Table 1.1-1 New or Modified License Conditions, Source Material License SUA-1341

(new text in under-lined; removed text struck out)

License Condition Number	SER Section	License Condition
9.1	1.4	The authorized place of use shall be the licensee's Willow Creek Project comprised of the ~~both~~ Irigaray, ~~and~~ Christensen Ranch, and Ludeman Project, in Johnson, ~~and~~ Campbell, and Converse Counties, Wyoming.

9.3	1.4	The licensee shall conduct operations in accordance with the commitments, representations, and statements contained in the following: • License Renewal Application (LRA), May 30, 2008, NRC Agencywide Documents Access and Management System (ADAMS) Accession Package Number ML081850689 • LRA Revision, October 31, 2008, ADAMS Accession Number ML083110405 • LRA Revision, July 17, 2009, ADAMS Accession Package Number ML092110700 • LRA Revision, November 19, 2010, ADAMS Accession Number ML103280266. • LRA Revision, March 7, 2012, ADAMS Accession Package Number ML120820095. • LRA Revision, July 10, 2012, ADAMS Accession Number ML12206A436. • Response to Confirmatory Action Letter, September 21, 2012, ADAMS Accession Number ML12268A270. The redrying of dried Honeymoon, Australia yellowcake as documented in NRC Safety Evaluation Report (ADAMS Accession Number ML14212A154) is not subject to the 4.5 hour dryer retention time commitment by the licensee in Response to Confirmatory Action Letter, September 21, 2012, ADAMS Accession Number ML12268A270. • Amendment Request to Redry Dried Honeymoon, Australia yellowcake, February 28, 2014 (ML14066A112), March 27, 2014 (ML14113A421), June 28, 2014 (ML14192B247) August 26, 2014 (ML14240A045), September 9, 2014 (ML14253A026) and October 2, 2014 (ML14275A443). • Letters dated August 4, 2014 (ML14309A456) and January 11, 2018 (ML18016A578), regarding responses to License Conditions 9.8 and 9.12. • Letters dated September 25, 2013 (ML13273A017), January 20, 2015 (ML15040A077), June 5, 2015 (ML15181A357), and April 17, 2017 (ML17111A981) regarding responses to License Condition 11.3. • Letters dated May 30, 2014 (ML14153A103), April 17, 2017 (ML17111A945), and July 6, 2017 (ML17192A093), regarding responses to License Condition 11.9. • Ludeman Project License Amendment Request, December 3, 2011 (ML 12010A178, ML120120182), Ludeman Project Revised Technical Report, June 28, 2017 (ML17192A357); Ludeman Project Revised Environmental Report, August 25, 2017 (ML17261A460). The documents listed in this section are hereby incorporated by reference except where superseded by license conditions below. The land and structures will be decommissioned according to the Decommissioning Plan submitted December 19, 2000 (ADAMS Accession No. ML003781238), as revised by submittals dated June 15, 2001 (ADAMS Accession No. ML011700655), June 18, 2001 (ADAMS Accession No.

License Condition Number	SER Section	License Condition
		ML011710035), and August 31, 2001 (ADAMS Accession No. ML012490112) and in accordance with 10 CFR 40.42. Whenever the word "will" or “shall” is used in the above referenced documents, it shall denote a requirement. [Applicable Amendments: 3, 6]
9.6		Written standard operating procedures (SOPs) shall be established and followed for all operational process activities involving radioactive materials that are handled, processed, stored, or transported by the licensee at or between the Irigaray, Christensen Ranch, and Ludeman Project. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed in accordance with 10 CFR Part 20. Additionally, written procedures shall be established and followed for non-operational activities to include in-plant and environmental monitoring, bioassay analyses, and instrument calibrations. An approved, up-to-date copy of each written procedure shall be kept in specified locations in the process area to which it applies. All written procedures for both operational and non-operational activities shall be reviewed and approved in writing by the RSO before implementation and whenever a change in a procedure is proposed to ensure that proper radiation protection principles are being applied. Additionally, the RSO shall perform a documented review of all operating procedures at least annually.
9.7	4.2.4	The licensee shall dispose of Atomic Energy Act, as amended (AEA), Section 11e. (2) byproduct material, including evaporation pond residues, from the Willow Creek~~Irigaray and Christensen Ranch~~ and Ludeman Project ~~Satellite facilities~~ at a site licensed by the NRC or an NRC Agreement State to receive AEA 11e. (2) byproduct material. The licensee shall identify the disposal facility to the NRC in writing. The licensee's approved waste disposal agreement must be maintained onsite. In the event the agreement expires or is terminated, the licensee shall notify the NRC in writing, in accordance with License Condition 9.2, within 7 days after the date of expiration or termination. A new agreement shall be submitted for NRC approval within 90 days after expiration or termination, or the licensee will be prohibited from further lixiviant injection. If the licensee is not able to secure this agreement, then the licensee must increase the surety to include disposal at a commercial AEA 11e. (2) disposal facility.

9.8	5.7.6	Release of surface contaminated equipment, materials, or packages for unrestricted use ~~from restricted areas~~ shall be in accordance with the NRC guidance document "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993 (ADAMS Accession No. ML003745526) (the Guidelines) or suitable alternative procedures approved by NRC prior to any such release. Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides shall apply independently. Personnel performing contamination surveys for items released for unrestricted use shall meet the qualifications as health physics technicians or radiation safety officer as defined in Regulatory Guide 8.31 (as revised). Personal effects (e.g., notebooks and flash lights) which are hand carried need not be subjected to the qualified individual survey or evaluation, but these items should be subjected to the same survey requirements as the individual possessing the items. Regulatory Guide 8.30 (as revised), Table 2, shall apply to the removal of equipment, materials, or packages that have the potential for accessible radiological surface contamination levels above background to unrestricted areas within the licensed boundary. ~~The licensee shall submit to the NRC for review and written verification a contamination control program within 90 days of license renewal. The program shall provide sufficient detail to demonstrate how the licensee will maintain control over the equipment, materials, or packages that have the potential for accessible radiological surface contamination levels above background, until they have been released for unrestricted use as specified in the Guidelines, and what methods will be used to limit the spread of contamination to unrestricted areas. The contamination control program shall demonstrate how the licensee will limit the spread of contamination when moving or transporting potentially contaminated equipment, materials, or packages (i.e. pumps, valves, piping, filters, etc.) from wellfield areas (restricted or controlled areas) through uncontrolled areas. The licensee shall receive written verification of the licensee's contamination control program prior to its implementation.~~ The licensee may identify a qualified designee(s) to perform surveys, as needed, associated with the licensee's contamination control program when moving or transporting potentially contaminated equipment, materials, or packages from restricted or controlled areas through uncontrolled areas and back into controlled or restricted areas. The qualified designee(s) shall have completed education, training, and experience, in addition to general radiation worker training, as specified by the licensee. The education, training, and experience required by the licensee for qualified

License Condition Number	SER Section	License Condition
		designees shall be submitted to the NRC for review and written verification. The licensee shall receive written verification of the licensees qualified designee(s) training program prior to its implementation.
9.10	App. B	~~The licensee shall maintain restricted area boundaries at the Irigaray and Christensen Ranch and Ludeman Project satellite facilities as described in Section 5.8.1 of the approved license application. Additionally, the Irigaray and Christensen Ranch well field buildings shall be restricted, if required, based on the results of radiological surveys.~~
9.11	5.0	The licensee is hereby exempted from the requirements of Section 20.1902(e) of 10 CFR 20 for licensed areas within the Willow Creek Project and Ludeman Project ~~Irigaray and Christensen Ranch and Ludeman Project satellite facilities~~, provided that all entrances to the facility are conspicuously posted in accordance with Section 20.1902(e) and with the words, **"ANY AREA WITHIN THIS FACILITY MAY CONTAIN RADIOACTIVE MATERIAL."**

License Condition Number	SER Section	License Condition
9.12	5.7.2	The RSO shall have the health physics authorities, responsibilities, and technical qualifications identified in Regulatory Guide 8.31, as revised. Health Physics Technicians or Radiation Safety Technicians should have qualifications that are equal or equivalent to those specified in Regulatory Guide 8.31, as revised. The licensee shall follow the guidance set forth in Regulatory Guide 8.30, as revised, "Health Physics Surveys in Uranium Recovery Facilities," or NRC-approved equivalent with the following exception: ~~Within 90 days of license renewal, the licensee will develop an SOP and specific training for p~~Personnel that do not meet the qualifications of RSO or Health Physics Technician, as defined in Regulatory Guide 8.31, as revised, that are designated to survey resin trucks leaving a restricted area and traveling to another restricted area authorized by the license shall meet the qualification requirements described in correspondence dated August 4, 2014 (ML14309A456) and January 11, 2018 (ML18016A578). ~~The SOP and training shall be submitted to the NRC for review and verification.~~ The licensee shall follow the guidance set forth in Regulatory Guide 8.31, as revised, or NRC-approved equivalent with the following exception: Personnel that do not meet the qualifications of RSO or Health Physics Technician, as defined in Regulatory Guide 8.31, as revised, that are designated to perform daily visual inspections shall meet the qualification requirements described in correspondence dated August 4, 2014 (ML14309A456) and January 11, 2018 (ML18016A578) . ~~The licensee shall describe in an SOP the training provided and procedures used by the RSO designate to conduct daily inspections in the temporary absence of the RSO or Radiation Safety Technician. The SOP for the conduct of daily inspections and training requirements shall be submitted to the NRC for review and written verification. Weekly inspections shall be performed by the RSO and follow the recommendations of Regulatory Guide 8.31, as revised. The licensee shall describe in an SOP the procedures used to conduct weekly inspections in the temporary absence of the RSO. The SOP for the conduct of weekly inspections shall be submitted to the NRC for review and written verification.~~

License Condition Number	SER Section	License Condition
9.15	2.2.4	~~The licensee shall review and compare the data collected from a regional weather station during the same period as the onsite meteorological data collected to the long-term data collected from the same regional weather station. The licensee shall determine if the data collected onsite is representative of long-term conditions. Justification of the similarity or validity of the data will include analysis of the statistical data presented to illustrate confidence in the representativeness of the data. The meteorological data will include wind speed, wind direction, an annual wind rose, and a summary of the stability classification. The licensee shall submit this review and comparison to NRC within 6 months of license renewal for NRC review and written verification that the onsite meteorological parameters previously collected will allow the licensee to demonstrate compliance with regulatory requirements of 10 CFR Part 20.~~
10.1	3.1.4	For the Willow Creek and Ludeman Project, the licensee shall use a lixiviant composed of native ground water, with added sodium bicarbonate and/or CO2 gas and oxygen or hydrogen peroxide, as described in the approved license application and Section 3.1.4.1 of the Ludeman Project Revised Technical Report. The licensee shall maintain an inward hydraulic gradient by maintaining a bleed in each individual wellfield starting when lixiviant is first injected into the production zone and continuing until the ground water restoration stability monitoring has begun.

License Condition Number	SER Section	License Condition
10.2	3.1.4	The licensee shall construct all wells in accordance with methods described in Section 3.3.2 of the approved license application. The licensee shall perform well integrity tests on each injection and production well before the wells are utilized and on wells that have been serviced with equipment or procedures that could damage the well casing. Additionally, each well shall be retested at least once every five years. Integrity tests shall be performed in accordance with Section 3.3.2.2 of the approved license application and Section 3.1.3.4 of the Ludeman Project Revised Technical Report. Any failed well casing that cannot be repaired to pass the integrity test shall be appropriately plugged and abandoned, using procedures set out in Section 3.3.2 of the approved license application. Mechanical integrity testing is required prior to returning to service any injection well suspected of having subsurface damage due to unusual operating conditions or unusual natural phenomenon.

10.3	5.7.8.4	The licensee shall establish pre-operational baseline water quality data for all production units. Baseline water quality sampling shall provide representative pre-mining ground water quality data and restoration criteria as described in the approved license application and Ludeman Project Revised Technical Report. The data shall be from wells established in the mining zone, the mining zone perimeter, the upper aquifer and the lower aquifer where present, with spacing and locations as specified in the approved license application. The data shall, at a minimum, consist of the sample analyses shown in Table 5.24 of Section 5.8.2.2 of the approved LRA, and Section 5.7.7.2 of the Ludeman Project Revised Technical Report unless superseded by this license condition. The wells used for obtaining baseline ground water quality in current and future production areas shall be established at the following minimal density: Monitored Unit — Density Ore Zone Monitors — All Ore Zone Baseline (restoration) — 1 well per 3 acres of pattern area Shallow Zone Monitors — 1 well per 4 acres of pattern area Deep Zone Monitors (where zone present) — 1 well per 4 acres of pattern area Baseline ground water quality in previously approved production areas shall be the mean data values (well field average) from the following submittals: Christensen Ranch Unit 3 and Module 2 expansion — December 1, 1988 (Table 2) Unit 3 expansion and Module 4A expansion — August 8, 1991 (Table 6) Unit 2 south portion — November 27, 1992 (Table 2) Unit 2 north portion — April 16, 1992 (Table 2) Unit 4 — April 1, 1994 (Table 6) Unit 5 — February 28, 1995 (Table 7) Four samples shall be collected and analyzed for Assay Suite A from each monitor well to establish baseline water quality parameters including the ore zone perimeter, overlying and underlying monitor

License Condition Number	SER Section	License Condition
10.4	5.7.8.4	Prior to mining in each production unit or Ludeman Project wellfield, the licensee shall collect ground water samples and establish Upper Control Limits (UCLs) in accordance with Section 5.8 of the approved license application or Section 5.7.7.2 of the Ludeman Project Revised Technical Report, respectively. UCLs shall be applied to all monitor wells (with the exception of the mine unit baseline wells) in conformance with the approved license application and appropriate SOPs. The UCL parameters shall be chloride, conductivity, and total alkalinity. UCLs for monitor wells established prior to the issuance of the Performance Based License Condition (PBLC) in December 1996, are provided in Table 5.26 for the Irigaray site and Table 5.27 for the Christensen Ranch site in Section 5.8 of the 1998 approved license application.
10.5	3.1.4	The licensee is authorized to conduct operations at the Willow Creek and Ludeman Project at a maximum flow rate of 9000 gallons per minute, each, exclusive of restoration flow. Annual dried yellow cake production shall not exceed 2.5 million pounds.

License Condition Number	SER Section	License Condition
10.7	4.2.4	All liquid effluents from process buildings and other process waste streams, with the exception of sanitary wastes, shall be returned to the process circuit, discharged to the solution evaporation ponds, or disposed of as allowed by NRC regulations. Additionally, the licensee is authorized to dispose of process solutions, injection bleed, and restoration brine in the following wells: Christensen Ranch DW No.1 Christensen Ranch 18-3 Christensen Ranch DW No. 2 Christensen Ranch DW No. 3 The licensee shall maintain a record of the volumes of solution disposed in these wells and submit this information in the annual monitoring report. <u>For the Ludeman Project, all liquid effluents from process buildings or other process waste circuits, with the exception of sanitary wastes, may be disposed of in the evaporation pond or deep disposal wells. Permeate from reverse osmosis of fluids from wellfields in restoration may be disposed of in the permeate pond.</u>

License Condition Number	SER Section	License Condition
10.15	6.1.4	The licensee shall conduct ground water restoration and post-restoration monitoring as described in Section 6.1 of the approved license application and Section 6.1 of the Ludeman Project Revised Technical Report**.** The primary goal of restoration shall be to return the ground water quality, on a production-unit average, to baseline concentrations on a parameter-by-parameter basis. If the primary goal cannot be achieved, the ground water will, at a minimum, be returned to an alternate standard approved by the NRC. In submitting any license amendment application requesting review of proposed alternate concentration limits pursuant to 10 CFR 40, Appendix A, Criterion 5(B)(6), the licensee must also show that it has first made practicable efforts to restore the specified hazardous constituents to the background or maximum contaminant levels (whichever is greater). For the Willow Creek Project and the Ludeman Project, the licensee shall conduct four rounds of sampling of all WDEQ-LQD Guideline 8, Assay Suite A constituents during stabilization monitoring, with each well sample being at least three months apart. The applicant shall continue the stability monitoring until the data show the most recent four consecutive samples indicate no statistically significant increasing trend for individual constituents which would lead to an exceedance above the approved target restoration values. Changes to ground water restoration or post-restoration monitoring plans shall be submitted to the NRC for review and approval at least 2 months prior to ground water restoration in a mining unit or Ludeman Project wellfield. The licensee shall conduct ground water restoration activities in accordance with the approved LRA application and Section 6.1 of the Ludeman Project Revised Technical Report for Ludeman Project wellfields. Permanent cessation of lixiviant injection in a production area would signify the licensee's intent to shift from the principal activity of uranium production to the initiation of ground water restoration and decommissioning for any particular production area. If the licensee determines that these activities are expected to exceed 24 months for any particular production area, then the licensee shall submit an alternate schedule request that meets the requirements of 10 CFR 40.42.
10.17	App. B	~~The licensee shall implement the respiratory protection program, as described in the approved LRA.~~
10.22	3.1.4	The licensee will not construct or conduct uranium recovery operations within Wellfield 2 of the Ludeman Project.

License Condition Number	SER Section	License Condition
10.23	3.1.4	The licensee will not install any wells or wellfield infrastructure in Ludeman Project Wellfield 5 within the boundary of the surface water impoundment located in Section 28 of T34N R73W as shown in Figure 2.7A-1 of Addendum 2.7-A of the Ludeman Project Revised Technical Report.
10.24	4.2.4	The licensee will install three downgradient and one upgradient ground water monitoring wells of at least 50 foot depth in the 110 sand aquifer at both the evaporation and permeate ponds shown in Figure 1 of Addendum 4-A of the Ludeman Project Revised Technical Report . The licensee will monitor these wells to meet the requirements in License Conditions 10.4 and 11.2 with the exception that the licensee will monitor the wells at least quarterly. If an excursion is verified the licensee will not be required to implement immediate corrective actions, but will inform the NRC in 60 days of the actions it will take to determine if the excursion is associated with leaks from the evaporation pond.
10.25	5.7.8.4	The licensee will install guard monitoring wells in Wellfield 1 as described in Addendum 4-B of the Ludeman Project Revised Environmental Report and meet the requirements in License Conditions 10.3, 10.4 and 11.2 for these wells.
10.26	5.7.8.4	The licensee will plug and abandon all private wells within production zone aquifer of a Ludeman Project wellfield within 500 feet of the perimeter excursion monitoring well ring before injection of lixiviant in that wellfield production zone aquifer.
10.27	6.2.3	At least 12 months prior to initiation of any planned final site decommissioning, reclamation, or ground water restoration at the Ludeman Project, the licensee shall submit a detailed decommissioning plan for NRC staff review and approval. The plan shall represent as-built conditions at the Ludeman Project.

License Condition Number	SER Section	License Condition
10.28	4.2.4	The licensee will not dispose of permeate pond water as liquid effluent at the Ludeman Project until it provides, for NRC review and approval, information to demonstrate that the dose limits for individual members of the public in 10 CFR 20.1301 will be met.