



Nuclear Regulatory Commission  
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NRC000119

**Table 2: Comparison of AES and LES License Conditions**

	<b>AES License Condition</b>	<b>LES License Condition<sup>1</sup></b>
Financial Qualifications	<p>Construction of each incremental phase of the EREF shall not commence before funding for that increment is available or committed. Of this funding, AES must have in place before constructing such increments, commitments for one or more of the following: equity contributions from AES or its parents, a commitment from the parent company to provide the necessary funds for the project, and lending and/or lease arrangements that solely or cumulatively are sufficient to ensure funding for the particular increment's construction costs. AES shall make available for NRC inspection, documentation of both the budgeted costs for each incremental phase and the source of funds available or committed to pay those costs.</p> <p>(SER, Section 1.2.3.3.1, Page 1-9)</p>	None.
Liability Insurance	<p>The licensee shall provide proof of full liability insurance of \$300 million, as required under 10 CFR 140.13(b), at least 30 days prior to the planned date for obtaining licensed material.</p> <p>(SER, Section 1.2.3.4, Page 1-10)</p>	<p>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. 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.</p> <p>(LC# 15)</p>
Information Security	<p>The licensee shall not use, process, store, reproduce, transmit, handle, or allow access to classified matter except as provided by applicable personnel and facility clearances required under 10 CFR Part 95.</p> <p>(SER, Section 1.2.4.3.4, Page 1-17)</p>	<p>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.</p> <p>(LC# 26)</p>

<sup>1</sup> License Number SNM-2010, dated 6/23/2006 (ML061780384)

Information Security	<p>Prior to designating areas where the use and handling 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).</p> <p>(SER, Section 1.2.4.3.4, Page 1-17)</p>	<p>None at time of initial licensing. (LC# 31 was added later)</p>
Decommissioning Activities	<p>Prior to the commencement of construction, AES shall collect additional surface soil samples and analyze them for radiological constituents. The site property will be divided into four survey units, and 15 surface soil samples shall be taken per survey unit (i.e., 60 additional soil samples). The sample collections shall be taken from areas that include (1) the detention and retention basins, (2) Full Tails, Full Feed, and Empty Cylinder Storage Pads north of the main facilities, (3) the Technical Services Building, Blending, Sampling and Preparation Building, SBMs, UF6 Handling Areas, and Full Product Cylinder Storage Pad, and (4) areas on-site, but outside those that are scheduled to be disturbed during plant construction.</p> <p>(SER, Section 10.3.2, Page 10-3 to 10-4)</p>	<p>None.</p>
Financial Assurance	<p>The licensee shall provide financial assurance (FA) on the following schedule:</p> <p>a. The licensee shall provide an updated DFP, updated facility decommissioning cost estimate, and final copies of proposed financial assurance instruments to the NRC for review at least six months prior to the following dates:</p> <ul style="list-style-type: none"> <li>(1) planned date for obtaining test material (<math>\leq 20</math> kg U) for the CAB</li> <li>(2) planned date for obtaining feed material (<math>&gt; 50</math> kgU) for initial production in the first SBM</li> <li>(3) planned date for obtaining feed material (<math>&gt; 50</math> kgU) for initial production in the second SBM</li> <li>(4) planned date for obtaining feed material (<math>&gt; 50</math> kgU) for initial production in the third SBM</li> <li>(5) planned date for obtaining feed material (<math>&gt; 50</math> kgU) for initial production in the fourth SBM</li> </ul> <p>The updates shall be forward-looking through the 12-month period</p>	<p>The licensee shall provide final copies of the proposed financial assurance instruments to NRC for review at least six months prior to the planned date for obtaining licensed material, and provide to NRC final executed copies of the reviewed financial assurance instruments prior to the receipt of licensed material. The amount of the financial assurance instrument shall be updated to current year dollars and include any applicable changes to the decommissioning cost estimate. The decommissioning cost estimate shall include an update to the U.S. Department of Energy (DOE) depleted uranium disposition cost estimate. The total amount funded for depleted uranium disposition shall be no less than the updated DOE cost estimate.</p> <p><i>(LC# 16 - This license condition was significantly expanded after original issue of the license)</i></p> <p>The Decommissioning Funding Plan cost estimate shall be</p>

	<p>beginning on the applicable date listed above. For each update, the licensee shall provide final executed copies of the NRC-reviewed financial assurance instruments to NRC at least 21 days prior to receipt of test material or receipt of feed material for initial production in an SBM.</p> <p>b. After the first SBM begins operations, and until the plant reaches full capacity, the licensee shall, on an annual basis, provide an updated DFP, an updated facility decommissioning cost estimate, and final copies of proposed financial assurance instruments to NRC for review. These annual updates shall be provided six months prior to the anniversary date of obtaining feed material for initial production in the first SBM, and shall be forward-looking through the 12-month period beginning on the anniversary date. For each annual update, the licensee shall provide final executed copies of the NRC-reviewed financial assurance instruments to NRC at least 21 days prior to the anniversary date.</p> <p>If the licensee provides an annual update at least six months prior to the planned date for obtaining feed material for initial production in the second, third, or fourth SBM, that annual update may also serve as the update required in paragraph (a) for that date.</p> <p>c. The updated DFPs, updated cost estimates, and financial assurance instruments described in paragraphs (a) and (b) shall include full funding for decontamination and decommissioning of: (1) any part of the facility currently in operation; (2) any part of the facility that has been in operation, or any other part of the site or facility reasonably believed to be contaminated, that has not been fully decontaminated and decommissioned as approved by NRC (including the CAB); (3) all plant areas where licensed material is stored or used; and (4) any part of the facility (including SBMs) expected to be in operation by the end of the applicable forward-looking 12-month period in paragraph (a) or (b).</p> <p>d. The licensee shall provide an initial depleted uranium (DU) disposition cost estimate and final copies of proposed financial assurance instruments for DU disposition in conjunction with the updated DFP, updated facility decommissioning cost estimate, and financial assurance instruments that will be submitted at least six months prior to obtaining feed material for initial production in the first SBM. The DU disposition cost estimate and proposed financial assurance instruments shall include full funding to cover disposition of the first three years of DU tails generation. The DU</p>	<p>updated as follows:</p> <p>a. In the first executed financial assurance instrument submitted prior to receipt of licensed material, the licensee shall provide full funding for decontamination and decommissioning of the full-size facility.</p> <p>b. In the first executed financial assurance instrument submitted prior to receipt of licensed material, 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.</p> <p>c. Subsequent updated decommissioning funding estimates and revised funding instruments for facility decommissioning shall be provided, at a minimum, every three years. Any proposed reduction based on changes to module phase-in shall be submitted six months prior to the scheduled operation of the facility module.</p> <p>d. 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.</p> <p><i>(LC# 17 – This license condition was later deleted)</i></p> <p>The Decommissioning Funding Plan cost estimates shall be provided to NRC for review, and subsequently, after resolution of any NRC comments, final executed copies of the financial assurance instruments shall be provided to NRC.</p> <p><i>(LC# 18 – This license condition was later deleted)</i></p> <p>The licensee shall provide financial assurance for the offsite disposal of DUF<sub>6</sub> from the NEF using a minimum contingency factor of twenty-five percent (25%).</p> <p>Upon reaching 4,000 cylinders of DUF<sub>6</sub> in 48Y cylinders (or the equivalent amount of uranium stored in other NRC accepted</p>
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	<p>disposition cost estimate shall include an update to the U.S. Department of Energy (DOE) DU disposition cost estimate. The total amount funded for DU disposition shall not be less than the updated DOE cost estimate.</p> <p>For the initial DU disposition cost estimate, the licensee shall provide final executed copies of the NRC-reviewed financial assurance instruments for DU disposition to NRC at least 21 days prior to the receipt of feed material for the first SBM.</p> <p>e. The licensee shall provide updates to the DU disposition cost estimate and financial assurance instruments for DU disposition as described below:</p> <p>(1) During the first two years of operation, the licensee shall provide updated DU disposition cost estimates and final copies of proposed financial assurance instruments for DU disposition in conjunction with the updates required in paragraphs (a) and (b). The updated cost estimates shall provide full funding to cover disposition of the first three years of DU tails generation. (2) After the first two years of operation and until the facility reaches full capacity, the licensee shall provide updated DU disposition cost estimates and final copies of proposed financial assurance instruments for DU disposition in conjunction with the updates required in paragraphs (a) and (b). The updated DU disposition cost estimates shall provide full funding to cover disposition of all DU stored onsite and all DU expected to be generated by the end of the applicable forward-looking 12-month period in paragraph (a) or (b).</p> <p>(3) After the plant reaches full capacity, the licensee shall continue to provide annual updates to the DU disposition cost estimate, along with revised financial assurance instruments. These annual updates shall include full funding to cover disposition of all DU stored onsite and all DU expected to be generated by the end of the 12-month period beginning on the anniversary date of obtaining feed material for initial production in the first SBM. The annual updates to the DU disposition cost estimate and final copies of proposed financial assurance instruments shall be provided to NRC for review six months prior to the anniversary date.</p> <p>The licensee may exclude from the updated DU disposition cost estimates any DU that the DOE has taken title to and possession of pursuant to Section 3113 of the USEC Privatization Act. All updates to the DU disposition cost estimates shall include an</p>	<p>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 DUF<sub>6</sub> 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 DUF<sub>6</sub> 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 DUF<sub>6</sub> stored onsite.</p> <p>In addition, upon reaching the limit of 5,016 cylinders of DUF<sub>6</sub> 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 DUF<sub>6</sub> stored at 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 5,016 limit and either: (a) an application to construct and operate a deconversion facility outside of New Mexico that is specifically designated to deconvert the DUF<sub>6</sub> 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 DUF<sub>6</sub> from New Mexico.</p> <p>Nothing herein shall release the licensee from other financial assurance obligations set forth in applicable laws and regulations.</p> <p><i>(LC #23 – This license condition was later modified)</i></p>
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	<p>update to the DOE cost estimate for DU disposition. The total amount funded for DU disposition shall not be less than the updated DOE cost estimate.</p> <p>For DU disposition cost estimate updates, the licensee shall provide final executed copies of the NRC-reviewed financial assurance instruments for DU disposition to NRC at least 21 days prior to the receipt of feed material for an SBM, or the anniversary date of obtaining feed material for initial production in the first SBM, as applicable.</p> <p>f. If the construction and/or operation of any SBM is delayed or cancelled, the licensee is not relieved of its commitment to provide updated DFP, facility decommissioning cost estimates, DU disposition cost estimates, and final copies of proposed financial assurance instruments to NRC as described in paragraphs (a)-(e).</p> <p>g. When an update to the DFP, cost estimates for facility decommissioning and DU disposition, and financial assurance instruments encompasses the first delivery of natural uranium hexafluoride (&gt; 50 kgU) as feed material to an SBM not previously in operation, the licensee shall not receive such initial feed material until the NRC reviews the updated DFP and cost estimates and confirms the executed financial assurance instrument(s).</p> <p>h. All updates to the DFP, cost estimates for facility decommissioning and DU disposition, and financial assurance instruments, shall be updated to current year United States dollars and shall encompass all current cost data, taking into account changes in inflation, foreign currency exchange rates, possession limits, licensed material, labor rates, disposal and shipping rates, and site and facility factors. All costs shall be based on the costs of a third party contractor and shall not take credit for any salvage value that might be realized from the sale of potential assets during or after decommissioning. All costs (including those for DU disposition) shall include a contingency factor of at least 25 percent.</p> <p>(SER, Section 10.3.3.1.1, Pages 10-7 to 10-12)</p>	
Items Relied on For Safety (IROFS)	To define the boundaries of each IROFS, the licensee shall comply with Appendix B to Chapter 3 of NUREG 1520, Revision 1 (NRC, 2010) "Qualitative Criteria for Evaluation of Likelihood" and utilize the licensee's guideline "Guidelines for Development of Boundary Definitions for IROFS [items relied on for safety]."	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.

	<p>Appendix A of the ISA Summary, Revision 2, dated April 30, 2010. Completed IROFS boundaries for all IROFS shall be available for inspection prior to the operational readiness review.</p> <p>(SER, Appendix A, Page A-22)</p>	(LC #19)
IROFS	<p>For those 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; NUREG-0711, "Human Factors Engineering Program Review Model," Revision 2, dated February 2004; and as described in Section 3.3.8 of the Safety Analysis Report, "Human System Interface Design."</p> <p>(SER, Appendix D, Page D-2)</p>	<p>Similar language is found in license condition #20.</p> <p>(See LC #20, listed below)</p>
IROFS	<p>Currently, the design information concerning any IROFS that may use software, firmware, microcode, programmable logic controllers, and/or any digital device, including hardware devices which implement data communication protocols (for example, Fieldbus devices and Local Area Network controllers) is preliminary and not complete. Should the completed design of any IROFS (including every component within an IROFS boundary) include any of the preceding features, the licensee shall obtain Commission approval prior to implementing the IROFS."</p> <p>(SER, Appendix E, Page E-20)</p>	<p>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:</p> <p>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-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.)</p> <p>b. Electric Power Research Institute (EPRI) NP-5652, "Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Grade Applications," June 1988.</p>

		<p>c. EPRI Topical Report (TR) -102323, "Guidelines for Electromagnetic Interference Testing in Power Plants," Revision 1, December 1996.</p> <p>d. EPRI TR-106439, "Guideline on Evaluation and Acceptance of Commercial Grade Digital Equipment for Nuclear Safety Applications," October 1996.</p> <p>e. Regulatory Guide 1.152, "Criteria for Digital Computers in Safety Systems in Nuclear Power Plants," Revision 1, January 1996.</p> <p>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.</p> <p>g. Regulatory Guide 1.169, "Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.</p> <p>h. Regulatory Guide 1.170, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.</p> <p>i. Regulatory Guide 1.172, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.</p> <p>j. Regulatory Guide 1.173, "Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.</p> <p>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.</p>
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		(LC # 20 – <i>This license condition was later modified</i> )
Material Control and Accounting	<p>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 facility pursuant to 10 CFR 74.33. 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 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.</p> <p>The licensee shall maintain records of changes to the material control and accounting program made without prior Commission approval a period of 5 years from the date of the change. The licensee shall furnish to the Director, Division of Nuclear Material Safety and Security, using an appropriate method listed in 10 CFR 70.5(a), a report containing a description of each change within 6 months of the change if it pertains to uranium enriched less than 20 percent in the uranium-235 isotope.</p> <p>(Non Public SER, Appendix H, Pages H-7 to H-8)</p>	<p>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.</p> <p>The licensee shall maintain records of changes to the material control and accounting program made without prior Commission approval a period of 5 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.</p> <p>(LC #24)</p>

	<b>AES Proposed License Condition</b>	<b>LES License Condition</b>
Tie-Down Condition	<p>The licensee shall conduct authorized activities at the EREF in accordance with the statements, representations, and conditions, or as revised in accordance with Section 19 of the Quality Assurance Program Description, 10 CFR 40.35(f), 10 CFR 51.22, 10 CFR 70.72, or 10 CFR 95.19 in:</p> <ol style="list-style-type: none"> <li>1. Safety Analysis Report, Revision 3, dated [TBD]</li> <li>2. Environmental Report, Revision 3, dated [TBD]</li> <li>3. Physical Security Plan, Revision 3, dated [TBD]</li> <li>4. Fundamental Nuclear Control Plan, Revision 3, dated [TBD]</li> <li>5. Quality Assurance Program Description, dated [TBD]</li> <li>6. Emergency Plan, dated Revision 3, dated [TBD]</li> <li>7. Standard Practice Procedures Plans for Protection of Classified Matter, Revision 3, dated [TBD]</li> <li>8. Decommissioning Funding Plan, Revision 3, dated [TBD]</li> </ol>	<p>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, 10 CFR 40.35(f), 10 CFR 51.22, 10 CFR 70.32, 10 CFR 70.72, or 10 CFR 95.19 in:</p> <ol style="list-style-type: none"> <li>a. Application for Material License, NRC Form 313 ...</li> <li>b. Safety Analysis Report ...</li> <li>c. Environmental Report ...</li> <li>d. Physical Security Plan ...</li> <li>e. Fundamental Nuclear Material Control Plan ...</li> <li>f. Approved Quality Assurance Program Description ...</li> <li>g. Emergency Plan ...</li> <li>h. Standard Practice Procedures Plan for the Protection of Classified Matter ...</li> </ol> <p>(LC #10 – <i>This license condition was later modified</i>)</p>
Requirement for Operational Readiness Review	<p>Introduction of uranium hexafluoride (UF<sub>6</sub>) into any module of the EREF shall not occur until the Commission completes a construction inspection in accordance with 10 CFR 40.41(g) and 10 CFR 70.32(k) and an operational readiness and management measures verification review to verify that management measures that ensure compliance with the performance requirements of 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 UF<sub>6</sub> into any module of the EREF.</p>	<p>Introduction of UF<sub>6</sub> 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 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 UF<sub>6</sub> into any module of the NEF.</p> <p>(LC #11)</p>
Exemption and Special Authorization	<p>The licensee is hereby granted the exemption requests from certain provisions of 10 CFR 40.36 and 10 CFR 70.25, as identified in Section 1.2.5 “Special Exemptions and Special Authorizations” of the Eagle Rock Enrichment Facility Safety Analysis Report, Revision 2, dated April 30, 2010.</p>	<p>The licensee is hereby granted the special authorizations and exemption requests identified in Section 1.2.3.6 of the National Enrichment Facility Safety Evaluation Report, dated June 2005.</p> <p>(LC #12)</p>
Request for 30	<p>This license will expire 30 years after the date of license</p>	<p>This license will expire 30 years after the date of license issuance.</p>

	<b>AES Proposed License Condition</b>	<b>LES License Condition</b>
year license	issuance.	(LC #13)