



Fort Calhoun Station  
9610 Power Lane  
Blair, NE 68008

LIC-12-0075  
June 18, 2012

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


- References:
1. Docket No. 50-285
  2. Letter from Omaha Public Power District (D. J. Bannister) to NRC (Document Control Desk), *Fort Calhoun Station, Unit No. 1, License Amendment Request (LAR) 11-03, "Incorporate New Radial Peaking Factor Definition and Clarify Limiting Conditions for Operation (LCO) 2.10.2(6),"* dated December 23, 2011 (ML120030225), (LIC-11-0119)
  3. Attachment to Email from NRC (L. E. Wilkins) to OPPD (B. R. Hansher), *Request for Additional Information Fort Calhoun Station, Unit No. 1 License Amendment Request (LAR) 11-03, "Incorporate New Radial Peaking Factor Definition and Clarify Limiting Conditions for Operation (LCO) 2.10.2(6),"* (TAC No. ME7796), dated May 18, 2012 (ML121390487), (NRC-12-0050)

**SUBJECT: OPPD Response to NRC Request for Additional Information Regarding LAR 11-03**

To support Nuclear Regulatory Commission (NRC) review of the Omaha Public Power District's (OPPD) License Amendment Request (Reference 2), the Condition Reports requested in Reference 3 are attached.

There are no commitments to the NRC contained in this submittal. If you should have additional questions, please contact Mr. Bill R. Hansher at (402) 533-6894.

Sincerely,



J.B. Herman  
Division Manger-Nuclear Engineering

JBH/MLE/mle

- Attachments:
1. Condition Report 2010-2429
  2. Condition Report 2011-6946

E. E. Collins, Jr., NRC Regional Administrator, Region IV  
L. E. Wilkins, NRC Project Manager  
J. C. Kirkland, NRC Senior Resident Inspector

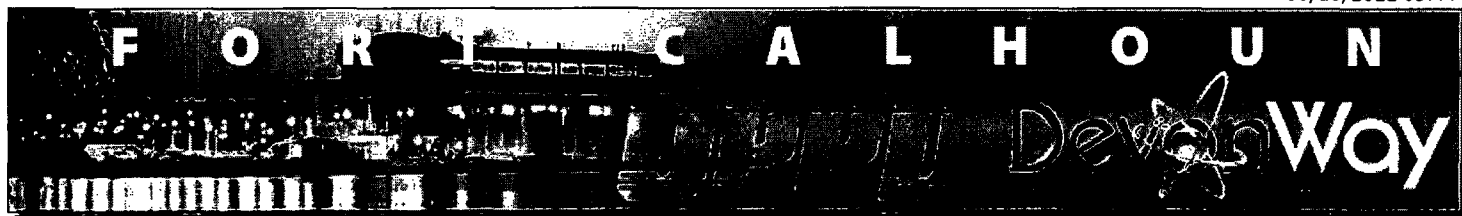
A 001  
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LIC-12-0075  
Attachment 1

**Fort Calhoun Station, Unit No. 1**

**Condition Report**

**2010-2429**



### Condition Report Summary

<b>Identifier</b>				
CR 2010-2429				
<b>Incident Type</b>		<b>Workflow state</b>	<b>Occurrence date</b>	<b>Occurrence time</b>
Condition Report		Maintain Action	05/19/2010	15:46
<b>Originator</b>		<b>Originator's department</b>		
SCHAWA, BARTON		841 - FCS Operations		
<b>Description</b>				
<p>The purpose of this CR is to document discrepancies in the actual methods used to determine the Total Integrated Radial Peaking Factor (FR-T) and the information provided in the Technical Specifications. Technical Specification section 2.10.4(2) describes that calculated value of FR-T is defined by <math>FR-T = FR * (1 + Tq)</math>, where FR is the unrodded integrated radial peaking factor and Tq is the azimuthal power tilt. In reality, the incore monitoring system calculates/measures the FR-T value directly because the system is now a full-core system. When FCS started using a full-core CECOR model over 15 years ago, the CECOR code provided FR-T value directly and back-calculated the FR value for information. The GARDEL model, which replaced CECOR, also calculates the FR-T value directly.</p> <p>Another discrepancy is that the Definition for Unrodded Integrated Radial Peaking Factor (FR) includes a statement that "The maximum FR limit is provided in the Core Operating Limits Report." The FR-T limit is actually provided in the COLR, which is consistent with the monitoring requirements of TS 2.10.4(2) and 3.10(5).</p> <p>The final discrepancy is that the Basis section for 2.10.4(2) states that "The value of Tq that must be used in the equation <math>FR-T = FR(1 + Tq)</math> is the measured tilt." Again as stated previously, this equation is no longer used to calculate FR-T.</p> <p>The operability of the incore monitoring system or GARDEL is not in question. The monitoring of FR-T and Tq is currently being performed in accordance with approved plant procedures, meeting the TS requirements.</p> <p>A review of Standard Technical Specifications showed that this equation has been removed. Incore monitoring systems have the capability to use a full-core model, so simplified methods (e.g., quarter-core) are no longer used.</p>				
<b>Immediate actions</b>				
Discussed issue with Reactor Performance Analysis and Licensing resulting in the generation of a CR.				
<b>Do you want feedback on, or to help resolve, this incident?</b>				
No				
<b>Self identified</b>		<b>Is a written report required?</b>		
1 - Identified by the normal, cognizant work group or method		No		
<b>Coordinator remarks</b>				
CAG Recommendations: Condition Level: C Owner: Supervisor-Reactor Performance Analysis Event: ADS-Administrative Issue Functional Area: A-Administrative, LIC-Licensing/Reg				
<b>Condition level</b>			<b>Response due</b>	
C - Adverse Conditions (or Safety Items) that require a Simple Cause statement			06/18/2010	
<b>Management remarks</b>				
Management Review Completed. 05/24/2010 09:58 CDT				
<b>Owner</b>		<b>Owner's department</b>	<b>Assigned by</b>	
HANSHER, BILL		363 - Nuclear Licensing	WASZAK, CAROL	
<b>Owner assignment remarks</b>				
per discussion with B. Hansher				
<b>Simple Cause Evaluation details</b>				
Complete -- Simple Cause Evaluation				
1. Is the condition report human performance related? Yes				
2. Is the condition report equipment related? No				
3. Is the condition report organization or program related? Yes				
<b>Work accomplished</b>				

This issue was discussed with Licensing to determine the how to proceed with a License Amendment Request.

**Response basis**

A License Amendment Request will be submitted to correct the T.S. No actions beyond revising the T.S. is necessary.

<b>Response approval required</b>	<b>Response complete date</b>	<b>Initial response complete date</b>
No	06/18/2010	06/18/2010

<b>In use</b>	<b>Procedure Number - Rev</b>	<b>Procedure</b>
	TECHNICAL SPECIFICATION 263	TECHNICAL SPECIFICATION

**Operability**

**Operability details**

Is further screening required?.....Yes

Is a regulatory report required?.....No

Is any affected asset governed by a tech spec?.....Yes

Is a current licensing basis specified function degraded or nonconforming?.....No

Would the decision model help to evaluate this condition?.....No

Should a screening be done for a mispositioned plant component?.....No

Is this an Operator challenge?.....No

Should a screening be done for a Reactivity Management event?.....No

Does this involve equipment important to EP?.....

Regulatory report type (first in list):  
Regulatory report criteria (first in list):

Other notification (first in list):

Initial operability? Yes  
Is an operability report required? No  
Tech spec entered or violated? No

Initial operability basis:  
This condition report is administrative. The definition of FR-T given in Technical Specifications remains valid, although unused, and a more accurate method to determine FR-T is being utilized at Fort Calhoun Station.

Prompt operability?  
Prompt operability basis:

**Suspected cause**

TS were not updated when FCS started using a full-core CECOR model.

Action Task Identifier	Status	Type	Details	Due date	Assignee	Closed date	Attachment Count
CR 2010-2429-001 AI	Closed	Action Item	Submit a License Amendment Request revising T.S. 2.10.4(2) to state that we calculate/measure the FR-T value directly since we utilize a full-core incore monitoring system.  Close Comments: LIC-11-0119 (attached) submitted to NRC on 12/23/11.  Issues Comments:  Assign Comments:	12/30/2011	HANSHER, BILL	12/27/2011	1

Action Task Identifier	Status	Type	Details	Due date	Assignee	Closed date	Attachment Count
CR 2010-2429-002 AI	Closed	Action Item	Provide License Amendment Request evaluation to support Total Integrated Radial Peaking Factor (FRT) Technical Specification changes proposed by Nuclear Licensing. Ensure level of detail and format meets the requirements of NL-28, 'Standard Template for License Amendment Requests (LARs).'  Close Comments: LAR Evaluation Provided to Licensing on 2/17/11  Issues Comments:  Assign Comments:	02/25/2011	HENG, THOMAS	02/18/2011	0
CR 2010-2429-003 AI	Respond	Action Item	CL: Long Term Corrective Action Receive amendment from NRC and issue.  Issues Comments:  Assign Comments:	05/01/2013	HANSHER, BILL		0

**Other equipment**

**Generic implications**

Trend Category	Code	Title	Description
Associated Department	UNK	WORK GROUP UNKNOWN/NOT DETERMINED 133	
Cause Code	ZZ	UNKNOWN	
Event Code	ADS	ADMINISTRATIVE ISSUE	ITEMS OR CONCERNS, INCLUDING ENHANCEMENTS, THAT DO NOT FIT IN EVENT TYPE ADMINISTRATIVE CATEGORIES.
Functional Area	A	Administrative	ASSOCIATED WITH QA RECORDS, DOCUMENTS AND PROCEDURE CONTROL
Functional Area	LIC	Licensing/Reg	Associated with Station Licensing and Regulatory Items/Issues. (Create Date: 11-24-09)

**Attachment**

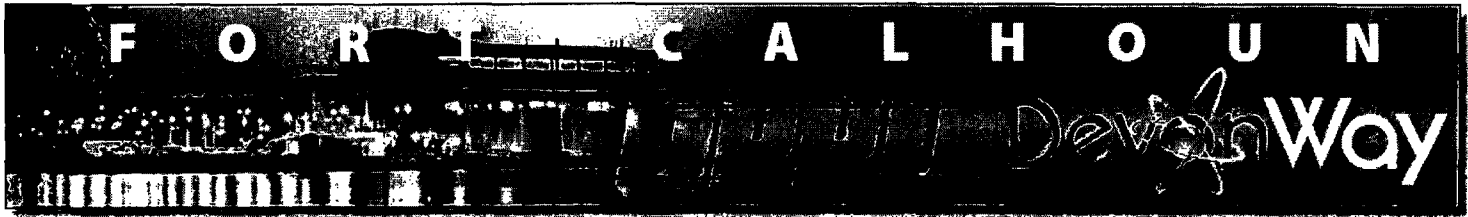
RTC 11-025.docx

LIC-12-0075  
Attachment 2

**Fort Calhoun Station, Unit No. 1**

**Condition Report**

**2011-6946**



### Condition Report Summary

**Identifier**

CR 2011-6946

**Incident Type**

Condition Report

**Workflow state**

Maintain Action

**Occurrence date**

08/26/2011

**Occurrence time**

12:14

**Originator**

Glaze, Robert

**Originator's department**

820 - Nuclear Training

**Description**

The wording of Technical Specification 2.10.2 (6) is the exact opposite of the intent of the specification. The intent of the specification is to prevent insertion of all Shutdown CEAs below 114" withdrawn. However the specification wording is "...with one or more shutdown CEAs inserted to more than 114" withdrawn..." The word 'more' must be changed to 'less' in order for the specification to read as intended.

Also, the specification cannot be followed for a second reason; the applicability listed on 2.10-page 3 states that the specification is applicable in cold shutdown. Tech. Spec. 2.10.2 (6) therefore requires that all shutdown CEAs must be withdrawn to at least 114" during cold shutdown mode, which is not possible. So spec. (6) needs it's own applicability statement, which is also true of spec 2.10.2 (5) for the same reason. Other specifications may be similarly affected by the applicability statement of T. S. 2.10.2.

**Immediate actions**

None.

**Do you want feedback on, or to help resolve, this incident?**

Feedback only

**Self identified**

1 - Identified by the normal, cognizant work group or method

**Is a written report required?**

No

**Coordinator remarks**

CAG Recommendations:  
 Condition Level: C  
 Owner: Nuclear Licensing  
 Event: TSI-Tech Spec Issues, GL-GL9118  
 Functional Area: LIC-Licensing/Reg  
 LAW 08-29-2011

**Condition level**

C - Adverse Conditions (or Safety Items) that require a Simple Cause statement

**Response due**

09/26/2011

**Management remarks**

Management Review Completed. 08/30/2011 09:48 CDT

**Owner**

HANSHER, BILL

**Owner's department**

363 - Nuclear Licensing

**Assigned by**

BAUGHN, SUSAN

**Owner assignment remarks**
**Simple Cause Evaluation details**

Complete -- Simple Cause Evaluation

State what actually happened.

Wording is what originally was submitted and is confusing to current personnel.

State what should have been happened.

Wording should have been reviewing for potential mis-interpretation. Old Standard TS has graph and does not contain similar verbage.

State who (by job/position title) did what (the action in error).

Unknown

Is the condition report equipment related? No

Would clarifying the expectations and goals improve performance? No

Would better resources improve performance? No

Would a procedure change, addition of a checklist, job aide, or technical change make the task easier to perform? Yes

Would feedback to the performer improve performance? No

Are there obstacles to good performance such as direction conflicts, distractions, interaction with others, peer pressure, or poor communication? No

Is this the first time to perform the task (If yes, training is a possible solution. If no, skills and knowledge are probably satisfactory)? No

Is this an infrequently performed task? No

Are the consequences for work performance inappropriate (Poor performance rewarded or good performance not recognized)? No

Review the questions where you answered 'Yes' above and state the most practical solution(s).

Wording of TS can be revised.

### Work accomplished

Reviewed original Standard TS and they contain graphic information versus words.

### Response basis

Action item to be issued to revise TS wording.

Response approval required	Response complete date	Initial response complete date
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No

09/26/2011

09/26/2011

### Operability

Further screening is not required

### Operability details

Is further screening required? No

Justification:

Administrative.

### Suspected cause

Lack of rigor in production and approval review of Tech. Specs.

Action Task Identifier	Status	Type	Details	Due date	Assignee	Closed date	Attachment Count
CR 2011-6946-001 AI	Closed	Action Item	Revise TS wording to be clear on distance rods have to be withdrawn and submit to NRC.  Close Comments: License Amendment Request 11-03 (LIC-11-0119) was submitted December 23, 2011 and included revision to wording on rod withdrawal.  Issues Comments:  Assign Comments:	01/31/2012	HANSHER, BILL	01/09/2012	1
CR 2011-6946-002 AI	Respond	Action Item	CL: Long Term Corrective Action Receive NRC approval and implement LAR 11-03.  Issues Comments:  Assign Comments:	05/01/2013	HANSHER, BILL		0

### Other equipment

### Generic implications

Trend Category	Code	Title	Description
Associated Department	NA	NOT APPLICABLE TO ANY WORK GROUP 131	
Cause Code	ZZ	UNKNOWN	
Event Code	GL	GL9118	DEGRADED EQUIPMENT AND NONCONFORMING CONDITIONS AFFECTING SSC'S SUBJECT TO REGULATORY ISSUE SUMMARY (RIS) 2005-20. (THE RIS SUPERCEDED GENERIC LETTER 91-18, REVISION 1.)
Event Code	TSI	Tech Spec Issues	Events/Concerns/Issues/Violations associated with Tech Specs. (Created: 04-20-2010)
Functional Area	LIC	Licensing/Reg	Associated with Station Licensing and Regulatory Items/Issues. (Create Date: 11-24-09)



**Attachment**

Acceptance of LAR to Incorporate New Radial Peaking Factor Definition and Clarify LCO 2.10.2(6) (ME7796).txt