

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

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|-----------------------------------|---|
| Licensee | |
| 1. Louisiana Energy Services, LLC | 3. License Number: SNM-2010, Amendment 55 |
| 2. 275 Highway 176 | 4. Expiration Date: See Condition 13 |
| P.O. Box 1789 | 5. Docket No. 70-3103 |
| Eunice, New Mexico 88231 | |

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| <p>6. Source and/or Special Nuclear Material and/or Byproduct Material</p> <p>A. Uranium (natural and depleted) and daughter products</p> <p>B. Uranium enriched in isotope U-235 up to 5 percent by weight and uranium daughters</p> <p>C. Tc-99, transuranic isotopes and other contamination</p> <p>D. Deleted</p> <p>E. Deleted</p> <p>F. Deleted</p> <p>G. Co-60</p> <p>H. Deleted</p> | <p>7. Chemical and/or Physical Form</p> <p>A.1 Physical: Solid, Liquid, and Gas</p> <p>A.2 Chemical: UF₆, UF₄, UO₂F₂, oxides and other compounds</p> <p>B.1 Physical: Solid, Liquid, and Gas</p> <p>B.2 Chemical: UF₆, UF₄, UO₂F₂, oxides, metal and other compounds</p> <p>C. Any</p> <p>D. Deleted</p> <p>E. Deleted</p> <p>F. Deleted</p> <p>G. Sealed per §30.32(g)(1)</p> <p>H. Deleted</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 136,120,000 kg</p> <p>B. 545,000 kg</p> <p>C. Amount that exists as contamination as a consequence of the historical feed of recycled Uranium at other facilities</p> <p>D. Deleted</p> <p>E. Deleted</p> <p>F. Deleted</p> <p>G. 1.00E+1 uCi</p> <p>H. Delete</p> |
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| I. Deleted | I. Deleted | I. Deleted |
| J. Deleted | J. Deleted | J. Deleted |
| K. Sr-90 | K. Sealed per §30.32(g)(1) | K. 5.00E+0 μ Ci |
| L. Deleted | L. Deleted | L. Deleted |
| M. Deleted | M. Deleted | M. Deleted |
| N. Deleted | N. Deleted | N. Deleted |
| O. Deleted | O. Deleted | O. Deleted |
| P. Deleted | P. Deleted | P. Deleted |
| Q. Cs-137 | Q. Sealed per §30.32(g)(1) | Q. 5.00E+4 μ Ci |
| R. Deleted | R. Deleted | R. Deleted |
| S. Po-210 | S. Sealed per §30.32(g)(1) | S. 1.00E+1 μ Ci |
| T. Th-230 | T. Sealed per §30.32(g)(1) | T. 1.00E+1 μ Ci |
| U. U-232 | U. Sealed per §30.32(g)(1) | U. 1.00E+1 μ Ci |
| V. U-233 | V. Sealed per §30.32(g)(1) | V. 1.00E+1 μ Ci |
| W. U-234 | W. Sealed per §30.32(g)(1) | W. 1.00E+1 μ Ci |
| X. U-235 | X. Sealed per §30.32(g)(1) | X. 1.00E+1 μ Ci |
| Y. U-236 | Y. Sealed per §30.32(g)(1) | Y. 1.00E+1 μ Ci |
| Z. U-238 | Z. Sealed per §30.32(g)(1) | Z. 1.00E+1 μ Ci |
| AA. Am-241 | AA. Sealed per §30.32(g)(1) | AA. 5.00E+4 μ Ci |
| BB. Cf-252 | BB. Sealed per §30.32(g)(1) | BB. 5.00E+2 μ Ci |
| CC. Ce-139 | CC. Sealed per §30.32(g)(1) | CC. 1.00E+1 μ Ci |
| DD. Co-60 | DD. Unsealed per §30.32(i)(1)(ii) | DD. 5.00E+0 μ Ci |
| EE. Sr-90 | EE. Unsealed per §30.32(i)(1)(ii) | EE. 5.00E+0 μ Ci |
| FF. Cs-137 | FF. Unsealed per §30.32(i)(1)(ii) | FF. 1.00E+1 μ Ci |
| GG. Po-210 | GG. Unsealed per §30.32(i)(1)(ii) | GG. 1.00E+1 μ Ci |

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| HH. Th-230 | HH. Unsealed per §30.32(i)(1)(ii) | HH. 1.00E+1 μ Ci |
| II. U-232 | II. Unsealed per §30.32(i)(1)(ii) | II. 1.00E+1 μ Ci |
| JJ. U-233 | JJ. Unsealed per §30.32(i)(1)(ii) | JJ. 1.00E+1 μ Ci |
| KK. U-234 | KK. Unsealed per §30.32(i)(1)(ii) | KK. 1.00E+1 μ Ci |
| LL. U-235 | LL. Unsealed per §30.32(i)(1)(ii) | LL. 1.00E+1 μ Ci |
| MM. U-236 | MM. Unsealed per §30.32(i)(1)(ii) | MM. 1.00E+1 μ Ci |
| NN. U-238 | NN. Unsealed per §30.32(i)(1)(ii) | NN. 1.00E+1 μ Ci |
| OO. Am-241 | OO. Unsealed per §30.32(i)(1)(ii) | OO. 5.00E+0 μ Ci |
| PP. Ce-139 | PP. Unsealed per §30.32(i)(1)(ii) | PP. 1.00E+1 μ Ci |
| QQ. Eu-152 | QQ. Sealed per §30.32(g)(1) | QQ. 2.50E+4 μ Ci |

9. Authorized place of use: National Enrichment Facility (NEF), located 5 miles east of Eunice, New Mexico on Highway 176 in Lea County, New Mexico.
10. The licensee shall conduct authorized activities at the NEF in accordance with the statements, representations, and conditions, or as revised in accordance with Section 19 of the Quality Assurance Program Description (QADP), 10 CFR 40.35(f), 10 CFR 51.22, 10 CFR 70.32, 10 CFR 70.72, or 10 CFR 95.19 in:
- Application for Material License, U.S. Nuclear Regulatory Commission (NRC) Form 313 dated December 12, 2003.
 - Safety Analysis Report dated December 12, 2003, as revised by letters dated February 27, 2004; July 30, 2004; September 30, 2004; April 22, 2005; April 29, 2005; May 25, 2005; June 10, 2005; February 16, 2006; February 28, 2006; March 16, 2006; March 24, 2006; January 29, 2007; April 10, 2007; July 30, 2007; October 12, 2007; October 19, 2007; November 2, 2007; November 12, 2007; November 30, 2007; February 28, 2008; November 19, 2008; January 23, 2009; March 5, 2009; September 24, 2009; November 25, 2009; January 29, 2010; March 31, 2010; May 2, 2010; May 16, 2010; May 23, 2010; May 25, 2010; May 26, 2010; June 2, 2010; June 3, 2010; June 23, 2010; July 16, 2010; March 22, 2011; March 29, 2011; April 11, 2011; and September 19, 2011.
 - Environmental Report dated December 12, 2003, as revised by letters dated February 27, 2004; July 30, 2004; September 30, 2004; April 22, 2005; June 10, 2005; March 16, 2006; March 24, 2006; January 29, 2007; April 10, 2007; July 30, 2007; October 19, 2007; November 2, 2007; November 30, 2007; October 30, 2008; January 23, 2009; March 5, 2009; September 24, 2009; November 25, 2009; January 29, 2010; March 25, 2010; and January 6, 2011; and September 19, 2011.
 - Physical Security Plan dated December 12, 2003, as revised by letters dated May 12, 2004; July 30, 2004; December 10, 2004; January 12, 2005; February 12, 2008; August 11, 2008; May 1, 2009; July 16, 2009 and February 5, 2010, and September 20, 2010.
 - Fundamental Nuclear Material Control Plan dated December 12, 2003, as revised by letters dated February 27, 2004; July 30, 2004; October 7, 2004; December 7, 2004; April 22, 2005; October 23, 2006; October 19, 2007; November 30, 2007; September 4, 2009; and September 24, 2009; January 13, 2010; January 14, 2010; June 30, 2010; November 12, 2010; April 7, 2011; May 3, 2011; June 1, 2011; and June 28, 2011.

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- f. QADP dated April 9, 2004, as revised by letter dated April 22, 2005; October 23, 2006; November 12, 2007; July 30, 2007, October 12, 2007, October 19, 2007; November 12, 2007; July 31, 2008; January 21, 2009; March 2, 2009; March 5, 2009; September 24, 2009; November 25, 2009; January 29, 2010; March 31, 2010; and June 23, 2010; July 16, 2010; October 1, 2010; December 10, 2010; December 16, 2010; June 21, 2011; August 17, 2011; and September 19, 2011.
Exception to license condition 10.f is granted for the Cylinder Receipt and Dispatch Building superstructure/footers, as amended by correspondence dated October 14, 2011.
- g. Emergency Plan dated December 12, 2003, as revised by letters dated July 30, 2004; September 30, 2004; April 22, 2005; October 23, 2006; July 30, 2007; October 19, 2007; November 2, 2007; March 10, 2008; September 4, 2008; September 30, 2008, February 19, 2009, March 5, 2009; April 16, 2009; September 24, 2009; November 25, 2009; January 29, 2010; March 31, 2010; June 21, 2011; August 17, 2011 and September 19, 2011.
- h. Standard Practice Procedure Plan (SPPP) for the Protection of Classified Matter dated December 12, 2003, as revised by correspondence dated July 30, 2004; March 16, 2006; November 21, 2006; November 22, 2006; March 20, 2007; April 27, 2007; July 19, 2007; October 12, 2007; November 30, 2007; February 4, 2008; May 1, 2008; May 7, 2008; June 26, 2008; July 7, 2008; August 4, 2008; September 4, 2008; September 5, 2008; October 6, 2008; October 16, 2008; November 20, 2008; November 25, 2008; February 12, 2009; March 2, 2009; December 29, 2009; May 25, 2010; July 15, 2010; October 22, 2010; February 11, 2011; and March 8, 2011; April 19, 2011; May 20, 2011; May 25, 2011; June 29, 2011; July 18, 2011; and December 21, 2011.
- i. SPPP for the Protection of Classified Matter at the Enrichment Technologies-United States. Location of the National Enrichment Facility dated October 11, 2007, as revised by letters dated December 3, 2007; April 21, 2008; July 2, 2008; October 8, 2008; October 29, 2008; November 26, 2008; March 26, 2009; August 30, 2009; December 11, 2009; December 29, 2009; January 15, 2010; May 11, 2010; August 5, 2010; September 13, 2010; October 27, 2010; November 22, 2010; February 11, 2011; April 29, 2011; May 31, 2011; December 21, 2011; and April 4, 2012.
- j. Information System Security Plan (SSP) for Plant Control Training System dated October 18, 2007, as revised by letters dated January 29, 2008 and April 2, 2008.
- k. Movement Plan for Transportation of Classified Centrifuge Components/Materials between Tripartite Countries and the US dated February 26, 2008, as revised by letter dated August 27, 2008.
- l. Information SSP for the Hot Acceptance Test Computer System dated October 24, 2008, as revised by correspondence dated December 12, 2008; March 9, 2009; and March 13, 2009.
- m. Deleted.
- n. Information SSP for the Centrifuge Assembly building Classified Network dated October 24, 2008, as revised by correspondence dated December 12, 2008; December 22, 2008; March 9, 2009; and March 13, 2009.
- o. Information SSP for the Plant Control and Core Systems, Plant Control System, Local Control Centers dated February 3, 2009; as revised by correspondence dated April 24, 2009; and November 18, 2009.
- p. Information SSP for the Classified Plant Management Network dated April 30, 2009; as revised by correspondence dated November 25, 2009.
- q. Notwithstanding the commitments in Sections 2.0 and 3.0 of the Fundamental Nuclear Material Control Plan identified in Condition 10 to use certified reference standards, the licensee shall have until August 1, 2010, to fulfill the above-stated commitments relative to the use of well characterized materials for its instrument calibration identified in the February 1, 2010, request letter.
- r. Information SSP for the High Assurance Guard, LES ISSP 3.0, dated February 1, 2010, as revised by correspondence dated March 19, 2010.
- s. Information Security Program Guidelines for the Protection of Classified Matter, Revision 0, dated February 26, 2010, as revised by correspondence dated April 15, 2010.
- t. Information SSP for the Plant Control and Core Systems, Plant Control System, Clients dated February 3, 2009; as revised by correspondence dated April 24, 2009; February 24, 2010; March 12, 2010; and April 13, 2010.

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- u. Information SSP for the Plant Control and Core Systems, Drive and Centrifuge Monitoring System dated February 18, 2009; as revised by correspondence dated April 24, 2009; October 20, 2009; and April 13, 2010.
 - v. Information SSP for the Plant Control and Core Systems, Plant Control System, Mobile Rigs dated March 2, 2009; as revised by correspondence dated April 24, 2009; March 12, 2010; and April 13, 2010.
 - w. Information SSP for the LES-ISSP 1.3, Point to Point Information SSP date October 15, 2009; as revised by correspondence date December 21, 2009.
 - x. Notwithstanding the requirements of 10 CFR 74.33(c)(4)(i) and Section 5.3.1 of the Fundamental Nuclear Material Control Plan identified in Condition 10.e. to perform bimonthly dynamic physical inventories for the Centrifuge Test Facility (CTF), the licensee shall have until the completion of the CTF conversion to resume its inventory program for the CTF area as identified in the August 4, 2010, request letter. This exemption will expire when the CTF conversion is complete.
 - y. The licensee is granted a waiver to the U.S. Department of Energy (DOE) National Security System Manual, paragraph EN-10 of DOE M 205.1-4, for external labeling of junction boxes for LES ISSP 1.0.
11. Introduction of UF₆ into any module of the NEF shall not occur until the Commission completes an operational readiness and management measures verification review to verify that management measures that ensure compliance with the performance requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 70.61 have been implemented and confirms that the facility has been constructed and will be operated safely and in accordance with the requirements of the license. The licensee shall provide the Commission with 120 days advance notice of its plan to introduce UF₆ in any module of the NEF.
12. The licensee is hereby granted the special authorizations and exemptions identified in Section 1.2.3.6 of the National Enrichment Facility Safety Evaluation Report, dated June 2005.
13. This license was originally issued for a period of 30 years from the date of license issuance. Based on an amendment request dated May 6, 2011, the license expiration date has been extended to June 9, 2040.
14. For the disposition of depleted UF₆ (DUF₆) the licensee shall not use a DUF₆ deconversion facility that employs a process that results in the production of anhydrous hydrofluoric acid.
15. a. The licensee shall provide proof of \$5 million liability insurance, as required under 10 CFR 140.13b, at least 30 days prior to the planned date for obtaining possession of test material (less than or equal to 50 kg) of depleted or natural UF₆.
- b. The licensee shall provide proof of full liability insurance, as required under 10 CFR 140.13b, at least 30 days prior to the planned date for obtaining feed material (greater than 50 kg UF₆). If the licensee is proposing to provide less than \$300 million of liability insurance coverage, the licensee shall provide, to the NRC for review and approval, an evaluation supporting liability insurance coverage in amounts less than \$300 million, at least 120 days prior to the planned date for obtaining feed material.
16. a. The licensee shall provide an updated Decommissioning Funding Plan cost estimate update and final copies of the proposed financial assurance instruments to NRC for review at least six months prior to the planned date for obtaining test material (less than or equal to 50 kilograms of UF₆), and provide to NRC final executed copies of the reviewed financial assurance instruments at least 21 days prior to the receipt of test material. In this Decommissioning Funding Plan update, the licensee shall provide full funding for decontamination and decommissioning of the CTF, the Post Mortem Facility, the Cylinder Receipt and Dispatch Building, and all other plant areas where licensed material is used. The amount of the financial assurance instrument shall be updated to current year dollars and include any applicable changes to the decommissioning cost estimate.

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- b. The licensee shall provide an updated Decommissioning Funding Plan cost estimate update and final copies of the proposed financial assurance instruments to NRC for review at least six months prior to the planned date for obtaining feed material (greater than 50 kilograms of UF₆) for initial production in Separations Building Module (SBM) 1001, and provide to NRC final executed copies of the reviewed financial assurance instruments at least 21 days prior to the receipt of feed material. In this Decommissioning Funding Plan update, the licensee shall provide full funding for decontamination and decommissioning of SBM 1001 and all other plant areas where licensed material is used.

In addition, the licensee shall provide funding for the disposition of depleted uranium tails in an amount needed to disposition the first three years of depleted uranium tails generation. The decommissioning cost estimate shall include an update to the DOE depleted uranium disposition cost estimate. The total amount funded for depleted uranium disposition shall be no less than the updated DOE cost estimate. The amount of the financial assurance instrument shall be updated to current year dollars and include any applicable changes to the decommissioning cost estimate.

- c. The licensee shall provide an updated Decommissioning Funding Plan cost estimate update and final copies of the proposed financial assurance instruments to NRC for review at least six months prior to introducing feed material in SBM 1003, and provide to NRC final executed copies of the reviewed financial assurance instruments at least 21 days prior to introducing feed material into SBM 1003. In this Decommissioning Funding Plan update, the licensee shall provide full funding for decontamination and decommissioning of SBM 1003 and all other plant areas where licensed material is used. The amount of the financial assurance instrument shall be updated to current year dollars and include any applicable changes to the decommissioning cost estimate.

- d. After the first three years of initial plant production, subsequent updated decommissioning cost estimates and revised funding instruments for depleted uranium disposition shall be provided annually on a forward-looking basis to reflect projections of depleted uranium byproduct generation. The depleted uranium disposition cost estimate shall include an update to the DOE depleted uranium disposition cost estimate. The total amount funded for depleted uranium disposition shall be no less than the updated DOE cost estimate.

17. Deleted

18. Deleted

19. To define the boundaries of each item relied on for safety (IROFS), the licensee shall utilize its procedure, "IROFS Boundary Definitions." Completed IROFS boundaries for all IROFS shall be available for inspection at the time of the operational readiness review.

20. Currently, there are no IROFS that have been specified as using software, firmware, microcode, programmable logic controllers, and/or any digital device, including hardware devices which implement data communication protocols (such as fieldbus devices and Local Area Network controllers), etc. Should the design of any IROFS be changed to include any of the preceding features, the licensee shall obtain Commission approval prior to implementing the change(s). The licensee's design change(s) shall adhere to accepted best practices in software and hardware engineering, including software quality assurance controls as discussed in the Quality Assurance Program Description throughout the development process and the applicable guidance of the following industry standards and regulatory guides as specified in Safety Analysis Report Chapter 3:

- a. American Society of Mechanical Engineers (ASME) NQA-1-1994, Part II, subpart Part 2.7, "Quality Assurance Requirements of Computer Software for Nuclear Facility Applications," as revised by NQA-1a-

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1995 Addenda of NQA-1-1994 and ASME NQA-1-1994, Part 1, Supplement 11S-2, "Supplementary Requirements for Computer Program Testing." (Refer to SAR Chapter 11, Appendix A, Section 3.)

- b. Electric Power Research Institute (EPRI) NP-5652, "Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Grade Applications," June 1988.
- c. EPRI Topical Report (TR) -102323, "Guidelines for Electromagnetic Interference Testing in Power Plants," Revision 1, December 1996.
- d. EPRI TR-106439, "Guideline on Evaluation and Acceptance of Commercial Grade Digital Equipment for Nuclear Safety Applications," October 1996.
- e. Regulatory Guide 1.152, "Criteria for Digital Computers in Safety Systems in Nuclear Power Plants," Revision 1, January 1996.
- f. Regulatory Guide 1.168, "Verification, Validation, Reviews, and Audits for Digital Software Used in Safety Systems of Nuclear Power Plants," Revision 1, February 2004.
- g. Regulatory Guide 1.169, "Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
- h. Regulatory Guide 1.170, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
- i. Regulatory Guide 1.172, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
- j. Regulatory Guide 1.173, "Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.

If any above changes result in IROFS requiring operator actions, a human factors engineering review of the human-system interfaces shall be conducted using the applicable guidance in NUREG-0700, "Human-System Interface Design Review Guidelines," Revision 2, dated May 2002 (NRC, 2002d), and NUREG-0711, "Human Factors Engineering Program Review Model," Revision 2, dated February 2004.

Exception to License Condition 20 is granted for IROFS38 and IROFSC22, as amended by correspondence dated May 23, 2010. Exception to License Condition 20 is granted for IROFS 42, as amended by correspondence dated July 26, 2010.

- 21. Onsite storage of DUF₆ generated at the NEF shall be limited to a maximum of 15,727 48Y cylinders (or the equivalent amount of uranium stored in other NRC accepted and Department of Transportation ["DOT"] certified cylinder types) of DUF₆. The generation of any additional DUF₆ to be stored onsite by the licensee beyond this limit shall constitute noncompliance with the license. The licensee shall suspend production of any additional DUF₆ for onsite storage until this noncompliance is remedied. In no event shall the licensee store DUF₆ generated at the NEF in New Mexico other than at the NEF.
- 22. Onsite storage of any one cylinder of DUF₆ generated at the NEF shall be limited to a maximum of 25 years, beginning from the date that each cylinder is filled in accordance with the licensee's standard procedures. The storage of any one DUF₆ cylinder beyond this limit by the licensee shall constitute noncompliance with the license. The licensee shall suspend production of any additional DUF₆ for onsite storage until this noncompliance is remedied. In no event shall the licensee store DUF₆ generated at the NEF in New Mexico other than at the NEF.

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23. The licensee shall provide financial assurance for the offsite disposal of DUF₆ from the NEF using a minimum contingency factor of twenty-five percent (25%).

Upon reaching 15,727 cylinders of DUF₆ in 48Y cylinders (or the equivalent amount of uranium stored in other NRC accepted and DOT certified cylinder types) in onsite storage, the licensee shall immediately increase the financial assurance to provide a fifty percent (50%) contingency factor for disposition of DUF₆ stored at the NEF unless: (a) an application to construct and operate a deconversion facility outside of New Mexico that is specifically designated to deconvert the DUF₆ stored onsite at the NEF has been docketed by the agency responsible for reviewing the application; (b) an application for such a facility has been approved by the agency responsible for reviewing the application; or (c) the licensee is using another alternate method for removing the DUF₆ stored onsite.

In addition, upon reaching the limit of 15,727 cylinders of DUF₆ in 48Y cylinders (or the equivalent amount of uranium stored in other NRC accepted and DOT certified cylinder types) in onsite storage, the licensee shall immediately increase the financial assurance to provide fifty percent (50%) contingency factor for disposition of DUF₆ stored at the NEF if the contingency factor has not already been increased to fifty percent (50%). The contingency factor shall remain at fifty percent (50%) until the number of cylinders stored onsite is reduced to ninety-eight percent (98%) of the 15,727 limit and either: (a) an application to construct and operate a deconversion facility outside of New Mexico that is specifically designated to deconvert the DUF₆ stored onsite at the NEF has been docketed by the agency responsible for reviewing the application; (b) an application for such a facility has been approved by the agency responsible for reviewing the application; or (c) the licensee is using another alternate method for removing the DUF₆ from New Mexico.

Nothing herein shall release the licensee from other financial assurance obligations set forth in applicable laws and regulations.

24. The licensee shall maintain and follow the Fundamental Nuclear Material Control Program for control and accounting and measurement control of uranium source material and special nuclear material at the NEF pursuant to 10 CFR 74.33(b). The licensee shall make no change to material control procedures essential for the safeguarding of uranium source material or special nuclear material that would decrease the effectiveness of the material control and accounting program implemented pursuant to 10 CFR 74.33(b) without prior approval of the Commission. If the licensee desires to make changes that would decrease the effectiveness of its material control and accounting program or its measurement control program, the licensee shall submit an application for amendment to its license pursuant to 10 CFR 70.34.

The licensee shall maintain records of changes to the material control and accounting program made without prior Commission approval a period of five years from the date of the change. The licensee shall furnish to the Director, Division of Nuclear Security, Office Nuclear Security and Incident Response, using an appropriate method listed in 10 CFR 70.5(a), a report containing a description of each change within six months of the change if it pertains to uranium enriched less than 20 percent in the uranium-235 isotope.

25. If there are any revisions to the nuclear criticality safety validation report, then the licensee shall provide a letter to NRC describing the changes and shall provide the revised validation report upon request. The licensee may not implement the changes in the revised validation report until NRC approves the changes.
26. The licensee shall not use, process, store, reproduce, transmit, handle, or allow access to classified matter except provided by applicable personnel and facility clearances as required under 10 CFR Part 95.
27. The licensee shall be limited to possession of no greater than 50 kg of UF₆ in the Centrifuge Assembly Building.

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28. The Licensee is exempted from the definitions of a commercial grade item, "basic component," "critical characteristics," "dedicating entity," and "dedication" in 10 CFR 21.3, as replaced by the following:

Commercial grade item: A commercial grade item means a structure, system, or component, or part thereof that affects its IROFS function that was not designed and manufactured as a basic component. Commercial grade items do not include items where the design and manufacturing process require in-process inspections and verifications to ensure that defects or failures to comply are identified and corrected (i.e., one or more critical characteristics of the item cannot be verified).

Basic component: A basic component means a structure, system, or component, or part thereof that affects their IROFS function, that is directly procured by the licensee or activity subject to the regulations in part 70 and in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission would create a substantial safety hazard (i.e., exceed performance requirements of 10 CFR 70.61). In all cases, basic components include IROFS-related design, analysis, inspection, testing, fabrication, replacement parts, or consulting services that are associated with the component hardware whether these services are performed by the component supplier or others.

When applied to fire protection systems procured for facilities and other activities licensed under 10 CFR Part 70 of the chapter, basic component means a structure, system, or component, or part thereof, that affects their safety function, in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission could create a substantial safety hazard. For fire protection systems designated as items relied on for safety, a basic component may be directly procured from a commercial entity by a Part 70 licensee if: (1) the system, structure or component is manufactured to an established, acceptable national code or standard that includes some independent product endorsements based on qualification testing or periodic testing of selected characteristics of the component; and (2) the acceptability of the item's manufacture, testing, and/or certification has been reviewed and verified by the licensee prior to use as a basic component. Once the acceptability of the item has been verified by LES and the item has been designated for use as a basic component, the licensee accepts responsibility for Part 21 reporting.

Critical characteristics: Critical characteristics are those important design, material, and performance characteristics of a commercial grade item that, once verified, will provide reasonable assurance that the item will perform its intended IROFS function.

Dedication: Dedication is an acceptance process undertaken to provide reasonable assurance that a commercial grade item to be used as a basic component will perform its intended IROFS function and, in this respect, is deemed equivalent to an item designed and manufactured under a 10 CFR 50, Appendix B, Quality Assurance Program. This assurance is achieved by identifying the critical characteristics of the item and verifying their acceptability by inspections, tests, or analyses performed by the purchaser or third-party dedicating entity after delivery, supplemented as necessary by one or more of the following: commercial grade surveys, product inspections or witness at holdpoints at the manufacturer's facility, and analysis of historical records for acceptable performance. In all cases, the dedication process must be conducted in accordance with the applicable provisions of 10 CFR Part 50, Appendix B. The process is considered complete when the item is designated for use as a basic component.

Dedicating entity: Dedicating entity means the organization that performs the dedication process. Dedication may be performed by the manufacturer of the item, a third-party dedicating entity, or the licensee itself. The dedicating entity, pursuant to Section 21.21(c) of this part, is responsible for identifying and evaluating deviations, reporting defects and failure to comply for the dedicated item, and maintaining auditable records of the dedication process. In cases where the licensee applies the commercial grade item procurement strategy and performs the dedication process, the licensee would assume full responsibility as the dedicating entity.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
SNM-2010

Docket or Reference Number
70-3103

Amendment 55

Prior to implementing the above commercial grade procurement strategy and dedication process, the licensee shall submit a license amendment request to the NRC for approval amending its Quality Assurance Program Description to include its commitments described in its exemption request submittals dated November 21, 2008, and November 24, 2008.

29. Deleted.
30. No changes shall be made, without prior NRC approval, to specific sections of the safety analysis report (SAR) Chapters 3 and 5 that would result in modifying the current values for criticality-based analysis in a less conservative direction. Specific Chapter 3 sections include 3.2.5.2 related to Safe-By Design and Table 3.1-9, "Failure Frequency Index Numbers." Specific Chapter 5 sections include 5.0, 5.1.1 through 5.1.5, 5.2.1.2 through 5.2.1.7, and Tables 5.1.1 and 5.1-2. The above sections contain data and discussions related to safe-by-design, nuclear criticality safety analysis, nuclear criticality safety parameters, commitments, and the margin of safety for subcriticality. Any additional analysis that credits the use of absorbers in structural material without strictly adhering to ANSI/ANS-8.21 will require an amendment to the SAR and prior review and approval by the NRC.
31. Prior to designating areas where the dissemination of classified information will routinely occur, NRC will be notified to determine if additional security measures are required. If NRC does determine the need for additional security measures, an amendment request must be submitted, and approved, prior to establishment and use of the area(s).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: May 25, 2012

By: /RA/

Brian W. Smith, Chief
Uranium Enrichment Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

UNITED STATES

COMMISSION

