



December 10, 2012

10 CFR 50.90

In reply, please refer to LAC-14263

DOCKET NO. 50-409 and 72-046

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: Dairyland Power Cooperative  
La Crosse Boiling Water Reactor (LACBWR)  
Possession-Only License DPR-45  
License Amendment Request Following Completion of Dry Cask Storage

REFERENCES: 1) LACBWR Possession Only License No. DPR-45 Amendment 69, and Appendix A, Technical Specifications, Amendment 71.  
2) LACBWR Quality Assurance Program Description, Revision 25.

Pursuant to 10 CFR 50.90, Dairyland Power Cooperative (DPC) requests changes to the LACBWR Possession Only License and Appendix A, Technical Specifications (TS). These changes are being requested as a result of the successful completion of dry cask storage.

The proposed changes to the LACBWR Possession Only License and TS are requested to revise certain license conditions and to remove TS definitions, operational requirements, and specific design requirements that are no longer applicable with all spent fuel in dry cask storage at the ISFSI. The proposed changes to the TS also remove administrative control requirements that have been relocated to the LACBWR Quality Assurance Program Description (QAPD) or are superseded by regulation or other guidance.

Based on our evaluation, DPC concludes that the proposed amendment to the LACBWR Possession Only License and TS presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

If you have any questions concerning this license amendment request, please contact Don Egge, LACBWR Plant/ISFSI Manager at (608) 689-4207.

Sincerely,

William L. Berg, President and CEO

WLB:JBM:jkl

FSME20  
NMSS26

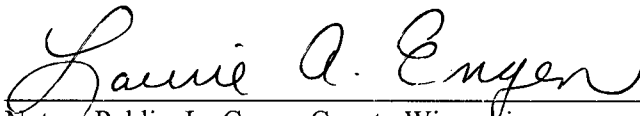
- Attachments:        1) Annotated Version of Revised License and Technical Specification Pages  
                          2) Evaluation of Proposed Changes  
                          3) Clean Version of Revised Technical Specification Pages

cc w/Attachments:    John Hickman  
                             Project Manager  
                             U.S. Nuclear Regulatory Commission  
  
                             Charles Casto  
                             Regional Administrator, Region III  
                             U.S. Nuclear Regulatory Commission

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STATE OF WISCONSIN    )  
                                  )  
COUNTY OF LA CROSSE    )

Personally came before me this 12<sup>th</sup> day of December, 2012, the above named, William L. Berg, to me known to be the person who executed the foregoing instrument and acknowledged the same.

  
\_\_\_\_\_  
Notary Public, La Crosse County Wisconsin

My commission expires 5-25-14

**LAURIE A. ENGEN**  
Notary Public  
State of Wisconsin

ATTACHMENT 1

Annotated Version of Revised License and

Technical Specification Pages

License

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Appendix A

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

DAIRYLAND POWER COOPERATIVE

DOCKET NO. 50-409

LA CROSSE BOILING WATER REACTOR

POSSESSION ONLY LICENSE

Amendment No. ~~71~~ 72  
License No. DPR-45

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Dairyland Power Cooperative (the licensee) 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;
  - 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 regulations 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. The licensee 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;
  - F. The licensee 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;

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- 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 Dairyland Power Cooperative 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 owned by the Dairyland Power Cooperative (DPC) and was formerly owned by the Commission and operated by DPC under the provisions of a Commission 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 the Dairyland Power Cooperative:
    - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities", to possess and maintain the facility at the designated location in accordance with the procedures and limitations set forth in this license;
    - (2) Pursuant to the Act and 10 CFR Part 70, 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;
    - (3) 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;
    - (4) 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

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(5) 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. 72 ~~XX~~, 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)," dated September 24, 1987 (LAC-12376) and as amended by letters dated March 28, 1988, Revision 1 (LAC-12528) and April 28, 1988, Revision 2 (LAC-12549), as revised and reflecting exemptions to 10 CFR 73.55 granted June 2012.

(4) Fire Protection

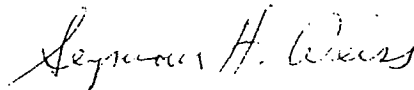
The licensee shall implement and maintain in effect all provisions of the facility Fire Protection Program as described therein and as approved by the NRC.

The licensee may make changes to the approved Fire Protection Program without prior NRC approval ~~if those changes would not adversely affect the ability to maintain the fuel in the Fuel Element Storage Well (spent fuel pool) in a safe condition in the event of a fire.~~ 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.

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- 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; ~~and~~ 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



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~~

**DOCKET NO. 50-409**  
**APPENDIX A**  
**LICENSE NO. DPR-45**

**TECHNICAL SPECIFICATIONS FOR**  
**LA CROSSE BOILING WATER REACTOR**



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## 1. DEFINITIONS

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The following terms are defined so that uniform interpretation of these specifications may be achieved. When these terms appear in capitalized type, the following definitions apply in these Technical Specifications.

### ACTION

~~ACTION shall be that part of a specification which prescribes remedial measures required under designated conditions.~~

### CHANNEL CALIBRATION

~~A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel outputs such that it responds with the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and the alarm and/or trip functions. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is calibrated.~~

### FUEL HANDLING

~~FUEL HANDLING shall be the movement of individual spent fuel assemblies within the Reactor Building. Suspension of FUEL HANDLING shall not preclude completion of movement of a spent fuel assembly to a safe, conservative position. FUEL HANDLING, for the purposes of these Technical Specifications, does not include the movement of an NRC-certified spent fuel storage canister, transfer cask, or storage cask containing spent fuel in accordance with the dry cask storage system's 10 CFR 72 Certificate of Compliance.~~

### OPERABLE-OPERABILITY

~~A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s) and when all necessary attendant instrumentation, controls, a normal or an alternate electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).~~

## 2. DESIGN FEATURES

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### 2.1 SITE

The facility is located in Vernon County, Wisconsin, on the east bank of the Mississippi River, approximately one mile south of Genoa, Wisconsin, as described in License Condition 2.A.

### EXCLUSION AREA

~~2.1.1 The exclusion area shall be as described in the Off Site Dose Calculation Manual.~~

### 2.2 FUEL STORAGE WHILE IN THE FUEL ELEMENT STORAGE WELL

A maximum of 333 spent fuel assemblies from the La Crosse Boiling Water Reactor are stored in 5 dry casks within an Independent Spent Fuel Storage Installation (ISFSI).

### CRITICALITY

~~2.2.1 The spent fuel storage racks are designed with a nominal 7.0 inch center to center distance between fuel assemblies in each individual rack assembly, with a boron impregnated poison plate between adjacent storage locations to ensure  $K_{eff}$  of  $\leq 0.95$  when flooded with unborated water.~~

### FUEL RESTRICTIONS

~~2.2.2 Fuel stored in the storage well is restricted to fuel with stainless steel cladding which has a U-235 loading of  $\leq 22.6$  grams per axial centimeter of fuel assembly.~~

### DRAINAGE

~~2.2.3 The Fuel Element Storage Well is designed and shall be maintained to prevent an inadvertent draining of the well below elevation of 679 feet MSL while spent fuel assemblies are in the Fuel Element Storage Well.~~

### CAPACITY

~~2.2.4 The Fuel Element Storage Well was designed for a storage capacity of no more than 440 fuel assemblies. The maximum number of fuel assemblies stored in the Fuel Element Storage Well is limited to 333 spent fuel assemblies.~~

### 3. APPLICABILITY

#### LIMITING CONDITION FOR OPERATION

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- 3.1 ~~Limiting Conditions for Operation and ACTION requirements shall be applicable during the specified applicable condition for each specification.~~
- 3.2 ~~Adherence to the requirements of the Limiting Condition for Operation and/or associated ACTION within the specified time interval shall constitute compliance with the specification. In the event the Limiting Condition for Operation is restored prior to expiration of the specified time interval, completion of the ACTION statement is not required.~~
- 3.3 ~~Entry into specified applicability state shall not be made unless the conditions of the Limiting Condition for Operation are met without reliance on provisions contained in the ACTION statements unless otherwise excepted.~~

#### SURVEILLANCE REQUIREMENTS

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- 3.4 ~~Surveillance Requirements shall be applicable during the specified applicable conditions for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.~~
- 3.5 ~~Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.~~
- 3.6 ~~Performance of a Surveillance Requirement within the specified time interval shall constitute compliance with OPERABILITY requirements for a Limiting Condition for Operation and associated ACTION statements unless otherwise required by the specification. Surveillance requirements do not have to be performed on inoperable equipment or on equipment not required to be OPERABLE.~~
- 3.7 ~~Entry into a specified applicable condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified.~~

## 4/5. PERFORMANCE REQUIREMENTS

### 4.1 FUEL STORAGE AND HANDLING

#### 4.1.1 GENERAL FUEL STORAGE AND HANDLING REQUIREMENTS

- 4.1.1.1 ~~Spent fuel assemblies shall be stored underwater in spent fuel storage racks that are positioned on the bottom of the Fuel Element Storage Well or in an approved dry spent fuel storage cask.~~
- 4.1.1.2 ~~During the handling of spent fuel assemblies that have been operated at power levels greater than 1 Mwt, the depth of water in the Fuel Element Storage Well and the contiguous cask pool shall be at least 2 feet above the active fuel, and only one spent fuel assembly will be moved at a time.~~
- 4.1.1.3 ~~No object heavier than 25 tons shall be handled over spent fuel assemblies located in the Fuel Element Storage Well or cask pool. Lifting and movement of a fuel-loaded storage canister and transfer cask shall be performed using the single-failure-proof cask handling crane lifting system meeting the guidance in NUREG-0612, Section 5.1.6. Lifting and movement of objects over spent fuel assemblies located in the Fuel Element Storage Well or cask pool shall be performed in accordance with the LACBWR, NUREG-0612 commitments and the dedicated project heavy load control plan.~~

## FUEL STORAGE AND HANDLING

### 4.1.2 FUEL ELEMENT STORAGE WELL AND CASK POOL

#### LIMITING CONDITION FOR OPERATION

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##### Note

This LCO does not apply to the cask pool if the spent fuel storage canister lid is in place in the canister or if there are no spent fuel assemblies in the cask pool.

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The Fuel Element Storage Well (FESW) and cask pool shall meet the following requirements:

- a. The Fuel Element Storage Well and cask pool water level shall be at least 11 feet, 6½ inches above any spent fuel assembly stored in the spent fuel storage racks or in spent fuel storage canister in the cask pool, and
- b. Water in the storage well and cask pool shall be maintained at a temperature  $\leq 150^{\circ}\text{F}$ .

APPLICABILITY: While spent fuel assemblies are in the FESW or the cask pool.

#### ACTIONS

- a. With water level less than required by the LCO, take immediate action to restore water level and suspend all operations involving FUEL HANDLING.
- b. With water temperature in the storage well or cask pool above  $150^{\circ}\text{F}$ , take actions to reduce water temperature to  $\leq 150^{\circ}\text{F}$  within 24 hours and suspend all operations involving FUEL HANDLING.

#### SURVEILLANCE REQUIREMENTS

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##### Note

SR 5.1.2.1 and 5.1.2.2 do not apply to the cask pool if the spent fuel storage canister lid is in place in the canister or if there are no spent fuel assemblies in the cask pool.

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5.1.2.1 The Fuel Element Storage Well and cask pool water level and temperature shall be verified at least once per 12 hours.

5.1.2.2 The Fuel Element Storage Well and cask pool water level indication channel shall be calibrated (CHANNEL CALIBRATION) at least once per 18 months.

## 6. ADMINISTRATIVE CONTROLS

### ~~6.1 RESPONSIBILITY~~

~~6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.~~

~~6.1.2 A Control Room Operator shall be responsible for the Control Room command function.~~

### ~~6.2 ORGANIZATION~~

#### ~~6.2.1 FACILITY STAFF~~

~~6.2.1.1 The facility organization shall be as follows:~~

- ~~a. Each on-duty shift shall be composed of at least one Certified Fuel Handler and one qualified Control Room Operator when fuel is stored in the Fuel Element Storage Well.\*~~
- ~~b. A qualified Control Room Operator shall be within visual and/or audio distance of the Control Room annunciators when fuel is in the Fuel Element Storage Well.~~
- ~~c. All FUEL HANDLING shall be directly supervised by a Certified Fuel Handler.~~
- ~~d. An individual qualified in radiation protection procedures shall be on site when there is fuel on site or there is a potential for release of radioactive materials. At least one additional Operator and one Health Physics Technician shall be on site when spent fuel or a spent fuel shipping cask is being handled or when any evolutions are being conducted in or above the Fuel Element Storage Well.~~

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~~\* Shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. This provision does not permit any shift crew position to be unfilled upon shift change due to an oncoming shift crew member being late or absent.~~

~~6.2.1.2 OVERTIME POLICY~~

~~The working hours of Operators, Certified Fuel Handlers, Mechanical Maintenance and Instrument & Electrical Technicians when performing duties which may affect nuclear safety, and Health Physics Technicians, when performing radiation protection duties which may affect the safety of the public, shall be limited.~~

~~In the event overtime must be used, the following restrictions shall be followed:~~

- ~~(1) The specified personnel shall not be permitted to work more than 16 hours straight, excluding shift turnover time.~~
- ~~(2) The specified personnel shall not be permitted to work more than 16 hours in any 24-hour period, more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period.~~
- ~~(3) A break of at least 8 hours shall be allowed following overtime before the next scheduled shift for the specified personnel, if the above limits are exceeded.~~

~~In the event overtime must be used in excess of the above restrictions, the Plant Manager or his designate, must authorize the deviation and the cause must be documented.~~

~~6.3 FACILITY STAFF QUALIFICATIONS~~

~~6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions except for the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.~~

~~6.4 PROGRAM REQUIREMENTS~~

~~6.4.1 In addition to the programs required by regulations, the programs specified in Section 6.4.2 shall be established, implemented and maintained.~~



~~ADMINISTRATIVE CONTROLS (Cont'd)~~

~~6.4.2 PROGRAMS~~

~~6.4.2.1 PROCESS CONTROL PROGRAM (PCP)~~

- ~~a. The PCP shall be maintained on site and will be available for NRC review.~~
- ~~b. Licensee initiated changes to the PCP shall be submitted to the Commission in the annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:
  - ~~Information to support the rationale for the change;~~
  - ~~A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and~~
  - ~~Documentation of the fact that this change has been reviewed and found acceptable by the ORC.~~~~

~~6.4.2.2 OFFSITE DOSE CALCULATION MANUAL (ODCM)~~

~~The ODCM shall be maintained by the licensee. Changes to the ODCM will be outlined in the annual Radioactive Effluent Release Report per Specification 6.5.1: 1.d.~~

~~This submittal shall contain:~~

- ~~(1) Detailed information to support the rationale for the change. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s) and~~
- ~~(2) A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations.~~

~~6.4.2.3 RADIOACTIVE EFFLUENT CONTROLS PROGRAM~~

~~A program shall be provided conforming with 10 CFR 50.36a for control of radio active effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial action to be taken whenever the program limits are exceeded. The program shall include the following elements:~~

ADMINISTRATIVE CONTROLS (Cont'd)

- ~~(1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation, including surveillance tests and setpoint determination in accordance with the methodology in the ODCM.~~
- ~~(2) Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas conforming to 10 CFR, Part 20, Appendix B, Table 2, Column 2.~~
- ~~(3) Monitoring, sampling and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20 and with the methodology and parameters in the ODCM.~~
- ~~(4) Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released to unrestricted areas conforming to Appendix I to 10 CFR, Part 50.~~
- ~~(5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every year.~~
- ~~(6) Limitations on the annual or quarterly air doses resulting from noble gases released in gaseous effluents to areas beyond the site boundary conforming to Appendix I to 10 CFR, Part 50.~~
- ~~(7) Limitations on the annual and quarterly doses to a member of the public from tritium and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released to areas beyond the site boundary conforming to Appendix I to 10 CFR, Part 50.~~
- ~~(8) Limitations on the annual dose or dose commitment to any member of the public due to release of radioactivity and to radiation from uranium fuel cycle sources conforming to 10 CFR, Part 190.~~

6.4.2.4 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

~~A program shall be provided to monitor radiation and radionuclides in the environs of the plant. The program shall provide representative measurements of radioactivity in the highest potential exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR, Part 50 and (3) include the following:~~

## ADMINISTRATIVE CONTROLS (Cont'd)

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- (1) ~~Monitoring, sampling, analysis and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.~~
- (2) ~~Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive material in the environmental sample matrices are performed as part of the Quality Assurance Program for environmental monitoring.~~

### 6.5 REPORTING REQUIREMENTS

#### 6.5.1 ROUTINE REPORTS

~~In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the Regional Office of the NRC unless otherwise noted.~~

~~6.5.1.1 Reports required on an annual basis shall be submitted by March 1 of each year and shall include:~~

- a. ~~A tabulation on an annual basis of the number of station, utility and other personnel, including contractors, receiving exposures greater than 100 mRem/yr and their associated man-rem exposure according to work and job functions, e.g., plant operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and fuel handling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions. This tabulation is per the requirements of Regulatory Guide 1.16, Revision 4, August 1975.~~
- b. ~~A report containing a brief description of any changes, testing and experiments conducted under the criteria of 10 CFR 50.59, including a summary of the safety evaluations of them.~~
- c. ~~An Annual Radiological Environmental Monitoring Report which shall include summarized and tabulated results, including interpretations and analysis of data trends, of environmental samples taken during the previous calendar year. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.~~

ADMINISTRATIVE CONTROLS (Cont'd)

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The report shall also include the following: a summary description of the Radiological Environmental Monitoring Program; a map of all sampling locations keyed to a table giving distances and directions from the plant, the results of the Interlaboratory Comparison Program, and a discussion of all analyses in which the LLD was not achievable.

d. Radioactive Effluent Release Report

Paragraph (a)(2) of Part 50.36a, "Technical Specifications on Effluents from Nuclear Power Reactors," of 10 CFR Part 50 requires that a report be made to the Commission annually. The report shall specify the quantity of each of the principal radionuclides released to unrestricted areas by liquid and gaseous effluents during the previous year. With the exception of the collection of hourly meteorological data, the information submitted shall be in accordance with Appendix B of Regulatory Guide 1.21 (Revision 1) dated June 1974 with data summarized on at least a quarterly basis.

This same report shall include an assessment, performed in accordance with the Office Dose Calculation Manual (ODCM), of radiation doses to members of the public from radioactive liquid and gaseous effluents released beyond the effluent release boundary. This report shall contain any changes made to the ODCM during the previous twelve months.

6.6 HIGH RADIATION AREA

6.6.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) of 10 CFR 20, each high radiation area in which the intensity of radiation, at 30 cm from the radiation source or surface that the radiation penetrates, is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Special Work Permit (SWP).\* Any individual or group of individuals permitted to enter such areas shall be provided with one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

\* Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the SWP issuance requirement during the performance of their assigned radiation protection duties, provided they are following plant radiation protection procedures for entry into high radiation areas.

~~ADMINISTRATIVE CONTROLS (Cont'd)~~

~~=====~~

- ~~b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.~~
- ~~c. A health physics qualified individual (i.e., qualified in radiation protection procedures) with a radiation dose rate monitoring device and who is responsible for providing positive exposure control over the activities within the area and who will perform periodic radiation surveillance at the frequency which will be established by the Health and Safety Supervisor or applicable SWP.~~

~~6.6.2 For each area with radiation levels greater than 1000 mrem/hr, at 30 cm (but less than 500 Rad/hr at 1 meter) from radiation source, or from any surface penetrated by the radiation, the control of Specification 6.6.1 shall be implemented and also:~~

- ~~(1) Each entrance or access point to the area shall be maintained locked except during periods when access to the area is required. Positive control over each individual entry shall be by:~~
  - ~~a. Maintaining the locked door keys under administrative control of the Certified Fuel Handler on duty or the Health and Safety Supervisor.~~
  - ~~b. An approved SWP that specifies the dose rates in the immediate work areas and the maximum allowable stay time for individuals in that area.~~

**ATTACHMENT 2**

Evaluation of Proposed Changes

## License Amendment Request Following Completion of Dry Cask Storage

### EVALUATION OF PROPOSED CHANGES

#### 1.0 BACKGROUND

LACBWR was permanently shutdown April 30, 1987. The total inventory of 333 spent fuel assemblies and fuel debris has been loaded into five NAC-MPC dry cask storage systems and placed into an ISFSI. Cask loading operations were completed September 19, 2012.

The proposed changes to the LACBWR License and Technical Specifications (TS) discussed in the following are requested to revise certain license conditions and to remove TS definitions, operational requirements, and specific design requirements that are no longer applicable with all spent fuel in dry cask storage at the ISFSI. The proposed changes to the TS also remove administrative control requirements that have been relocated to the LACBWR Quality Assurance Program Description (QAPD) or are superseded by regulation or other guidance. DPC requests that the amended license and changes to TS, if approved, shall become effective 30 days from the date of issuance.

#### 2.0 PROPOSED CHANGES TO POSSESSION ONLY LICENSE DPR-45

2.1 DPC proposes to revise License Condition 2.C(3), "Physical Protection," by removing obsolete references to the September 24, 1987, Physical Security Plan as amended by letters dated March 28, 1988, and April 28, 1988. The license condition is revised with update by describing the "Physical Security Plan for La Crosse Boiling Water Reactor (LACBWR)," *as revised and reflecting exemptions to 10 CFR 73.55 granted June 2012*. The LACBWR Physical Security Plan is NRC-approved and compliant with 10 CFR 73.55, as exempted.

##### 2.1.1 Technical and Regulatory Basis

In accordance with NRC requirements, DPC established compliance with 10 CFR 73.55 for both the plant and the ISFSI. Certain exemptions to 10 CFR 73.55 were requested and granted. The proposed changes to the license condition reflect the current status of the LACBWR Physical Security Plan and remove outdated and obsolete references. Therefore, revision of this license condition is acceptable.

2.2 DPC proposes to revise License Condition 2.C(4), "Fire Protection," by removing the exception for changes to the Fire Protection Program not adversely affecting the ability to maintain the fuel in the Fuel Element Storage Well (FESW) in a safe condition in the event of a fire. It is added that changes to the Fire Protection Program may be made 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*.

##### 2.2.1 Technical and Regulatory Basis

The latter portion of this license condition addresses the ability to maintain the fuel in the FESW in a safe condition in the event of a fire. Following transfer of all spent fuel to the ISFSI, this license condition is no longer applicable. Revising the license condition to require that effectiveness of fire protection is not decreased during decommissioning plant conditions and activities ensures the intent of the license condition remains intact. Therefore, revision of this license condition to remove reference to spent fuel storage in the FESW is acceptable.

2.3 DPC proposes to revise License Condition 2.D by adding "*and No. 69, April 11, 1997,*" to reflect the addition of the current proposed license amendment.

### 2.3.1 Technical and Regulatory Basis

This change is administrative to reflect changes to the license resulting from this proposed license amendment and is therefore acceptable.

## 3.0 PROPOSED CHANGES TO APPENDIX A, TECHNICAL SPECIFICATIONS

### 3.1 DPC proposes to delete TS Section 1, "Definitions," in its entirety. TS Section 1 currently states:

*The following terms are defined so that uniform interpretation of these specifications may be achieved. When these terms appear in capitalized type, the following definitions apply in these Technical Specifications.*

#### ACTION

*ACTION shall be that part of a specification which prescribes remedial measures required under designated conditions.*

#### CHANNEL CALIBRATION

*A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel outputs such that it responds with the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and the alarm and/or trip functions. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is calibrated.*

#### FUEL HANDLING

*FUEL HANDLING shall be the movement of individual spent fuel assemblies within the Reactor Building. Suspension of FUEL HANDLING shall not preclude completion of movement of a spent fuel assembly to a safe, conservative position. FUEL HANDLING, for the purposes of these Technical Specifications, does not include the movement of an NRC-certified spent fuel storage canister, transfer cask, or storage cask containing spent fuel in accordance with the dry cask storage system's 10 CFR 72 Certificate of Compliance.*

#### OPERABLE-OPERABILITY

*A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s) and when all necessary attendant instrumentation, controls, a normal or an alternate electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).*

### 3.1.1 Technical and Regulatory Basis

With all spent fuel transferred from the Fuel Element Storage Well (FESW) to dry cask storage at the ISFSI, there are no longer Limiting Conditions for Operation (LCOs) for storage of spent fuel in the FESW; therefore, the terms ACTION and OPERABLE-OPERABILITY are not applicable to spent fuel storage in the FESW. With all spent fuel transferred to dry cask storage at the ISFSI, there are no longer instruments monitoring fuel storage conditions in the FESW and there will not be any more fuel handling operations in the FESW; therefore, the terms CHANNEL CALIBRATION and FUEL HANDLING are not applicable. These definitions are either no longer applicable, or are redundant with definitions in other regulations. Therefore, deleting TS Section 1 in its entirety is acceptable.



3.2. DPC proposes to revise TS Section 2, "Design Features." The proposed change revises TS Section 2.1, "Site," by deleting the title and description of EXCLUSION AREA and adding a standard description of the site location as in the following:

**2.1 SITE**

*The facility is located in Vernon County, Wisconsin, on the east bank of the Mississippi River, approximately one mile south of Genoa, Wisconsin, as described in License Condition 2.A.*

The proposed change to TS Section 2 deletes TS Section 2.2, "Fuel Storage while in the Fuel Element Storage Well," in its entirety and replaces it with the following:

**2.2 FUEL STORAGE**

*A maximum of 333 spent fuel assemblies from the La Crosse Boiling Water Reactor are stored in 5 dry casks within an Independent Spent Fuel Storage Installation (ISFSI).*

TS Section 2, "Design Features," currently states:

**2.1 SITE**

**EXCLUSION AREA**

*2.1.1 The exclusion area shall be as described in the Off-Site Dose Calculation Manual.*

**2.2 FUEL STORAGE WHILE IN THE FUEL ELEMENT STORAGE WELL**

**CRITICALITY**

*2.2.1 The spent fuel storage racks are designed with a nominal 7.0 inch center- to-center distance between fuel assemblies in each individual rack assembly, with a boron impregnated poison plate between adjacent storage locations to ensure Keff of < 0.95 when flooded with unborated water.*

**FUEL RESTRICTIONS**

*2.2.2 Fuel stored in the storage well is restricted to fuel with stainless steel cladding which has a U-235 loading of < 22.6 grams per axial centimeter of fuel assembly.*

**DRAINAGE**

*2.2.3 The Fuel Element Storage Well is designed and shall be maintained to prevent an inadvertent draining of the well below elevation of 679 feet MSL while spent fuel assemblies are in the Fuel Element Storage Well.*

**CAPACITY**

*2.2.4 The Fuel Element Storage Well was designed for a storage capacity of no more than 440 fuel assemblies. The maximum number of fuel assemblies stored in the Fuel Element Storage Well is limited to 333 spent fuel assemblies.*

**3.2.1 Technical and Regulatory Basis**

3.2.1.1 The proposed change to TS Section 2.1 removes the redundant description of the 10 CFR Part 100 exclusion area contained in the Offsite Dose Calculation Manual. A more standard description of the site, paraphrasing and referencing that found in License Condition 2.A, is added. Describing the facility

location consistent with the description in the cited license condition provides standard information and is therefore acceptable.

3.2.1.2 The proposed change to TS Section 2.2 removes FESW design characteristics for criticality control, fuel restrictions, drainage, and storage capacity that are no longer applicable with all spent fuel transferred to dry cask storage at the ISFSI. The title of TS Section 2.2 is changed to "Fuel Storage" to be consistent with License Condition 2.B.(2). The text of TS Section 2.2 is revised to clearly indicate how spent nuclear fuel is being stored in 5 dry casks at the ISFSI and declaring that a maximum of 333 LACBWR spent fuel assemblies shall be stored at the ISFSI. With no spent fuel stored in the FESW, there are no longer concerns regarding criticality, drainage, or capacity. Therefore, the proposed revision is acceptable.

3.3 DPC proposes to delete TS Section 3, "Applicability," in its entirety. TS Section 3 currently states:

LIMITING CONDITION FOR OPERATION

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3.1 *Limiting Conditions for Operation and ACTION requirements shall be applicable during the specified applicable condition for each specification.*

3.2 *Adherence to the requirements of the Limiting Condition for Operation and/or associated ACTION within the specified time interval shall constitute compliance with the specification. In the event the Limiting Condition for Operation is restored prior to expiration of the specified time interval, completion of the ACTION statement is not required.*

3.3 *Entry into specified applicability state shall not be made unless the conditions of the Limiting Condition for Operation are met without reliance on provisions contained in the ACTION statements unless otherwise excepted.*

SURVEILLANCE REQUIREMENTS

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3.4 *Surveillance Requirements shall be applicable during the specified applicable conditions for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.*

3.5 *Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.*

3.6 *Performance of a Surveillance Requirement within the specified time interval shall constitute compliance with OPERABILITY requirements for a Limiting Condition for Operation and associated ACTION statements unless otherwise required by the specification. Surveillance requirements do not have to be performed on inoperable equipment or on equipment not required to be OPERABLE.*

3.7 *Entry into a specified applicable condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified.*

3.3.1 Technical and Regulatory Basis

3.3.1.1 TS Sections 3.1, 3.2, and 3.3 establish the general requirements applicable to LCOs. As discussed following, with all spent fuel in dry cask storage at the ISFSI, TS Section 4/5 LCOs related to spent fuel storage in the FESW are no longer required thereby eliminating the need for TS Sections 3.1,

3.2, and 3.3. Consequently, deleting general requirements for LCOs contained in TS Sections 3.1, 3.2, and 3.3 is acceptable.

3.3.1.2 Surveillance Requirements ensure that conditions specified by the LCO are met. TS Sections 3.4, 3.5, and 3.6 specify the conditions when surveillances are required, the required frequency for surveillances, and what constitutes non-compliance with LCO operability requirements. As discussed following, with all spent fuel in dry cask storage at the ISFSI, TS Section 4/5 LCOs related to spent fuel storage in the FESW are to be deleted thereby eliminating the need for TS Sections 3.4, 3.5, and 3.6. Consequently, deleting surveillance requirements in TS Sections 3.4, 3.5, and 3.6 and thus TS Section 3 in its entirety is acceptable.

3.4 DPC proposes to delete TS Section 4/5, "Performance Requirements," in its entirety. TS Section 4/5 currently states:

4.1 FUEL STORAGE AND HANDLING

4.1.1 GENERAL FUEL STORAGE AND HANDLING REQUIREMENTS

*4.1.1.1 Spent fuel assemblies shall be stored underwater in spent fuel storage racks that are positioned on the bottom of the Fuel Element Storage Well or in an approved dry spent fuel storage cask.*

*4.1.1.2 During the handling of spent fuel assemblies that have been operated at power levels greater than 1 Mwt, the depth of water in the Fuel Element Storage Well and the contiguous cask pool shall be at least 2 feet above the active fuel, and only one spent fuel assembly will be moved at a time.*

*4.1.1.3 No object heavier than 25 tons shall be handled over spent fuel assemblies located in the Fuel Element Storage Well or cask pool. Lifting and movement of a fuel-loaded storage canister and transfer cask shall be performed using the single-failure-proof cask handling crane lifting system meeting the guidance in NUREG-0612, Section 5.1.6. Lifting and movement of objects over spent fuel assemblies located in the Fuel Element Storage Well or cask pool shall be performed in accordance with the LACBWR NUREG-0612 commitments and the dedicated project heavy load control plan.*

4.1.2 FUEL ELEMENT STORAGE WELL AND CASK POOL

LIMITING CONDITION FOR OPERATION

*Note*

*This LCO does not apply to the cask pool if the spent fuel storage canister lid is in place in the canister or if there are no spent fuel assemblies in the cask pool.*

*The Fuel Element Storage Well (FESW) and cask pool shall meet the following requirements:*

- a. The Fuel Element Storage Well and cask pool water level shall be at least 11 feet, 6½ inches above any spent fuel assembly stored in the spent fuel storage racks or in spent fuel storage canister in the cask pool, and*
- b. Water in the storage well and cask pool shall be maintained at a temperature < 150°F.*

*APPLICABILITY: While spent fuel assemblies are in the FESW or the cask pool.*

*ACTIONS*

- a. *With water level less than required by the LCO, take immediate action to restore water level and suspend all operations involving FUEL HANDLING.*
- b. *With water temperature in the storage well or cask pool above 150°F, take actions to reduce water temperature to < 150°F within 24 hours and suspend all operations involving FUEL HANDLING.*

*SURVEILLANCE REQUIREMENTS*

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*Note*

*SR 5.1.2.1 and 5.1.2.2 do not apply to the cask pool if the spent fuel storage canister lid is in place in the canister or if there are no spent fuel assemblies in the cask pool.*

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*5.1.2.1 The Fuel Element Storage Well and cask pool water level and temperature shall be verified at least once per 12 hours.*

*5.1.2.2 The Fuel Element Storage Well and cask pool water level indication channel shall be calibrated (CHANNEL CALIBRATION) at least once per 18 months.*

3.4.1 Technical and Regulatory Basis

3.4.1.1 General fuel storage and handling requirements contained in TS Section 4.1.1 define location of spent fuel storage, minimum water level during movement of a specified single fuel assembly in the FESW or cask pool, and NUREG-0612 heavy load controls over spent fuel stored in the FESW or cask pool. These general requirements are no longer applicable with all spent fuel in dry cask storage at the ISFSI. The location of spent fuel storage is addressed in the revised TS Section 2.2. Therefore, deleting TS Section 4.1.1 is acceptable.

3.4.1.2 TS Section 4.1.2 established LCOs and Surveillance Requirements for water level and water temperature when spent fuel was located in the FESW or cask pool. These LCOs and Surveillance Requirements for FESW and cask pool water level and water temperature are no longer applicable with all spent fuel in dry cask storage at the ISFSI. Therefore, deleting TS Section 4.1.2 is acceptable.

3.4.1.3 With deletion of TS Sections 4.1.1 and 4.1.2, the deletion of TS Section 4.1 title, "Fuel Storage and Handling," and thus TS Section 4/5 in its entirety is likewise acceptable. The location of spent fuel storage is addressed in the revised TS Section 2.2.

3.5 DPC proposes to delete TS Section 6, "Administrative Controls," in its entirety. TS Section 6 currently states:

6.1 RESPONSIBILITY

6.1.1 *The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.*

6.1.2 *A Control Room Operator shall be responsible for the Control Room command function.*

6.2 ORGANIZATION

6.2.1 FACILITY STAFF

6.2.1.1 *The facility organization shall be as follows:*

- a. *Each on-duty shift shall be composed of at least one Certified Fuel Handler and one qualified Control Room Operator when fuel is stored in the Fuel Element Storage Well.\**
- b. *A qualified Control Room Operator shall be within visual and/or audio distance of the Control Room annunciators when fuel is in the Fuel Element Storage Well.*
- c. *All FUEL HANDLING shall be directly supervised by a Certified Fuel Handler.*
- d. *An individual qualified in radiation protection procedures shall be on site when there is fuel on site or there is a potential for release of radioactive materials. At least one additional Operator and one Health Physics Technician shall be on site when spent fuel or a spent fuel shipping cask is being handled or when any evolutions are being conducted in or above the Fuel Element Storage Well.*

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*\* Shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. This provision does not permit any shift crew position to be unfilled upon shift change due to an oncoming shift crew member being late or absent.*

#### 6.2.1.2 OVERTIME POLICY

*The working hours of Operators, Certified Fuel Handlers, Mechanical Maintenance and Instrument & Electrical Technicians when performing duties which may affect nuclear safety, and Health Physics Technicians, when performing radiation protection duties which may affect the safety of the public, shall be limited.*

*In the event overtime must be used, the following restrictions shall be followed:*

- (1) *The specified personnel shall not be permitted to work more than 16 hours straight, excluding shift turnover time.*
- (2) *The specified personnel shall not be permitted to work more than 16 hours in any 24-hour period, more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period.*
- (3) *A break of at least 8 hours shall be allowed following overtime before the next scheduled shift for the specified personnel, if the above limits are exceeded.*

*In the event overtime must be used in excess of the above restrictions, the Plant Manager or his designate, must authorize the deviation and the cause must be documented.*

### 6.3 FACILITY STAFF QUALIFICATIONS

*6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions except for the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.*

### 6.4 PROGRAM REQUIREMENTS

*6.4.1 In addition to the programs required by regulations, the programs specified in Section 6.4.2 shall be established, implemented and maintained.*

#### 6.4.2 PROGRAMS

##### 6.4.2.1 PROCESS CONTROL PROGRAM (PCP)

- a. *The PCP shall be maintained on site and will be available for NRC review.*
- b. *Licensee-initiated changes to the PCP shall be submitted to the Commission in the annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:*
  - *Information to support the rationale for the change;*
  - *A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and*
  - *Documentation of the fact that the change has been reviewed and found acceptable by the ORC.*

#### 6.4.2.2 OFFSITE DOSE CALCULATION MANUAL (ODCM)

*The ODCM shall be maintained by the licensee. Changes to the ODCM will be outlined in the annual Radioactive Effluent Release Report per Specification 6.5.1.1.d.*

*This submittal shall contain:*

- (1) *Detailed information to support the rationale for the change. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s) and*
- (2) *A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations.*

#### 6.4.2.3 RADIOACTIVE EFFLUENT CONTROLS PROGRAM

*A program shall be provided conforming with 10 CFR 50.36a for control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial action to be taken whenever the program limits are exceeded. The program shall include the following elements:*

- (1) *Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation, including surveillance tests and setpoint determination in accordance with the methodology in the ODCM.*
- (2) *Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas conforming to 10 CFR, Part 20, Appendix B, Table 2, Column 2.*
- (3) *Monitoring, sampling and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20 and with the methodology and parameters in the ODCM.*
- (4) *Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released to unrestricted areas conforming to Appendix I to 10 CFR, Part 50.*
- (5) *Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every year.*

- (6) *Limitations on the annual or quarterly air doses resulting from noble gases released in gaseous effluents to areas beyond the site boundary conforming to Appendix I to 10 CFR, Part 50.*
- (7) *Limitations on the annual and quarterly doses to a member of the public from tritium and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released to areas beyond the site boundary conforming to Appendix I to 10 CFR, Part 50.*
- (8) *Limitations on the annual dose or dose commitment to any member of the public due to release of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR, Part 190.*

#### 6.4.2.4 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

*A program shall be provided to monitor radiation and radionuclides in the environs of the plant. The program shall provide representative measurements of radioactivity in the highest potential exposure pathways. The program shall (i) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR, Part 50 and (3) include the following:*

- (1) *Monitoring, sampling, analysis and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.*
- (2) *Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive material in the environmental sample matrices are performed as part of the Quality Assurance Program for environmental monitoring.*

#### 6.5 REPORTING REQUIREMENTS

##### 6.5.1 ROUTINE REPORTS

*In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the Regional Office of the NRC unless otherwise noted.*

- 6.5.1.1 *Reports required on an annual basis shall be submitted by March 1 of each year and shall include:*
  - a. *A tabulation on an annual basis of the number of station, utility and other personnel, including contractors, receiving exposures greater than 100 mRem/yr and their associated man rem exposure according to work and job functions, e.g., plant operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and fuel handling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions. This tabulation is per the requirements of Regulatory Guide 1.16, Revision 4, August 1975.*
  - b. *A report containing a brief description of any changes, testing and experiments conducted under the criteria of 10 CFR 50.59, including a summary of the safety evaluations of them.*

- c. *An Annual Radiological Environmental Monitoring Report which shall include summarized and tabulated results, including interpretations and analysis of data trends, of environmental samples taken during the previous calendar year. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.*

*The report shall also include the following: a summary description of the Radiological Environmental Monitoring Program; a map of all sampling locations keyed to a table giving distances and directions from the plant, the results of the Interlaboratory Comparison Program, and a discussion of all analyses in which the LLD was not achievable.*

- d. *Radioactive Effluent Release Report*

*Paragraph (a)(2) of Part 50.36a, "Technical Specifications on Effluents from Nuclear Power Reactors," of 10 CFR Part 50 requires that a report be made to the Commission annually. The report shall specify the quantity of each of the principal radionuclides released to unrestricted areas by liquid and gaseous effluents during the previous year. With the exception of the collection of hourly meteorological data, the information submitted shall be in accordance with Appendix B of Regulatory Guide 1.21 (Revision 1) dated June 1974 with data summarized on at least a quarterly basis.*

*This same report shall include an assessment, performed in accordance with the Offsite Dose Calculation Manual (ODCM), of radiation doses to members of the public from radioactive liquid and gaseous effluents released beyond the effluent release boundary. This report shall contain any changes made to the ODCM during the previous twelve months.*

## 6.6 HIGH RADIATION AREA

6.6.1 *In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) of 10 CFR 20, each high radiation area in which the intensity of radiation, at 30 cm from the radiation source or surface that the radiation penetrates, is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Special Work Permit (SWP).<sup>\*</sup> Any individual or group of individuals permitted to enter such areas shall be provided with one or more of the following:*

- a. *A radiation monitoring device which continuously indicates the radiation dose rate in the area.*

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<sup>\*</sup> *Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the SWP issuance requirement during the performance of their assigned radiation protection duties, provided they are following plant radiation protection procedures for entry into high radiation areas.*

- b. *A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.*

- c. *A health physics qualified individual (i.e., qualified in radiation protection procedures) with a radiation dose rate monitoring device and who is responsible for*



*providing positive exposure control over the activities within the area and who will perform periodic radiation surveillance at the frequency which will be established by the Health and Safety Supervisor or applicable SWP.*

6.6.2 For each area with radiation levels greater than 1000 mrem/hr, at 30 cm (but less than 500 Rad/hr at 1 meter) from radiation source, or from any surface penetrated by the radiation, the control of Specification 6.6.1 shall be implemented and also:

- (1) Each entrance or access point to the area shall be maintained locked except during periods when access to the area is required. Positive control over each individual entry shall be by:
  - a. Maintaining the locked door keys under administrative control of the Certified Fuel Handler on duty or the Health and Safety Supervisor.
  - b. An approved SWP that specifies the dose rates in the immediate work areas and the maximum allowable stay time for individuals in that area.

### 3.5.1 Technical and Regulatory Basis

3.5.1.1 TS Section 6.1, "Responsibility," establishes responsibilities for the Plant Manager and the control room command function for the Control Room Operator. An equivalent description of the Plant/ISFSI Manager's responsibility is established in the LACBWR QAPD. Providing the responsibility description in the LACBWR QAPD is consistent with the guidance in NRC Administrative Letter 95-06. With no spent fuel stored in the FESW, the control room command function of the Control Room Operator is no longer applicable and is deleted. Therefore, deleting the organizational responsibility controls from TS Section 6.1 is acceptable because an equivalent description for the Plant/ISFSI Manager exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06, and the control room command function of the Control Room Operator is not applicable when no spent fuel is stored in the FESW.

3.5.1.2 TS Section 6.2, "Organization," establishes minimum facility staffing requirements in TS Section 6.2.1.1 when fuel is stored in the FESW, supervision requirements during fuel handling, radiation protection personnel requirements, and additional staffing requirements during fuel handling. A footnote provides direction for situations when minimum staffing requirements are not met. With transfer of all spent fuel to dry cask storage at the ISFSI, no fuel handling will be performed, and these facility staffing requirements are no longer applicable. Therefore, deleting these facility staffing requirements contained in TS Section 6.2.1.1 is acceptable.

TS Section 6.2 also contains working hour restrictions in TS Section 6.2.1.2, "Overtime Policy." In accordance with TSTF-511 (Reference 6.5), TS Section 6.2.1.2 is being deleted because 10 CFR Part 26, Subpart I requirements supersede TS requirements, rendering the TS requirements unnecessary and potentially conflicting with regulation. Therefore, deleting TS Section 6.2.1.2 and thus TS Section 6.2 in its entirety is acceptable.

3.5.1.3 TS Section 6.3, "Facility Staff Qualifications," establishes minimum qualification requirements for facility staff. Facility staff qualification requirements have been established in the LACBWR QAPD. Providing staff qualification requirements in the LACBWR QAPD is consistent with the guidance in NRC Administrative Letter 95-06. Therefore, deleting facility staff qualification requirements from TS Section 6.3 is acceptable because an equivalent description of facility staff qualification requirements exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06.

3.5.1.4 TS Section 6.4, "Program Requirements," establishes requirements for the Process Control Program, the Offsite Dose Calculation Manual, the Radioactive Effluent Controls Program, and the Radiological Environmental Monitoring Program. These program requirements have been relocated to

the LACBWR QAPD unchanged with the one exception that the Radioactive Effluent Controls Program no longer includes limitations on noble gas releases to areas beyond the site boundary. With all spent fuel in dry cask storage at the ISFSI, release of krypton-85 is precluded. Therefore, deleting program requirements from TS Section 6.4 is acceptable because an equivalent description of these program requirements exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06.

3.5.1.5 TS Section 6.5, "Reporting Requirements," specifies reports that shall be submitted on an annual basis. These reports are specified in TS Section 6.5.1.1(a) through (d). The deletion of these reporting requirements from TS is addressed in the following.

TS Section 6.5.1.1(a) requires submittal of an annual tabulation of personnel dose. This reporting requirement is being deleted in accordance with TSTF-369 (Reference 6.4) 10 CFR 20.2206(c) specifically requires that each licensee file a report of radiation exposures and radioactive material intake for monitored personnel no later than April 30 of each year covering the previous year. NRC Form 5 or electronic media including the equivalent of NRC Form 5 is used for this purpose. Therefore, deleting TS Section 6.5.1.1(a) is acceptable.

TS Section 6.5.1.1(b) requires submittal of an annual report containing a brief description of changes, tests, and experiments conducted under the criteria of 10 CFR 50.59. This requirement is established in regulation and is redundant. Therefore, deleting TS Section 6.5.1.1(b) is acceptable.

TS Section 6.5.1.1(c) requires submittal of an annual Environmental Radiological Monitoring Report. This reporting requirement has been relocated to the LACBWR QAPD. Therefore, deleting the reporting requirement from TS Section 6.5.1.1(c) is acceptable because an equivalent reporting requirement exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06.

TS Section 6.5.1.1(d) requires submittal of an annual Radioactive Effluent Release Report. This reporting requirement has been relocated to the LACBWR QAPD. Therefore, deleting the reporting requirement from TS Section 6.5.1.1(d) is acceptable because an equivalent reporting requirement exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06.

As a result of that described above, deleting TS Section 6.5, "Reporting Requirements," is acceptable.

3.5.1.6 TS Section 6.6, "High Radiation Area," specifies the requirements for the posting and control of access to high radiation areas. These posting and control requirements for high radiation areas, including footnote, have been relocated to the LACBWR QAPD with responsibility changes for Radiation Protection personnel in lieu of Health Physics personnel, and maintenance of administrative control of locked door keys by the Plant/ISFSI Manager or delegate in lieu of a Certified Fuel Handler or the Health and Safety Supervisor. Therefore, deleting high radiation area requirements from TS Section 6.6 is acceptable because an equivalent description of these requirements exists in the LACBWR QAPD consistent with the guidance in NRC Administrative Letter 95-06.

As a result of the foregoing, deleting TS Section 6, "Administrative Controls," is acceptable.

#### **4.0 NO SIGNIFICANT HAZARDS CONSIDERATION**

DPC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment for LACBWR by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

4.1 Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed changes reflect the complete transfer of all spent nuclear fuel from the Fuel Element Storage Well (FESW) to the Independent Spent Fuel Storage Installation (ISFSI). Design basis SAFSTOR accidents related to the FESW were discussed in the LACBWR Decommissioning Plan. These postulated accidents were predicated on spent nuclear fuel being stored in the FESW. With the removal of the spent fuel from the FESW, there are no remaining important to safety systems required to be monitored and there are no remaining credible accidents that require that actions of a Certified Fuel Handler to prevent occurrence or mitigate the consequences.

The LACBWR Decommissioning Plan provided a discussion of radiological events postulated to occur during SAFSTOR with the bounding consequence resulting from a materials handling event. The proposed changes do not have an adverse impact on decommissioning activities or any postulated consequences.

The proposed change to the Design Features section of the Technical Specifications clarifies that the spent fuel is being stored in dry casks within an ISFSI. The probability or consequences of accidents at the ISFSI are evaluated in the dry cask vendor's FSAR and are independent of the SAFSTOR accidents that were evaluated in the LACBWR Decommissioning Plan.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

4.2 Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The proposed changes reflect the reduced operational risks as a result of the spent nuclear fuel being transferred to dry casks within an ISFSI. The proposed changes do not modify any physical systems, or components. The plant conditions for which the LACBWR Decommissioning Plan design basis accidents relating to spent fuel were evaluated are no longer applicable. The proposed changes do not affect any of the parameters or conditions that could contribute to the initiation of an accident. Design basis accidents associated with the dry cask storage of spent fuel are already considered in the dry cask system's Final Safety Analysis Report. No new accident scenarios are created as a result of deleting non-applicable operational and administrative requirements.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

4.3 Does the proposed amendment involve a significant reduction in a margin of safety?

No. As described above, the proposed changes reflect the reduced operational risks as a result of the spent nuclear fuel being transferred to dry casks within an ISFSI. The design basis and accident assumptions within the LACBWR Decommissioning Plan and the Technical Specifications relating to spent fuel are no longer applicable. The proposed changes do not affect remaining plant operations, systems, or components supporting decommissioning activities. In addition, the proposed changes do not result in a change in initial conditions, system response time, or in any other parameter affecting the SAFSTOR accident analysis.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

Based on the above, DPC concludes that the proposed amendment to the LACBWR License and TS presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

## **5.0 ENVIRONMENTAL IMPACT DETERMINATION**

This amendment request meets the criteria specified in 10 CFR 51.22(c)(9) for categorical exclusion or otherwise not requiring environmental review. Specific criteria contained in this section of regulations are discussed below:

5.1 As demonstrated previously, this requested amendment does not involve any significant hazards considerations.

5.2 The requested amendment revises certain license conditions and removes operational and administrative requirements for systems that are no longer required to support the safe storage of spent nuclear fuel within the FESW. The proposed changes are administrative in nature and do not affect any systems such that there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

5.3 The elimination of non-applicable operational and administrative requirements from TS will not result in a significant increase in individual or cumulative occupational radiation exposure.

## **6.0 REFERENCES**

6.1 LACBWR Possession-Only License No. DFR-45 Amendment 69, and Appendix A, Technical Specifications, Amendment 71.

6.2 LACBWR Quality Assurance Program Description, Revision 25.

6.3 NRC Administrative Letter 95-06, "Relocation of Technical Specification Administrative Controls Related to Quality Assurance," December 12, 1995.

6.4 Technical Specifications Task Force Traveler No. 369 (TSTF-369), Revision 1, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report."

6.5 Technical Specifications Task Force Traveler No. 511 (TSTF-511), Revision 0, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26."

6.6 Yankee Atomic Electric Company, Letter P.C. No. 268, "Deletion of Operational and Administrative Requirements for the Yankee Nuclear Power Station Defueled Technical Specifications," January 14, 2003 (ML030160261).

**ATTACHMENT 3**

Clean Version of Revised

Technical Specification Pages

Appendix A

Cover

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**DAIRYLAND POWER COOPERATIVE**

**DOCKET NO. 50-409**

**LA CROSSE BOILING WATER REACTOR  
(LACBWR)**

**POSSESSION ONLY LICENSE**

**APPENDIX A**

**TECHNICAL SPECIFICATIONS**

**License No. DPR-45  
Amendment No. 72**

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**1. DEFINITIONS**

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THIS SECTION DELETED IN ITS ENTIRETY



## 2. DESIGN FEATURES

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### 2.1 SITE

The facility is located in Vernon County, Wisconsin, on the east bank of the Mississippi River, approximately one mile south of Genoa, Wisconsin, as described in License Condition 2.A.

### 2.2 FUEL STORAGE

A maximum of 333 spent fuel assemblies from the La Crosse Boiling Water Reactor are stored in 5 dry casks within an Independent Spent Fuel Storage Installation (ISFSI).

### 3. APPLICABILITY

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THIS SECTION DELETED IN ITS ENTIRETY

**4/5. PERFORMANCE REQUIREMENTS**

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THIS SECTION DELETED IN ITS ENTIRETY

6. ADMINISTRATIVE CONTROLS

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THIS SECTION DELETED IN ITS ENTIRETY