Licensing Board's denial of CANT's waiver petition.

<sup>33</sup> *See id.* at 4. Again, LES recognizes that the Licensing Board's decision is not binding on the Board constituted for this proceeding. Notwithstanding, the Licensing Board's reasoning is sound and compelling, and appropriate for discussion insofar as it elucidates the nature of the Petitioners contention (a challenge to the Commission's Part 61 waste classification scheme). Moreover, it is consistent with conclusions reached in SECY-91-019, in which the NRC Staff stated that "[u]nder 10 CFR 61.55(a), DUF<sub>6</sub> tails are Class A wastes." SECY-91-019, Enclosure at 4.

be disposed of in a [low-level waste] facility licensed under 10 CFR Part 61, *if in proper waste form.*" SECY-91-019, Enclosure at 4 (emphasis added).

The Licensing Board also concluded that the performance objectives of Subpart C of Part 61 apply to all wastes, regardless of quantity or classification as Type A, B, C or GTCC, and to all types of land disposal, whether near-surface disposal or some other intermediate or deeper land burial. Unpublished March 2, 1995 Order at 12. Accordingly, the Licensing Board found that classification of the depleted uranium tails as Class A waste would in no way preclude disposal of the tails in a deeper-than-near-surface disposal site licensed under Part 61, would not undercut the rationale for the Commission's decommissioning funding regulations, and would not present significant radiological safety concerns. *See id.* at 18, 20-21. Finally, the Licensing Board noted that "the performance objectives of Subpart C [of Part 61] are the final determinant on the type of land disposal for the wastes involved, *not the waste classification.*" *Id.* at 18 (emphasis added).

Significantly, the CANT petition was "supported by the affidavit of Dr. Arjun Makhijani," the same individual upon whose expert opinion Petitioners rely in this proceeding for proposed Contention 2.1. In LES's view, Dr. Makhijani's affidavit in the CANT proceeding constitutes a clear acknowledgment on his part that, under the current Part 61 waste classification scheme, depleted uranium is *not* considered to be GTCC. In the CEC proceeding, Dr. Makhijani supported a "waiver" of the applicable regulatory language; in the instant proceeding, he supports Petitioners' argument that the NRC should simply disregard the relevant language as a matter of "logic."

In sum, in Basis D, Petitioners seek to have the Commission ignore the terms of 10 C.F.R. § 61.55 in favor of an alternative approach to waste classification that Petitioners deem

to be more “logical.” Basis D, therefore, constitutes an impermissible collateral attack on current NRC regulations and should be rejected as such. This proceeding is not the proper forum for such a challenge.

**D. NIRS/Public Citizen Proposed Contention 2.2 –  
Impacts of Construction and Operation of a Deconversion Facility**

In this contention, Petitioners argue that the ER fails to discuss the impacts of construction and operation of deconversion and disposal facilities that will be required in conjunction with the enrichment facility. (NIRS/Public Citizen Petition at 31.)

*1. Basis A*

In Basis A, Petitioners state that the ER does not address the cumulative environmental impacts associated with construction and operation of a deconversion facility, which would be “be an integral part of LES’s operations.” (*Id.*) Petitioners note, in particular, that the disposition of contaminated hydrofluoric acid (“HF”) would be “a significant issue,” because “[r]adioactively contaminated materials should not be released into open commerce.” (*Id.* at 32.) Petitioners add that treating HF as a waste or transporting it for re-use in the manufacture of UF<sub>6</sub> “would be expensive and would create risks.” (*Id.*)

LES opposes the admission of Basis A. The basis lacks sufficient supporting information to establish a genuine dispute on an issue of material fact or law. *See* 10 C.F.R. § 2.309(f)(1)((iv) and (vi). Petitioners provide no legal or regulatory citations in connection with this basis, and make only conclusory assertions with respect to “the disposition of contaminated hydrofluoric acid.” Petitioners offer no explanation as to why HF associated with a deconversion process would constitute a “radioactively contaminated material” that “should not be released into open commerce.” Similarly, they make no attempt to explain why disposal or

reuse of HF “would be expensive and would create risks.” For these reasons alone, Basis A must be rejected.

The insufficiency of Basis A is particularly apparent in view of statements contained in publicly available documents that are cited in the Commission’s Hearing Order and the Application. The Hearing Order states that the NRC staff may consider the DOE PEIS in preparing the staff’s EIS. Appendix F to the DOE PEIS specifically discusses the potential environmental impacts associated with the deconversion of  $\text{DUF}_6$  to another chemical form at a “representative” stand-alone industrial plant dedicated to the deconversion process. DOE considered the potential environmental impacts resulting from facility construction, facility operations, and postulated accidents for three deconversion options. These include deconversion of  $\text{DUF}_6$  to (1) triuranium octaoxide ( $\text{U}_3\text{O}_8$ ) (which LES proposes in its Application), (2) uranium dioxide ( $\text{UO}_2$ ), and (3) uranium metal. For each deconversion option, the potential environmental impacts are presented as a range within each area of impact, so as “to provide a reasonable estimate of the magnitude of impacts, taking into account the uncertainty relative to the specific technologies and sites that could ultimately be selected for [de]conversion.” The areas of impact include human health, air quality, water, soil, socioeconomics, ecology, waste management, resource requirements, and land use. Petitioners make no reference to this highly pertinent DOE analysis of deconversion-related radiological and environmental impacts.

Indeed, with respect to the issue of HF disposition, the DOE PEIS discusses two technologies for the management of HF following deconversion of  $\text{UF}_6$  to  $\text{U}_3\text{O}_8$  – (1) upgrading the concentrated HF to anhydrous HF for sale, and (2) neutralizing the HF to  $\text{CaF}_2$  for disposal or sale (depending on the marketability of the  $\text{CaF}_2$ ). DOE PEIS, Appendix F, at F-12. With respect to the former, the DOE PEIS states that “anhydrous HF is a valuable product; one

potential use for HF is the production of UF<sub>6</sub> from natural uranium ore for feedstock to the gaseous diffusion process.” (*Id.*) While the DOE PEIS acknowledges that “the handling, storage, and transportation of large quantities of anhydrous HF pose a potential hazard to both workers and the public,” it also states that “[b]ecause of the considerable market for anhydrous HF, the technology of defluorination with anhydrous HF production would minimize waste and increase product value.” (*Id.*) Citing the “LLNL Report”<sup>34</sup> discussed below, DOE also states that “[b]ased on historical experience, it is anticipated that the anhydrous HF would contain *only trace amounts of depleted uranium* (less than 1 ppm, or 0.4 pCi/g),” and that “it was assumed that the anhydrous HF *could be sold commercially for unrestricted use.*” (*Id.*) These statements are contrary to Petitioners’ unsubstantiated assertions regarding the disposition of “radioactively contaminated” HF as not being commercially viable.<sup>35</sup>

Additionally, although the ER does not specifically discuss deconversion-related impacts, ER Section 4.13.3.1.5 addresses the environmental impacts of DUF<sub>6</sub> *disposal* based largely on information contained in the DOE PEIS. ER Section 4.13.3.1.5 incorporates by reference Section 4.2.2.8 of NUREG-1484 (the CEC FEIS), and briefly summarizes the results

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<sup>34</sup> *Cost Analysis Report for the Long-Term Management of Depleted Uranium Hexafluoride*, UCRL-AR-127650, Lawrence Livermore National Laboratory, E. Hatem, J. Zoller, L. Szytel (May 1997) (“LLNL Report”).

<sup>35</sup> Although Petitioners raise a number of concerns based on information contained in the LLNL Report (see NIRS/Public Citizen Contention 4.1, Bases A through F), they do not contest that report’s assumptions or conclusions regarding the resale of recycling of HF from the process of deconverting DUF<sub>6</sub> to another chemical form. The LLNL Report notes that: “Defluorination with AHF production is superior to HF neutralization in terms of by-product value and waste avoidance. In the *unlikely* event that the recovered AHF (because of the small [ $< 1$  ppm] uranium concentration) could not be sold for unrestricted use, or the even *more unlikely* event that it could not be recycled in the nuclear industry, the concentrated HF would be neutralized with lime (CaO) to form CaF<sub>2</sub>. . . . Neutralization would further reduce the already small concentration of uranium in the by-product.”

of the NRC Staff's "generic evaluation" of the impacts of disposal of depleted uranium oxides (which, as discussed above, included disposal in a hypothetical underground mine). Significantly, Section 4.2.2.8 and accompanying Appendix A of NUREG-1484 include "a conservative assessment" of the radiological impacts of deconversion of  $\text{DUF}_6$  to  $\text{U}_3\text{O}_8$  at a generic deconversion plant using a generic deconversion process. Based on that analysis, which Petitioners do not account for, the NRC Staff concluded that "operation of the [generic]  $\text{DUF}_6$  deconversion plant is expected to have negligible radiological impacts on the environment." Again, this conclusion runs counters to Petitioners' assertions, which lack any factual or expert support. Petitioners fail to demonstrate, in this context, how they would be entitled to any relief in this proceeding.

## 2. *Basis B*

Basis B of proposed Contention 2.2 is twofold. Petitioners assert that the ER does not discuss (1) the environmental impacts of constructing and operating a geological repository for  $\text{DUF}_6$  waste, or (2) the environmental effects of generation and storage of additional  $\text{DUF}_6$  beyond that already in existence, or to be generated, in the United States. (NIRS/Public Citizen Petition at 32.) As support, Petitioners refer to the approximately 700,000 metric tons of  $\text{DUF}_6$  currently in DOE's inventory, as well as to the "thousands of tons" to be generated by the gaseous diffusion plant at Paducah, Kentucky and the USEC test centrifuge plant at Portsmouth, Ohio. Petitioners aver that "[a] full discussion of this issue should be part of the assessment of the impacts of the proposed action in both the ER and the NRC's Environmental Impact Statement." (*Id.*)

Basis B lacks the legal and regulatory support sufficient to demonstrate that there are genuine disputes with LES on issues that are material to the findings the NRC must make to

support the proposed licensing action. Petitioners provide no legal or regulatory basis for their belief that the Applicant and the NRC Staff must consider the two classes of environmental impacts identified in Basis B. Indeed, with regard to the first issue, *i.e.*, the environmental impacts of constructing and operating a geological repository for DUF<sub>6</sub> waste, Petitioners merely assume that such a repository will be necessary. Presumably, Petitioners are referring to a "geologic repository" as defined in 10 C.F.R. Part 60 or 63. As set forth in its Application, LES has neither an intention nor an obligation to construct such a repository. At bottom, this basis is a reformulation of Contention 2.1, Basis D, in which Petitioners assert that depleted uranium from LES operations should be "classified . . . in a category that would mark it for deep geological disposal" of the type generally contemplated for GTCC and transuranic waste. As discussed above, Contention 2.1, Basis D, constitutes an impermissible legal challenge to the terms of the Hearing Order and 10 C.F.R. Part 61, and, therefore, raises an inadmissible issue. *See* Response to NIRS/Public Citizen Contention 2.1, *supra*.

In regard to the second issue, *i.e.*, the environmental effects of generation and storage of additional DUF<sub>6</sub> beyond that already generated, or to be generated, by DOE and USEC, Petitioners again fail to provide any supporting legal or factual justification for their assertion.<sup>36</sup> Indeed, Petitioners cite no applicable laws, regulations, policies or guidance in support of their belief that such impacts must be considered by LES or the NRC Staff, and identify no "nexus" between LES's proposed action in New Mexico and DOE's and USEC's activities in Paducah, Kentucky and Portsmouth, Ohio. *Cf. Duke Energy Corp.* (McGuire

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<sup>36</sup> In fact, Petitioners mistakenly presume that USEC will be generating DUF<sub>6</sub> at its lead cascade or "test centrifuge" facility at Portsmouth, Ohio. This is not the case. As licensed by the NRC, that facility will not generate enriched uranium product or depleted uranium byproduct. The feed material processed in the lead cascade facility will be continuously recombined.

Nuclear Station, Units 1 & 2, and Catawba Nuclear Station, Units 1 & 2), CLI-02-14, 55 NRC 278, 297 (2002) (quoting *Webb v. Gorsuch*, 699 F.2d 157 (4<sup>th</sup> Cir. 1983); other citations omitted) (stating that “when developing an EIS, an agency must consider the impact of other proposed projects ‘only if the projects are so interdependent that it would be unwise or irrational to complete one without the other’”). It is unclear how those activities are “interrelated with the action which the agency is actively considering” in this proceeding. *Id.* at 295. In ER Chapter 4.13, LES addressed, as is appropriate, the environmental impacts of the management and disposition of depleted uranium tails generated by *its* proposed facility.

**E. New Mexico Attorney General Proposed Contention B (Environmental-ii) – Storage of Depleted Uranium Hexafluoride**

In this contention, the AG asserts that storage of DUF<sub>6</sub> tails onsite “would pose a distinct environmental risk to New Mexico.” (AG Petition ¶ 4.b, at 3.) The contention, however, is unaccompanied by any supporting facts or expert opinion that are sufficient to establish, with specificity, a genuine dispute on an issue of law or fact material to the NRC’s required findings on the Application. The AG states that the LES facility is intended to operate for 30 years and “would generate significant quantities of tails, *i.e.*, a maximum of 234,000 metric tons of depleted UF<sub>6</sub> over 30 years.” (*Id.*) It then adds that “[o]ther enrichment facilities in the United States (*e.g.*, Oak Ridge Paducah, and Portsmouth) . . . have generated large amounts of depleted uranium tails, stored in steel cylinders, which have remained in outdoor storage on concrete pads for decades.” (*Id.*)

These statements, by themselves, do not adequately define the contours of any specific factual or legal dispute with the Applicant. The AG’s vague reference to a “distinct environmental risk” does not suffice to establish the existence of a litigable dispute. The accompanying statements are factual recitations that provide no clarification as to the nature of

the “environmental risk” alleged by the AG. For this reason alone, proposed Contention B must not be admitted.

Additionally, the AG does not properly challenge the Application by identifying the specific portions of the LES ER or SAR that it disputes, and the supporting reasons for each dispute. 10 C.F.R. § 2.309(f)(1)(vi). LES has set forth a detailed DUF<sub>6</sub> storage plan in ER Section 4.13.3.1. This plan includes siting of the storage pad to minimize the potential environmental impact from external radiation exposure and to ensure that any such exposure is well within regulatory limits. ER at 4.13-4. The plan also contains a detailed discussion of the steps that LES will take to ensure that DUF<sub>6</sub> is stored safely in Uranium Byproduct Cylinders (“UBCs”) during whatever period it remains onsite.<sup>37</sup> *Id.* at 4.13-4 to 4.13-6. The UBC storage management program includes 11 specific procedures and practices that LES will implement to preclude or, if necessary, mitigate adverse events. *Id.*; see also *Answer of Louisiana Energy Services, L.P. to the New Mexico Environment Department’s Request for Hearing and Petition for Leave to Intervene* (Apr. 19, 2004), at 6-9 (discussing LES’s commitments to ensure safe storage of DUF<sub>6</sub> in UBCs and to utilize disposition paths outside the State of New Mexico as soon as possible). Contention B raises no specific objections to LES’s DUF<sub>6</sub> storage plan or to the specific measures discussed therein, and, therefore, fails to controvert the Application.<sup>38</sup>

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<sup>37</sup> The Application also references the *Depleted Uranium Hexafluoride Management Study* (LES, 1991), which sets forth a detailed plan for the storage of DUF<sub>6</sub> in a safe and cost-effective manner, in accordance with all applicable regulations. In addition, it cites extensive cylinder management experience in Europe as a valuable source of information with respect to LES’s cylinder management program. ER at 4.13-4.

<sup>38</sup> Also, per the Commission’s Hearing Order, the NRC Staff may consider the DOE PEIS in preparing the Staff’s EIS. That document specifically considers, in substantial detail, the environmental impacts of long-term storage of DUF<sub>6</sub> (and depleted U<sub>3</sub>O<sub>8</sub>). See generally DOE PEIS, §§ 5.1, 5.2, and Appendix G. Petitioners neither cite for support nor dispute the DOE’s findings on DUF<sub>6</sub> storage impacts as set forth in the pertinent DOE PEIS sections.

Nevertheless, consistent with commitments made by LES to the AG and her representatives during prior meetings between those parties, LES will work with the AG's Office to address these questions as part of the licensing process.

**F. New Mexico Attorney Proposed General Contention C (Miscellaneous-i)  
Ambiguity of the Term "Plausible Strategy"**

In this contention, the AG notes that the "NRC, as regulator, has stated that it will require LES to demonstrate a 'plausible strategy' for disposal of its waste." (AG Petition ¶ 4.c, at 3.) The AG further states that, while the term "plausible strategy" appears in a September 19, 1997 Commission order issued in the CEC proceeding, "[t]he term does not appear in any regulation or statute, and New Mexico is extremely concerned about the potential for future adverse consequences resulting from this ambiguity." (*Id.*) The foregoing statements constitute the entirety of this proposed contention. LES opposes admission of this contention on the grounds that (1) it lacks the requisite specificity and supporting basis to demonstrate a genuine dispute, and (2) to the extent it questions the "plausible strategy" standard, it impermissibly challenges the Commission's Hearing Order.

First, the contention lacks specificity because the AG makes only a vague reference to "future adverse consequences" without identifying what specific harm or "adverse consequences" might result from the application of the "plausible strategy" standard in this proceeding. Moreover, the AG provides no supporting reasons for its belief that "future adverse consequences" may arise in connection with use of the "plausible strategy" standard. As discussed above, the underlying purpose of the "plausible strategy" standard is to allow computation of reasonable cost estimates for the various essential elements of the decommissioning plan, thereby ensuring that LES escrows sufficient funds to cover, among other things, the cost to disposition DUF<sub>6</sub> tails. See general discussion of "plausible strategy"

standard, *supra*. In Contention C, the AG has not alleged with particularity either (1) that LES is not complying with a specified regulation, or (2) the existence and detail of a substantial safety issue on which the regulations are silent. *See Pub. Serv. Co. of N.H. (Seabrook Station, Units 1 & 2)*, LBP-82-106, 16 NRC 1649, 1656 (1982).

Insofar as the AG argues that the “plausible strategy” standard cannot be applied in this proceeding absent its incorporation in a statute or regulation, the AG impermissibly challenges the Commission’s Hearing Order that implicitly adopts that standard for the proceeding. Moreover, the contention lacks any legal basis for such a challenge. As mentioned above, “the standards articulated in the Notice of Hearing and Commission Order are the appropriate standards,” and “[t]he hearing notice defines the scope of the issues in the proceeding.” LBP-91-41, 34 NRC at 345. Moreover, Section 161b. of the Atomic Energy Act authorizes the Commission to establish by rule, regulation or *order*, such standards and instructions to govern the possession and use of special nuclear material, source material, and byproduct material as the Commission may deem necessary or desirable to promote the common defense and security or to protect health or to minimize danger to life or property. 42 U.S.C. § 2201(b). Thus, the Commission has ample authority to prescribe the use of a particular standard via a hearing order, and, as discussed above, exercised this authority with respect to the use of the “plausible strategy” standard in this proceeding.

**G. New Mexico Attorney General Proposed Contention D (Environmental-iii) – LES’s Alternative Plausible Strategies**

In proposed Contention D, the AG takes issue with both of the “plausible” DUF<sub>6</sub> waste disposition strategies identified by LES in its Application. The AG asserts that, while LES may postulate “plausible” strategies, “executing a specific disposal plan may be extremely difficult and costly,” as both of LES’s alternative strategies “present large practical difficulties.”

(AG Petition ¶ 4.d, at 4-5.) According to the AG, this increases the likelihood that the burden will fall upon New Mexico to ensure proper disposal of DUF<sub>6</sub> generated at the proposed facility. (*Id.* at 5.) LES opposes admission of proposed Contention D because it impermissibly challenges the Hearing Order, raises issues outside the scope of this proceeding, and lacks sufficient basis to establish with specificity any genuine dispute on issue of law or fact material to NRC findings on the Application.

As the first basis for this contention, the AG states that “[n]o deconversion plant exists within the United States, and the necessary licenses to bury U<sub>3</sub>O<sub>8</sub> in an abandoned mine may be hard to obtain.” (*Id.* at 4.) This basis contains essentially the same arguments advanced by NIRS and Public Citizen in proposed Contention 2.1, *i.e.*, that LES needs to obtain a “substantive commitment” to build and operate a deconversion facility (because no facility exists at present), and demonstrate that the Cotter Mines site mentioned in the Application meets technical and environmental criteria for disposal, as a prerequisite to issuance of a license. For the reasons discussed above, the “plausible strategy” standard does not require this level of certitude. Namely, LES need not demonstrate the existence of either a deconversion facility or a specific licensed site for depleted uranium disposal as a condition of receiving a license. This basis should be rejected, therefore, because it impermissibly challenges the “plausible strategy” standard – and hence the Hearing Order – and seeks to litigate issues outside the scope of the proceeding.

As the second basis for its contention, the AG cites purported shortcomings in a “Section 3113” strategy – *i.e.*, the transfer of DUF<sub>6</sub> to DOE for deconversion and disposition – identified by LES in the Application. (AG Petition ¶ 4.d, at 4.) The AG notes that, under Section 3113 of the USEC Privatization Act, DOE must recover an amount equal to the [Energy]

Secretary's costs, including a pro-rata share of any capital costs. (*Id.*) In view of this fact, the AG maintains that DOE may be unable to estimate its actual costs of disposal, as well as accomplish disposal as required. (*Id.*) The AG then asserts that "DOE would undoubtedly give higher priority to the 704,000 metric tons of existing tails from the DOE, and former DOE, plants, which DOE is required to dispose of, in preference to waste from LES." (*Id.*) Finally, the AG cites a January 2004 letter from Governor Taft of Ohio to the NRC, in which the Governor purportedly opposes the shipment of any depleted uranium from the NEF to Ohio, as signifying the "actual obstacles to disposal" of DUF<sub>6</sub> by LES. (*See id.*)

This basis is insufficient to support admission of proposed Contention D. The Commission's Hearing Order states that the transfer of DUF<sub>6</sub> waste to DOE for dispositioning by DOE pursuant to Section 3113 of the USEC Privatization Act is a "plausible strategy." 69 Fed. Reg. 5877, col. 3. This basis, therefore, amounts to a direct challenge to the Hearing Order. Additionally, the AG's assertions that DOE may lack the ability to estimate its actual disposal costs or to accomplish disposal as required, and will assign higher priority to its own inventory, are conjectural and contrary to the terms of Section 3113. Section 3113 states that DOE "*shall* accept for disposal low-level radioactive waste, including depleted uranium if it were ultimately determined to be low-level radioactive waste, generated by . . . any person licensed by the Nuclear Regulatory Commission to operate a uranium enrichment facility." 42 U.S.C. § 2297h-11 (emphasis added). Thus, the AG's statements lack adequate legal, factual, or expert support to demonstrate a genuine dispute. Nevertheless, consistent with commitments made by LES to the AG and her representatives during prior meetings between those parties, LES will work with the AG's Office to address these questions as the licensing process goes forward.

**H. New Mexico Attorney General Proposed Contention G (Technical-ii) – Cost Estimates for Disposition of Depleted Uranium Hexafluoride**

This contention asserts that “[t]he bases for LES’s cost estimates are suspect, and the actual cost of disposing of tails will exceed the \$5.50 per KgU estimated by LES.” (AG Petition ¶ 4.g, at 6.) LES opposes admission of proposed Contention G. In view of the four bases proffered by the AG, this proposed contention seeks to litigate issues outside the scope of the proceeding as defined by the Hearing Order, fails to show the existence of a genuine dispute on an issue of material fact or law, and fails to properly challenge the Application.

As its first basis, the AG notes that “the data from two of the four sources [of cost estimates considered by LES], UDS and Urenco, are withheld as proprietary; LES gives only DOE’s estimate of the costs under the UDS contract.” (*Id.*) The AG then suggests that this is unacceptable because (1) DOE has previously failed to perform as directed (citing DOE’s commercial spent fuel disposal obligations under the Nuclear Waste Policy Act of 1982), and (2) DOE has consistently failed to estimate the costs of disposal and related activities with any accuracy. (*Id.*)

LES opposes the admission of this issue because the basis is insufficient to show that a genuine dispute of material fact exists on an issue within the scope of this proceeding. The AG fails to explain the relevance of DOE’s compliance with its contractual obligations under the Nuclear Waste Policy Act of 1982 to the cost information supplied by DOE in connection with the UDS contract.<sup>39</sup> The AG’s allusion to prior DOE failures to estimate “costs of disposal and

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<sup>39</sup> The UDS contract is for the design, construction, and operation of deconversion facilities, on DOE property at Paducah, Kentucky and Portsmouth, Ohio, that will deconvert DOE’s inventory of DUF<sub>6</sub> to some stable chemical form (*i.e.*, uranium oxide or metal) acceptable for transportation, beneficial use/reuse, and/or disposal.

related activities” is vague and unsubstantiated, and its relevance is therefore questionable. In effect, the AG argues that LES’s use of the UDS contract cost information is inappropriate because of DOE’s purported ineptitude in regard to wholly unrelated (or at least not adequately identified) matters. Such an argument fails to raise a concrete or litigable issue that falls within the scope of this proceeding.

As the second basis for its contention, the AG raises four concerns related to “the potential for deconversion and burial of the waste.” (AG Petition ¶ 4.g, at 6.) These concerns include the following: (1) no deconversion plant exists in the U.S.; (2) the cost estimates for its construction are likely inaccurate; (3) the time and cost of using a closed uranium mine are seriously underestimated; and (4) the legality of burying low-level waste in such a mine is uncertain. (*Id.*) Sub-bases (1) and (4) reiterate concerns identified by the AG in Contention D, which asserts that “[n]o deconversion plant exists within the United States, and the necessary licenses to bury  $U_3O_8$  in an abandoned mine may be hard to obtain.” These sub-bases should be rejected for the reasons discussed above in LES’s response to Contention D, *i.e.*, they impermissibly challenge the “plausible strategy” standard (and hence the Hearing Order) and seek to litigate issues outside the scope of the proceeding. *See also* LES Response to NIRS Contention 2.1 (Bases B and C), *supra*. LES is neither required to show the existence of a deconversion facility (or to obtain a “substantive commitment” to construct such a facility), nor the licensability of a specific disposal site.

Sub-bases (2) and (3) are also insufficient because they do not raise genuine disputes on issues of material fact or properly challenge the Application. The AG does not set forth any support for its beliefs that the cost estimates for deconversion-related activities are

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“likely inaccurate,” and that the time and cost of using an exhausted uranium mine are “seriously underestimated.” Moreover, in its Application, LES presents detailed information regarding the bases for its cost estimates for the *deconversion* of  $\text{DUF}_6$  to  $\text{DU}_3\text{O}_8$ , the *disposal* of the  $\text{DU}_3\text{O}_8$  product, and the *transportation* of both  $\text{DUF}_6$  and  $\text{DU}_3\text{O}_8$ . See generally SAR Section 10.3 and ER Section 4.13.3.1.6. Sub-bases (2) and (3) do not identify which aspects of LES’s cost estimates the AG specifically disputes.

The third basis for proposed Contention G states that “the [Lawrence Livermore National Laboratory] LLNL estimates were based on a much higher production rate than planned by LES and do not represent actual market prices.” (AG Petition ¶ 4.g, at 6.) In addition to providing no specific reference to the discussion in the LLNL Report disputed by the AG, the AG presents no factual or expert support for this asserted generality. The AG does not attempt to explain the relevance of its references to a “higher production rate” and “actual market prices” to the LES cost estimates, nor to demonstrate how these factors show that the cost estimates are “suspect.” For that reason, the AG’s third basis lacks sufficient supporting explanation to satisfy 10 C.F.R. § 2.309(f)(1)(ii), (iv), and (v).

In its final basis for Contention G, the AG points out that data presented by LES in connection with the CEC license application show a total  $\text{DUF}_6$  disposition cost of \$6.74 per kgU, which is larger than the \$5.50 per kgU assumed in the present Application. (*Id.* at 6-7) The AG sets forth no additional supporting information or explanation. LES opposes admission of this issue.

The \$5.50 per kgU figure presented in the Application is based on LES’s consideration of four sets of relevant cost information: (1) a 1997 study by the Lawrence Livermore National Laboratory (“LLNL”); (2) the Uranium Disposition Services (“UDS”)

contract with the Department of Energy (“DOE”); (3) information from Urenco, which has operational experience with respect to the disposition of depleted uranium tails; and (4) depleted uranium tails disposition cost estimates submitted to the NRC in connection with the Claiborne Enrichment Center (“CEC”) license application in June 1993. The salient information from these sources is discussed in detail in SAR Section 10.3 and ER Section 4.13.3.1.6. With respect to the CEC-related cost estimates, the ER notes that the estimates were based on information provided to LES by Cogema and Urenco “at that time,” *i.e.*, in 1993. ER at 4.13-19. The first three sources, however, include current or recent information that was not available to LES at the time it submitted the CEC-related cost estimates to the NRC. Notably, the average of the LLNL, UDS, and CEC cost estimates yields a value of \$5.24 per kgU. See ER Table 4.13-7. LES conservatively selected \$5.50 per kgU as its estimated unit cost for depleted tails disposition.

Additionally, the \$5.50 per kgU figure is informed by LES’s analysis of the cost of underground mine disposal. See ER at 4.13-19 to 4.13-20. It is important to note that the *total* tails disposition cost derived from LES’s review of the LLNL Report represents disposal of the depleted tails (following deconversion to  $U_3O_8$ ) in a concrete vault. Significantly, LES, through its own analysis of cost data provided by a U.S. mine engineering company (Western Mine Engineering), determined that the LLNL-derived cost estimate for disposal in a concrete vault bounds the cost of disposing of the tails in a new or exhausted underground mine. *Id.* One of LES’s two proposed plausible strategies is disposal in an underground mine.

Notwithstanding that certain information was withheld as proprietary, the Application does provide detailed information about how LES derived its cost estimate. While the AG’s observation is correct, *i.e.*, the CEC-related cost estimate of \$6.74 kgU is greater than the LES’s current estimate of \$5.50 per kgU, the reasons for this fact are made explicit in the

Application. The AG, however, does not specifically dispute these reasons or otherwise provide sufficient supporting information to challenge the reasonableness of LES's cost estimate. Accordingly, the AG's fourth and final basis is insufficient. Nonetheless, consistent with commitments made by LES to the AG and her representatives during prior meetings between these parties, LES will work with the AG's Office to address these questions as the licensing process goes forward.

**I. NIRS/Public Citizen Proposed Contention 3.1 – Decommissioning Costs**

In this contention, Petitioners contest the sufficiency of LES's decommissioning cost estimates and funding plan, based on information contained in SAR Chapter 10 and ER Section 4.13.3. Petitioners set forth two bases. LES opposes admission of either basis because they lack sufficient supporting information to show that there is genuine dispute with the Applicant on issue of material fact.

*I. Basis A*

In Basis A, Petitioners note that "LES adopts as its model for the cleanup of the NEF two short-term projects carried out in Europe." (NIRS/Public Citizen Petition at 32.) Petitioners cite SAR Table 10.1-1, note 8, and SAR Table 10.1-2, note 4, as well as SAR Sections 10.1.7.3 and 10.1.7.4. The referenced SAR tables provide that:

Based on extensive actual centrifuge decommissioning experience, a contingency of 10% is used in lieu of the 25% as suggested in NUREG-1727 (NRC, 2000). This is based upon over 10 years of Urenco experience decommissioning two pilot uranium enrichment centrifuge facilities at the Almelo enrichment facility in the Netherlands.<sup>40</sup>

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<sup>40</sup> Although it is not reflected in this SAR excerpt, both of the "pilot" facilities alluded to were also production facilities

SAR Section 10.1.7.3 notes that this Urenco experience “will be incorporated extensively” into the formal procedures for all major decommissioning activities. SAR at 10.1-12. Petitioners contend that it is not appropriate, “in attempting to project the nature of the work required, to refer to proxy projects that can be viewed in hindsight.” (NIRS/Public Citizen Petition at 33.) Specifically, Petitioners argue that “the cleanup of short-term pilot operations is not an appropriate proxy.” (*Id.*) In support of this assertion, Petitioners state that:

- (1) The effort required to decommission a plant depends largely upon the length of time it was in operation, and the decommissioning of facility after 30 years of operation is a process “which can only be approximately predicted.” (*Id.*)
- (2) The difficulties encountered in decommissioning depend upon the nature and extent of contamination occurring during operations, “factors that can be easily underestimated at the inception of a project.” (*Id.*)
- (3) The costs of decommissioning of both the DOE weapons complex and commercial sector facilities normally have been greater than originally estimated. (*Id.*)

LES opposes the admission of this basis on the ground that it lacks sufficient supporting information. One of the principal purposes of the basis-for-contention requirement is to ensure that there has been sufficient foundation for the contentions to warrant further explanation. *See Gen. Pub. Utils. Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), LBP-86-10, 23 NRC 283, 285 (1986) (citing *Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-216, 8 AEC 12, 20-21 (1974)). Moreover, Section 2.309(f)(1)(v) of the Commission’s Rules of Practice requires that petitioners provide, *inter alia*:

. . . a concise statement of the alleged facts or expert opinions which support the petitioner’s position on the issue and on which the petitioner intends to rely at hearing, *together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue;*

10 C.F.R. § 2.309(f)(1)(v) (emphasis added). Petitioners provide no references to specific sources or documents to support sub-bases (1), (2), or (3). The bases are merely assertions without foundation.

Sub-basis (1) asserts that the effort required to decommission a plant depends largely on the length of time it was in operation. Petitioners treat this assertion as a universal precept. Indeed, they provide no factual support for the proposition that the substantial experience gained from decommissioning pilot/production facilities cannot be used to forecast the decommissioning costs for longer-term operations that employ the same processes and the same types of equipment. For this reason, sub-basis (1) is insufficient because it lacks supporting information.

With respect to sub-basis (2), LES does not dispute the notion that the nature and extent of contamination at a given facility may impact decommissioning efforts and costs. That being said, LES does not see how this observation alone creates a genuine dispute as to LES's reliance on Urenco's substantial pilot/production plant decommissioning experience. To the contrary, such experience provides valuable insight into the nature and extent of contamination that is most likely to occur at an enrichment facility deploying Urenco centrifuge technology. Urenco's centrifuge enrichment process has been in use for over 30 years, and is currently deployed at Urenco's three European commercial-scale enrichment facilities located in Germany, the Netherlands, and the United Kingdom. As noted in ER Section 1.1.1, this technology has undergone numerous enhancements that have "yielded significant safety and environmental benefits." ER at 1.1-3. Petitioners neglect to discuss this portion of the Application. In view of the foregoing, sub-basis (2) is insufficient.

Finally, sub-basis (3) is insufficient for the same reason, *i.e.*, it lacks adequate support or foundation to establish a genuine dispute on a material issue of fact. Petitioners do not identify any specific “DOE weapons complex and commercial sector facilities,” nor do they attempt to explain the relevance of decommissioning activities and costs at such facilities to the proposed NEF facility. Absent such information, sub-basis (3) does not sufficiently call into question, for purposes of 10 C.F.R. § 2.309(f)(1)(iv), (v), or (vi), the appropriateness of LES’s reliance on Urenco’s experience in decommissioning pilot/production centrifuge facilities.

2. *Basis B*

In the second basis for this contention, Basis B, Petitioners assert that the cost estimate contained in the Application is unreasonable and contains several inaccuracies.

(NIRS/Public Citizen Petition at 33-34.) Basis B consists of five discrete points or sub-bases:

- (1) LES’s stated contingency fee amounts are only 10%, whereas the LLNL Report has contingency fees of 30% for similar facilities, and 30-50% for the type of equipment required by LES’s process. (*Id.* at 33)
- (2) The ER talks at length about a government cost of capital of 6% -- an unrealistic figure to project for capital requirements of a private entity thirty years hence. (*Id.*)
- (3) The use of classified and proprietary data to avoid revealing costs of decommissioning is likely to lead to higher costs downstream. (*Id.* at 33-34)
- (4) The costs to dispose of material at Envirocare are listed as \$150 in SAR Table 10.1-1 (note 7) and as \$100 in SAR Table 10.1-5 (note 1). (*Id.* at 34.)
- (5) Costs will increase significantly if the waste is contaminated at a level that requires higher-level disposal options, as the cited Envirocare disposal costs are for low-level radioactive waste only. (*Id.*)

LES opposes admission of sub-basis (1) on the ground that it lacks sufficient supporting information to establish a genuine dispute on a material issue of fact. The 10% contingency cited by Petitioners applies to the decommissioning of LES’s proposed gas

centrifuge enrichment facility, *i.e.*, the NEF. As discussed above, this contingency is based on over 10 years of Urenco experience in decommissioning two pilot/production uranium enrichment centrifuge facilities at the Almelo site in the Netherlands. *See* LES Response to NIRS/Public Citizen Contention 3.1. In contrast, the 30% and 30-50% engineering contingencies for processing and manufacturing facilities and equipment cited in the LLNL Report are intended to “reflect the level of the preconceptual designs, the engineering data available, and the experience base” (LLNL Report at 30) for the various  $\text{DUF}_6$  disposition options considered in the LLNL Report. In other words, within the context of the LLNL Report, these contingencies apply to construction and operation of potential “[f]acilities for the deconversion, manufacture, storage, or transfer of depleted  $\text{UF}_6$ .” Petitioners merely refer to “similar facilities,” but they provide no information to show how the conceptual *deconversion* facilities addressed in the LLNL report are “similar” to the proposed LES *enrichment* facility from the standpoint of general facility decommissioning.

Importantly, a document put forth by an intervenor as supporting the basis for a contention is subject to scrutiny, both for what it does and does *not* show. *See Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). The cited portion of the LLNL Report contains information that actually contravenes sub-basis (1). Notably, the LLNL Report states that “[t]he variable process and manufacturing cost estimating contingencies do not consider process feasibility or performance risk” (LLNL Report at 31), which are described in the sensitivity analysis (Chapter 6) of the Report. The Report specifically notes that factors which indicate a lower process and manufacturing contingency include (1) industrial experience with similar processes and equipment, (2) standard unit operations with well-recognized design methods, and

(3) standard or off-the-shelf equipment. *Id.* As noted above, LES will deploy a well-established technology for which there is extensive operational and decommissioning experience and well-recognized design methods.

LES opposes admission of sub-basis (2) because it does not establish with specificity a genuine dispute on a material issue of fact adequate to warrant further inquiry. Petitioners suggest that the ER discusses “at length” a government cost of capital of 6 percent. In reality, the cited page of the ER (ER 4.13-18) simply indicates that, in deriving a total unit and capital operating cost of \$3.92 per kgU based on publicly available information in the DOE-UDS contract, LES reasonably assumed operation over 25 years and a 6 percent government cost of money (in view of the fact that operations under the UDS contract are, in fact, government-funded).<sup>41</sup> In this regard, Petitioners fail to explain how this single assumption is of consequence to LES’s total tails disposition cost estimate of \$5.50 per kgU. LES conservatively selected the \$5.50 per kgU figure based on its consideration of *four* sets of relevant cost information – the 1997 LLNL Report, the 2002 DOE-UDS contract, information supplied by Urenco, and the 1993 CEC license application. The LLNL Report assumption targeted by Petitioners represents only one assumption used in one of several sources of information considered by LES.

LES opposes admission of sub-basis (3) on the ground that it also lacks sufficient supporting information to establish a genuine dispute on a material issue of fact. Sub-basis (3) refers to SAR Table 10.1-2, note 5, which states:

More than 97% of the decommissioning costs for the NEF are attributed to the dismantling, decontamination, processing, and disposal of centrifuges

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<sup>41</sup> Indeed, should LES ultimately pursue disposition of its DUF<sub>6</sub> through DOE via the Section 3113 scheme – which would entail deconversion at the Paducah and/or Portsmouth deconversion facilities that UDS has been tasked to build and operate – the unit cost derived from actual cost information tendered by DOE in the contract would be particularly germane.

and other equipment in the Separations Building Modules, which are considered classified. Given the classified nature of these buildings, the data presented in these Tables have been structured to meet the applicable NUREG-1727 recommendations, to the extent practicable. However, specific information such as numbers of components and unit rates have been intentionally excluded to protect the classified nature of the data.

As noted in SAR Chapter 10, many of the estimated decommissioning costs are based on actual decommissioning experience at Urenco's European enrichment facilities.

While LES appreciates Petitioners' desire to have access to all information underpinning LES's facility decommissioning cost estimate, LES did not withhold information "to avoid revealing costs of decommissioning," as Petitioners suggest. LES, rather, withheld certain information due to its protected status, in compliance with applicable NRC requirements and procedures for handling confidential and sensitive information. LES's adherence to applicable requirements and procedures in this regard does not provide a litigable basis for Petitioners' contention. The NRC Staff will have access to this information, as may Petitioners – if necessary – in accordance with applicable Commission policies and procedures. Sub-basis (3), however, asserts merely that the withholding of data on the ground that it is classified or proprietary "is likely to lead to higher costs downstream." (NIRS/Public Citizen Petition at 33-34.) LES does not see how protecting confidential financial and safeguards information pursuant to NRC procedures, in itself, will result in higher "downstream" decommissioning costs. In any event, Petitioners provide no factual support for this assertion. To the extent Petitioners seek to challenge LES's reliance on Urenco's decommissioning experience, Petitioners raised this issue in Basis A, to which LES responded above.

In sub-basis (4), Petitioners cite an *ostensible* error or discrepancy in the Application, *i.e.*, the costs to dispose of material at Envirocare are listed as \$150 in SAR Table 10.1-1 (note 7), and as \$100 in SAR Table 10.1-5 (note 1). However, the \$100 unit cost is cited

in connection with "Separations Building Modules," whereas the \$150 unit cost is cited in connection with "Other Buildings." In short, the difference in the stated unit cost is intentional and reflects actual Urenco decommissioning experience. As such, absent a challenge to the bases for these unit cost estimates, the "discrepancy" cited by Petitioners, in itself, cannot serve as a basis for a litigable contention.

LES opposes admission of sub-basis (5) on the ground that it lacks sufficient supporting information to establish a genuine dispute on a material issue of fact or law. Petitioners assert only that "[i]f the waste [resulting from the decommissioning of "Other Buildings" and "Separations Building Modules" and reflected in SAR Tables 10.1-1 and 10.1-5] is contaminated at a level that requires higher level disposal options, the costs will increase significantly above LES's estimates." (NIRS/Public Citizen Petition at 34.) Petitioners, however, provide no information to suggest that the waste at issue may or will be contaminated at a level that necessitates disposal by methods beyond those contemplated by LES in the Application. Indeed, the Application contains a detailed discussion of the types, sources, and quantities of wastes (gaseous, liquid, and solid), including radioactive waste, to be generated by NEF operations. See ER Section 3.12. ER Section 3.12.2.1 states that "[a]ll solid radioactive wastes to be generated are Class A low-level wastes as defined in 10 C.F.R. [Part] 61." ER at 3.12-9. In any event, since the only radioactive material entering the facility, other than calibration sources, is "low-level" natural uranium, it is physically impossible to have contamination that is higher than "low-level." Further, SAR Sections 10.1.6 and 10.1.7 provide additional information regarding the decommissioning process, including the "facilities, procedures, and expected results of decontamination." See, e.g., SAR at 10.1-11 (stating that "[t]he primary contaminant throughout the plant will be in the form of small amounts of  $UO_2F_2$ ,

with even smaller amounts of UF<sub>4</sub> and other compounds,” all of which are low-level radioactive material). Petitioners do not specifically dispute any of the information contained in these portions of the Application. Accordingly, Petitioners fail to properly challenge the Application, and fail to provide sufficient information to support admission of sub-basis (5).

**J. New Mexico Attorney General Proposed Contentions A, E, and F  
(Environmental-i and -iv; Technical-i) –  
Financial Assurance Issues**

Given the substantial overlap or commonality in the issues raised by proposed Contentions A, E, and F, the admissibility of all three issues is most efficiently addressed together. These contentions specifically all raise concerns about the soundness of LES’s proposed financial assurance mechanism. As set forth below, these contentions should be rejected for their failure to establish with specificity any genuine dispute, to present an adequate statement of bases, to provide adequate factual or legal support, and to properly challenge the Application. Also, insofar as these contentions seek the imposition of financial assurance requirements that are different from, or more stringent than, those set forth in current NRC regulations, they amount to impermissible legal challenges to the applicable regulations and must be rejected. Notwithstanding, LES reiterates its aforementioned commitment to work with the AG’s Office to address these issues during the licensing process.

In Contention A, the AG states that “ultimately, if the plant is not economically viable, the 90% majority owners, which are foreign entities, may simply abandon their investment,” potentially causing “the problems of cleanup and dismantlement [] to fall upon New Mexico.” (AG Petition ¶ 4.a, at 3.) In Contention E, the AG recasts the preceding concern in slightly different terms. The AG notes that “LES has requested permission to build a storage pad that will hold 30 years of waste output,” and adds that, “if the waste is accumulated during

operations, the disposal cost must be paid at the time of decommissioning.” (*Id.* at ¶ 4.e, at 5.)

On the issue of disposal cost, the AG then makes the following generalization:

Such a cost is exposed to all the risks of other shutdown costs: On shutdown, customers have paid their bills, and the only entity that may be asked to bear these costs is the owner, which foresees no further revenue from the plant and is, in fact, a foreign owner with no attachment to the locality. The situation begs for a determination that security for disposal costs must be provided. (*Id.*)

In response to Contentions A and E, LES notes that the NRC promulgated its current financial assurance regulations to preclude occurrence of the scenario envisioned by the AG, *i.e.*, abandonment of the site by the licensee and the absence of funds to ensure cleanup. In this regard, LES specifically commits in its Application to comply with the applicable financial assurance requirements. For instance, in the SAR, LES commits to decontaminate and decommission the enrichment facility and site at the end of its operation so that the facility and grounds can be released for unrestricted use. *See* SAR at 10.1-2, 10.1-7. LES further indicates that it “intends to utilize a surety method (such as a letter or line of credit or surety bond) to provide reasonable assurance of decommissioning funding, as required by 10 C.F.R. §§ 40.36(e)(2) and 70.25(f)(2).” *Id.* at 10.2-1. Finally, LES commits to update the decommissioning cost estimate, and the associated funding levels, at least once every three years from the time of license issuance to the end of facility operations, to account for changes resulting from inflation and/or site-specific factors. *See id.* at 10.2-1 to 10.2-2. This commitment is in accordance with 10 C.F.R. §§ 40.36(d) and 70.25(e).

Nowhere in proposed Contention A or proposed Contention E does the AG identify any specific deficiencies in the Decommissioning Funding Plan, as set forth in SAR Chapter 10, or in LES’s ability to comply with that plan. Nor does the AG dispute the decommissioning cost estimates, including those for DUF<sub>6</sub> disposition, presented in SAR

Chapter 10. It is not clear, therefore, what aspect of LES's proposed financial assurance plan the AG seeks to litigate. The AG simply posits that the LES majority owners may abandon their investment; it provides no supporting information to properly define and substantiate its concerns regarding financial assurance. For these reasons, proposed Contentions A and E do not raise with specificity a concrete or litigable issue that properly challenges the Application, and should be rejected. *See* 10 C.F.R. § 2.309(f)(1)(i), (vi).

In proposed Contention F, the third and final formulation of the AG's concerns regarding the LES financial assurance mechanism, the AG states that "[h]ow the disposal security will be calculated is not at all clear." (AG Petition ¶ 4.f, at 5.) This contention contains greater specificity than Contentions A and E, in that it singles out two statements contained in SAR Section 10.2.1, "Decommissioning Funding Mechanism." These statements are that: (1) "LES will provide decommissioning funding assurance for the disposition of depleted tails at a rate in proportion to the amount of accumulated tails onsite up to the maximum amount of tails as described in Section 10.3, Tails Disposition (SAR at 10.2-1); and (2) "[t]he surety method adopted by LES will provide an ultimate guarantee that decommissioning costs will be paid in the event LES is unable to meet its decommissioning obligations at the time of decommissioning." *Id.* From these statements, the AG makes the following inferences, which it equates to "shortcomings" in the LES Application:

- (1) Funding would apply only to the tails accumulated onsite, even if other tails are in the process of storage offsite and have not been disposed. (AG Petition ¶ 4.f., at 5.)
- (2) Funding would be based on the average cost of disposal of maximum production, even though unit disposal costs will probably be higher if production is lower. (*Id.*)
- (3) Funding would apply only at the time of decommissioning, even though the need to dispose of tails exists throughout operating life. (*Id.* at 5-6)

- (4) Decommissioning the plant before the end of its 30-year operating life could leave tails disposal underfunded because funding had met only the present value of a disposal obligation 30 years in the future. (*Id.*)

Contention F is inadmissible, however, because it also fails to raise a genuine dispute; namely, the supporting bases are factually incorrect statements and reflect a misunderstanding of the cited SAR statements and the NRC's financial assurance requirements, or they lack sufficient factual support.

With respect to Basis (1), SAR Section 10.3 makes clear that LES will provide for expected tails disposition costs, assuming ultimate disposal as waste instead of use as a resource, for *all* tails generated during the life of the facility. This section states that “[f]unds to cover [DUF<sub>6</sub> tails disposition] costs are based on the amount of tails generated and the unit cost for disposal of depleted DUF<sub>6</sub>.” SAR at 10.3-1. Thus, the estimated total tails disposition cost of \$731,181,000 is based on a computed total tails *production* of 132,942 MTU and a unit tails processing cost of \$5,500 per MTU (\$5.50 per kgU). *Id.* at 10.3-3. The proposed decommissioning funding plan, therefore, encompasses *all* tails to be generated at the facility. Whether such tails are stored offsite has no bearing on the decommissioning funding calculation.

Basis (2) lacks adequate factual support. Petitioners assert that “unit disposal costs will *probably* be higher if production is lower,” but provide no factual or expert support for this prediction. Moreover, in accordance with 10 C.F.R. §§ 40.36(d) and 70.25(e), LES is required to update its decommissioning cost estimate and associated funding levels, approximately every three years, to account for changes resulting from inflation or site-specific factors, such as changes in facility conditions or expected decommissioning procedures. The SAR specifically notes that “[t]hese funding level updates will address anticipated operation of additional Separation Building Modules *and accumulated tails.*” SAR at 10.2-2 (emphasis

added). If, in fact, production rates are likely to impact adversely unit disposal costs for DUF<sub>6</sub> – which the AG has not substantiated – then LES will be required to address this issue in the mandatory periodic updates of its decommissioning funding levels. Insofar as the AG argues that such a procedure is inadequate, it improperly seeks to challenge the NRC’s decommissioning funding regulations.

Basis (3) is also an incorrect statement. The AG appears to misconstrue LES’s reference to the surety method as an “ultimate guarantee” for funding “at the time of decommissioning” to mean that LES cannot fund tails disposition prior to the end of facility operations and the commencement of decommissioning. That is clearly not the case. The SAR states that “LES intends to provide *continuous* financial assurance from the time of receipt of licensed material to the completion of decommissioning and termination of the license.” SAR at 10.2-1. Specifically, the SAR states that “[s]ince LES intends to sequentially install and operate the Separations Building Modules over time, financial assurance for decommissioning will be provided *during the operating life of the NEF* at a rate that is in proportion to the decommissioning liability for these facilities as they are phased in.” *Id.* (emphasis added). Thus, Basis (3) is insufficient.

Finally, Basis (4) likewise fails to establish a genuine dispute in view of information provided in the Application. The nature of the AG’s concern in this instance is not entirely clear, but it appears to be based on incorrect assumptions, or a misunderstanding of the NRC’s financial assurance requirements. The AG suggests that LES’s cost estimate and funding levels will remain forever fixed at the “present value” of money. As noted above, LES will be required to update its decommissioning cost estimate, and the associated funding levels, at least once every three years from the time of license issuance to the end of facility operations. This

updating is intended to address inflation and other factors, and hence, the potential for “underfunding” seemingly contemplated by the AG in Basis (4). See SAR at 10.2-1 to 10.2-2. To the extent the AG seeks measures that go beyond Commission requirements, the contention must be rejected.

**K. New Mexico Attorney General Proposed Contention H (Miscellaneous-ii) – Financial Qualifications**

This contention raises issues related to LES’s financial qualifications to construct and operate the proposed enrichment facility. The AG states that “LES must include contractual commitments that will pay for decommissioning and waste disposal, which requires the NRC to determine the *actual* costs of waste disposal and how it could be adequately financed.” (AG Petition ¶ 4.h, at 7; emphasis added.) The AG then briefly summarizes the Commission’s ruling, in CLI-97-15, on the issue of LES’s financial qualifications in connection with the CEC license application. *Id.* In the Hearing Order for *this* proceeding, the Commission specifically describes its holding in CLI-97-15 and confirms the applicability of the “specific license condition” approved therein to the current LES Application:

*In Louisiana Energy Services (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 309 (1997), the Commission held that the part 70 financial criteria, 10 CFR 70.22(a)(8) and 70.23(a)(5), could be met by conditioning the LES license to require funding commitments to be in place prior to construction and operation. The specific license condition approved in that proceeding, which addressed a minimum equity contribution of 30% from the parents and affiliates of LES partners prior to construction of the associated capacity and having in place long term enrichment contracts with prices sufficient to cover both construction and operating costs, including a return on investment, for the entire term of the contracts prior to constructing or operating the facility, is one way to satisfy the requirements of part 70.*

69 Fed. Reg. 5,877-78 (emphasis added). To the extent the AG seeks a further financial qualifications showing, its contention must be rejected as contrary to the Hearing Order.

Notwithstanding the clear direction from the Commission, the AG takes direct issue with the adequacy of the previously approved license condition. The AG asserts that:

- (1) Such a license condition would postpone satisfaction of an important requirement until after the proceeding is concluded, and leaves in an uncertain state the regulatory determination on whether the condition is met. (AG Petition ¶ 4.h., at 7.)
- (2) The condition is vaguely stated and inadequate. (*Id.*)
- (3) LES officials have claimed that they have contractual commitments for approximately 50% of the facility's output for the first ten years of production (citing February 9, 2004 meeting with James Ferland and Rod Krich). However, LES has declined to make its contracts public so that the existence of conditions upon the obligation to pay for enrichment services could be determined and it is not known how many of such contracts are with affiliates, *i.e.*, LES partners. (*Id.* at 7-8).

Contention H should be rejected as an impermissible challenge to the Commission's Hearing Order. The Hearing Order states unequivocally that the "specific license condition" approved in CLI-97-15 "is one way to satisfy the requirements of part 70." To assert in Basis (2) that the license condition "is vaguely stated and inadequate" is a clear challenge to the Commission's holding in CLI-97-15 and its direction in the Hearing Order.

In a similar vein, Basis (1) seeks impermissibly to challenge a well-established NRC regulatory practice, *i.e.*, the incorporation of specific conditions in NRC-issued licenses to ensure that licensees undertake specified actions and fulfill commitments. The use of license conditions in this manner is well within the authority and discretion of the Commission. *See, e.g., Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 308-309 (1997) (citing *Curators of the University of Missouri*, CLI-95-1, 41 NRC 71, 154-58 & n.139 (1995); *Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), CLI-96-8, 44 NRC 107, 109-10 (1996)) (stating that "we think it appropriate to impose these two license commitments [*i.e.*, to obtain full funding and long-term enrichment contracts before facility

construction and operation] as license conditions, an approach we have taken in other litigated cases”). Moreover, licensees have an unremitting obligation to comply with such conditions, lest they risk suspension or revocation of their licenses and NRC enforcement action. *See id.* at 306-07 (stating that “in the end, NRC inspections and enforcement action go a long way toward ensuring compliance with [NRC] requirements”); *All Chemical Isotope Enrichment, Inc.*, LBP-90-26, 32 NRC 30 (1990) (sustaining the NRC Staff’s revocation of construction permits of a licensee that had failed to disclose its true financial condition during the original licensing proceeding). In this case, the subject license condition, if included in the LES license, would require that LES have funding commitments, including long-term enrichment contracts, in place “prior to constructing or operating the facility.” Accordingly, Basis (1) does not support admission of Contention H.

In view of the foregoing, it is clear that Basis (3) also is deficient. There is no regulatory requirement that LES “make its contracts public so that the existence of conditions upon the obligation to pay for enrichment services could be determined.” The AG does not cite any NRC regulation that imposes such a requirement. This determination ultimately rests with the Commission, and need not occur at this juncture. Indeed, the license condition approved by the Commission in CLI-97-15 indicates that the confirmation of appropriate funding commitments can occur even after license issuance, as long as the commitments are in place *before* construction and operation of the facility. Basis (3), therefore, fails to raise a genuine dispute on a material issue of law or fact, and impermissibly challenges the NRC regulatory process.

**L. NIRS/Public Citizen Proposed Contention 4.1 –  
Costs of Management and Disposal of Depleted Uranium Hexafluoride**

In this proposed contention, Petitioners argue that LES's Application "seriously underestimates the costs and the feasibility of managing and disposing of the  $\text{DUF}_6$  produced in the planned enrichment facility." (NIRS/Public Citizen Petition at 34.) Petitioners present nine bases, Bases A through I, which focus principally on LES's use of the LLNL Report. LES discusses each of these bases below.

**1. Basis A**

Basis A asserts that "LES's reliance on the LLNL Report as a basis for LES's cost estimates for deconversion and disposal is not justified." (*Id.* at 34.) Petitioners specifically note that:

- (1) The LLNL cost estimates are medians and have "little significance" as cost estimates, and "given the numerous uncertainties, the upper value – worst case scenario – is likely to be much higher." (*Id.*)
- (2) The LLNL Report contains the unstated assumption that the waste is low-level. It is not clear that this would be the case under even the most favorable assumptions about the LES project. (*Id.*)

LES opposes admission of sub-basis (1) on the ground that it lacks sufficient supporting information. LES does not dispute that the cost estimates reported in the LLNL Report are median values. Petitioners, however, provide no support or explanation (*e.g.*, documentation or analyses that cast doubt on the reliability of median cost estimates, or which demonstrate contrary industry practice or custom) for the assertion that such values are of "little significance." At the contention stage, petitioners need not provide factual support that is in formal evidentiary form, or that is sufficient to withstand a summary disposition motion. Nonetheless, petitioners are required to provide references to the specific sources and documents

on which they intend to rely to support a position. *See* 10 C.F.R. § 2.309(f)(1)(v); *cf. Georgia Inst. of Technology* (Georgia Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 305 (1995) (stating that a petitioner is obligated to provide the analyses and supporting “evidence” showing why its bases support its contention, and that a licensing board may not make factual inferences on a petitioner’s behalf). LES is left to guess what the unidentified “numerous uncertainties” to which Petitioners refer are, and why they are “likely” to result in upper bound cost estimates that are “much higher” than median values reported in the LLNL Report. Indeed, just as there is a chance that the values could be higher, there is an *equal* chance that they could be lower. For this reason, Petitioners have not met their burden under Section 2.309(f)(1)(v) with respect to sub-basis (1).

LES opposes admission of sub-basis (2) on the ground that it fails to establish with specificity a genuine dispute and lacks factual or legal support. Petitioners only aver that the depleted uranium to be dispositioned by LES may not be low-level radioactive waste, without providing any justification or explanation. Insofar as sub-basis (2) is intended to be a reference or corollary to Basis D of Contention 2.1, in which Petitioners argue that depleted uranium should be classified as GTCC waste instead low-level radioactive waste, it is inadmissible on another ground. As discussed above, Petitioners “GTCC” waste argument represents an impermissible challenge to the Hearing Order and to the requirements of 10 C.F.R. Part 61, and must be rejected accordingly. *See* LES Response to Proposed NIRS/Public Citizen Contention 2.1, *supra*.

## 2. Basis B

Basis B notes that, while the LLNL cost estimates are based on travel distances of 1000 kilometers or 620 miles, the data presented in the LES Application show that travel

distances exceeding 1,000 miles would be required to deconvert DUF<sub>6</sub> at Paducah, Kentucky or Portsmouth, Ohio, and travel distances of an additional 1,000 miles would be required to transport the deconversion product to a disposal site. (NIRS/Public Citizen Petition at 35.) LES does not dispute the factual veracity of Petitioners' observation regarding the travel distances set forth in the ER; however, it does oppose admission of this basis because it does not establish a genuine material dispute adequate to warrant further inquiry.

As noted above, a document put forth by an intervenor as supporting the basis for a contention is subject to scrutiny, both for what it does and does *not* show. See *Yankee Atomic Elec. Co.*, *supra*, 43 NRC at 90. Petitioners neglect to mention the following observation made by the authors of the LLNL Report:

The loading, *shipping*, and unloading costs represent less than one quarter of the transportation costs. Changing the shipping distance does not change the ranking of strategies by cost. Distance affects only the shipping component of transportation costs, which will vary linearly with the distance between facilities. *Total transportation costs are therefore relatively insensitive to distances between facilities.* There is significant flexibility, therefore, in choosing off-site locations for [de]conversion, manufacturing, storage, and disposal facilities.

LLNL Report at 92 (emphasis added). Petitioners do not attempt to reconcile their position with this statement, *i.e.*, explain why the greater transportation distances reflected in ER Table 4.13-1 would materially impact the \$5.50 per kgU figure provided by LES for the total cost of depleted uranium tails disposition.

### 3. Basic C

In Basis C, Petitioners maintain that, contrary to the steel "recycling" assumption used in the LLNL Report, "a significant amount of the steel used in construction of a deconversion plant will have to be disposed of as low-level radioactive waste." (NIRS/Public Citizen Petition at 35.) Although Petitioners note that they "will demonstrate that steel recyclers

in the United States will not accept steel with detectable radioactive contamination” (*Id.*), they do not purport to demonstrate that steel used in constructing a deconversion plant will be, or is likely to be, sufficiently contaminated to constitute low-level radioactive waste. Instead, Petitioners state only that “[s]teel used in the buildings will probably be contaminated to the extent that it must be considered radioactive waste.” (*Id.*) Conspicuously lacking is any reference to specific sources and documents on which the Petitioners intend to rely to support this statement. Accordingly, Basis C lacks sufficient foundation to support admission of Contention 4.1 under the Commission’s rules.

4. *Basis D*

Basis D takes issue with the assumption in the LLNL Report that significant revenues (\$11.02 million) will result from the sale of CaF<sub>2</sub>. (NIRS/Public Citizen Petition at 35.) Petitioners contend that this assumption is unfounded and cannot be incorporated in the calculation of the cost of decommissioning. (*Id.*) In this regard, Petitioners argue that LES must (1) demonstrate a market for CaF<sub>2</sub>; (2) provide a range of probable prices; and (3) provide evidence that the market could absorb an additional 30% of this material, or that the sale of CaF<sub>2</sub> by LES would not lower the price offered for CaF<sub>2</sub>. (*Id.* at 35-36) LES opposes the admission of Basis D on the ground that it does not establish a genuine material dispute adequate to warrant further inquiry.

First and foremost, the concern raised by Petitioners is not material in view of LES’s specific use of the deconversion cost estimate data set forth in the LLNL Report. As reflected in the Application, the LLNL Report assumed that depleted UF<sub>6</sub> could be deconverted to depleted U<sub>3</sub>O<sub>8</sub> using one of *two* conversion processes. *See* ER at 4.13-16 to 4.13-17. The first alternative, the anhydrous hydrogen fluoride (“AHF”) option, upgrades the HF product to

anhydrous HF (less than 1.0% water). *See id.* The second alternative, the HF neutralization option, neutralizes HF with lime to produce calcium fluoride (CaF<sub>2</sub>). *See id.* The first alternative (AHF conversion) yields an estimated conversion cost of \$2.64 per kgU (in 2002 dollars), assuming a \$77.32 million credit for the sale of AHF. *See* ER Table 4.13-2. The second alternative (HF neutralization) yields an estimated conversion cost of \$3.39 per kgU (in 2002 dollars), assuming an \$11.02 million credit for the sale of CaF<sub>2</sub>. *See id.* As shown in ER Table 4.13-7, however, LES focused on the \$2.64 per kgU conversion cost estimate for the *AHF deconversion alternative* (as opposed to the \$3.39 per kgU figure for the HF neutralization alternative) in developing its total depleted uranium disposition cost estimate.<sup>42</sup> In Basis D, Petitioners dispute the \$11.02 million credit assumed by LLNL to result from the sale of CaF<sub>2</sub> generated from HF neutralization alternative. In contrast, the AHF deconversion alternative identified by LES in ER Table 4.13-7 would result in the production of AHF, which the LLNL Report characterizes as likely to be salable or recyclable. *See* LLNL Report at 50. In questioning the assumption of a credit for the sale of large quantities of CaF<sub>2</sub> associated with the *HF neutralization alternative*, the basis address an issue that is misunderstood to be the basis for the estimate used in the Application.<sup>43</sup>

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<sup>42</sup> The LLNL Report states that “[d]efluorination with AHF production is superior to HF neutralization in terms of by-product value and waste avoidance.” LLNL Report at 50. The DOE PEIS states that “defluorination is well established and currently used by industry,” and that “[i]t is also practiced on a large-scale industrial basis by Cogema in France.” DOE PEIS, Appendix F, at F-11. The DOE PEIS further states that “[b]ecause of the considerable market for anhydrous HF, the technology of defluorination with anhydrous HF production would minimize waste and increase product value.” *Id.* at F-12. Moreover, when the NRC evaluated the impacts of deconverting DUF<sub>6</sub> to U<sub>3</sub>O<sub>8</sub> in connection with the proposed CEC facility, it selected this same deconversion process as the basis for its analysis. *See* NUREG-1484, Appendix A at A-1 to A-2.

<sup>43</sup> Notably, in the Application, LES does *not* directly assume any credit for the sale of CaF<sub>2</sub> in computing the total DUF<sub>6</sub> tails disposition cost and associated funding requirement in SAR Chapter 10. Rather, LES conservatively computed *total* depleted tails production by the facility over its operational life (132,942 MTU), and multiplied that figure by the estimated unit tails disposition cost (\$5,500 per MTU, or \$5.50 per kgU) to obtain an

Second, Petitioners also fail to explain how the assumption in the LLNL Report that revenues of \$11.02 million would result from the sale of CaF<sub>2</sub> is of consequence to LES's total tails disposition cost estimate of \$5.50 per kgU. LES conservatively selected the \$5.50 per kgU figure based on its consideration of *four* sets of relevant cost information – the 1997 LLNL Report, the 2002 DOE-UDS contract, information supplied by Urenco, and the 1993 CEC license application. *See* ER at 4.13-14 to 4.13-20. The LLNL Report assumption targeted by Petitioners represents only *one* assumption from *one* of several sources of information considered by LES.

Moreover, even if Petitioners' concern were a material one, Petitioners again seek to impose, without legal or regulatory basis, additional requirements on LES. Namely, Petitioners assert that LES must now demonstrate a market for CaF<sub>2</sub>, a range of probable prices, and the market impacts of CaF<sub>2</sub> sales by LES. Such a demonstration is nowhere contemplated in NRC regulations, and is certainly not implicit in the "plausible strategy" standard.

5. *Basis E*

Basis E provides that "it is not known whether the CaF<sub>2</sub> will be contaminated with uranium," and that "[s]uch contamination would prevent the resale of the CaF<sub>2</sub> and require that such material be disposed as low-level waste." (NIRS/Public Citizen Petition at 36.) Citing Section 6.3.1 and Table 6.16 at pages 118-19 of the LLNL Report, Petitioners state that a "potential vulnerability" of the LLNL cost projections is the "likelihood" of such contamination of CaF<sub>2</sub>. Petitioners state that, according to the LLNL Report, such contamination would raise disposal costs by \$735 million, because it would mean that the CaF<sub>2</sub> need be disposed in a low-level waste disposal facility. (*Id.*)

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estimated total tails disposition cost of \$731,181,000. No credits for sale of CaF<sub>2</sub> were subtracted from the \$731,181,000 figure.

LES opposes admission of Basis E because it also fails to raise a genuine material dispute adequate to warrant further inquiry. As with Basis D, the concern identified by Petitioners relates to the HF neutralization alternative, not the AHF deconversion alternative. Indeed, Table 6.16, which Petitioners cite, specifies the cost impacts of disposal of  $\text{CaF}_2$  as low-level waste from “[de]conversion options with HF neutralization,” which do not include the AHF deconversion option. See LLNL Report at 119. Moreover, the LLNL Report specifically notes that “[t]he relatively small amounts of  $\text{CaF}_2$  which are produced by the deconversion options without neutralization are *not* considered in this vulnerability analysis.” *Id.* at 118. While the LLNL Report considers the “potential vulnerability” stemming from the need to dispose of  $\text{CaF}_2$  by-product as a low-level waste due to its “small uranium content,” it describes this scenario as a “pessimistic case.” *Id.* In short, Petitioners’ imprecise reading of reference documents – Section 4.13 of the ER and Section 6.3.1 of the LLNL Report in this case – cannot serve to generate an issue suitable for litigation.

6. *Basis F*

Basis F posits that “[t]here is an even more significant risk that the  $\text{MgF}_2$  would also be contaminated.” (NIRS/Public Citizen Petition at 36.) In support of this, Petitioners cite Section 6.3.2 and Table 6.17 of the LLNL Report. Petitioners state that “ $\text{MgF}_2$  generated in decommissioning may be contaminated,” requiring that it be disposed of as radioactive waste and raising the cost of decommissioning by more than \$400 million. (*Id.*)

LES opposes admission of this basis for the reasons similar to those stated above, *i.e.*, Petitioners’ misreading of the Application and the LLNL Report cannot serve as the foundation for a litigable issue. ER Section 4.13.3.1.3 reflects LES’s intent to deconvert  $\text{DUF}_6$  to depleted  $\text{U}_3\text{O}_8$ , if LES ultimately opts to pursue private sector deconversion and disposition of

DUF<sub>6</sub> (as opposed to DOE deconversion and disposition under Section 3113 of the USEC Privatization Act).<sup>44</sup> The cost estimate information extracted from the LLNL Report by LES for use in the ER clearly corresponds to deconversion of DUF<sub>6</sub> to depleted U<sub>3</sub>O<sub>8</sub>. See, e.g., ER Table 4.13-5. Section 6.3.2 of the LLNL Report, as cited by Petitioners, discusses the disposal of MgF<sub>2</sub> and potentially contaminated MgF<sub>2</sub> by-product resulting from the “metal conversion process,” in which DUF<sub>6</sub> is deconverted to depleted uranium *metal* (as opposed to some type of *uranium oxide*, such as U<sub>3</sub>O<sub>8</sub>). But this is not LES’s proposal. Petitioners’ cited concern in Basis E has no bearing on any process or cost estimate information discussed in the ER. This basis, therefore, raises no concerns that are material to LES’s proposed action and the Staff’s review thereof.

8. *Basis G*

In Basis G, Petitioners shift focus, rehashing concerns previously voiced in Contention 2.1. Petitioners again seek to challenge LES’s “preferred plausible strategy,” as set forth in ER Section 4.13.3.1.3, which involves deconversion and disposition of depleted uranium byproduct by private sector entities instead of DOE. In this basis, Petitioners raise the following concerns:

- (1) LES assumes that private investors will establish a deconversion facility, but no such facility now exists or is likely to be built under present circumstances. (NIRS/Public Citizen Petition at 36.)
- (2) LES does not show that a private company would be interested in investing in a deconversion facility that would suit LES’s timing and throughput requirements,

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<sup>44</sup> Of course, under the “plausible strategy” approach, LES need not commit to a specific deconversion process or deconversion end-product in its Application. However, in 2000, the NRC Staff affirmed its preference that, for any disposal of depleted uranium, whether by a private concern or the DOE, DUF<sub>6</sub> be deconverted to depleted U<sub>3</sub>O<sub>8</sub>, as opposed to some other chemical form, for purpose of its ultimate disposition. See Letter to DOE from E. Leeds, NRC/NMSS, re “‘Comments on DUF<sub>6</sub> Materials Use Roadmap,’ Draft, Dated September 1, 2000” (Oct. 18, 2000)

as LES's smaller deconversion throughput significantly raises the unit cost. (*Id.* at 37.)

- (3) LES at present does not have enrichment orders on the books to demonstrate to investors that there will be an ongoing need for deconversion in the amounts required by LES. There is no showing that the volumes and timing required by LES can be deconverted economically at the costs assumed by LES. (*Id.*)
- (4) LES cannot purport to rely on the proposed deconversion facility to be used by DOE to treat existing DOE DUF<sub>6</sub>, because the existing DUF<sub>6</sub> stockpile is so great that the queue for deconversion would preclude acceptance of LES's waste. DOE's own DUF<sub>6</sub> inventories, which DOE predicts will take 25 years to deconvert, will "absorb the capacity of new facilities." (*Id.* at 36-37)

LES opposes admission of Basis G because it impermissibly challenges the Commission's Hearing Order and lacks adequate factual or expert support. Sub-bases (1) through (3) all pertain to the "economic viability" of building and operating a private deconversion facility. Specifically, they stand for the proposition that LES *must* affirmatively demonstrate that private sector entities would have sufficient financial incentive to invest in a deconversion facility of the type necessary to meet LES's deconversion needs, or that such a facility could be operated economically. For reasons discussed above, the "plausible strategy" standard to be applied in this proceeding, per the Commission's Hearing Order, does not require the level of specificity or certainty sought by Petitioners. *See* LES Response to Proposed NIRS/Public Citizen Contention 2.1, *supra*. Furthermore, Petitioners fail to provide any support for their view that a private deconversion facility is not likely to be built or could not operate economically. As such, sub-bases (1), (2), and (3) must be rejected as improper challenges to the Hearing Order and as lacking adequate factual or expert support.

Sub-basis (4) also impermissibly challenges the Hearing Order, but in a different respect. Fundamentally, this sub-basis challenges LES's identification of DOE deconversion and disposition of LES's DUF<sub>6</sub>, pursuant to Section 3113 of the USEC Privatization Act, as a

“plausible strategy.” The Hearing Order states unequivocally, however, that, if  $\text{DUF}_6$  is classified as low-level radioactive waste under 10 C.F.R. Part 61 (which LES demonstrates is a correct classification in ER Section 4.13.3.1.3 ), then “an approach by LES to transfer to DOE for disposal by DOE of LES’ depleted tails pursuant to Section 3113 of the USEC Privatization Act constitutes a ‘plausible strategy’ for dispositioning the LES depleted tails.” 69 Fed. Reg. 5,873, 5,877 col. 3. Indeed, Section 3113 states, in pertinent part:

- (1) The Secretary [of Energy], at the request of the generator, *shall* accept for disposal low-level radioactive waste, including depleted uranium *if it were ultimately determined to be low-level radioactive waste*, generated by —
  - (A) the Corporation as a result of the operations of the gaseous diffusion plants or as a result of the treatment of such wastes at a location other than the gaseous diffusion plants, or
  - (B) *any person licensed by the Nuclear Regulatory Commission to operate a uranium enrichment facility* under sections 53, 63, and 193 of the Atomic Energy Act of 1954 (42 U.S.C. 2073, 2093, and 2243).

42 U.S.C. § 2297h-11 (emphasis added). DOE thus has a statutory obligation to accept for disposal  $\text{DUF}_6$  generated by NRC-licensed enrichment facilities subject to the conditions set forth in Section 3113, notwithstanding the need to process and disposition its own inventory of  $\text{DUF}_6$ . Significantly, in a July 25, 2002 letter to the NRC, DOE stated that, in view of the Department’s plan to build depleted uranium disposition facilities, and the critical importance the Department places on maintaining a viable domestic uranium enrichment industry, “the Department acknowledges that Section 3113 may constitute a ‘plausible strategy’ for the disposal of depleted uranium from the [sic] private sector domestic uranium enrichment plant license applicants and operators.” Letter from W.D. Magwood, IV, DOE, to M.J. Virgilio, NRC (July 25, 2002) at 2. Thus, Petitioners’ prognostications in sub-basis (4) regarding DOE’s

prioritization of its deconversion obligations lack materiality as well as a factual basis, and constitute an impermissible challenge to the Commission's Hearing Order and the provisions of Section 3113.

8. *Basis H*

In Basis H, Petitioners assert that "the mine disposal option advanced by LES cannot be considered plausible." (NIRS/Public Citizen Petition at 37.) In support of this belief, Petitioners state that:

- (1) Cotter Corporation opposes the use of its property for such purposes. (*Id.*)
- (2) The option must assume that an abandoned uranium mine can be found which will be acceptable for disposal of GTCC waste, and can lawfully accept such waste. (*Id.*)
- (3) LES's plan to pack deconverted  $U_3O_8$  in 55-gallon steel drums for disposal, without further engineered barriers, is "not realistically approvable." Most mine environments have sufficient ground water to corrode such containers and transport the radionuclides, thus defeating the disposal system. (*Id.*)

Notably, sub-bases (1) and (2) are mere recapitulations of concerns expressed by Petitioners in Contention 2.1, Basis B and Basis D, respectively. The reasons for their inadmissibility are discussed at length above. In short, sub-basis (1) fails to establish a genuine dispute on a material issue of fact, because LES is not required – by the Hearing Order or NRC regulations – to show the existence of a specific licensed mine or other site for the disposal of depleted  $U_3O_8$ . Sub-basis (2), in turn, seeks classification of  $DUF_6$  "waste" as GTCC waste, in plain contravention of the Commission's Hearing Order and the requirements of 10 C.F.R. Part 61. See LES Response to Proposed NIRS/Public Citizen Contention 2.1, *supra*, at 27-38.

Although sub-basis (3) raises a new concern, that concern lacks adequate factual or expert support to warrant admission of Basis H. Petitioners state that "[m]ost mine environments have sufficient ground water to corrode such containers [55-gallon steel drums]

and to transport the radionuclides in ground water, thus defeating the disposal system.” (NIRS/Public Citizen Petition at 37.) Petitioners, however, fail to provide any references to the specific sources and documents on which they intend to rely to support this position. See 10 C.F.R. § 2.309(f)(1)(v) and (vi). Petitioners also overlook the fact that the packaging and disposal scheme at issue is that described in the DOE PEIS (see Appendix I, “Environmental Impacts of Options for Disposal as Oxide”), a resource that the Hearing Order expressly indicates the NRC Staff may consider in preparing its EIS for the proposed LES facility.

9. *Basis I*

In the final basis for Contention 4.1, Basis I, Petitioners contend that the “engineered trench” method of waste disposal proposed by LES is not likely to be acceptable. (NIRS/Public Citizen Petition at 38.) Petitioners basis rests on the following assertions and observations:

- (1) Viewing the depleted  $U_3O_8$  as GTCC waste, disposal in such a manner would not meet the requirements of 10 C.F.R. Part 61, particularly Section 61.7(a)(2) and (b)(5). Per § 61.7(b)(5), GTCC waste “is generally unacceptable for near-surface disposal,” and an engineered trench would not emplace the waste at a depth where “subsequent surface activities by an intruder would not disturb the waste.” Steel drums have at best a projected life of 20 years, whereas § 61.7(a)(2) requires a life of over 300 years. (*Id.*)
- (2) In 1970, DOE forbade sites to bury transuranic waste, of radioactivity of 100 nCi per gram or more, in shallow earthen burial sites. (*Id.*)
- (3) The use of disposal pits at INEEL has had particularly unfortunate results due to gross disturbance of the disposed waste by intermittent rainfall and associated flooding of the pits. (*Id.*)

LES opposes admission of Basis I on the grounds that it fails to establish a genuine dispute on a material issue of fact and impermissibly challenges the Commission’s Hearing Order and Part 61 regulations. The discussion of “engineered trenches” referenced by

Petitioners and set forth in ER Section 4.13.3.1.4.1 reflects LES's consideration of alternatives for the disposition of DUF<sub>6</sub>, consistent with the Commission's Hearing Order. To this end, ER Section 4.13.3.1.4.1 summarizes the different disposal options considered by DOE in the DOE PEIS, which the Staff may consider in preparing its EIS on the LES Application. LES does not propose to dispose of depleted uranium waste in an "engineered trench" in its Application. Therefore, the concerns raised by Petitioners in sub-bases (1) through (3) are of no consequence in view of LES's proposed activities, and would not entitle the Petitioners to relief in this proceeding. Furthermore, in sub-basis (1), Petitioners again assume that the depleted U<sub>3</sub>O<sub>8</sub> is GTCC waste, an assumption which, as discussed above, is clearly a challenge to the Hearing Order and 10 C.F.R. Part 61. See LES Response to Proposed NIRS/Public Citizen Contention 2.1 (Basis D), *supra*, at 32-38. Therefore, Basis I should be rejected.

**M. NIRS/Public Citizen Proposed Contention 5.1  
New Mexico Attorney General Contention I (Environmental-v) –  
Need for the Facility**

In NIRS/Public Citizen Contention 5.1, Petitioners contend that the ER "does not adequately describe or weigh the environmental, social, and economic impacts and costs of operating the [NEF]," in violation of the National Environmental Policy Act ("NEPA"). (NIRS/Public Citizen Petition at 38.) Specifically, Petitioners argue that LES's cost-benefit analysis fails to demonstrate a "need" for the facility. (*Id.* at 39.) As set forth below, Petitioners provide six bases in support of this argument.

The AG, for its part, makes a comparable argument vis-à-vis the "need" for the facility under NEPA. Specifically, the AG contends that "[t]here is a significant question whether the United States market for enrichment services in the next three decades is large enough to support the proposed facility, given other planned additions to supply." (AG Petition ¶ 4.i, at 8.) As discussed below, both NIRS/Public Citizen Contention 5.1 and New Mexico

Attorney General Contention I are not admissible as a legal matter. In short, the “business case” and “market for enrichment services” that these petitioners would have LES demonstrate are beyond the scope of the “need” discussion required by NEPA.

*1. The ER Statement of Purpose and Need*

In assessing the admissibility of these contentions, a discussion of LES’s statement of purpose and need, and the related requirements of NEPA in this regard, are helpful. LES’s statement of purpose and need for the proposed action (*i.e.*, issuance of an NRC license for construction and operation of a uranium enrichment facility) is set forth in ER Section 1.1. Currently, less than 15 percent of U.S. enrichment requirements are met by domestic enrichment plants. This lack of domestic enrichment capacity relative to domestic enrichment requirements has prompted concern within the U.S. government. *See* ER at 1.1-1 through 1.1-2 (statements of the U.S. Departments of Energy and State). In addition, Congress has recognized that nuclear security and defense interests require assurance that “the nuclear energy industry in the United States does not become unduly dependent on foreign sources of uranium or uranium enrichment services.” ER at 1.1-2. Thus, current security of supply concerns and national policy objectives establish a clear need for additional *domestic* enrichment capacity. *See also Louisiana Energy Servs. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 95-96 (1998)* (“[I]t might fairly be said that national policy establishes a need for a reliable and economical domestic source of enrichment services”).

In addition, bearing in mind the proposal of the United States Enrichment Corporation (“USEC”) to deploy its own centrifuge technology, the presence of multiple enrichment services providers in the United States, each with the capability to increase capacity to meet anticipated future supply shortfalls, would enhance not only security of supply, but

diversity of supply for generators and end-users of nuclear-generated electricity in the United States. ER at 1.1-3. Diversity of supply would ensure a competitive procurement process – that is, the ability of purchasers to select from multiple suppliers through a process that is conducive to fostering reasonable prices for the services purchased. ER at 1.1-17.

NRC guidance in NUREG-1520 requires, among other things, that the statement of purpose and need include “a projection of domestic and foreign requirements for the services.” See NUREG-1520 at 9-5. To this end, LES has prepared a standard market analysis taking into account global reactor demand for enriched uranium versus global enrichment supplies. See ER Section 1.1.2. This market analysis of supply and requirements took into account eight possible scenarios, as follows:

- **Scenario A** – Centrifuge plants are built in the United States by both LES and USEC. Under this scenario, during the period 2003 through 2005, supply is forecast to be 1.6 million separative work units (“SWU”) (4.0%) more than average annual forecast requirements. ER at 1.1-14. Between 2006 and 2010, production capacity is only 1.6 million SWU (3.8%) more than average annual forecast requirements. *Id.* Supply and requirements are in close balance after 2010, emphasizing the need for all supply sources, including both LES and USEC centrifuge facilities in the United States. *Id.* at 1.1-15.
- **Scenario B** – USEC deploys a centrifuge plant (3.5 million SWU/year) and continues to operate the Paducah gaseous diffusion plant (“GDP”); the NEF is not built. This scenario would result in the availability of excess supply capacity that is equal to about 9% of annual requirements. ER at 1.1-15.
- **Scenario C** – USEC deploys a centrifuge plant, but adds centrifuge enrichment capability to that facility, in order to compensate for the 3 million SWU/year that would have been provided by LES under Scenario A. The NEF is not built. ER at 1.1-19 – 1.1-20.
- **Scenario D** – USEC does not deploy a centrifuge plant, but continues to operate the Paducah GDP on a long-term basis at 6.5 million SWU/year to compensate for the absence of the NEF (3 million SWU/year) and the USEC centrifuge plant (3.5 SWU/year). ER at 1.1-16.

- *Scenario E* – Under this scenario, the NEF is not built in the United States, but Urenco expands its existing European plants to compensate for the 3 million SWU/year that would have been provided by the NEF. ER at 1.1-21.
- *Scenario F* – The NEF is not built in the United States. Instead, Russia increases sales of HEU-derived SWU to USEC under the U.S.-Russia Agreement to compensate for the 3 million SWU/year that would have been provided by the NEF. ER at 1.1-21.
- *Scenario G* – The NEF is not built in the United States. Rather, Russia is allowed to increase its sales of commercial enrichment services into the United States and Europe to compensate for the 3 million SWU that would have been provided by the NEF. ER at 1.1-16.
- *Scenario H* – This alternative scenario assumes that the NEF is not built in the United States. It is postulated that the U.S. government makes available additional HEU-derived LEU to the U.S. commercial market. ER at 1.1-17. It is not apparent, however, that there are sufficient net equivalent enrichment services to compensate on a long-term basis for the 3 million SWU/year of enrichment services that would have been provided by LES under Scenario A. *Id.*

The market supply analysis (which uses conservative forecasts for U.S. enrichment requirements) demonstrates that there will be sufficient demand for uranium enrichment services to justify the NEF from a business perspective, though such a demonstration is not required under NRC regulations. LES has already entered into contracts for at least 50% of the NEF's first 10 years of operation.

## 2. *The Nature of a NEPA Need Analysis*

10 C.F.R. § 51.45 provides that the ER shall contain (1) a description of the proposed action, (2) a statement of its purposes, (3) a description of the environment affected, and (4) a discussion of several other environmental considerations, including the alternatives to the proposed action. See 10 C.F.R. §§ 51.45(b), (b)(3). Section 5.2 of NUREG-1748<sup>45</sup> provides guidance with respect to agency discussion of alternatives in the EIS. Specifically, NUREG-

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<sup>45</sup> NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs" (September 2002).

1748 states that the EIS “introduces alternatives that could also *accomplish the need for the proposed action.*” (Emphasis added.) Accordingly, the statement of need and alternatives to the proposed action are closely intertwined. With respect to the “purpose and need” section, NUREG-1748 states:

This section explains why the proposed action is needed. The purpose and need describe the underlying need for the proposed action and should not be written merely as a justification of the proposed action nor to alter the choice of alternatives . . . . Examples of need include a benefit provided if the proposed action is granted or descriptions of the detriment that will be experienced without approval of the proposed action. In short, the need describes what will be accomplished by the proposed action.

NUREG-1748 at 6-1. The “need” discussion is not a business case; rather, it is a means to a different end – defining reasonable alternatives to be considered relative to the proposed action.

It is well established that only reasonable alternatives to a proposed action need be considered under NEPA. *Vermont Yankee Nuclear Power Corp. v. Natural Res. Defense Council*, 435 U.S. 519, 551 (1978). As the courts have recognized, the terms “reasonable” and “alternatives” are not self-defining. *See, e.g., Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 194-95 (D.C. Cir.), *cert. denied*, 502 U.S. 1994 (1991). One key qualification of these terms is that “project alternatives derive from an EIS’s Purpose and Need section, which briefly defines the underlying purpose and need to which an agency is responding in proposing the alternatives [to] the proposed action.” *City of Carmel-by-the-Sea v. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1997) (citing 40 C.F.R. § 1502.13). The term “alternatives” means “[t]he alternative ways of accomplishing the objectives of the proposed action and the results of not accomplishing the proposed action.” *Citizens Against Burlington*, 938 F.2d at 195 n.4 (quoting 115 Cong. Rec. 40,420 (Dec. 20, 1969) (remarks of Sen. Jackson)). In this regard, a “proposed alternative is reasonable only if it will bring about the ends of the federal action.” *Id.* at 195 (citing *City of*

*New York v. DOT*, 715 F.2d 732, 742-43 (2d Cir. 1983). Finally, “[w]hen the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved.” *Id.* (citing *City of Angoon v. Hodel*, 803 F.2d 1016, 1021 (9th Cir. 1986), *cert. denied*, 484 U.S. 870 (1987)). Thus, although the NRC must consider every reasonable alternative, the range of reasonable alternatives is dictated by the nature, the scope of, and need for, the proposed action.

LES is not required, under NEPA, to make a “business case” that demonstrates the market will bear its participation. NRC regulations, including those related to NEPA, do not require a license applicant to demonstrate the “economic viability” of a proposed facility, including its effect on the relevant market. Indeed, the Commission made clear in a recent decision involving Hydro Resources, Inc. (“HRI”), an NRC licensee that conducts *in situ* leachate uranium mining operations, that NEPA analysis does not extend to issues of market strategy and economic viability. In evaluating a NEPA-based contention related to proposed HRI operations, the Commission concluded:

*The NRC, however, is not in the business of regulating the market strategies of licensees. HRI has provided information on its estimated operating costs. Admittedly, those costs and the price of uranium are subject to frequent and significant fluctuations. It remains nonetheless within HRI's business discretion to determine whether market conditions warrant commencing mining operations. The NRC looks to whether HRI can conduct operations safely. We leave to HRI the intricate ongoing business decisions that relate to cost and profit. In the end, we cannot but presume that HRI will not seek to go forward with mining operations unless it expects ultimately to have a successful market for its product. Nothing revealed in this proceeding renders such a market so implausible that the goals to the project cannot be achieved.*

*Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 48-49 (2001) (emphasis added). The Commission added that “the intervenors entirely ignore[d] the nature of the ISL project – *i.e.*, “a project proposed by a private applicant, not the NRC.” *Id.* at

55. The Commission further noted that “[t]he NRC is not in the business of crafting broad energy policy involving other agencies and non-licensee entities. Nor does the initiative to build a nuclear facility or undertake ISL uranium mining belong to the NRC.” *Id.* (citing *Citizens Against Burlington*, 938 F.2d at 195).<sup>46</sup> Instead, the Commission emphasized its “statutory responsibility to assure that all licensees meet applicable safety and environmental regulations.” *Id.* at 58. These same considerations apply with respect to the NRC’s role in reviewing and licensing LES’s proposed uranium enrichment operations.

With this background in mind, we consider each of Petitioners’ bases in turn.

3. *Bases*

a. Bases A and E

In Basis A, Petitioners argue that the ER “erroneously assumes that there is a shortage of enrichment capacity.” (NIRS/Public Citizen Petition at 39.) Petitioners raise similar concerns in Basis E, complaining:

LES has not demonstrated that employing foreign enrichment suppliers is detrimental to U.S. nuclear interests. . . . LES has not shown that building a new enrichment facility in the U.S. would reduce the cost of enrichment services, nor that U.S. nuclear utilities would suffer in other ways if the LES plant were not built, nor that national security and public safety would diminish. LES has not made the case that there would be any shortfall of uranium enrichment services, nor that such services would be appreciably less expensive or more reliable if placed on U.S. soil.

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<sup>46</sup> In *Citizens Against Burlington*, the court reminded federal agencies that they are ill-equipped “to canvass . . . business choices” because agencies have “neither the expertise nor the proper incentive structure to do so.” 978 F.2d at 197 n. 6. See also *Mountain States Legal Found. v. Glickman*, 92 F.3d 1228, 1235-36 (D.C. Cir. 1996) (stating that despite NEPA’s “rather sweeping list of interests intended to be served, . . . they do not include purely monetary interests . . .”).

(*Id.* at 40.) In addition, this issue is raised as AG Contention I, to which we respond here as well.<sup>47</sup> These assertions fail to provide sufficient information to show that a genuine dispute exists with LES on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi).

As an initial matter, there is no legal or regulatory basis for requiring a demonstration of a “shortage” of enrichment capacity in the market. Indeed, relevant NRC guidance (NUREG-1520) asks only that the applicant provide “a projection of domestic and foreign requirements for the services.” *See* NUREG-1520 at 9-5. NEPA does not require that a license applicant demonstrate particular market conditions or make a “business case” in order to provide a sufficient statement of need for the facility. *See* discussion *infra* with respect to Bases D and F.

Petitioners do not provide any bases to challenge the essential need identified in the ER – the need for domestic enrichment capacity to ensure diversity of supply consistent with national policy. The focus on the “business case” – supply and requirements – is largely beside the point. In any event, Petitioners have presented no evidence to controvert the analysis presented in ER Section 1.1.2 with respect to the market for enrichment services. While Petitioners are not required to prove the contention, they must allege at least some credible foundation for the contention. *Conn. Yankee Atomic Power Co. (Haddam Neck Plant)*, LBP-01-21, 54 NRC 33, 48-49 (2001). Petitioners here have not taken issue with any of the specific information provided in the Application regarding the market analysis. Without more, Petitioners’ bare allegation does not suffice to support the contention.

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<sup>47</sup> The AG states, “There is a significant question whether the United States market for enrichment services in the next three decades is large enough to support the proposed facility, given other planned additions to supply.” (AG Petition ¶ I.)

Similarly, the AG's assertion in Contention I fails to mount a substantive challenge to the information provided in the Application, and should be rejected.

b. Basis B

In Basis B, Petitioners argue that "LES's statements of 'need' for the LES plant (ER 1.1) depend primarily upon global projections of need rather than projections of need for enrichment services in the U.S. There is no indication that needs of U.S. nuclear utilities cannot be met without construction and operation of the LES facility." (NIRS/Public Citizen Petition at 39.) This basis also fails for lack of a legal or regulatory foundation, and for its failure to articulate a genuine dispute with LES on a material issue of law or fact.

First, Petitioners again err as to LES's statement of need for the proposed facility. As stated above, the primary goals of the NEF project relate to security and diversity of supply of enrichment services for the domestic nuclear industry. The market analysis is only a secondary element of LES's demonstration of need for the NEF. Second, there is no regulatory basis for Petitioners' allegation. As stated above, NRC guidance on this topic specifically requests an analysis of *both* domestic and foreign requirements for enrichment services. See NUREG-1520 at 9-5. Third, as stated above with respect to Basis A, Petitioners have not specifically challenged the market analysis, or demonstrated any way in which the analysis is not representative of the global enrichment market. Without such a specific challenge to the Application, Petitioners fail to raise a genuine dispute pursuant to Section 2.309(f)(1)(vi).

c. Basis C

In Basis C, Petitioners state:

Demand for SWUs in LES's analysis does not account for the fact that some licensed facilities may not have their licenses extended to the full time period requested. In fact, licensed plants have historically

experienced problems with aging that have required them to reduce or curtail operation, particularly in the late 1990s.

(NIRS/Public Citizen Petition at 40.) As an initial matter, this basis is factually incorrect. The LES analysis presented in the ER assumes that nuclear power plants accounting for 30% of installed nuclear generating capacity in the United States with initial operating licenses expiring by 2020 *do not* have their licenses extended.

Moreover, this basis has no foundation. As stated in the ER (at 1.1-5), in the United States, it is expected that a significant portion of existing units with operating licenses scheduled to expire by 2020 will pursue license renewal. By June 2003, a total of 16 units had been granted renewed licenses in the United States. Applications for the renewal of operating licenses for 14 additional units (as of December 2003) have been submitted to the NRC for review, and the NRC has been notified of operator plans to submit applications for at least 28 additional units during the next three years. *Id.* This accounts for more than 50% of the installed nuclear generating capacity in the United States. As of March 2002, the Commission stated that “virtually the entire operating fleet will ultimately apply” for license renewal. *Id.*

Petitioners have not specifically controverted this information, or provided any facts or expert opinion that would controvert the NRC’s statements regarding its expectations for license renewal. Moreover, Petitioners have not provided *any* evidence of aging issues that have required premature shutdown or extended outages, such that there is a genuine dispute regarding LES’s forecast of generating capacity related to license renewal. Accordingly, this basis does not support the contention. *See* 10 C.F.R. § 2.309(f)(1)(vi).

d. Bases D and F

In Basis D, Petitioners state as follows:

The LES projections seem to assume that current and future market participants will willingly surrender market share to a new participant. Thus, LES assumes that USEC and Eurodif will cede their market positions to the NEF and that China will not effectively participate in the face of competition. It is not reasonable to make such assumptions without data indicating that NEF will have an advantage in cost or other facts that will enable it to prevail.

(NIRS/Public Citizen Petition at 40.) In the same vein, in Basis F, Petitioners complain that LES has not provided a “business plan” that shows how LES would effectively enter the uranium enrichment services market. (*Id.* at 40-41.)

These assertions do not establish a genuine dispute on a material issue. As discussed above, LES is not required under NEPA to make a “business case” that demonstrates the market will bear its participation. NRC regulations, including those related to NEPA, do not require a license applicant to demonstrate the “economic viability” of a proposed facility, including its effect on the relevant market. *See Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 48-49 (2001). Quite simply, a NEPA analysis does not encompass issues of market strategy and economic viability. The Petitioners’ concern about market share appears to relate more to LES’s business discretion than to any finding that the NRC must make. Under NEPA, the NRC will focus on the need for and purpose of the proposed action, reasonable alternatives to the proposed action, and the environmental impacts of the proposed action and its alternatives. *See* 42 U.S.C. § 4332; 10 C.F.R. §§ 51.45, 51.71, and 51.91. Petitioners overlook the particulars set forth in ER Section 1.1. As stated therein, the proposed facility will provide additional, reliable, and economical domestic enrichment capacity,

and enhance the diversity and security of the U.S. enriched uranium supply.<sup>48</sup> Petitioners fail to provide any detail as to why the information presented in ER Section 1.1 is inadequate for the purposes for which it is offered. Basis F does not establish the existence of a genuine dispute on a material issue.

5. Basis G

In Basis G, Petitioners argue that the ER should discuss the impact of the NEF upon the nonproliferation objectives of the 1993 U.S.-Russia agreement on the purchase of low-enriched uranium ("LEU") produced by downblending highly enriched uranium ("HEU") from the nuclear weapons program of the former Soviet Union. (Petition at 41.) Specifically, Petitioners complain that operation of the NEF "would interfere with U.S. national security objectives that seek to ensure a steady market for downblended Russian HEU." (*Id.* at 42.) For the reasons discussed below, this basis does not raise a genuine dispute on a material issue of fact or law.

First, as a factual matter, this allegation presents no genuine dispute because the need analysis specifically takes into account the Russian HEU agreement. Petitioners appear to disregard the ER, which addresses this issue directly. ER Section 1.1.2.3, "Current and Potential Future Sources of Uranium Enrichment Services," includes downblended Russian HEU in the calculus of existing uranium supply sources. Specifically, that section states that Russian HEU-derived LEU is expected to average just over 6 million SWU/year for three years, starting sometime after 2003, to allow for "catch-up" on previous deliveries, then is expected to return to an annual level of 30 MT HEU or approximately 5.5 million SWU through 2013, when the current U.S.-Russian agreement for 500 MT HEU concludes. *See* ER at 1.1-11; Table 1.1-5.

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<sup>48</sup> Consistent with NRC guidance, ER Section 1.1.2 also presents a market analysis of enriched uranium supply and requirements both in the U.S. and abroad.

Section 1.1.2.3 goes on to explain that 76% of the SWU that is available in the product must be expended to produce the blendstock. Therefore, assuming that 30 MT HEU is processed each year to yield LEU that contains the equivalent of 5.5 million SWU, 4.2 million SWU of this amount is expended to produce the blendstock. Accordingly, the net amount of additional SWU resulting from the downblending of 30 MT HEU is 1.3 million. *Id.* at 1.1-12. The supply analysis assumes that the Russian HEU program will continue whether or not the NEF goes forward; the two activities are entirely unrelated. Petitioners fail to take issue with the analysis presented in the ER; accordingly, they have not demonstrated a genuine dispute on this issue.

In any event, the existing Russian HEU agreement – as well as any future agreement into which the United States may enter – is based upon policy determinations already made, or to be made, by government entities and officials outside of the NRC. Such policy issues do not support an admissible contention in this proceeding. Policy questions such as this are not appropriate for consideration by the Licensing Board. *See Duke Energy Corp. (Catawba Nuclear Station, Units 1 & 2), LBP-04-04, 59 NRC \_\_\_, 2004 WL 725467, at \*37 (Mar. 5, 2004).* Accordingly, this basis is not sufficient to support an admissible contention.

For all of these reasons, NIRS/Public Citizen Proposed Contention 5.1 and New Mexico Attorney General Proposed Contention I are not admissible.

N. **NIRS/Public Citizen Proposed Contention 5.2 – National Security and Non-Proliferation**

Proposed Contention 5.2 argues that operation of the NEF “would pose an unnecessary and unwarranted challenge to national security and to global nuclear non-proliferation efforts.” (NIRS/Public Citizen Petition at 43.) Petitioners would have these issues addressed in the ER discussion of “need” for the facility. (*Id.*) This contention is supported by eight bases, each considered in turn below. In summary, this contention should be dismissed

because it raises issues beyond the scope of this proceeding and otherwise inappropriate for consideration in the context of an NRC licensing proceeding. An ER “need” discussion is intended to assist in framing alternatives to the proposed action for environmental review; it is not an open forum on national policy.

1. Basis A

Basis A consists of three sub-bases, as follows:

- (1) The ER and EIS should discuss the non-proliferation benefits of using downblended LEU fuel derived from U.S. and Russian surplus HEU. (Petition at 43.)
- (2) The ER and EIS should consider the effect of the enrichment plant proposed by USEC on total enrichment capacity in the U.S. and the world in the context of the “no-action” alternative. (*Id.*)
- (3) The no-action alternative should also include the “environmental benefits in terms of reducing mining, milling, and uranium processing and enrichment and reduced depleted uranium generation from using downblended HEU compared to LEU made from mined uranium.” (Petition at 43.)

With respect to sub-basis (1), as stated in connection with proposed Contention 5.1, Basis G, the benefits of the Russian HEU agreement will continue to be realized regardless of whether the NEF is constructed. ER Section 1.1.2.3 includes downblended Russian HEU in the calculus of current and potential sources of future uranium enrichment supply. Indeed, it is assumed that the agreement will continue until its scheduled completion date of 2013. Accordingly, the non-proliferation objectives of the existing agreement are assumed to be realized. Petitioners have not demonstrated a genuine dispute on a material issue.

Furthermore, the need for the facility is based in part on a well-established national energy security policy objective. Petitioners in this basis do not explain how using further downblended LEU from Russian HEU would be a reasonable alternative to serve the

stated purpose and need for the proposed facility. This basis should be dismissed as a matter of law.

Courts have taken the view that “[w]here the Federal government acts, not as a proprietor, but to approve . . . a project being sponsored by a local government *or a private applicant*, the Federal agency is necessarily more limited.” *Citizens Against Burlington*, 938 F.2d at 197. When an agency is asked to sanction a specific proposal, therefore, “the agency should take into account the needs and goals of the parties involved in the application.” *Id.* (citing 40 C.F.R. § 1508.18(b)(4)); *Louisiana Wildlife Fed’n v. New York*, 761 F.2d 1044, 1048 (per curiam); *cf. City of Grapevine v. DOT*, 17 F.3d 1502, 1506 (D.C. Cir.), *cert. denied*, 513 U.S. 1043 (1994) (it is not improper for the agency to take into account the “economic goals of the project’s sponsor”).

With respect to sub-basis (2), the Petitioners have not raised a genuine dispute on a material issue of law or fact because the market analysis in Section 1.1 assumes that both the NEF and the USEC centrifuge plant will be successfully built and operated. *See* ER § 1.1.2.4.1. This scenario assumes that USEC will pre-produce and stockpile 2 million SWU for use to optimize the transition from the Paducah Gaseous Diffusion Plant (“GDP”) to the centrifuge facility, and will have brought the centrifuge facility (at a capacity of 2.0 million SWU/year) into operation between 2006 and 2010. Indeed, the ER concludes that this scenario was the preferred scenario:

This scenario would result in the establishment of two long term sources of energy efficient, low cost, reliable uranium enrichment services in the U.S., which is positive with respect to the security of supply objective. In addition, the presence of two indigenous enrichment facilities in the U.S. should serve to foster competition and result in more predictable long term sources of uranium enrichment services, which would help to meet the objective of ensuring a competitive procurement process for U.S. purchasers of these services.

ER at 1.1-19.

To be admissible, a contention must challenge LES's assumptions or analyses. Because Petitioners have failed to engage the analysis included in the Application, this basis is insufficient to demonstrate a genuine dispute.

With respect to sub-basis (3), there is no legal or regulatory basis for Petitioners' request. As the Commission has held, for the "no action" alternative, there need not be much discussion. *Hydro Resources*, CLI-01-4, 53 NRC at 54, citing *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1181 (9th Cir. 1990). It is most simply viewed as maintaining the status quo. *Id.*, citing *Pub. Agency Customers v. Bonneville Power Admin.*, 126 F.3d 1158, 1188 (9th Cir. 1997). As the Commission stated in *Hydro Resources*, it is *self-evident* that the "no action" alternative would have the advantage of obviating all of the health and environmental impacts associated with the project. *Id.* In the present case, this would include any environmental impacts associated with uranium processing and enrichment and reduced depleted uranium generation.<sup>49</sup>

With respect to the particular environmental benefits of the use of downblended HEU as opposed to LEU produced from mined and milled natural uranium, as stated above with respect to Basis G of Contention 5.1, the U.S.-Russian HEU agreement will continue notwithstanding the construction and operation of the NEF, and any environmental and non-proliferation benefits realized in the implementation of that agreement will be realized wholly independently of the NEF. Accordingly, this basis does not raise a genuine dispute.

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<sup>49</sup> The impacts of uranium mining and milling would be, in any event, beyond the scope of this proceeding.

2. *Basis B*

In Basis B, Petitioners argue that the ER should discuss as an alternative an increase in the amount and pace of HEU downblending. Specifically, Petitioners claim LES should evaluate (1) the benefits for the environment and for non-proliferation of additional purchases of HEU from Russia and of increasing the pace of purchase of downblended reactor fuel; and (2) the effect of increasing the pace and amount of U.S. downblending. (NIRS/Public Citizen Petition at 44.) As is the case with Basis A, both of these scenarios were considered as part of LES's market analysis. *See* ER Section 1.1.2. (The second will be discussed below in conjunction with Basis C.)

Specifically, in Scenario F, the NEF is not built, but it is postulated that Russia increases sales of HEU-derived SWU. LES rejected this scenario because it does not serve LES's stated purpose and need for the facility – assurance of security and diversity of supply for domestic purchasers. Alternatives that do not serve the purpose of the project do not constitute reasonable alternatives that must be considered under NEPA. *See Citizens Against Burlington*, 938 F.2d at 195. Thus, as a matter of law, this basis does not identify an issue for which relief could be granted.

Additionally, with respect to sub-basis (1), the Petitioners have not provided any foundation for the contention that the terms of the U.S.-Russian agreement could be changed to accommodate increased – or faster – downblending. Indeed, recent actions of Congress suggest this alternative is not currently feasible. In its FY 2004 budget request, DOE requested appropriations in support of the Accelerated Material Disposition initiative, under which the Department would directly purchase HEU and HEU converted to LEU from the Russian

Federation for storage and use by the United States. The initiative would eliminate an additional 15 MT of excess Russian HEU. See H.R. Rept. 108-212 (Energy and Water Development Appropriations Bill 2004) at 157 (July 16, 2003). The House Committee on Appropriations provided only \$5,000,000 for the initiative, a reduction of \$25,000,000. The Committee stated:

At a time of constrained resources when the Department is ignoring an obvious unmet need such as nuclear material detection at foreign seaports, the Committee cannot support such a significant commitment of outyear budgets for what is a marginal nuclear nonproliferation gain . . . . The Committee notes that the \$14,000,000 provided for fiscal year 2003 will most likely remain uncosted, as the implementing agreement negotiations with the Russians have not been completed.

*Id.* at 157-158. While the Senate Appropriations Committee recommended the amount of DOE's budget request (\$30,000,000),<sup>50</sup> the conference committee ultimately appropriated no money to the initiative, citing its support for the House language. See H.R. Rept. 108-357, Nov. 7, 2003, at 163. DOE has not requested funds for the initiative for fiscal year 2005. Accordingly, as a *practical* matter, increasing the pace and quantity of downblending Russian HEU is highly speculative, and, therefore, not a reasonable alternative. It is well established that LES's analysis need not consider the environmental effects of alternatives that are "deemed only remote and speculative possibilities." *Vermont Yankee*, 435 U.S. at 551; *La. Energy Servs.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77 (1998). Any decision to increase Russian or U.S. HEU downblending also would be a policy decision well outside the scope of authority of LES, as a private entity, and that of the Commission.

### 3. *Basis C*

Basis C elaborates upon one aspect of Basis A and sub-basis B(2). Petitioners posit that a total of 600 MT of U.S. (*i.e.*, domestic) HEU could be declared surplus "if the U.S.

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<sup>50</sup> See S. Rept. 108-105, Energy and Water Development Appropriation Bill 2004, at 117 (July 17, 2003).

pursued sound non-proliferation policies.” (NIRS/Public Citizen Petition at 44.) This scenario was explicitly considered in conjunction with LES’s market analysis as Scenario H, under which U.S. HEU-derived LEU is made available to the commercial market. See ER § 1.1.2.5.8. However, this scenario is highly speculative. See *Vermont Yankee*, 435 U.S. at 551; *Louisiana Energy Servs.*, CLI-98-3, 47 NRC at 77. DOE has provided a detailed accounting for 174 MT HEU that has been declared surplus to date. Commercialization plans are in place for approximately 105 MT. ER at 1.1-12. The U.S. government *is reported* to hold approximately 490 MT HEU in various forms (e.g., active weapons, naval reactor fuel, reserves). *Id.* However, *there has been no indication if some or all of this material may be made available for commercial use. Id.* Accordingly, any forecast that includes use of the enrichment services that may be associated with this material is highly speculative.

4. *Bases D, E, F, and H.*

In Bases D, F and H, and sub-basis E(1), Petitioners set forth several statements concerning non-proliferation policy, as follows:

- Declaring more HEU surplus in the United States and Russia is desirable for security reasons, since further downblending will remove large amounts of weapons-usable HEU from potential diversion. (NIRS/Public Citizen Petition at 45.)
- The ER should discuss the adverse impacts of creating additional enrichment capacity at a time when HEU downblending is being carried out more slowly than it should be. (*Id.* at 45.)
- The ER should evaluate the effect of building a new commercial enrichment plant at a time when the United States is trying to stop other countries, particularly Iran, from building one. (*Id.* at 45.)
- Evaluation of the potential impacts of proliferation should include consideration of a recommendation of the Stockholm International Peace Research Institute to phase out the gas centrifuge technique for uranium enrichment. (*Id.* at 47.)

Fundamentally, these bases set forth Petitioners' general opposition to the NEF and centrifuge technology generally, rather than alleging any specific perceived deficiencies with the Application.<sup>51</sup> These bases are in reality nothing more than Petitioners' views on U.S. non-proliferation policy, which are beyond the scope of a need and alternatives discussion, beyond the scope of this proceeding, and beyond the NRC's jurisdiction. *See Duke Energy Corp.* (Catawba Nuclear Station, Units 1 & 2), LBP-04-04, 59 NRC \_\_\_, 2002 WL 725467, at \*37 (Mar. 5, 2004) (denying a proposed contention asserting that the "no action" alternative to a proposal where the contention set forth an opposing view of the proposal). Litigation of these policy matters in the form of a contention would be directly contrary to Commission precedent. *See also Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993) ("A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention."). Accordingly, these bases do not suffice to support the proposed contention.

Sub-basis E(2) argues that the NRC should consider the combined effect of the NEF and the proposed USEC facility on prices, and the potential that depressed prices may slow downblending of surplus HEU, with consequent heightened risks of proliferation. (Petition at 45.) Significantly, Petitioners supply no legal or regulatory basis for the proposition that Commission should undertake such an analysis in this proceeding, or in any other context. As the Commission noted in *Hydro Resources*, "[t]he NRC is not in the business of crafting broad energy policy involving other agencies and non-licensee entities." *Hydro Resources, Inc., supra*, 53 NRC at 55. By analogy, Petitioners here suggest that the Commission should make national security/nonproliferation policy determinations that are squarely within the purview of other

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<sup>51</sup> The NIRS/Public Citizen Petition makes it clear that Petitioners oppose the use of nuclear power in general and the construction and operation of the NEF in particular.

agencies (DOE and the Department of State), and that involve a proposed facility for which USEC has yet to receive a license. Accordingly, sub-basis(E)(2) raises issues outside the scope of this proceeding, particularly given that the Commission's fundamental "statutory responsibility [is] to assure that all licensees meet applicable safety and environmental regulations." *Id.* at 58.

In addition, Petitioners ignore information in the Application that contravenes their argument. As set forth in ER Section 1.1.1, in a July 25, 2002 letter to the NRC, the Department of Energy recognized "the importance of identifying and deploying an economically competitive replacement technology in the near term." Letter from W.D. Magwood, IV, DOE, to M.J. Virgilio, NRC (July 25, 2002). In that letter, DOE also quoted the Department of State as stating that "the U.S. Government supports the deployment of Urenco gas centrifuge technology in new U.S. commercial enrichment facilities as a means of maintaining a reliable and economical U.S. uranium enrichment facility." *Id.* (quoting unclassified excerpt from U.S. Department of State cable SECSTATE WASHDC 212326Z DEC 01 (NOTAL)). This position is consistent with an earlier determination made by DOE in 2001 that "[w]hile the HEU Agreement is an integral element of U.S. nonproliferation policy, the maintenance of an economical and reliable domestic enrichment industry is vital to U.S. energy security."<sup>52</sup> U.S. Department of Energy, *Effect of U.S./Russia Highly Enriched Uranium Agreement* (Dec. 21,

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On a more recent note, in March 2003, during proceedings of the Subcommittee of the Committee on Appropriations, Senator Domenici asked Mr. Magwood whether he has "any concern that the efforts of Urenco to build a new facility in the United States would in any way pose a national security concern." Mr. Magwood replied "none at all," and further noted that DOE is doing "everything we can" to encourage and facilitate the development of a Urenco facility in the U.S. *See Energy and Water Development Appropriations for Fiscal Year 2004*, U.S. Senate, Meeting of the Subcommittee of the Committee on Appropriations (Mar. 12, 2003).

2001), at 16. Petitioners make no attempt to refute, or even acknowledge, these contrary statements by DOE and the State Department.

5. *Basis G*

Basis G sets forth Petitioners' concerns regarding foreign ownership of the NEF. Specifically, Petitioners argue that the discussion of foreign ownership in the ER is inadequate, citing past alleged security "laxities" of majority owner Urenco in Europe and Asia. (NIRS/Public Citizen Petition at 46-47.) For the reasons set forth below, this basis does not support an admissible contention.

As stated in Section IV of the Hearing Order, the NEF Application is governed by Sections 53 and 63 of the Atomic Energy Act, and not Sections 103, 104, or 193(f). AEA Section 57c.(2) provides, in pertinent part:

The Commission shall not . . . issue a license pursuant to section 53 to any person within the United States if the Commission finds that . . . the issuance of such license would be inimical to the common defense and security or would constitute an unreasonable risk to the health and safety of the public.

Section 57 does not prohibit the Commission from issuing a license solely on the basis that the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. Accordingly, LES may hold Part 30, 40 and 70 licenses for the NEF even though Urenco, a foreign-owned entity, holds a majority share in LES.<sup>53</sup> Furthermore, Petitioners' allegations regarding Urenco are irrelevant.<sup>54</sup>

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<sup>53</sup> Petitioners incorrectly state that Urenco owns 90% of LES. Urenco owns 70.5% of the partnership. ER at 1.0-2.

<sup>54</sup> In any event, Petitioners' allegations regarding Urenco are untrue. In response to a question propounded by Senator Domenici regarding the Department of Energy's views of national security in relation to Urenco, Bill Magwood, Director of the Office of Nuclear Energy and Science Technology, stated as follows:

Security lapses such as those raised by Petitioners are not appropriately discussed in the Environmental Report. Moreover, the inherent management integrity issue raised by Petitioners is beyond the scope of this proceeding. LES is the applicant for the NEF, and LES, not Urenco, will operate NEF. It is also well established that, “[f]or management ‘character’ to be an appropriate issue for adjudication in a licensing proceeding, ‘there must be some direct and obvious relationship between the character issues and the licensing action in dispute.’” *Millstone*, CLI-01-24, citing *Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2)*, CLI-99-4, 49 NRC 185, 189 (1999)(citation omitted). As a rule, license applications do not “throw[] open an opportunity to engage in a free-ranging inquiry into the ‘character’ of the licensee.” *Millstone*, citing *Zion*, 49 NRC at 189. When “character” or “integrity” issues are raised, they must be directly germane to the challenged licensing action. Petitioners have established no such nexus here. Petitioners have only raised allegations of past security lapses outside of the United States, but have not pointed to management character and integrity problems in connection with the Application. Accordingly, this contention is beyond the scope of the proceeding and must be denied. *See* 10 C.F.R. § 2.309(f)(1)(iii).

**O. NIRS/Public Citizen Proposed Contention 6.1 –  
Natural Gas-Related Accident Risks**

Contention 6.1 makes two arguments in connection with the risks of natural gas-related accidents. First, Petitioners argue that, contrary to 10 C.F.R. § 51.45, the ER does not contain a “complete or adequate assessment” of the potential environmental impacts of accidents

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The Administration places a high priority on ensuring nuclear non-proliferation safeguards are in place and that access to sensitive technology is controlled. The information available to the Department indicates that URENCO has acted responsibly with regard to the control of sensitive technology and the employment of non-proliferation safeguards.

Staff of Senate Subcomm. of the Comm. on Appropriations, 108th Cong., Energy and Water Development Appropriations for Fiscal Year 2004 45 (Comm. Print 2003).

involving natural gas transmission facilities. (NIRS/Public Citizen Petition at 48.) Second, Petitioners contend that “there has been no Integrated Safety Analysis (“ISA”) based on module-specific data.” (*Id.*) Petitioners set forth four bases in support of this proposed contention. Each basis is considered in turn below. As demonstrated, none of the bases is sufficient to support an admissible contention.

*1. Basis A.*

Basis A takes issue with LES’s ISA with respect to a natural gas pipeline accident. Specifically, Petitioners note that LES has concluded that the hazards due to thermal radiation, missile generation and plant contamination by gas and/or explosion were shown to have an annual probability less than  $1.0 \times 10^{-5}$ . See SAR Table 3.7-4. (Specifically, LES calculated the probability of the hazard due to the natural gas pipeline in the vicinity of the proposed NEF to be  $4.3 \times 10^{-6}$ , which is less than the threshold value. See SAR at 3.2-6.) Petitioners argue that LES’s determination of probability is “speculative” and “inappropriate,” and should be recalculated with “appropriate data.” (NIRS/Public Citizen Petition at 49.) Petitioners would have LES “conduct a module-specific analysis,” including data on the volumes, pipeline sizes, pressure levels and types of gas that will pass within 1000 feet of the NEF. (*Id.*)

There is no basis here to support an admissible contention. Rather than setting forth facts and expert opinion explaining why LES’s calculated probability is in error, as is required by NRC contention admissibility standards, Petitioners baldly assert, without more, that the figure is inadequate, and request a different analysis. Petitioners offer no explanation as to the meaning of “module-specific analysis,” or how such an analysis would be different from, or superior to, the analysis set forth in the Application. In short, Petitioners’ assertion that LES’s

analysis is “inappropriate” is insufficient to support a contention. To be valid, a contention must challenge specific substantive information in an application, and must identify “each failure,” and set forth *both* the applicant’s position and the petitioner’s opposing view – with basis. *See Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-28, 56 NRC 373, 383 (2002), citing *Millstone*, CLI-01-24, 54 NRC at 358.

In support of its allegation that the probability calculation is speculative, petitioners in this basis also take issue only with an element of the External Events and Fire Hazard Assessment performed for the facility. Specifically, Petitioners claim an omission of information, citing the SAR:

In order to assess the potential severity of a given fire and the resulting failures to critical systems, the facility Fire Hazard Analysis was consulted. However, since the design supporting the license submittal for this facility is not yet at the detailed design stage, detailed in-situ combustible loading and in-situ combustible configuration information is not yet available.

Petition at 49, citing SAR at 3.1-3. However, Petitioners appear to disregard the rest of this paragraph, which explains LES’s solution regarding estimation of in-situ combustible configuration information and demonstrates that there has been no omission:

*Therefore, in order to place reasonable and conservative bounds on the fire scenarios analyzed, the ISA Team estimated in-situ combustible loadings based on information of the in-situ combustible loading from Urenco’s Almelo SP-5 plant (on which the [NEF] design is based). This information from SP-5 indicates that in-situ combustible loads are expected to be very low.*

SAR at 3.1-3 (emphasis added). Petitioners have not taken issue in any way with LES’s decision to use information from the SP-5 facility, let alone argued that using these assumptions was in any way unconservative or non-representative of loadings at a facility of the size and type of the

NEF. Because Petitioners fail to challenge the information provided in the Application, this allegation does not provide a basis for a contention or demonstrate a genuine dispute.

Petitioners argue that “the ISA team observed that the fires could spread from outside each fire area and suggested fire barriers [], but no specific analysis was made of their need or effectiveness.” (NIRS/Public Citizen Petition at 49.) However, this assertion completely disregards LES’s discussion of fire safety, contained in Section 7.0 of the SAR. LES undertook an examination of fire barriers, and, indeed, provided for a comprehensive system of fire barriers. In particular, Section 7.3.2, “Fire Area Determination and Fire Barriers” states as follows:

The facility is subdivided into fire areas by barriers with fire resistance commensurate with the potential fire severity, in accordance with [Life Safety Code, NFPA 101, National Fire Protection Association, 1997] and the [New Mexico Building Code]. The design and construction of fire barrier walls is in accordance with [Standard for Fire Walls and Fire Barrier Walls, NFPA 221, National Fire Protection Association, 1997]. These fire areas are provided to limit the spread of fire, protect personnel and limit the consequential damage to the facility. *Fire barriers are shown in Figures 7.3-1 through 7.3-8. The fire resistance rating of fire barrier assemblies is determined through testing in accordance with [Standard Methods of Tests of Fire Endurance of Building Construction and Materials, NFPA 251, National Fire Protection Association, 1995].* Openings in fire barriers are protected consistent with the designated fire resistance rating of the barrier. Penetration seals provided for electrical and mechanical openings are listed to meet the guidance of [Standard Test Method for Fire Tests of Through-Penetration Fire Stops, ASTM E-814-02, American Society of Testing and Materials, 2002] or [Fire Tests of Through-Penetration Fire Stops, UL Standard 1479, 3d Ed., Underwriters Laboratories, Inc., May 2003]. Penetration openings for ventilation systems are protected by fire dampers having a rating equivalent to that of the barrier. Door openings in rated fire barriers are protected with fire rated doors, frames and hardware in accordance with [Standard for Fire Doors and Windows, NFPA 80, National Fire Protection Association, 1995].

SAR at 7.3-2 (emphasis added). Petitioners do not challenge the information provided with respect to fire barriers, LES’s decision to comply with industry standards with respect to fire

barriers, or the overall effectiveness of the site fire protection program. Accordingly, the baseless allegation that LES has not considered fire barriers does not support an admissible contention.

2. *Basis B*

In Basis B, Petitioners argue that LES's criterion of probability for a natural gas explosion "does not reflect changes in security calculations since September 11, 2001." (NIRS/Public Citizen Petition at 49.) Petitioners claim that the NEF is "particularly vulnerable" to terrorist attack because of the nearby gas pipelines. (*Id.* at 50.) It appears that the gist of Petitioners' basis is that LES's calculated probability for a natural gas explosion is somehow inadequate because it does not take into account some increased probability of explosion due to a terrorist attack on the pipeline. This basis constitutes an impermissible challenge to the Commission's regulations governing safeguards and security of a uranium enrichment facility, set forth at 10 C.F.R. § 70.22(k) and 10 C.F.R. Part 73.

As stated in the Application, the physical security program for the NEF is provided in the Physical Security Plan, the Safeguards Contingency Plan and the Guard Force Training and Qualification Plan.<sup>55</sup> LES maintains that these programs are consistent with current NRC regulatory requirements, and Petitioners do not assert otherwise.<sup>56</sup> Whether in the guise of

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<sup>55</sup> See Letter from E. James Ferland, LES, to Directors, Office of Nuclear Material Safety and Safeguards and the Division of Facilities and Security, NRC, dated December 12, 2003, transmitting the Application.

<sup>56</sup> Since September 11, 2001, the NRC has conducted a thorough re-evaluation of its security requirements and programs. The Commission has issued Orders to various classes of licensees mandating the imposition of Interim Compensatory Measures to enhance security at nuclear facilities. See, e.g., *United States Enrichment Corporation, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, Order Modifying Certificate of Compliance (Effective Immediately), 67 Fed. Reg. 44,242 (July 1, 2002); *United States Enrichment Corporation, Portsmouth Gaseous Diffusion Plant, Portsmouth, Ohio*, Order Modifying Certificate of Compliance (Effective Immediately), 67 Fed. Reg. 44,244 (July 1, 2002). The NEF will be licensed against the existing robust regulatory regime

a safety contention or otherwise, a contention seeking evaluations of beyond-design-basis security threats goes beyond current regulations and cannot be admitted. To the extent that Petitioners request additional analysis or security measures beyond the scope of current NRC requirements, the contention raises a challenge to the NRC's security regulations that is prohibited by 10 C.F.R. § 2.335.<sup>57</sup> See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-87-12, 26 NRC 383, 394-95 (1987) (finding an impermissible challenge to NRC regulations where an intervenor sought to impose requirements in addition to those set forth in the regulations); *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), LBP-01-6, 53 NRC 138, 159 (2001) (same); *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 447-48 (2002) (dismissing a contention in which the intervenor sought to litigate safety and environmental challenges related to terrorism, because the contention constituted an impermissible challenge to existing NRC requirements governing ISFSI physical security standards), *aff'd on other grounds*, CLI-03-1, 57 NRC 1 (2003); *Private Fuel Storage* (Independent Spent Fuel Storage Installation), LBP-01-37, 54 NRC 476, 484-85 (2001)(same), *aff'd on other grounds*, CLI-02-25, 56 NRC 340 (2002). For this reason, Basis B should be rejected.

Petitioners' proposed basis also lacks the factual basis necessary for the admission of the contention. Petitioners cite two warnings concerning threats to Liquefied Natural Gas ("LNG") facilities. Threats to a LNG facility – quite different from the facility at issue here –

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governing physical security, and it is subject, as are all NRC licensees, to any additional security measures imposed by the NRC as part of its comprehensive security review. LES will comply with any such additional security measures, as applicable.

are immaterial to the Application at issue. Such threats are unconnected to the NEF, and should not be considered further in this proceeding. *See Sacramento Mun. Util. Dist. (Rancho Seco Nuclear Generating Station)*, LBP-93-23, 38 NRC 200, 246 (holding that a contention “simply alleg[ing] that some matter ought to be considered does not provide the basis for an admissible contention”) The contention of increased probability of a natural gas explosion is sheer speculation.

3. *Basis C*

In Basis C, Petitioners argue that “[t]he NEF design appears unsafe under DOT [Department of Transportation] pipeline safety standards for “high consequence areas,” a term that describes the NEF.” (NIRS/Public Citizen Petition at 50.) Petitioners go on to argue, it appears, that the natural gas pipeline on site should be situated at least 660 feet away from uranium enrichment operations. (*Id.* at 50-51.)

Petitioners’ core issue in Basis C is compliance with DOT regulations governing pipeline safety, which is an issue completely separate and apart from the NRC Application. This matter is beyond the scope of this licensing proceeding. *Cf. Sequoyah Fuels Corp. (Gore, Oklahoma Facility)*, DD-92-2, 35 NRC 211, 218 (1992) (“The NRC has no authority to enforce the conditions of [NPDES] permits. Only EPA and [the analogous state agency] have jurisdiction to enforce these discharge permits. Violations of these permits do not constitute violations of the NRC- issued license or any other regulatory requirement of the Commission.”); *Pub. Serv. Co. of N.H. (Seabrook Station, Units 1 & 2)*, DD-90-4, 32 NRC 45, 52 (1990) (same).

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<sup>57</sup> Petitioners have made no attempt to request a waiver of application of the rules pursuant to 10 C.F.R. § 2.335(b), or make the showing that “special circumstances” exist such that application of the regulations would not serve the purpose for which they were adopted.

To the extent that Petitioners challenge LES's compliance with NRC requirements, this basis does not present a genuine dispute. 10 C.F.R. § 70.61 requires, among other things, that an applicant for a uranium enrichment facility evaluate in the ISA its compliance with certain performance requirements. 10 C.F.R. § 70.61(a). One of these requirements is that the risk of each "credible high consequence event" must be "highly unlikely." "Highly unlikely" is defined in NUREG-1520 as occurring at a frequency of less than  $10^{-5}$  per-event per-year. See NUREG-1520 at 3-A-6—3-A-7. In its performance of a risk assessment used to estimate the likelihood of a gas line leak and subsequent explosion that could impact NEF operations, LES determined that the hazards due to thermal radiation, missile generation and plant contamination by gas and/or explosion were shown to have an annual probability of  $4.2 \times 10^{-6}$ . See SAR at 3.2-6. This meets the definition of "highly unlikely;" therefore no additional "items relied on for safety" are required for this scenario, because it does not exceed the performance requirements in Section 70.61. Petitioners have not proffered a comparable risk assessment that calls into question LES's conclusions or raises any challenge to the SAR in this regard.

4. *Basis D*

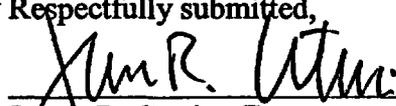
In Basis D, Petitioners allege that "leaking natural gas could penetrate every module of the NEF, including uranium processing areas and high voltage areas that could cause a substantial explosion." (NIRS/Public Citizen Petition at 51.) This basis is purely speculative and does not establish a genuine factual dispute. Petitioners have not presented *any* support for their statement that a natural gas leak from one of the pipelines, if it occurred, would "penetrate every module of the NEF." There is in this basis clearly insufficient information to show that a

genuine dispute exists, including the reasons supporting Petitioners' view. See 10 C.F.R. § 2.309(f)(1)(vi).

#### V. CONCLUSION

For the reasons set forth above, LES does not contest the standing of the AG, NIRS, or Public Citizen to participate in this proceeding. Further, for the specific reasons explained above, LES is opposed to the admission of the contentions proffered in this proceeding by NIRS/Public Citizen and the New Mexico Attorney General, because all of the contentions raise matters already resolved by the Commission's Hearing Order, do not meet the Commission's contention admissibility requirements pursuant to 10 C.F.R. § 2.309(d), or are otherwise inadmissible as a matter of law. LES remains committed to continuing the active discussions with the AG in an effort to reach a mutually agreeable resolution of the issues that have been raised, as the licensing proceeding goes forward.

Respectfully submitted,

  
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Dated at Washington, District of Columbia  
this 3rd day of May 2004

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of:	)	Docket No. 70-3103-ML
	)	
Louisiana Energy Services, L.P.	)	ASLBP No. 04-826-01-ML
	)	
(National Enrichment Facility)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "ANSWER OF LOUISIANA ENERGY SERVICES, L.P. TO THE REQUESTS FOR HEARING AND PETITIONS FOR LEAVE TO INTERVENE OF THE NEW MEXICO ATTORNEY GENERAL AND NUCLEAR INFORMATION AND RESOURCE SERVICE AND PUBLIC CITIZEN" in the captioned proceeding have been served on the following by e-mail service, designated by \*\*, on May 3, 2004, as shown below. Additional service has been made by deposit in the United States mail, first class, this 3rd day of May, 2004.

Chairman Nils J. Diaz  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Commissioner Edward McGaffigan, Jr.  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Commissioner Jeffrey S. Merrifield  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

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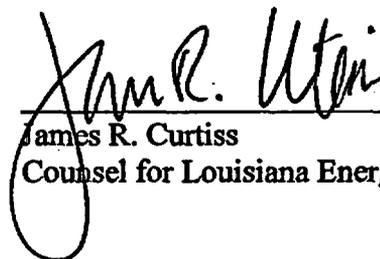
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May 3, 2004

Nils J. Diaz, Chairman  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Edward McGaffigan Jr., Commissioner  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

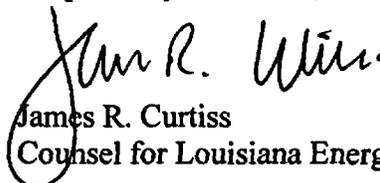
Jeffrey S. Merrifield, Commissioner  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: **In the Matter of Louisiana Energy Services, L.P. (National  
Enrichment Facility), Docket No. 70-3103**

Dear Commissioners:

In accordance with 10 C.F.R. § 2.309(h)(1), please find attached for filing the "Answer of Louisiana Energy Services, L.P. ("LES") to the Requests for Hearing and Petitions for Leave to Intervene of the New Mexico Attorney General ("AG") and Nuclear Information and Resource Service ("NIRS") and Public Citizen." LES does not challenge the standing of the AG, NIRS, or Public Citizen to participate in this proceeding. Nor do any of the petitions raise issues related to the issue of Environmental Justice.

Respectfully submitted,



James R. Curtiss  
Counsel for Louisiana Energy Services, L.P.

Attachment

cc: LES Service List