

January 4, 2006

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

January 5, 2006 (8:05am)

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

In the Matter of:

Louisiana Energy Services, L.P.

(National Enrichment Facility)

Docket No. 70-3103-ML

ASLBP No. 04-826-01-ML

**APPLICANT'S MOTION IN LIMINE TO EXCLUDE PORTIONS OF THE PREFILED
DIRECT TESTIMONY OF ARJUN MAKHIJANI CONCERNING COST OF CAPITAL
AND CYLINDER MANAGEMENT IN LES'S DECONVERSION COST ESTIMATE**

I. INTRODUCTION

In accordance with 10 C.F.R. §§ 2.323 and 2.337(a), and the Atomic Safety and Licensing Board's ("Board") Memorandum and Order of December 13, 2005,¹ Louisiana Energy Services, L.P. ("LES") hereby moves to exclude portions of the December 30, 2005 prefled direct testimony of Nuclear Information and Resource Service and Public Citizen ("NIRS/PC" or "Intervenors") witness Arjun Makhijani. LES respectfully requests that the NIRS/PC testimony identified below be stricken on the grounds that it is repetitious, is irrelevant, lacks a foundation, and/or raises issues that are outside the proper scope of the upcoming evidentiary hearing.

II. BACKGROUND

At the recent evidentiary hearings on Contentions NIRS/PC EC-3/TC-1, TC-5/TC-2, EC-6/TC-3, and EC-4 (as remanded by the Commission) held from October 24-27, 2005, the Board heard arguments concerning the plausibility of LES's strategy for the disposition of depleted uranium ("DU") byproduct and the adequacy of LES's DU dispositioning cost estimate. During the hearing, two issues arose that are now the subjects of the forthcoming

¹ See Memorandum and Order (Ruling on Motion to Supplement Record) (Dec. 13, 2005) (unpublished) ("December 13th Order")

additional evidentiary session. The first issue concerns the alleged need to account for the cost of cylinder management, *i.e.*, the cost of washing the empty depleted uranium hexafluoride ("DUF₆") cylinders and either recertifying the cylinders for reuse, or, alternatively, disposing of those cylinders. The second issue relates to the alleged need to account for the "cost of capital" associated with constructing a private deconversion facility. On November 29, 2005, LES filed a motion with the Board to supplement the record developed during the October evidentiary hearing relative to the issues of cylinder washing and cost of capital.² Specifically, LES proffered LES Exhibit 118, a November 23, 2005 letter that memorializes LES's commitment to an additional \$0.60 per kilogram uranium (kgU) for the cost of cylinder management, and explains why it is not necessary to include an explicit line item for the cost of capital.

While the NRC Staff did not object to LES's request for the admission of the new exhibit,³ NIRS/PC argued that LES's motion should not be granted because they have had no opportunity to contest the sufficiency or validity of the information LES seeks to admit.⁴ On December 13, 2005, the Board ruled that NIRS/PC should be given an opportunity to challenge the contents of LES's proffered exhibit, and established a schedule for an additional evidentiary session.⁵ Following the submittal of a December 16, 2005 joint report by the parties,⁶ and a December 21, 2005 conference call with the parties, the Board rescheduled the evidentiary hearing for February 13-14, 2006 in the Board's Rockville, Maryland hearing room.⁷ In

² See [LES's] Motion to Supplement the Record (Nov. 29, 2005).

³ See NRC Staff Motion for Extension of Time for Filing Proposed Findings of Fact and Conclusions of Law (Nov. 29, 2005) at 2 n.2.

⁴ See Response on Behalf of Intervenors [NIRS/PC] to Motion by [LES] to Supplement the Record (Dec. 6, 2005) at 1-2.

⁵ December 13th Order at 2-3.

⁶ See Joint Report Regarding January 2006 Evidentiary Hearing (Dec. 16, 2005).

⁷ See Memorandum and Order (Evidentiary Hearing Schedule and Prehearing Administrative Matters) (Dec. 27, 2005) (unpublished) ("December 27th Order")

accordance with the Board's schedule, LES,⁸ the NRC Staff,⁹ and NIRS/PC¹⁰ filed prefiled direct testimony and supporting evidentiary materials on December 30, 2005. Pursuant to the Board's schedule, LES hereby files this motion in limine.

III. ARGUMENT

A. Legal Standards Governing the Admissibility of Evidence in NRC Proceedings

NRC regulations provide that evidence is admissible if it is relevant, material, reliable and not repetitious. 10 C.F.R. § 2.337(a). Information is "relevant" when it has some "legal probative value," *i.e.*, it tends to prove or disprove a fact that is of consequence to the legal outcome of the case.¹¹ Accordingly, where a party presents testimony on issues that are outside the scope of those to be litigated, that testimony should be stricken. Thus, an opinion of an expert is admissible only if: (1) the opinion would *assist the trier of fact* in understanding the evidence or to *determine a fact in issue*; and (2) the opinion is based upon sufficient facts or data to be the product of reliable principles and methods that the witness applied to the facts of the case.¹² Finally, an expert's opinion must be based on the "methods and procedures of science" rather than on "subjective belief or unsupported speculation."¹³

⁸ See Supplemental Prefiled Direct Testimony of Rod Krich on Behalf of [LES] Regarding Cost of Cylinder Management and Cost of Capital Issues (Dec. 29, 2005).

⁹ See NRC Staff Prefiled Testimony Concerning Clarifying Information Relating to Cost Estimate of Deconversion (Dec. 29, 2005).

¹⁰ See Prefiled Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (Costs of Capital and Cylinder Management) (Dec. 30, 2005) ("NIRS/PC's testimony").

¹¹ See, *e.g.*, FED. R. OF EVID. 401; *United States v. Hall*, 653 F.2d 1002, 1005 (5th Cir. 1981).

¹² See *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), 61 N.R.C. 71, 80 (2005) (citing FED. R. OF EVID. 702); *Louisiana Power and Light Co.* (Waterford Steam Elec. Station, Unit 3), ALAB-732, 17 NRC 1076, 1091 (1983).

¹³ *Id.* (quoting *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589-90 (1993)).

B. Bases for Striking Certain Portions of Dr. Makhijani's Direct Testimony

As the Board noted during the December 21, 2005 conference call, and again in its December 27th Order, the parties are to present testimony and evidence related to "two discrete topics."¹⁴ Specifically, the issues to be discussed at the upcoming February evidentiary hearing, as described by the Board, concern "(1) the potential costs of washing and recertifying empty depleted uranium hexafluoride cylinders for reuse or, alternatively, disposing of those cylinders; and (2) the cost of capital associated with the construction of a private deconversion facility in the LES estimate for constructing such a facility."¹⁵ The Board expressly reminded the parties to confine their presentations to the issues identified by the Board in footnote 4 of its December 13th Order and during the December 21, 2005 telephone conference.¹⁶ Importantly, the Board also emphasized that to assist the Board, any testimony and evidence presented by NIRS/PC with respect to cylinder management costs must "challenge or contradict" the \$0.60 per kgU estimate derived from the Urenco business study and offered by LES.¹⁷

Thus, to the extent Dr. Makhijani's testimony raises issues that are unrelated to the two discrete topics at issue or fails to meet the Board's directions, that testimony should be excluded as irrelevant and/or beyond the scope of this proceeding. Moreover, insofar as Dr. Makhijani merely repackages or restates the same testimony he presented during the October 2005 hearing, his testimony should be stricken as cumulative. Finally, where Dr. Makhijani's testimony lacks a proper foundation and/or fails to assist the Board in resolving the discrete issues set for hearing, it should be similarly excluded.

¹⁴ See December 27th Order at 1 n.1.

¹⁵ *Id.*

¹⁶ *See id.*

¹⁷ December 13th Order at 3 n.4.

1. *Cost of Capital*

In numerous instances, Dr. Makhijani's testimony improperly exceeds the scope of the two narrow issues upon which the Board intends to receive additional testimony and evidence in February. Specifically, several portions of Dr. Makhijani's testimony concern aspects of LES's deconversion cost estimate (e.g., HF neutralization costs) that bear no relation to the specific "cost of capital" question identified by the Board. The time to raise such issues (i.e., during the October 2005 evidentiary hearings) is long past. Accordingly, the following portions of Dr. Makhijani's testimony should be stricken.

In Answer 2 on page 3, Dr. Makhijani testifies about labor market uncertainties, health care costs, and pension coverage. None of these issues has any bearing on the cost of capital. Indeed, they relate to other aspects of LES's "base" cost estimate for building a deconversion facility. Moreover, these issues were discussed at length during the October evidentiary hearing. See e.g., Tr. at 2360-2363. Thus, the Board should strike the testimony on page 3, last paragraph beginning with "It does not stand scrutiny ..." through the end of the paragraph. Furthermore, since that inadmissible discussion is the only portion of Dr. Makhijani's testimony which cites NIRS/PC Exh. 279, that exhibit likewise should be excluded from the record.

In Answer 2 on page 5, Dr. Makhijani raises concerns about the health effects of uranium and postulated regulatory delays that the Board has previously determined to be inadmissible.¹⁸ Also, given its speculative nature, this testimony is entirely unreliable. For these reasons, the Board should strike the portion of Dr. Makhijani's testimony on page 5 beginning with "Indeed, it would be reasonable ..." through "... demand a higher rate of return."

¹⁸ See Memorandum and Order (Ruling on In Limine Motions and Motion to Dismiss) at 7 (Oct. 4, 2005) (unpublished).

In Answer 2 on page 6, Dr. Makhijani challenges the validity of the LES cost estimate in its entirety, making *ad hominem* remarks regarding LES's "financial guarantees," and ignoring the Board's admonition to focus on the discrete issue of cost of capital. As the February hearing is intended to be "highly focused" and not a generalized inquiry into the adequacy of LES's deconversion cost estimate, the Board should strike that portion of Dr. Makhijani's testimony on page 6 beginning with "It has been astonishing ..." through the end of the paragraph.

In Answer 4 on page 10, Dr. Makhijani again interjects inadmissible testimony on issues unrelated to the cost of capital. Specifically, Dr. Makhijani asserts that LES should increase its overall deconversion cost estimate by the equivalent of 0.25 euro per kg DU, to account for HF neutralization costs, and further increase that estimate to reflect the cost of disposing of CaF_2 as low-level radioactive waste. As this testimony rehashes prior NIRS/PC arguments that are unrelated to the cost of capital, the Board should strike the portion of Dr. Makhijani's testimony on page 10, in the first paragraph, last sentence beginning with "... and a 0.25 euro per kg DU charge ..." through the end of that paragraph, as well as the portion of the last paragraph on page 10, three lines from the bottom of the page, beginning with "This estimate of shortfall ..." through the end of the paragraph.

In Answer 5 on page 11, Dr. Makhijani argues that LES should increase its estimated capital cost for constructing a deconversion facility by 30 percent in view of the "confidence factor" cited in the Urenco business study. Again, this testimony lacks any relevance to the discrete "cost of capital" issue that is to be the subject of additional evidentiary presentations. Any challenges to LES's estimated cost for building a deconversion facility should have been heard during the October 2005 evidentiary hearings and are outside the scope of the February 2006 session. Thus, the Board should strike Question/Answer 5 in its entirety.

In Answer 6 on page 12, Dr. Makhijani disputes the adequacy of the Staff's review of the underlying LES deconversion cost estimate, in further defiance of the Board's mandate that the parties focus on the cost of capital issue. In addition, as discussed above, concerns about labor costs and health care costs are challenges that bear no relation to LES's alleged omission of the cost of capital. Thus, the Board should strike the portion of Dr. Makhijani's testimony on page 12, first paragraph beginning with "Staff made no investigation of comparable wage rates ..." through the end of Answer 6.

In Answer 7 on page 13, Dr. Makhijani reiterates the argument that LES must account for the cost of disposing of CaF_2 as low-level waste. As this issue is unrelated to the cost of capital, the Board should strike the sentence in Answer 7 beginning with "If one incorporates costs of CaF_2 disposal as low-level waste" through the end of the sentence.

Lastly, Dr. Makhijani fails to provide *any* testimony that might controvert the argument, as set forth by LES in its Exhibit 118, that it is unnecessary to account for the cost of capital because sufficient funds will be available from LES's financial assurance instrument at the end of operating life to pay for the construction of a deconversion facility (*i.e.*, there will be no need to borrow funds to finance construction of the facility). Indeed, the NRC Staff has also indicated that "if it is assumed that the flow of funds is designed to result in the collection of a sum of money at the end of the lifetime of the NEF that is sufficient to finance \$88 million in construction, licensing, and engineering costs to build a plant to carry out tails deconversion, then we believe that there would be no need to include the \$0.40 figure at all." See NRC Staff Prefiled Testimony Concerning Clarifying Information Related to Cost Estimate of Deconversion at A.15 (Dec. 29, 2005). Consequently, it is not necessary to account for the cost of capital given LES's incremental financial assurance mechanism. If the Board agrees, as a legal matter, that LES does not have to account for the cost of capital in its decommissioning funding plan cost estimate, then the entirety of Intervenors' testimony concerning the cost of

capital issue (Questions and Answers 2 through 7) is irrelevant on this ground alone. Specifically, the testimony does not serve to prove or disprove a fact that is material to the findings that the NRC must make to issue LES's license.

2. *Cylinder Management*

As noted above, the Board is interested solely in testimony from NIRS/PC that might challenge or contradict the Urenco business study's cost estimate of approximately \$0.59 per kgU for cylinder management, and, therefore, LES's \$0.60 per kgU cost estimate for cylinder management.¹⁹ According to the Board, if NIRS/PC do not provide such evidence in their prefiled testimony and supporting evidentiary materials, then the Board may find further evidentiary presentations as to cost estimates for cylinder management unnecessary.²⁰ It is clear from their testimony that NIRS/PC have not only failed to provide the evidence requested by the Board, they have failed to provide *any* new information on the cost of cylinder management.

Indeed, as illustrated in Attachment A to this motion, almost the entirety of Dr. Makhijani's testimony on cylinder management costs is verbatim repetition of testimony and arguments previously proffered by NIRS/PC.²¹ In short, NIRS/PC principally repeat prior discussion relating to information in the DOE PEIS and the Urenco business study, as well as certain statements made by LES and Staff witnesses. None of this provides new information challenging the estimate of approximately \$0.59 per kgU.

Only two portions of Dr. Makhijani's prefiled direct testimony even *ostensibly* present "new" arguments or information. First, on page 16, Dr. Makhijani claims that, based on information in the Urenco business study, the cost of refurbishing empty DUF₆ cylinders is

¹⁹ See December 13th Order at 3 n. 4.

²⁰ See *id.*

²¹ See Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenors [NIRS/PC] Based Upon evidence Taken on October 24-27, 2005 (Nov. 30, 2005) ("NIRS/PC Proposed Finding"); Reply Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenors [NIRS/PC] Based Upon evidence Taken on October 24-27, 2005 (Dec. 22, 2005) ("NIRS/PC Reply Finding").

between \$0.61 to \$0.68 per kgU. This cost range differs from the figure of \$0.59 per kgU (which NIRS/PC acknowledge was based upon the Urenco business study) presented by Dr. Makhijani in his October 2005 testimony,²² and by NIRS/PC in their proposed findings (*see* NIRS/PC Proposed Finding ¶ 61).²³ The "new" cost figures, however, lack probative value. Dr. Makhijani provides no explanation for the minor discrepancy. Where an expert witness' conclusion rests upon an analysis, that witness must make available sufficient information pertaining to the details of the analysis to permit the correctness of the conclusion to be evaluated.²⁴ Notwithstanding, insofar as Dr. Makhijani's revised cost estimate is purportedly derived from the Urenco business study, NIRS/PC have failed to introduce any "new" testimony or evidence that materially "challenges or contradicts" the \$0.60 per kgU to which LES has committed.²⁵ Dr. Makhijani raises a distinction without a difference.

Second, on page 17 of his testimony, Dr. Makhijani claims that the Urenco numbers address a washing process that is designed to meet European, not U.S., standards. Dr. Makhijani, however, makes no attempt to explain how this alleged deficiency would affect, if at all, LES's cost estimate. Moreover, this conclusory allegation is based entirely on evidence, namely the Urenco business study, already in the record. Therefore, this claim likewise fails to provide the Board with any new information that might help it to evaluate the reasonableness of the \$0.60 cost figure to which LES has committed.

²² See Revised Rebuttal testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (Oct. 21 2005) at A.11.

²³ Notably, in NIRS/PC Reply Finding ¶ 22, Intervenor, in contrast to their initial findings, cite without adequate explanation the \$0.61 to \$0.68 per kgU cost range cited by Dr. Makhijani in his December 30, 2005 prefiled direct testimony.

²⁴ See *Gen. Pub. Utils. Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 2), LBP-89-7, 29 NRC 138, 171-72 (1989), *stay denied on other grounds*, ALAB-914, 29 NRC 357 (1989), *affirmed on other grounds*, ALAB-926, 31 NRC 1 (1990).

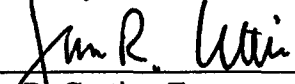
²⁵ Indeed, holding additional hearings on whether LES should increase its current commitment of \$0.60 per kgU by \$0.01 to \$0.08 per kgU hardly constitutes a judicious use of Board and party resources.

In sum, NIRS/PC's arguments on cylinder washing are repetitive and lacking in substance and foundation. Because NIRS/PC fail to "challenge or contradict" LES's cost estimate in the manner directed by the Board, NIRS/PC have not met their burden.²⁶ Thus, the Board should exclude the entirety of Dr. Makhijani's testimony on cylinder management costs as inadmissible, and resolve the issue in LES's favor without resort to further hearings.

IV. CONCLUSION

For the foregoing reasons, LES requests that the Board strike those portions of the prefiled direct testimony of cost of capital as specified above. LES also requests that the Board resolve the issue of cylinder management costs based on the record already before it.

Respectfully submitted,



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this 4th day of January 2006

²⁶ See also *Waterford*, ALAB-732, 17 NRC at 1093 (stating that although the ultimate burden of proof as to license issuance rests with the applicant, where another party contends that, for a specific reason the license should be denied, that party has the burden of presenting evidence to buttress its contention).

ATTACHMENT A
Comparison of NIRS/PC Prefiled Testimony on Cylinder Washing
to Previous Testimony in Proceeding

Issue Raised by NIRS/PC in Prefiled Direct	Previous Testimony
Q/A 8	
<p>Briefly, the testimony of LES and Commission Staff witnesses does not address the cost associated with the management of the emptied DUF₆ cylinders. The need to consider the management of the emptied DUF₆ cylinders was noted explicitly by the DOE in its Programmatic Environmental Impact Statement:</p> <p>All of the conversion options would require the removal of depleted UF₆ from the storage cylinders, resulting in a large number of empty cylinders. These empty UF₆ cylinders from the conversion facility would be decontaminated at the cylinder treatment facility and then prepared for disposal as scrap metal. The DOE PEIS went on to state that:</p> <p>It was assumed that the treated cylinders with a very low residual radiation level would become part of the DOE scrap metal inventory. If a disposal were made, the treated cylinders would be disposed of as LLW, representing a 3% addition to the projected DOE complexwide LLW disposal volume.</p> <p>In the deposition of Paul Harding of Urenco the need to consider the management of the DUF₆ cylinders after deconversion was also made quite clear:</p> <p>Mr. Lovejoy: Do your discussions with Cogema involve construction of the cylinder washing facility? Witness Harding: No.</p>	<p>Cylinder Management: DOE PEIS</p> <ul style="list-style-type: none"> • Revised Rebuttal testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (Oct. 21 2005) at A.11 • NIRS/PC Proposed Finding ¶ 55 • Tr. at 1983-88

Issue Raised by NIRS/PC in Prefiled Direct	Previous Testimony
<p>Mr. Lovejoy: You're not planning to build that?</p> <p>Witness Harding: We're looking at options. There are other plants available.</p> <p>Mr. Lovejoy: You're looking at other ways to supply that requirement?</p> <p>Witness Harding: Yes.</p> <p>Mr. Lovejoy: I see. Do you plan to construct a cylinder washing facility of some sort?</p> <p>Witness Harding: That's one option that we're evaluating, but it isn't the only option.</p> <p>Mr. Lovejoy: What are the others?</p> <p>Witness Harding: To place a commercial contract with another service provider.</p> <p>Mr. Lovejoy: To provide what service?</p> <p>Witness Harding: Washing cylinders where that's needed.</p> <p>In fact, the Urenco business study relied upon by LES for its cost estimate includes an entire section on "Cylinder Washing and Liquid Residue Recovery Facilities" (LES Ex. 91 at 11/15). (NIRS/PC testimony, page 13-14)</p>	<p>(see previous page)</p>
	<p>Cylinder Management: Certification and Decommissioning</p>
<p>At the hearing LES acknowledged that during operations DUF₆ cylinders would need to be cleaned to be recertified every five years. (Krich, Tr. 1966). Further, it is recognized that, if the NEF were shut down and a third party took over decommissioning, the third party would have responsibility for management of the cylinders containing DUF₆. (Tr. 1972-73). (NIRS/PC testimony, page 14)</p>	<ul style="list-style-type: none"> • NIRS/PC Proposed Finding ¶ 56 • Tr. at 1966, 1970-73, 2264-65
	<p>Cylinder Washing: Staff</p>
<p>Staff testified that LES should fund washing of those cylinders that will not be recycled to the NEF. (Mayer, Tr. 2140-41, 2141, 2144). Mr. Johnson concurred that Staff would need to look again at the cylinder washing costs. (Tr. 2154). Staff have not determined what further work is to be done on the question of cylinder washing, but they take the position that cylinder washing is</p>	<ul style="list-style-type: none"> • NIRS/PC Proposed Finding ¶ 57 • Tr. at 2140-41, 2154, 2222,

Issue Raised by NIRS/PC in Prefiled Direct	Previous Testimony
a legitimate cost to add to decommissioning funding. (Johnson, Tr. 2222). (NIRS/PC testimony, page 15)	
Staff have determined that standard cylinder washing techniques do not always attain free release contamination levels. (Tr. 2234, 2246-48). Staff agreed that, if it were necessary to dispose of cylinders, that cost would need to be added to decommissioning costs. (Johnson, Tr. 2224-25). Cylinders with heels would not be acceptable for disposal and would need to be cleaned first. (Johnson, Tr. 2225). (NIRS/PC testimony, page 15)	Cylinder Disposal: Staff <ul style="list-style-type: none"> • NIRS/PC Proposed Finding ¶ 58 • Tr. at 2225, 2233-34, 2246-2249
Q/A 9	
At this stage there is, to begin with, the question of washing the cylinders. Washing is discussed somewhat in the Urenco business study. (LES Ex. 91 at 11). The Urenco study provides an estimated cost for the "refurbishment" of cylinders is about € [redacted] per cylinder. Changing that to dollars and expressing it per kgU, the cost is \$0.61 to \$0.68 per kgU. For the washing component these may be the best numbers we have at present. (NIRS/PC testimony, page 16)	Cylinder Washing: Cost <ul style="list-style-type: none"> • NIRS/PC Reply Finding ¶ 22 • NIRS/PC Proposed Finding at ¶ 61 • Revised Rebuttal testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (Oct. 21 2005) at A.11 • LES Ex. 91, Urenco Business Study
	Cost Estimate
First, these numbers address a washing process that is designed to meet European, not U.S. standards. LES should start with the Urenco cost and estimate a U.S. specific cost. (NIRS/PC testimony, page 17)	<ul style="list-style-type: none"> • LES Ex. 91, Urenco Business Study

Issue Raised by NIRS/PC in Prefiled Direct	Previous Testimony
<p>Second, these numbers address a washing process that is part of the recycling of cylinders in the ongoing enrichment process; they do not involve the problem of cleaning cylinders to meet free release standards. (NIRS/PC testimony, page 17)</p>	<p>Cost Estimate: Free Release</p> <ul style="list-style-type: none"> • NIRS/PC Reply Finding ¶ 22 • Tr. at 2233-34, 2246-2249, 2308-2310
<p>It should be noted that in planning for the DOE inventory of depleted uranium, DOE has assumed that the DUF₆ cylinders would be disposed of. (See DOE, Final Plan for the Conversion of Depleted Uranium Hexafluoride, July 1999, at 2) (NIRS/PC Ex. 283). Recent plans include their use as DU₃O₈ disposal containers (LES Ex. 17 at 2-14), but separate disposal as low level waste has also been analyzed. If a market can be shown for re-use, this demonstration must be explicit and supported with adequate documentation. LES has not made this demonstration or taken into account the costs for cleaning and marketing and delivering the cleaned cylinders for reuse. In the absence of such a demonstration LES should be required to make an appropriate provision for the disposal of empty cylinders as low level waste. (NIRS/PC testimony, page 17)</p>	<p>Cylinder Market and Disposal as Low Level Waste</p> <ul style="list-style-type: none"> • NIRS/PC Proposed Finding ¶ 63 (as explained by LES Reply Finding at ¶ 3.34) • NIRS/PC Reply Finding ¶ 22 • Tr. at 1965-77, 1991-92, 2027-2033, 2223, 2250-51, 2261-63

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

Louisiana Energy Services, L.P.

(National Enrichment Facility)

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Docket No. 70-3103-ML

ASLBP No. 04-826-01-ML

CERTIFICATE OF SERVICE

I hereby certify that copies of the "APPLICANT'S MOTION IN LIMINE TO EXCLUDE PORTIONS OF THE PREFILED DIRECT TESTIMONY OF ARJUN MAKHIJANI CONCERNING COST OF CAPITAL AND CYLINDER MANAGEMENT IN LES'S DECONVERSION COST ESTIMATE" in the above-captioned proceeding has been served on the following by e-mail service, designated by **, on January 4, 2006 as shown below. Additional service has been made by deposit in the United States mail, first class, this 4th day of January 2006.

Chairman Nils J. Diaz
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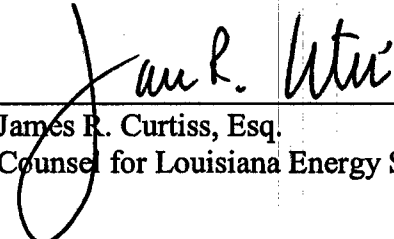
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