



LIC-14-0122

10 CFR 50.90

November 7, 2014

U. S. Nuclear Regular Commission  
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Washington, DC 20555

Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40  
NRC Docket No. 50-285

Subject: License Amendment Request (LAR) 14-09; Application to Revise Technical Specification 3.1, Table 3-3, to Correct an Administrative Error in the Surveillance Method for the Containment Wide Range Radiation Monitors

In accordance with the provisions of 10 CFR 50.90, the Omaha Public Power District (OPPD), is submitting a request for an amendment to the Technical Specifications (TS) for Fort Calhoun Station (FCS), Unit No. 1.

The proposed amendment would modify the TS surveillance method for the containment wide range radiation monitors to correct an administrative error introduced in TS Amendment 152.

The enclosure contains a description of the proposed changes, the supporting technical analyses, and the significant hazards consideration determination. Attachment 1 of the enclosure provides the existing TS page marked-up to show the proposed changes. Attachment 2 of the enclosure provides retyped (clean) pages with the changes proposed by Attachment 1 and denoted by revision bars in the margin.

OPPD requests approval of the proposed license amendment by November 2, 2015, with the amendment to be implemented within 30 days of issuance.

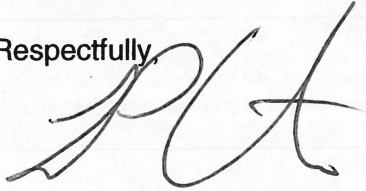
In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated State of Nebraska official.

There are no regulatory commitments contained within this letter.

If you should have any questions regarding this submittal or require additional information, please contact Mr. Bill R. Hansher at (402) 533-6894.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October  
November 7, 2014.

Respectfully,

A handwritten signature in black ink, appearing to read 'LPC', written over the word 'Respectfully,'.

Louis P. Cortopassi  
Site Vice President and CNO

LPC/BRH/brh

Enclosure: OPPD's Evaluation of the Proposed Change

- c: M. L. Dapas, NRC Regional Administrator, Region IV  
C. F. Lyon, NRC Senior Project Manager  
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Director of Consumer Health Services, Department of Regulation and Licensure,  
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## **OPPD's Evaluation of the Proposed Change**

### **License Amendment Request (LAR) 14-09, Application to Revise Technical Specifications to Correct an Administrative Error in the Surveillance Method for the Containment Wide Range Radiation Monitors**

1.0 SUMMARY DESCRIPTION

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2. Clean Technical Specification Page

## 1.0 SUMMARY DESCRIPTION

The Omaha Public Power District (OPPD) hereby requests an amendment to Fort Calhoun Station (FCS), Unit No. 1 Renewed Facility Operating License No. DPR-40 revising the current surveillance method for the containment wide range radiation monitors (RM-091A and RM-091B) to correct an administrative error introduced in License Amendment 152 (Reference 6.6)

## 2.0 DETAILED DESCRIPTION

Technical Specification (TS) 3.1, Table 3-3, Item 3.c, states the following for the Surveillance Method:

*“Secondary and Electronic calibration performed at refueling frequency. Primary calibration with exposure to radioactive sources only when required by the secondary and electronic calibration. RM-091A/B – Calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. Calibration for at least one decade below 1-R/hr. shall be by means of calibrated radiation source.”*

The last sentence in this methodology contains an administrative error that was submitted by OPPD (Reference 6.5) and subsequently approved by the NRC in Amendment 152 (Reference 6.6). The sentence as corrected will state: Calibration for at least one decade below 10 R/hr. shall be by means of calibrated radiation source. The proposed wording is consistent with the wording as issued in TS Amendment 81 and NUREG-0737.

## 3.0 TECHNICAL EVALUATION

The NRC issued Generic Letter 83-37, *NUREG-0737 TECHNICAL SPECIFICATIONS (Generic Letter 83-37)*, (Reference 6.2) on November 1, 1983 requesting licensees to submit proposed TS for certain NUREG-0737 items including containment high-range radiation monitors and provided model TS. For containment monitors the model TS provided a footnote stating *“Acceptable criteria for calibration are provided in Table II.F.1-3 of NUREG-0737.”*

Table II.F.1-3 of NUREG-0737 includes criteria for containment high-range radiation monitors special calibration as follows:

*“In situ calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. In situ calibration for at least one decade below 10 R/hr shall be by means of calibrated radiation source. The original laboratory calibration is not an acceptable position due to the possible differences after in situ installation. For high-range calibration, no adequate sources exist, so an alternate was provided.”*

OPPD submitted an application for amendment (Reference 6.3) that was approved and issued by Amendment 81 (Reference 6.4) that incorporated wording consistent with these requirements.

*“RM-091A and B – In situ calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. In situ calibration for at least one decade below 10 R/hr. shall be by means of calibrated radiation source.”*

OPPD subsequently submitted an application for amendment (Reference 6.5) that was approved and issued by Amendment 152 (Reference 6.6). This change implemented guidance for Radioactive Effluent TS following guidance of NRC Generic Letter 89-01, revised requirements for the containment radiation high signal, and other administrative changes. The surveillance method for the containment wide range monitors had administrative changes to delete verbiage on "in-situ testing" as no longer being necessary after the installation of the monitors and inadvertently revised "10 R/hr." to "1-R/hr.," as noted below.

*"RM-091 A/B –Calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. Calibration for at least one decade below 1-R/hr. shall be by means of calibrated radiation source."*

As stated in the Updated Safety Analysis Report (USAR) Section 11.2, radiation monitors RM-091A and RM-091B provide high level radiation measurements which would be required during accident conditions. The detector range is from 1 to  $10^7$  R/hr. This range is consistent with the range required by NUREG-0737 Table II.F.1-3. As currently written, the surveillance method requires calibration one decade below 1 R/hr., which is below the detector range of the monitors and inconsistent with NUREG-0737.

The proposed change revises the surveillance method from calibration for at least one decade below "1-R/hr." to below "10 R/hr." consistent with Table II.F.1-3 of NUREG-0737 criteria.

#### **4.0 REGULATORY EVALUATION**

##### **4.1 Applicable Regulatory Requirements/Criteria**

Table II.F.1-3 of NUREG-0737 criteria for special calibration.

##### **4.2 Precedent**

Proposed wording is consistent with NUREG-0737 Table II.F.1-3 and previously NRC approved verbiage from Amendment 81 that implemented NUREG-0737 TS.

##### **4.3 Significant Hazards Consideration**

The Omaha Public Power District (OPPD) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

##### **1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No.

The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to Technical Specification (TS) 3.1 Table 3-3 corrects an administrative error to the stated surveillance method introduced by TS Amendment 152 and will make the surveillance method for the containment high range radiation monitors consistent with Updated Safety Analysis Report (USAR) Section 11.2 for the range of the monitors and consistent with the guidance for special calibration of these monitors contained in NUREG-0737 Table II.F.1-3.

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated because: 1) the proposed amendment does not represent a change to the system design, 2) the proposed amendment does not alter, degrade, or prevent action described or assumed in any accident in the USAR from being performed, 3) the proposed amendment does not alter any assumptions previously made in evaluating radiological consequences, and 5) the proposed amendment does not affect the integrity of any fission product barrier. No other safety related equipment is affected by the proposed change.

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

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

Response: No.

The proposed change revises the surveillance method to be consistent with the guidance in NUREG-0737 Table II.F.1-3. The proposed change does not alter the physical design, safety limits, or safety analysis assumptions associated with the operation of the plant. Hence, the proposed change does not introduce any new accident initiators, nor does it reduce or adversely affect the capabilities of any plant structure or system in the performance of their safety function.

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

**3. Does the proposed amendment involve a significant reduction in a margin of safety?**

Response: No.

The proposed change does not alter the manner in which safety limits or limiting safety system settings are determined. The safety analysis acceptance criteria are not affected by this proposed change. Further, the proposed change does not change the design function of any equipment assumed to operate in the event of an accident. The change only corrects the surveillance method of the high range post-accident radiation monitors to be consistent with the design of the monitors and NUREG-0737.

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

Based on the above, OPPD concludes that the proposed amendment 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.

#### **4.4 Conclusion**

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

### **5.0 ENVIRONMENTAL CONSIDERATION**

A review of the proposed amendment has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22 (c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## 6.0 REFERENCES

- 6.1. NUREG-0737, *Clarification of TMI Action Plan Requirements*
- 6.2. NRC Generic Letter 83-37, *NUREG-0737 Technical Specifications*
- 6.3. Letter from OPPD (W. C. Jones) to LeBeoeuf, Lamb Leiby & MacRae ( H. H. Voigt), *Application for Amendment of Operating License*, to be delivered to NRC by March 9, 1984, dated March 7, 1984 (LIC-84-065)
- 6.4. Letter from NRC (E.G.Tourigny) to OPPD ( W. C. Jones), License Amendment No 81, dated July 12, 1980 (NRC-84-0209)
- 6.5. Letter from OPPD (W.G. Gates) to NRC (Document Control Desk), *Application for Amendment of Operating License*, dated June 1, 1992 (LIC-92-158A)
- 6.6. Letter from NRC (S. Bloom) to OPPD (T. L. Patterson), *Fort Calhoun Station, Unit No. 1 – Amendment No. 152 to Facility Operating License No. DPR-40 (TAC No. M83720)*, dated March 25, 1993 (NRC-93-0106)



**Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40**

**Mark-up of Technical Specification Page**

[Word-processor mark-ups using “double underline/~~strikeout~~” feature  
for “new text/deleted text” respectively.]

**TS 3.1 – Page 15**

TECHNICAL SPECIFICATIONS

TABLE 3-3

**MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING  
OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS**

<b><u>Channel Description</u></b>	<b><u>Surveillance Function</u></b>	<b><u>Frequency</u></b>	<b><u>Surveillance Method</u></b>
1. Primary CEA Position Indication System	a. Check	S	a. CHANNEL CHECK
	b. Test	M	b. Test of power dependent insertion limits, deviation, and sequence monitoring systems.
	c. Calibrate	R	c. Physically measured CEDM position used to verify system accuracy. Calibrate CEA position interlocks.
2. Secondary CEA Position Indication System	a. Check	S	a. Comparison of output data with primary CEAPIS.
	b. Test	M	b. Test of power dependent insertion limit, deviation, out-of-sequence, and overlap monitoring systems.
	c. Calibrate	R	c. Calibrate secondary CEA position indication system and CEA interlock alarms.
3. Area and Post-Accident Radiation Monitors <sup>(1)</sup>	a. Check	D	a. CHANNEL CHECK
	b. Test	Q	b. CHANNEL FUNCTIONAL TEST
	c. Calibrate	R	c. Secondary and Electronic calibration performed at refueling frequency. Primary calibration with exposure to radioactive sources only when required by the secondary and electronic calibration. RM-091 A/B - Calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. Calibration for at least one decade below <del>4-R/hr.</del> <u>10 R/hr.</u> shall be by means of calibrated radiation source.

<sup>(1)</sup>Post Accident Radiation Monitors are: RM-063, RM-064, and RM-091A/B. Area Radiation Monitors are: RM-070 thru RM-082, RM-084 thru RM-089, and RM-095 thru RM-098.

**Fort Calhoun Station, Unit No. 1  
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**Clean Technical Specification Page**

**TS 3.1 – Page 15**

TABLE 3-3

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<b><u>Channel Description</u></b>	<b><u>Surveillance Function</u></b>	<b><u>Frequency</u></b>	<b><u>Surveillance Method</u></b>
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	b. Test	M	b. Test of power dependent insertion limits, deviation, and sequence monitoring systems.
	c. Calibrate	R	c. Physically measured CEDM position used to verify system accuracy. Calibrate CEA position interlocks.
2. Secondary CEA Position Indication System	a. Check	S	a. Comparison of output data with primary CEAPIS.
	b. Test	M	b. Test of power dependent insertion limit, deviation, out-of-sequence, and overlap monitoring systems.
	c. Calibrate	R	c. Calibrate secondary CEA position indication system and CEA interlock alarms.
3. Area and Post-Accident Radiation Monitors <sup>(1)</sup>	a. Check	D	a. CHANNEL CHECK
	b. Test	Q	b. CHANNEL FUNCTIONAL TEST
	c. Calibrate	R	c. Secondary and Electronic calibration performed at refueling frequency. Primary calibration with exposure to radioactive sources only when required by the secondary and electronic calibration. RM-091 A/B - Calibration by electronic signal substitution is acceptable for all range decades above 10 R/hr. Calibration for at least one decade below 10 R/hr. shall be by means of calibrated radiation source.

<sup>(1)</sup>Post Accident Radiation Monitors are: RM-063, RM-064, and RM-091A/B. Area Radiation Monitors are: RM-070 thru RM-082, RM-084 thru RM-089, and RM-095 thru RM-098.