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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)	)	

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

U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of LOUISIANA ENERGY SERVICES LP
Docket No. 70-3103-ML Official Exhibit No. 29
OFFERED by: Applicant/Licensee Intervenor NIRS/PC
NRC Staff Other
IDENTIFIED on Witness/Panel G. Rice
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clerk

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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")[1] and Nuclear Information and Resource Service and Public Citizen ("NIRS/Public Citizen" or "Petitioners").[2] 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.[3] LES would emphasize, however, that it has had

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1 *See* "The New Mexico Attorney General's Request for Hearing and Petition for Leave to Intervene," dated April 5, 2004 ("AG Petition").

2 *See* "Petition to Intervene by Nuclear Information and Resource Service and Public Citizen," dated April 6, 2004 ("NIRS/Public Citizen Petition").

3 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.[4] A Notice of Hearing[5] and Commission Hearing Order were published in the *Federal Register* on February 6, 2004.[6] 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).

[4] Licenses would also be issued under 10 C.F.R. Parts 30 and 40 for possession and use of source and byproduct materials.

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

[6] 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.[7] 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").

[7] 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").[8]

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 Envt.*, 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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[8] 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."[9] 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.*

[9] 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.[10] (*Id.*) The proposed contention has one basis –

[10] 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.[11]

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.[12]

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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[11] 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^3 (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).

[12] 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.[13] *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^3 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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[13] 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?[14]

(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

[14] 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."[15] (*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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[15] 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_6 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.[16] 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.[17] To the extent an issue arises with respect to the NEF's water usage, it is

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16 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).

17 As stated in the Application, current capacities for the Eunice and Hobbs, New Mexico municipal water supply systems are 16,350 m^3/day (4.32 million gpd) and 75,700 m^3/day (20 million gpd), respectively. Current usages are 5,600 m^3/day (1.48 million gpd) and 23,450 m^3/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.[18] *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_6") 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.[19]

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

[18] 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."

[19] 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_6 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_6 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_6 tails disposition exist. However, by the terms of the Hearing Order, LES need only demonstrate that the DUF_6 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 . . . .[20]

[20] 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.[21] 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).[22]

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

21 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)).

22 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.[23] 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."[24]

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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23 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).

24 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_6 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_6 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_6 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_6 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 DUF_6 would be "far less risky" insofar as it would avoid "the hazards of transporting 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 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_6 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_6 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_3O_8 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_3O_8. 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,[25] this assertion fails to raise a genuine dispute of fact or law that is *material* to the NRC's findings on the Application.[26] *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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[25] 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).

[26] The ER states only that General Atomics "*may* have access to an exhausted uranium mine (the Cotter Mines in Colorado) where depleted U_3O_8 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_3O_8 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_3O_8 in a *hypothetical* deeper-than-near-surface disposal site.[27] *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_6] in the U.S. for 57 years without a plausible disposal program" is presumably a reference to DOE's sizable inventory of DUF_6. 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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[27] 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_6 . . . ." 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_6 inventory, including the issuance of a final programmatic environmental impact statement that considered alternative strategies for the long-term management and use of DUF_6 (the DOE PEIS), the issuance of a Record of Decision and final plan for the deconversion of DUF_6, 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.[28] (*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

[28] As stated in the Application, Cogema has experience with a deconversion facility that currently processes DUF_6 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 UF_6 to U_3O_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 UF_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 UF_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).[29]

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.[30]

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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[29] 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.

[30] 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.[31]

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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[31] 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.[32] *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).[33] *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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32 *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.

33 *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_6 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_6 "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 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 DUF_6 to (1) triuranium octaoxide (U_3O_8) (which LES proposes in its Application), (2) uranium dioxide (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 UF_6 to U_3O_8 – (1) upgrading the concentrated HF to anhydrous HF for sale, and (2) neutralizing the HF to CaF_2 for disposal or sale (depending on the marketability of the 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_6 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"[34] 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.[35]

Additionally, although the ER does not specifically discuss deconversion-related impacts, ER Section 4.13.3.1.5 addresses the environmental impacts of DUF_6 *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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34 *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").

35 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_6 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 [< 1ppm] 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_2. . . . 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 UF_6 to U_3O_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] UF_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 UF_6 waste, or (2) the environmental effects of generation and storage of additional UF_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 UF_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_6 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_6 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.[36] 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

[36] In fact, Petitioners mistakenly presume that USEC will be generating DUF_6 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 (4th 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_6 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_6 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_6 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_6 is stored safely in Uranium Byproduct Cylinders ("UBCs") during whatever period it remains onsite.[37] *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_6 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_6 storage plan or to the specific measures discussed therein, and, therefore, fails to controvert the Application.[38]

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37 The Application also references the *Depleted Uranium Hexafluoride Management Study* (LES, 1991), which sets forth a detailed plan for the storage of DUF_6 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.

38 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_6 (and depleted U_3O_8). *See generally* DOE PEIS, §§ 5.1, 5.2, and Appendix G. Petitioners neither cite for support nor dispute the DOE's findings on DUF_6 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_6 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_6 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_6 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_3O_8 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_6 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_6 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_6 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.[39] The AG's allusion to prior DOE failures to estimate "costs of disposal and

[39] 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_6 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

"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 UF_6 to U_3O_8, the *disposal* of the U_3O_8 product, and the *transportation* of both UF_6 and U_3O_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 UF_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.

1. 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.[40]

[40] 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*;