

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of	)	
	)	
LOUISIANA ENERGY SERVICES, L.P.	)	Docket No. 70-3103-ML
	)	
(National Enrichment Facility)	)	ASLBP No. 04-826-01-ML

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NRC STAFF RESPONSE TO PETITION ON BEHALF OF  
NUCLEAR INFORMATION AND RESOURCE SERVICE AND  
PUBLIC CITIZEN FOR REVIEW OF FIRST PARTIAL INITIAL  
DECISION ON ENVIRONMENTAL CONTENTIONS

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July 5, 2005

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.341, the Nuclear Regulatory Commission Staff ("Staff") responds to the Petition filed by Nuclear Information and Resource Service and Public Citizen ("NIRS/PC")<sup>1</sup> requesting Commission review of the decision of the Licensing Board decision resolving the admitted environmental contentions relating to the application of Louisiana Energy Services ("LES") to construct and operate a uranium enrichment facility.<sup>2</sup> For the reasons discussed below, the Staff opposes the request for Commission review.

BACKGROUND

The Commission provided notice of receipt of the application from LES to construct and operate a uranium enrichment facility, the National Enrichment Facility ("NEF"), and the

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<sup>1</sup> "Petition on Behalf of Nuclear Information and Resource Service and Public Citizen for Review of First Partial Initial Decision on Environmental Contentions," ("Petition") June 23, 2005.

<sup>2</sup> *Louisiana Energy Services* (National Enrichment Facility) First Partial Initial Decision (Environmental Contentions) LBP-05-13, (June 8, 2005) ("Board Decision").

opportunity to participate in the hearing on the application in February 2004.<sup>3</sup> Petitions to intervene and contentions were filed by the New Mexico Environment Department, the New Mexico Attorney General and by NIRS/PC. All were admitted as parties to this proceeding and certain contentions were admitted for consideration in the hearing. The Licensing Board designated the admitted contentions as either environmental or technical and conducted an evidentiary hearing on the environmental contentions. The Board's decision which is the subject of this petition for review resolves the admitted environmental contentions.

### DISCUSSION

#### I. Legal Requirements for Commission Review of a Board Decision

Under 10 C.F.R. § 2.341(b)(2) a petition requesting Commission review must include:

- (i) [a] concise summary of the decision or action for which review is sought;
- (ii) [a] statement (including record citation) where the matters of fact or law raised in the petition for review were previously raised before the presiding officer and, if they were not, why they could not have been raised;
- (iii) [a] concise statement why in the petitioner's view the decision or action is erroneous; and
- (iv) [a] concise statement why Commission review should be exercised.

While NIRS/PC presents thirteen pages of background on the case, it fails to provide a concise summary of the decision or other action of the Board of which it seeks review as required by the Commission's regulations. Further, while NIRS/PC presents seven reasons it desires Commission review of the Board's decision, for many of them NIRS/PC fails to identify any error in fact or law in the Board's decision, much less any supporting citation to the record.

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<sup>3</sup> "Notice of Receipt of Application for License; Notice of Availability of Applicant's Environmental Report; Notice of Consideration of Issuance of License; and Notice of Hearing and Commission Order," CLI-04-03, 59 NRC 10 (2004); 69 Fed. Reg. 5873 (February 6, 2004).

Simply identifying issues that it wishes raise before the Commission is clearly not a sufficient basis to obtain Commission review of a licensing board decision. Moreover, to the extent NIRS/PC has alleged error in the Board's decision, the Staff submits that it has failed to identify any legitimate grounds for initiating Commission review. The Staff discusses NIRS/PC's seven arguments separately below.

II. Environmental Impacts of Waste Disposal

NIRS/PC claims that the Board erred because certain questions relating to the disposal of low-level waste generated by the NEF were summarily dismissed following the issuance of the Commission's decision that depleted uranium is a form of low-level waste despite the fact that they had been timely raised by NIRS/PC and admitted into the proceeding. Specifically, NIRS/PC claims that the following issues were the subject of admitted contentions but improperly dismissed by the Board following the Commission's determination:

1. If low-level [waste], what is its classification under 10 C.F.R. Part 61? NIRS/PC have argued that depleted uranium should be viewed as analogous to GTCC waste in relation to disposal.
2. Is the waste acceptable for disposal in a land disposal facility, in the terms of 10 C.F.R. 61.2? NIRS/PC have presented expert analyses to demonstrate that it is not.
3. Is the waste required to be disposed of in a geologic repository or some other site specifically approved by the Commission? NIRS/PC have presented expert analyses to demonstrate that this is required.
4. Will the proposed disposal methods comply with the release limits of 10 C.F.R. Part 61, Subpart C? NIRS/PC have presented expert analyses to demonstrate that such methods would not comply.

Petition at 14-15.

A review of the record, however, reveals that this representation is simply wrong with regard to the issues NIRS/PC now seeks to raise. None of these issues were admitted as part of an admissible contention advanced by NIRS/PC. Rather than identify any error in the

Board's actions, NIRS/PC is simply seeking another opportunity to raise new issues in this proceeding.

NIRS/PC initially raised a contention relating to waste management in its intervention petition.<sup>4</sup> This contention, as supported by certain bases, was admitted by the Board and designated as EC-3-TC-1 – Depleted Uranium Hexafluoride Storage and Disposal.<sup>5</sup>

As admitted the contention stated:

Petitioners contend that Louisiana Energy Service, L.P., (LES) does not have a sound, reliable, or plausible strategy for private sector disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride ("DUF<sub>6</sub>") waste that the operation of the plant would produce in that:

- (A) The statement (LES Environmental Report (ER) 4.13-8) that a ConverDyn partner, General Atomics, "may have access to an exhausted uranium mine . . . where depleted U<sub>3</sub>O<sub>8</sub> could be disposed" represents a grossly inadequate certitude for a "plausible strategy" determination, particularly for a radioactive and hazardous substance which has been accumulating in massive quantities in the United States for fifty-seven years without a plausible disposal program.
- (B) Similarly, the statement that "discussions have recently been held with Cogema concerning a private conversion facility" (ER 4.13-8) is without substance.
- (C) The disposition of depleted uranium must be addressed based on the radiological hazards of this material that require that it be disposed of in a deep geological repository.

*Id.* at 78. This contention, to the extent supported by Basis C, was the subject of Commission review in *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-05, 61 NRC 22 (2005). As the Commission noted, this basis for NIRS/PC's contention

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<sup>4</sup> "Petition to Intervene by Nuclear Information and Resource Service and Public Citizen" and "Contentions on the Construction Permit/Operating License Application for the National Enrichment Facility Made by Nuclear Information and Resource Service and Public Citizen" ("NIRS/PC Contentions"), April 6, 2004.

<sup>5</sup> *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40 (2004) ("NEF").

challenged one option presented by LES for disposition of Depleted Uranium (“DU”) - transfer to the Department of Energy (“DOE”) pursuant to Section 3113 of the USEC Privatization Act. *Id* at 25. Indeed, NIRS/PC argued in its intervention petition that the nature of DU was such that it should be considered Greater than Class C waste *only to support the contention* that DOE would not be permitted to accept the waste because it could not be classified as low-level waste. NIRS/PC Contentions at 27-31. The Commission rejected this argument, finding that DU is properly considered a form of low-level radioactive waste as defined by the Low-level Radioactive Waste Policy Act. *Louisiana Energy Services, L.P.*, CLI-05-05, 61 NRC at 34. Accordingly, the Commission concluded that disposal at a DOE facility represents a “plausible strategy” and reversed admission of Basis C. *Id.* at 35.

Following the Commission’s decision, NIRS/PC attempted to raise the issue of whether DU would be amenable to shallow land disposal in a late-filed contention.<sup>6</sup> Specifically, NIRS/PC sought admission of the following additional basis to TC-3:

- (E) Methods of disposal of depleted uranium described by LES or referred to by Commission Staff in the Draft Environmental Impact Statement, such as shallow land disposal or burial in an abandoned mine, do not constitute a plausible strategy, because such proposed methods would fail to meet applicable health requirements, such as the Commission’s standards for disposal of low-level radioactive waste.

*Id.* at 7-8. The Board noted that because this new basis was premised upon information in the LES application, it could have been raised shortly after publication of that document and NIRS/PC had not demonstrated good cause for its late filing.<sup>7</sup> Based on this finding and consideration of the other factors governing the admission of late-filed contentions, the Board

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<sup>6</sup> “Motion on Behalf of Intervenors Nuclear Information and Resource Service and Public Citizen for Admission of Late-Filed Contentions,” February 2, 2005.

<sup>7</sup> Memorandum and Order (Ruling on NIRS/PC Late-Filed Contentions and Providing Administrative Directives), May 3, 2005, at 7-8.

rejected admission of this new basis. *Id.* at 17-18.

In light of the foregoing, it is clear that none of the issues NIRS/PC seeks to raise before the Commission in this request for review are issues which “were timely raised in the Petition (Petition at 27-31) and admitted, but after the Commission’s decision that depleted uranium is low-level waste. . . were summarily dismissed.” Petition at 15. NIRS/PC initially advanced a contention alleging that transfer of DU to DOE by LES for disposal was not plausible because the transfer could only occur under the USEC Privatization Act if it is considered to be low-level waste and DU could not be classified as low-level waste. The Commission thereafter resolved this issue and therefore dismissed the contention. Only later, in a late-filed contention did NIRS/PC raise any issue regarding shallow land disposal and this contention was properly rejected by the Board based on consideration of the late-filing criteria. NIRS/PC has not identified any alleged error in the Board’s application of those criteria. Therefore, NIRS/PC has failed to present any grounds for seeking Commission review.

### III. Proliferation Impacts of the Proposed Facility

NIRS/PC also argues that the Board erred in rejecting proffered contentions regarding the impacts of the proposed National Enrichment Facility on nonproliferation and national security (Contentions EC-7, Basis G, and EC-8). Petition at 16. In its initial petition to intervene, NIRS/PC supported EC-7, contending that “the Environmental Report does not adequately describe or weigh the environmental, social, and economic impacts and costs of operating the National Enrichment Facility (See ER 1.1.1 et seq.),” by proffering Basis G, which stated:

It is a fundamental omission that LES fails to discuss the impact of the NEF project upon the nonproliferation objectives of the 1993 U.S.-Russia agreement on the purchase of enriched uranium produced by downblending highly enriched uranium (“HEU”) from the weapons program of the former Soviet Union.

NIRS/PC Contentions at 41. NIRS/PC also proffered EC-8, which stated:

Petitioners contend that the operation of the proposed LES facility would pose an unnecessary and unwarranted challenge to national security and to global nuclear non-proliferation efforts.

*Id.* at 43. The Board rejected EC-7, Basis G along with other bases stating “they fail to establish with specificity any genuine material dispute and/or fall outside the scope of this proceeding in that the Applicant is under no obligation to present either a ‘business case’ or to demonstrate the profitability of the proposed facility.” *NEF, supra*, 60 NRC at 69. The Board rejected EC-8 on the grounds that the contention (1) failed to specify a genuine dispute by not showing any direct relationship between alleged character issues and the licensing action, (2) impermissibly challenged Commission regulations, (3) lacked materiality, (4) lacked adequate factual or expert opinion, and (5) failed to properly challenge the LES application.

*Id.* at 70.

NIRS/PC does not assert any specific error in the Board’s decision not to admit these contentions, but instead simply argues that “the effect of the NEF on these critical national interests should be examined under [the National Environmental Policy Act (“NEPA”)].” *Petition* at 16. Clearly, this bald assertion is not a sufficient basis to obtain Commission review. Moreover, NIRS/PC’s other arguments, when examined, do not raise any grounds for concluding that the Board’s decision warrants Commission review.

First, NIRS/PC observes that in what NIRS/PC considers a “similar case,” DOE examined the impact of its action on nonproliferation objectives. *Id.* at 16. Specifically, NIRS/PC points to DOE’s Record of Decision for the Disposition of Surplus Highly Enriched Uranium, stating that it analyzed the impact of its action on nonproliferation. *Id.* The explicit objective of the proposed program, however, was nonproliferation. *Id.* at 17, quoting Record of Decision for the Disposition of Surplus Highly Enriched Uranium (Aug. 5, 1996). Because DOE’s proposed program was designed for the purpose of addressing nonproliferation, the

scope of the NEPA review of that action would be entirely different than that required for the NEF, the purpose of which is to produce uranium for the fabrication of fuel for nuclear reactors. Thus, the mere fact that DOE addressed nonproliferation in that circumstance does not support a conclusion that nonproliferation was a proper subject for consideration in this proceeding. Thus, NIRS/PC has provided no reason to conclude that the Board improperly excluded the examination of nonproliferation objectives of the HEU agreement on the grounds that the contention failed to raise a genuine material dispute within the scope of the proceeding. *NEF, supra*, 60 NRC at 69.

The Board rejected the admission of EC-8 stating that it was “[i]nadmissible to the extent that this contention and its supporting bases fail to specify any genuine dispute, including failing to satisfy the criterion regarding the appropriate circumstances under which management character issues may be litigated by showing ‘some direct and obvious relationship between the character issues and the licensing action in dispute.’” *NEF, supra*, at 70, quoting *Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 and 2)*, CLI-99-4, 49 NRC 185, 189 (1999). NIRS/PC has failed to assert any specific Board error with this finding by merely reiterating its initial argument that “. . . Urenco’s management has a history of leaks of gas ultra-centrifuge technology,” Petition at 17, because allegations regarding Urenco’s management character and past security lapses are not directly relevant to the operation of the NEF. Accordingly, NIRS/PC has failed to raise any legitimate grounds warranting Commission review of the Board’s rejection of this contention.

#### IV. Analysis of Impacts of Deconversion

NIRS/PC argues that the Board erred by limiting the analysis of the environmental impacts of deconversion. The term “deconversion” refers to the process by which  $\text{DUF}_6$  produced by the enrichment process is converted to a more stable waste form for ultimate disposal. As contemplated by LES and considered in the Draft Environmental Impact

Statement (“DEIS”), the  $\text{DUF}_6$  will be converted to  $\text{U}_3\text{O}_8$  for disposal. DEIS at 2-27 to 2-31. Deconversion is not part of the enrichment process and will not be accomplished at the NEF, but instead will be performed at a separate facility. Thus, the impacts of deconversion are considered because they are the result of foreseeable actions related to the operation of the NEF.

Notwithstanding the fact that LES intends to convert the  $\text{DUF}_6$  produced at the NEF into  $\text{U}_3\text{O}_8$ , NIRS argues that the impacts of deconversion to  $\text{UO}_2$  should have been considered by the Board. NIRS/PC’s logic is that because  $\text{DUF}_6$  cannot be classified as low level waste, it will require disposal in a deep geological repository which in turn will require deconversion into  $\text{UO}_2$ . The Commission’s ruling that  $\text{DUF}_6$  is properly classified as low-level waste, however, disposed of this claim. Recognizing this, the Board declined to permit NIRS/PC to resurrect this issue by raising in the context of assessing the impacts of deconversion to  $\text{UO}_2$  in late-filed contentions<sup>8</sup> and in testimony.<sup>9</sup> NIRS/PC has presented no grounds for the assertion that the Board erred in those rulings. Instead, NIRS/PC claims that the Board’s actions were “unfortunate” because certain issues it would like to explore with regard to disposal were not considered at the hearing. Petition at 18. This is not an appropriate basis for requesting Commission review.

With regard to the environmental impacts of deconversion, the Board admitted NIRS/PC Contention EC-4, which states:

Petitioners contend that the Louisiana Energy Services, L.P. Environmental Report (ER) lacks adequate information to make an informed licensing judgement, contrary to the requirements of 10 C.F.R. Part 51. The ER fails to

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<sup>8</sup> See, Memorandum and Order (Ruling on Late Filed Contentions), November 22, 2004, at 15; Memorandum and Order (Ruling on NIRS/PC Late-Filed Contentions and Providing Administrative Directives) May 3, 2005 at 11.

<sup>9</sup> See, Memorandum and Order (Ruling on In Limine Motions and Providing Administrative Directives), January 21, 2005, at 7-8; Memorandum and Order (Ruling on In Limine Motions Regarding Prefiled Direct and Rebuttal Testimony and providing Administrative Directives), February 4, 2005, at 3-4.

discuss the environmental impacts of construction and lifetime operation of a conversion plant for the Depleted Uranium Hexafluoride ("UF<sub>6</sub>") waste that is required in conjunction with the proposed enrichment plant.

The DEIS fails to discuss the environmental impacts of the construction and operation of a conversion plant for the depleted uranium hexafluoride waste. The DEIS entirely relies upon final [Environmental Impact Statements] issued in connection with the construction of two conversion plants at Paducah, Kentucky, and Portsmouth, Ohio, that will convert the Department of Energy's inventory of depleted uranium (DEIS at 2-28, 2-30, 4-53, 4-54). Such reliance is erroneous, because the DOE plants are unlike the private conversion plant contemplated by LES.

Board Decision at 54. In its findings on the contention, the Board noted that deconversion is performed through a chemical process which produces aqueous hydrofluoric acid (HF). *Id.* Two different chemical conversion methods were considered - one neutralizes the HF to produce calcium fluoride while the other produces anhydrous HF ("AHF") through distillation. *Id.* After setting forth findings based on the testimony presented, the Board concluded "although LES has now firmly committed not to use the anhydrous process, the Board nonetheless has considered that option for the purpose of determining the adequacy of the NEPA analysis in connection with this contention," *id.* at 66, and that "based on the testimony of Dr. Palmrose [the Staff expert] as it supplemented the staff DEIS, the Board finds sufficient information exists to demonstrate there has been adequate consideration of the impacts of the management of anhydrous HF." *Id.* at 67-68. Thus, NIRS/PC's claim that "the deconversion process that would generate AHF should have been examined but was not," Petition at 18, is incorrect.

Further, NIRS/PC incorrectly implies that the DOE analysis of the deconversion process which produces AHF was not considered by the Staff or the Board. *Id.* To the contrary, the Board's decision was premised upon Staff testimony that (1) the Staff relied upon environmental evaluations performed by DOE, including a Programmatic Environmental Impact Statement (PEIS) for developing a strategy for managing DUF<sub>6</sub>, in assessing the impacts of

deconversion, (2) the PEIS presented a thorough evaluation of the impacts of a deconversion process in which distillation is used to produce AHF, and (3) a more specific analysis was not feasible given the fact that no current deconversion facility uses this technology and the process used to produce AHF through distillation has not been fully developed. Board Decision at 59, 63. Thus, with regard to deconversion, NIRS/PC has failed to allege any legal or factual error in the Board's decision or any other basis warranting Commission review.

V. Reliance on DOE's EISs to Satisfy NEPA

NIRS/PC claims that the Board erred in finding that the staff may tier or adopt DOE Environmental Impact Statements (EISs) to fulfill its NEPA obligation. Petition at 19-20. During the hearing on NIRS/PC's environmental contentions, the staff submitted testimony regarding the use of scientific values from DOE EISs in the analysis of the environmental impacts of proposed NEF in the DEIS. Tr. 1026-27, 1029-30, 1035, 1038, 1040-44, 1046, 1053, 1056. The Board, in its findings on those contentions, held that the NRC can "rely on an EIS, draft or otherwise, prepared by another federal agency if such reliance will aid in the presentation of issues, eliminates repetition, or reduce the length of an EIS." Board Decision at 20, *citing Philadelphia Electric Co.* (Limerick Generating Station, Units 1 & 2), LBP-82-43A, 15 NRC 1423, 1467-68 (1982). Specifically, the Board stated "[t]his 'tiering' or 'incorporation by reference' allows the staff to adopt underlying scientific data and inferences from the analysis conducted by the other agency without independent review, so long as it exercises independent judgment with respect to conclusions about environmental impacts relative to the current proposed agency action." *Id.* at 20-21.

NIRS/PC claims the Board erred because tiering is only available where a broad EIS on a program or policy is followed by action included within that program, and adoption of the DOE EIS by the Staff as its analysis of the environmental impacts of the NEF is not appropriate because of the activities subject to the reviews by DOE and the Staff are not substantially the

same. These arguments do not raise any potential error in the Board's decision for the simple reason that they mischaracterize the nature of Staff's reliance on the DOE documents. As the Staff testified, the term "tiering" is not entirely an appropriate description, as only certain analyses and results from those documents were incorporated into the DEIS where appropriate. Tr. 1048. Clearly, the staff did not wholly rely on or "adopt" the DOE EISs when it used values from those EISs in its analyses. As further documented in Staff testimony, while some of the underlying scientific data contained in DOE's FEISs for Paducah and Portsmouth were relied upon, the Staff reached independent conclusions regarding the expected impacts of the proposed NEF plant in Section 4.2.14.3 of the DEIS. Tr. 1026-27, 1029-30, 1035, 1038, 1040-44, 1046, 1053, 1056. Thus, it is clear from the record that the NRC conducted an independent analysis of the impacts of the NEF.

Furthermore, it is clear that the Board clearly understood the nature and extent of the Staff's reliance on the DOE EISs and, therefore, did not err as NIRS/PC argues by relying on *Philadelphia Electric Co.*, 15 NRC at 1467-68 (holding "the underlying scientific data and inferences drawn from [another cost/benefit analysis] through the exercise of expert scientific evaluation of the data may be adopted by the NRC staff without independent evaluation. However, the NRC must exercise independent judgment with respect to conclusions about the environmental impacts based on interpretations of such basic facts."). NIRS/PC's assertions, therefore, do not raise any issues warranting Commission review.

NIRS/PC also asserts that the Board erroneously relied on testimony regarding DOE's PEIS when the DEIS did not reference the PEIS. Petition at 20-21. First, NIRS/PC is not correct in claiming that the DIES does not reference this document. In fact, the DIES explicitly states that the PEIS was reviewed as part of the development of the DEIS. DEIS at 1-7, 2-58. Moreover, the Board's decision was appropriately based on the entire record, including Staff testimony, in finding that the staff's analysis "[met] the requirements of NEPA in that it

adequately discusses the environmental impacts of construction and lifetime operation of a deconversion plant for the DUF<sub>6</sub> waste that is required in conjunction with the proposed enrichment plant.” Board Decision at 68; *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Unit 2), ALAB-254, 8 AEC 1184 (1975). Therefore, NIRS/PC failed to present any legitimate grounds for seeking Commission review.

VI. Limiting the NEPA Need, Cost Benefit Analysis

In its petition to the Commission, NIRS/PC fails to cite to any specific Board error in the record to support its assertion that the Board improperly limited the NEPA analysis of need, cost, and benefits by failing to require an analysis of the NEF’s impact on the enrichment market and the proposed NEF’s financial viability, Petition at 21; therefore, NIRS/PC’s argument should be dismissed. *See Duke Power Co.* (William B. McGuire Nuclear Station, Units 1 & 2), ALAB-669, 15 NRC 453, 481 (1982) (holding claims of error without substance or inadequately briefed will not be considered on appeal). Based on NIRS/PC’s argument, the staff assumes in its response that NIRS/PC is challenging the Board’s decisions to reject contentions proffered in NIRS/PC’s intervention petition<sup>10</sup> and in its October 20, 2004 motion to amend and supplement contentions.<sup>11</sup>

NIRS/PC proffered the contention that “the Environmental Report (“ER) does not adequately describe or weigh the environmental, social, and economic impacts and costs of operating the National Enrichment Facility (“NEF”) (See ER 1.1.1 et seq.)” in its petition to intervene. NIRS/PC Contentions at 38. In support of this contention, NIRS/PC submitted Basis F, which states:

LES has referred to supply and demand in the uranium enrichment market

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<sup>10</sup> NIRS/PC Contentions at 41.

<sup>11</sup> “Motion on Behalf of Nuclear Information and Resource Services and Public Citizen to Amend and Supplement Contentions,” (NIRS Late-Filed Contentions) October 20, 2005.

(E.R. 1.1), but it has not provided a business plan that shows how LES would effectively enter this market in the face of existing and anticipated competitors and contribute some public benefit. LES has not provided the Commission with any information regarding the current costs of SWUs to present and expected market participants; the costs of the proposed NEF SWU production – including all costs related to construction, operation, decommissioning and UF<sub>6</sub> waste disposal – nor market projections; and thus has not demonstrated how construction of the proposed facility would satisfy any alleged need. In this connection, it is disingenuous for, on one hand, LES to tout its own centrifuge technology (throughout E.R. 1.1) and then to argue that United States Enrichment Corporation (“USEC”) has not successfully demonstrated its own centrifuge technology (based on DOE designs that actually predate Urenco designs) (E.R. 1.1.2.5.3) and so cannot be expected to contribute to supply. Either centrifuge technology works and is economically competitive with other sources of uranium enrichment services, or it does not work and is not economically competitive.

*Id.* at 41.

The Board held that the contention was “[a]dmitted, as supported by Bases . . . F that are sufficient to establish a genuine material dispute adequate to warrant further inquiry, except to the extent that Basis F suggests that the Applicant is under an obligation to present a ‘business plan.’” Board Decision at 69. The Board further explained that “[b]ecause this contention by its terms relates only to the LES ER, it is admitted only as an environmental contention.” *Id.*

NIRS/PC rephrased its basis in its October 20, 2004 motion, in which it requested that the Board admit the following basis for EC-7:

The DEIS likewise omits to discuss the impact of the proposed NEF, in particular upon the market for enrichment services, by failing to consider the effect of the addition of the NEF to the existing range of suppliers and other forthcoming suppliers, the nature of the competition that will occur, and the impacts upon market participants and consumers.

NIRS/PC Late-Filed Contentions at 38.

In its decision dated November 22, 2005,<sup>12</sup> the Board held:

The proposed addition to this contention merely reasserts a subject matter that the Board has previously declined to address in relation to this contention. In our original order regarding contentions, we admitted this contention as an

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<sup>12</sup> Memorandum and Order (Ruling on Late Filed Contentions), November 22, 2004, at 18.

environmental contention only, expressly declining to require LES to present a “business case” or provide detailed market analysis. Thus, this proposed basis is inadmissible to support this contention in that it falls outside the scope of this proceeding. Board Nov 22, 2005 decision at 18.

In its appeal, NIRS/PC relies on *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 90 (1998), to argue that “the ‘need’ for an enrichment facility requires analysis . . . of its impact on the enrichment market,” Petition at 21, emphasizing the Commission’s statement that the Board in the Claiborne case correctly examined the competitive price-effects of the proposed Claiborne enrichment facility. *Id.* at 21. NIRS/PC, however, omits the Commission’s finding in the decision, that states “[w]e frankly confess some puzzlement over the Board’s exclusive focus upon the [enrichment facility’s] potential price effects as a sole possible benefit of the project.” CLI-98-3, 47 NRC at 90. The decision further held:

[a]lthough we agree that the Board’s price-effects finding should be added to the environmental record of this case, we do not accept the Board’s view that . . . the Board’s price-effects finding[ ] is the benefit that must be weighed against the various costs of the project in the NEPA-mandated cost-benefit analysis. . . . [T]he Board’s price-driven approach entirely overlooks other benefits of the CEC discussed in the FEIS and elsewhere in the record.

*Id.* at 94-95.

More importantly, neither NEPA nor the Commission’s NEPA-implementing regulations require a license applicant to demonstrate “economic viability” of a proposed facility, including the impact on the relevant market. *See Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 48 (2001) (“[t]he NRC . . . is not in the business of regulating the market strategies of licensees.”) (“*HRI*”). NIRS/PC, thus, failed to provide legitimate grounds for Commission review.

#### VII. Analysis of Ground Water Impacts

In this portion of its Petition, NIRS/PC states its disagreement with factual findings reached by the Board, arguing that the Board erred because it disregarded certain facts in the

record. Fundamentally, this is no more than a restatement of arguments that NIRS/PC presented during the hearing but were not accepted by the Board and do not present any basis for Commission review. As the Commission has said, because the presiding officer has reviewed the extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed.” *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 3 (2000). Even though the Board here did not utilize a technical advisor, the Board members have substantial technical expertise. Further, they reviewed an extensive record and weighed expert testimony from each party. The Board’s judgement as to how weigh these highly fact-specific issues should be afforded deference and not be second-guessed absent a strong showing by NIRS/PC that the determinations are in error. *See, HRI, supra*, 53 NRC at 45-46.

When the testimony cited by NIRS/PC is examined, it is clear that NIRS/PC has not made the required showing to warrant Commission review of the Board’s factual findings. First, NIRS/PC takes issue with the Board’s findings relating to the leakage from water basins.

These relate to Basis (B) of NIRS/PC EC-1 which states:

The DEIS does not contain an estimate of the probability and frequency of leakage through the liners of the treated effluent basin or the stormwater detention basin. The basins are to be lined with geosynthetic material (DEIS at 4-11, 4-12), such liners are known to leak (EPA, Hydrologic Evaluation of Landfill Performance (HELP) Model, User’s Guide for Version 3, EPA/600/R-94/168a, Sept. 1994), and such information is necessary to demonstrate the impact of such leakage. The DEIS should contain an estimate of the leakage rate and should show the fate of water and contaminants that leak from the basins.

Board Decision at 22. The Board found that the failure of the Staff to perform the estimate sought by NIRS/PC did not represent a shortcoming in the DEIS, relying on testimony from the Staff expert (Mr. Toblin) that it was not possible to make a meaningful quantitative assessment

of the probability and frequency of liner leakage or the leakage rate because of the uncertainties inherent in making any such calculation. *Id.* at 33-34. With regard to this issue, Mr. Toblin testified that the designs for the basins had not been finalized and therefore the type of liner material was not known, there was no reliable way to estimate the number of tears that would occur over time, and he could not predict whether and for how long water would be present in the basins. *Id.*; Tr. 661. This was not contradicted, as alleged by NIRS/PC, by Mr. Toblin's later testimony in which he stated that he could estimate the *distribution of water as a function of time*, Tr. 717-18, in the basins - which refers to the ability to estimate the amount of water expected, on average, over a relatively long period of time rather than the ability to predict actual site conditions which would be necessary for calculating leakage from the liners.

Next, NIRS/PC takes issue with the Board's finding regarding the presence of precipitation recharge at the site of the proposed NEF. This relates to Basis (C) of NIRS/PC EC-1 which states:

According to the DEIS, ". . . no precipitation recharge (i.e., rainfall seeping deeply into the ground) occurs in thick, desert vadose zones with desert vegetation (Walvoord et al, 2002)" (DEIS at 3035). However, cuttings from one of the borings drilled in September 2003 were "slightly moist" (ER Rev. 2 at 3.4-2). In addition, the clay at the bottom of boring B-2 was "moist" (SAR at Fig. 3.2-11). The DEIS should explain the presence of this moisture, which conflicts with its statements about lack of recharge.

Board Decision at 22. The Board's findings on this issue are premised on testimony from experts from the Staff, LES and NIRS/PC. *Id.* at 34-36. As explained in the Board's findings, of the fourteen borings drilled at the site for the purpose of characterizing the hydrogeology, evidence of moisture of any kind was observed in only two. In one, a finding of "moist" was recorded at a depth of 35 to 41.4 feet while in the other a finding of "slightly moist" was recorded at a depth of 6 to 14 feet. *Id.* at 35. The experts disagreed as to the significance of the findings. The expert for NIRS/PC testified that the moisture was an indication of episodic recharge, while experts for LES and the Staff disputed that conclusion. *Id.* at 35-36. The

Board's conclusion was based on its analysis and weighing of this testimony.

NIRS/PC does not allege any error in the Board's decision but instead complains that the Board did not identify any specific source of the two findings of moisture. Petition at 22. This is simply because, as the Board pointed out, the moisture could be from a variety of sources but under the circumstances did not signify that precipitation recharge was occurring. Board Decision at 36. Moreover, the Board's findings are in no way contradicted by the testimony cited concerning the direction of movement of the moisture observed in the boreholes. While none of the experts could provide observations regarding the moisture found in the boreholes, not having observed the samples, they could nevertheless state that any moisture would be expected to be moving upward by virtue of evapotranspiration. Tr. 509, 723-25.

Lastly, NIRS/PC takes issue with Board's findings relating to the existence of fast flow paths in the area of the proposed NEF. These relate to Basis (D) which states:

The DEIS states: "Although the presence of fracture zones that can significantly increase vertical water transport through the Chinle Formation has not been precluded, the low measured permeabilities indicate the absence of such zones." (DEIS at 3-35). Two permeability measurements have been made on the Chinle Formation at or near the site: laboratory measurement of core samples (ER Rev. 2 Table 3.3-2) and a slug test performed in MW-2 (Cook-Joyce, Hydrogeologic Investigation, Sec. 32, T. 21 R. 38, Nov 19, 2003). Such extremely limited measurements, where faults are present, cannot describe the permeability of the entire site, and NRC should explain its reliance on such restricted data.

Board Decision at 22-23. Again, the Board's decision was premised on analysis of expert testimony from all parties. Based on a large amount of data characterizing the nature of the soil underlying the site of the proposed NEF, the Board concluded that while fractures are present they do not form a pathway that would permit a substantial flow of water between the alluvium and the sandstone aquifer. *Id.* at 37-40. Contrary to the allegations of NIRS/PC, the Board did not ignore the fact that fracture flow could exist, but instead found that any flow through existing

fractures would not be significant given the specific site conditions. *Id.* at 39. With regard to findings of mineralization noted by NIRS/PC, the Staff expert testified that mineralization was the result of moisture flow *sometime in the past*, and may well be the consequence of events that occurred 135 million years ago. Tr. 750-51. None of these references reflect any error in the Board's conclusions, much less one that warrants review by the Commission.

VIII. Impact on Ground Water Supplies

NIRS/PC also claims that the Board erred in deciding EC-2, which states:

Petitioners contend that the Environmental Report (ER) contained in the application 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.

To introduce a new industrial facility with significant water needs in an area with a projected water shortage runs counter to the federal responsibility to act "as a trustee of the environment for succeeding generations," according to the National Environmental Policy Act § 101(b)(1) and 55 U.S.C. § 4331(b)(1). To present a full statement of the costs and benefits of the proposed facility the ER should set forth the impacts of the National Enrichment Facility on groundwater supplies.

The DEIS does compare the water use of the proposed facility to the amount of water stored in the Ogallala Aquifer in the entire State of New Mexico (DEIS at 4-15). However, NRC has not shown in the DEIS how this pumpage would affect water levels and the long-term productivity of the Hobbs well field or the Lea County Underground Water Basin.

Board Decision at 44. With regard to this issue, the Board concluded that there was no credible qualitative or quantitative evidence to support NIRS/PC's contention, determining that (1) the ER contains an adequate assessment of the potential environmental impacts of the proposed project on water supplies and (2) the Staff adequately showed in the DEIS how pumpage would affect water levels and long-term productivity of the Hobbs well field or the Lea County Underground Water Basin. *Id.* at 53.

In reaching its determination, the Board relied on testimony of LES witnesses that a detailed analysis of the impact of NEF usage on water supply of Hobbs was not necessary

because of the extremely small portion of the Hobbs water rights and usage that would be consumed. Board Decision at 51; Tr. 1236. In particular, the Board cited testimony by the Director of Utilities for the City of Hobbs that the annual use of water in the city varies by hundreds of acre feet per year and that the small incremental use by the NEF (approximately 71.1 acre feet) is within the normal variation. Board Decision at 51; Tr. 1295. The Board also relied on the Staff's analysis of the impacts on water supplies in the DEIS as well as Staff testimony that NEF water usage would represent only 0.26 percent of the combined capacity of the Hobbs and Eunice municipal water systems and the total projected water use over the life of the facility would consume only 0.004 percent of the Ogallala Aquifer's reserves within the State of New Mexico. Board Decision at 53; Tr. 1315.

While the Staff presented testimony for the purpose of calculating the impact of water usage of the NEF on the Lea County Underground Water Basin, the Board declined to rely on those calculations. Board Decision at 52. NIRS/PC's claim of error in the Staff's calculation is therefore of no consequence because it was not part of the basis of the Board's conclusions. NIRS/PC's arguments relating to this contention therefore raise no issue warranting Commission review.

CONCLUSION

For the reasons discussed above, NIRS/PCs request for review of the Boards Partial Initial Decision on the environmental contentions should be denied.

Respectfully submitted,

***/RA by Kathleen A. Kannler/***

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Dated at Rockville, Maryland

this 5th day of July, 2005

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of	)	
	)	
LOUISIANA ENERGY SERVICES, L.P.	)	Docket No. 70-3103-ML
	)	
(National Enrichment Facility)	)	ASLBP No. 04-826-01-ML

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO PETITION ON BEHALF OF NUCLEAR INFORMATION AND RESOURCE SERVICE AND PUBLIC CITIZEN FOR REVIEW OF FIRST PARTIAL INITIAL DECISION ON ENVIRONMENTAL CONTENTIONS" in the above-captioned proceedings have been served on the following by deposit in the United States mail; through deposit in the Nuclear Regulatory Commission's internal system as indicated by an asterisk (\*), and by electronic mail as indicated by a double asterisk (\*\*) on this 5<sup>th</sup> day of July, 2005.

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