



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 21, 2019

Mr. John Sauger
Executive Vice President
Chief Nuclear Officer
EnergySolutions
121 West Trade Street, Suite 2700
Charlotte, NC 28202

SUBJECT: LA CROSSE BOILING WATER REACTOR – ISSUANCE OF LICENSE
AMENDMENT NO. 75 TO APPROVE THE LACROSSESOLUTIONS, LLC
LICENSE TERMINATION PLAN (CAC NO. 000083; EPID-L-2017-DTP-0008)

Dear Mr. Sauger:

The U.S. Nuclear Regulatory Commission (NRC) is issuing the enclosed Amendment No. 75 to Possession Only License No. DPR-45 for the La Crosse Boiling Water Reactor (LACBWR), held by LaCrosseSolutions, LLC (LS). This amendment is in response to your application dated June 27, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16200A095), as supplemented by letters dated December 1, 2016 (ADAMS Accession No. ML16347A025), May 31, 2018 (ADAMS Accession Nos. ML18169A271 and ML18169A235), and November 15, 2018 (ADAMS Accession No. ML18331A023). This amendment revises the LACBWR license to approve the License Termination Plan (LTP).

The LACBWR LTP provides the details of the plan for characterizing, identifying, and remediating the remaining residual radioactivity at the LACBWR site to a level that will allow the site to be released for unrestricted use. The LACBWR LTP also describes how the licensee will confirm the extent and success of remediation through radiological surveys, provide financial assurance to complete decommissioning, and ensure that the environmental impacts of decommissioning activities are within the scope originally envisioned in documented environmental evaluations for the site. Decommissioning activities at the LACBWR site are scheduled to be completed in 2019, with license termination occurring before the end of 2020.

This licensing action amends Possession Only License No. DPR-45 for LACBWR to reflect approval of the LACBWR LTP. Specifically, the amendment adds License Condition 2.C.(5), which incorporates the approved LACBWR LTP, and associated addendum, and establishes the criteria for determining when changes to the LTP require prior NRC approval. The LTP will become a supplement to LACBWR's other decommissioning documents and will be implemented by the licensee to complete decommissioning activities at the LACBWR site. Once decommissioning is complete, the licensee will need to submit a separate request to the NRC to terminate the LACBWR license.

A copy of the NRC's related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

J. Sauger

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In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of the NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions concerning this action, please contact me at (301) 415-3178 or via e-mail at marlayna.vaaler@nrc.gov.

Sincerely,

/RA/

Marlayna Vaaler, Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No.: 50-409
License No.: DPR-45

Enclosures:

1. Amendment No. 75 to
Possession Only License No. DPR-45
2. Safety Evaluation

cc w/enclosures: La Crosse Boiling Water
Reactor Service List

J. Sauger

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**SUBJECT: LA CROSSE BOILING WATER REACTOR – ISSUANCE OF LICENSE
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DATED MAY 21, 2019**

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ADAMS Accession No. PKG: ML19008A079 LTR: ML19008A080 SER: ML19008A081

OFFICE	NMSS/RDB/PM	NMSS/DUWP/LA	NMSS/RDB/BC	OGC – NLO*	NMSS/DUWP/D
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DATE	1/8/2019	1/10/2019	1/13/2019	5/13/2019	5/21/2019

OFFICIAL RECORD COPY

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

LACROSSESOLUTIONS, LLC

DAIRYLAND POWER COOPERATIVE

DOCKET NO. 50-409

LA CROSSE BOILING WATER REACTOR

AMENDMENT TO POSSESSION ONLY LICENSE

Amendment No. 75
License No. DPR-45

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the LaCrosseSolutions, LLC, dated June 27, 2016, as supplemented by letters dated December 1, 2016, May 31, 2018, and November 15, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will be maintained in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, Possession Only License No. DPR-45 is hereby amended as follows:

License Condition 2.C.(5) is added to read as follows:

2.C.(5) License Termination Plan (LTP)

LaCrosse*Solutions* shall implement and maintain in effect all provisions of the approved License Termination Plan, Revision 1, as approved in License Amendment No. 75 subject to and as amended by the following stipulations.

LaCrosse*Solutions* may make changes to the LTP without prior approval provided the proposed changes do not meet any of the following criteria:

- (A) Require Commission approval pursuant to 10 CFR 50.59.
- (B) Result in significant environmental impacts not previously reviewed.
- (C) Detract or negate the reasonable assurance that adequate funds will be available for decommissioning.
- (D) Decrease a survey unit area classification (i.e., impacted to not impacted; Class 1 to Class 2; Class 2 to Class 3; or Class 1 to Class 3) without providing the NRC a minimum 14 day notification prior to implementing the change in classification.
- (E) Increase the derived concentration guideline levels (DCGL) and related minimum detectable concentrations (for both scan and fixed measurement methods).
- (F) Increase the radioactivity level, relative to the applicable DCGL, at which an investigation occurs.
- (G) Change the statistical test applied other than the Sign test.
- (H) Increase the probability of making a Type I decision error above the level stated in the LTP.
- (I) Change the approach used to demonstrate compliance with the dose criteria (e.g., change from demonstrating compliance using DCGLs to demonstrating compliance using a dose assessment that is based on final concentration data).
- (J) Change parameter values or pathway dose conversion used to calculate the dose, such that the resultant dose is lower than in the approved LTP and if a dose assessment is being used to demonstrate compliance with the dose criteria.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days from that date.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/ B.PHAM FOR

John R. Tappert, Director
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Attachment:
Changes to Possession
Only License DPR-45

Date of Issuance: May 21, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 75

TO POSSESSION ONLY LICENSE NO. DPR-45

DOCKET NO. 50-409

Replace the following pages of the Possession Only License No. DPR-45 with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Possession Only License No. DPR-45

REMOVE

License Page 1
License Page 2
License Page 3
License Page 4

INSERT

License Page 1
License Page 2
License Page 3
License Page 4
License Page 5



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LACROSSESOLUTIONS, LLC

DAIRYLAND POWER COOPERATIVE

DOCKET NO. 50-409

LA CROSSE BOILING WATER REACTOR

AMENDMENT TO POSSESSION ONLY LICENSE

Amendment No. 75
License No. DPR-45

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Dairyland Power Cooperative (the owner) dated April 10, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I; the NRC subsequently approved the transfer of licensed responsibility for the La Crosse Boiling Water Reactor (herein "the facility" or "LACBWR") to LaCrosseSolutions, LLC (Solutions) on May 20, 2016;¹
 - B. Construction of the La Crosse Boiling Water Reactor has been substantially completed in conformity with Construction Authorization No. CAPR-5, the application, the provisions of the Act and the rules and regulation of the Commission;
 - C. The facility will be maintained in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this possession only license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Solutions is technically and financially qualified to engage in the activities authorized by this possession only license in accordance with the rules and regulations of the Commission;

¹ Solutions is authorized to act for Dairyland Power Cooperative and has exclusive responsibility and control over the physical possession, maintenance, and decommissioning of the facility.

- F. The owner has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public and does not involve a significant hazards consideration;
 - H. The receipt, possession, and use of byproduct, source and special nuclear materials as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, 70.23 and 70.31; and
 - I. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Possession Only License (POL) No. DPR-45, issued to Solutions and Dairyland Power Cooperative (collectively, the licensee) is hereby amended to read as follows:
- A. This license applies to the La Crosse Boiling Water Reactor (herein "the facility" or "LACBWR"), which is possessed, maintained, and decommissioned by Solutions, and owned by the Dairyland Power Cooperative (DPC). LACBWR was formerly owned by the Atomic Energy Commission (AEC) and operated by DPC under the provisions of an AEC contract and Provisional Operating Authorization No. DPRA-6, issued on October 31, 1969 (Docket No. 115-5). The facility is located in Vernon County, Wisconsin on the east bank of the Mississippi River, approximately one mile south of Genoa, Wisconsin and is described in the Safeguards Report for Operating Authorization (hereinafter Safety Analysis Report) filed by the Allis-Chalmers Manufacturing Company, and subsequently converted to Provisional Operating License No. DPR-45 (Docket No. 50-409). By Amendment No. 63, dated August 18, 1988, the license was changed to Possession Only License No. DPR 45.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Solutions, pursuant to Section 104b of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, maintain, and decommission the facility at the designated location in accordance with the procedures and limitations set forth in this license;
 - (2) Dairyland Power Cooperative, pursuant to Section 104b of the Act and 10 CFR Part 50, to possess the facility at the designated location in accordance with the procedures and limitations set forth in this license;
 - (3) Solutions, pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," to possess at any time special nuclear material used as reactor fuel, in accordance with the limitations for

storage, as described in Section 2.2 FUEL STORAGE of Appendix A to this license;

- (4) Solutions, pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron or gamma sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Solutions, pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) Solutions, pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as were produced by the prior operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR: Chapter I, Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is not authorized to operate the reactor. Fuel may not be placed in the reactor vessel.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No: 75, are hereby incorporated in the license. The licensee shall possess and maintain the facility in accordance with the Technical Specifications.

(3) Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revision to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plan, which contains Safeguards Information protected under 10 CFR 73.21, is entitled, "Physical Security Plan for La Crosse Boiling

Water Reactor (LACBWR)," as revised and reflecting exemptions from 10 CFR 73.55 (granted June 20, 2012).

(4) Fire Protection

The licensee shall implement and maintain in effect all provisions of the facility Fire Protection Program as described therein and as approved by the NRC.

The licensee may make changes to the approved Fire Protection Program without prior NRC approval if these changes do not decrease the effectiveness of fire protection for facilities, systems, and equipment which could result in a radiological hazard, taking into account the decommissioning plant conditions and activities.

(5) License Termination Plan (LTP)

LaCrosseSolutions shall implement and maintain in effect all provisions of the approved License Termination Plan, Revision 1, as approved in License Amendment No. 75 subject to and as amended by the following stipulations.

LaCrosseSolutions may make changes to the LTP without prior approval provided the proposed changes do not meet any of the following criteria:

- (A) Require Commission approval pursuant to 10 CFR 50.59.
- (B) Result in significant environmental impacts not previously reviewed.
- (C) Detract or negate the reasonable assurance that adequate funds will be available for decommissioning.
- (D) Decrease a survey unit area classification (i.e., impacted to not impacted; Class 1 to Class 2; Class 2 to Class 3; or Class 1 to Class 3) without providing the NRC a minimum 14 day notification prior to implementing the change in classification.
- (E) Increase the derived concentration guideline levels (DCGL) and related minimum detectable concentrations (for both scan and fixed measurement methods).
- (F) Increase the radioactivity level, relative to the applicable DCGL, at which an investigation occurs.
- (G) Change the statistical test applied other than the Sign test.
- (H) Increase the probability of making a Type I decision error above the level stated in the LTP.

- (I) Change the approach used to demonstrate compliance with the dose criteria (e.g., change from demonstrating compliance using DCGLs to demonstrating compliance using a dose assessment that is based on final concentration data).
 - (J) Change parameter values or pathway dose conversion used to calculate the dose, such that the resultant dose is lower than in the approved LTP and if a dose assessment is being used to demonstrate compliance with the dose criteria.
- D. This Possession only license supersedes and terminates in their entirety changes to the license issued in License Amendments: No. 17, July 27, 1979; No. 56, August 4, 1987; No. 61, May 18, 1988; No. 63, August 18, 1988; No. 66, August 7, 1991; and No. 69, April 11, 1997.
- E. This amended license is effective 30 days from the date of issuance and shall expire at midnight, March 29, 2031.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Seymour H. Weiss, Director
Non-Power Reactors and Decommissioning
Project Directorate
Division of Reactor Project Management
Office of Nuclear Reactor Regulation

Attachment:
Appendix A - Technical Specifications

Date of Issuance: April 11, 1997