



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

November 19, 1999

S. K. Gambhir, Division Manager  
Nuclear Operations  
Omaha Public Power District  
Fort Calhoun Station FC-2-4 Adm.  
P.O. Box 399  
Hwy. 75 - North of Fort Calhoun  
Fort Calhoun, Nebraska 68023-0399

SUBJECT: NRC INSPECTION REPORT NO. 50-285/99-16

Dear Mr. Gambhir:

On October 25 through 29, 1999, the NRC completed a safety inspection at your Fort Calhoun Station facility. The enclosed report presents the results of this inspection.

In this inspection, we evaluated the effectiveness of activities conducted under your license as they related to your implementation and control of permanent plant modifications and changes to license conditions and the licensing and design basis of your facility. We also reviewed your program for identifying and correcting problems within these areas. The inspection consisted of reviewing procedures and documentation of plant modifications and safety evaluations, interviews with personnel, and visual examinations of installed permanent plant modifications.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and the enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

J. L. Pellet for

Dr. Dale A. Powers, Chief  
Engineering and Maintenance Branch  
Division of Reactor Safety

Docket No.: 50-285  
License No.: DPR-40

Omaha Public Power District

-2-

Enclosure:

NRC Inspection Report No. 50-285/99-16

cc w/enclosure:

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Nuclear Licensing  
Omaha Public Power District  
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P.O. Box 399  
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James W. Chase, Division Manager  
Nuclear Assessments  
Fort Calhoun Station  
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E-Mail report to D. Lange (DJL)  
E-Mail report to NRR Event Tracking System (IPAS)  
E-Mail report to Document Control Desk (DOCDESK)

E-Mail all documents to Jim Isom for Pilot Plant Program (JAI)  
E-Mail all documents to Sampath Malur for Pilot Plant Program (SKM)

bcc to DCD (IE01)

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket No.: 50-285  
License No.: DPR-40  
Report No.: 50-285/99-16  
Licensee: Omaha Public Power District  
Facility: Fort Calhoun Station  
Location: Fort Calhoun Station FC-2-4 Adm.  
P.O. Box 399, Hwy. 75 - North of Fort Calhoun  
Fort Calhoun, Nebraska  
Dates: October 25 through 29, 1999  
Inspectors: R. L. Nease, Senior Reactor Inspector  
Engineering and Maintenance Branch  
L. E. Ellershaw, Senior Reactor Inspector  
Engineering and Maintenance Branch  
C. E. Johnson, Senior Reactor Inspector  
Engineering and Maintenance Branch  
Approved By: Dr. Dale A. Powers, Chief  
Engineering and Maintenance Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

Fort Calhoun Station  
NRC Inspection Report No. 50-285/99-16

This report covers a 1-week period of inspection by three NRC Region IV inspectors. The purpose of this inspection was to evaluate the licensee's programs and processes for controlling permanent plant modifications and changes to license conditions and the safety analysis report. In performing this inspection, the inspectors used risk-informed baseline pilot Inspection Procedures 71111-02, "Changes to License Conditions and Safety Analysis Reports," and 71111-17, "Permanent Plant Modifications." The inspection included: review of implementing procedures; discussions with cognizant personnel; review of permanent plant modifications and safety evaluations; assessment of the licensee's training and qualification program for personnel performing safety evaluations and plant modifications; field inspection of completed and installed plant modifications; and assessment of the effectiveness of the licensee's program to identify and resolve problems in the performance of 10 CFR 50.59 safety evaluations and plant modifications.

- No findings.

## Report Details

### 1 REACTOR SAFETY

#### 1R02 Changes to License Conditions and Safety Analysis Reports

##### a. Inspection Scope (71111.02)

The inspectors evaluated the licensee's process for controlling changes to license conditions and the Updated Final Safety Analysis Report to verify that changes were properly screened and evaluated to determine that no unreviewed safety questions existed. As part of this inspection, the inspectors reviewed procedures and guidelines for processing 10 CFR 50.59 safety evaluations and procedure changes; quality assurance surveillance and audit reports concerning safety evaluations and configuration management; and training lesson plans on performing 10 CFR 50.59 safety evaluations. In addition, inspectors reviewed 10 CFR 50.59 safety evaluations and the supporting analyses and calculations. Documents reviewed are listed in the Attachment.

The inspectors evaluated the effectiveness of the licensee's corrective action process to identify and correct problems concerning the performance of safety evaluations. In this effort, the inspectors reviewed condition reports and the subsequent corrective actions pertaining to licensee-identified problems and errors in the performance of 10 CFR 50.59 safety evaluations. Condition reports reviewed are listed in the Attachment.

##### b. Observations and Findings

There were no findings identified.

#### 1R17 Permanent Plant Modifications

##### a. Inspection Scope (71111.17)

The inspectors reviewed procedures governing plant modifications to evaluate the effectiveness of the licensee's programs for implementing modifications to risk-significant systems, structures, and components, such that these changes did not adversely affect the design and licensing basis of the facility. The inspectors also reviewed five permanent plant modification packages to verify that they were performed in accordance with plant procedures. Procedures and permanent plant modifications reviewed are listed in the Attachment.

The inspectors conducted field walkdowns of the reactor coolant pump motor oil collection system modification and the raw water connection for emergency refill of the emergency feedwater storage tank modification. The cognizant design and system engineers for the identified modifications were interviewed as to their understanding of the modification packages.

The inspectors evaluated the effectiveness of the licensee's corrective action process to identify and correct problems concerning the performance of permanent plant modifications. In this effort, the inspectors reviewed condition reports and the subsequent corrective actions pertaining to licensee-identified problems and errors in the performance of permanent plant modifications. Condition reports reviewed are listed in the Attachment.

b. Observations and Findings

No findings were identified.

4OA5 Exit Meeting Summary

The lead inspector presented the inspection results to members of licensee management at the conclusion of the inspection on October 29, 1999. Licensee management acknowledged the observations presented, and did not consider any material examined during the inspection as proprietary.

**ATTACHMENT**

**PARTIAL LIST OF PERSONS CONTACTED**

Licensee

J. Chase, Division Manager, Nuclear Assessment Division  
S. Chomos, Quality Assurance Engineer  
M. Frans, Manager, Nuclear Licensing  
S. Gambhir, Division Manager, Nuclear Operations Division  
G. Gates, Vice President, Nuclear  
W. Hansher, Supervisor, Station Licensing  
R. Jaworski, Manager, Revised Reactor Oversight Program Implementation  
R. Mayberry, Manager, Nuclear Construction Management  
J. McManis, Supervisor, Design Engineering Nuclear, Mechanical  
R. Phelps, Division Manager, Nuclear Engineering  
R. Short, Assistant Plant Manager  
J. Skiles, Manager, Design Engineering  
M. Swergart, Manager, Alternate Nuclear Safety Review Group  
M. Tesar, Division Manager, Nuclear Support Services  
R. Westcott, Manager, Training

NRC

V. Gaddy, Resident Inspector

**LIST OF BASELINE INSPECTIONS PERFORMED**

The following inspectable area procedures were used to perform the inspection. No findings were documented.

INSPECTION PROCEDURE

<u>Number</u>	<u>Title</u>	<u>Report Section</u>
71111-02	Changes to License Conditions and Safety Analysis Reports	R02
71111-17	Permanent Plant Modifications	R17



## DOCUMENTS REVIEWED

### PROCEDURES

<u>Number</u>	<u>Title</u>	<u>Revision</u>
NSRG-6	Routine NSRG Reviews	11
NOD-QP-3	10 CFR 50.59 Safety Evaluations	20
PED-GEI-3	Preparation of Design Change Packages	23
PED-GEI-29	Facility Change Evaluation	6
PED-GEI-35	Preparation of Minor Configuration Changes	4
PED-GEI-51	Document Change Evaluations	1
PED-GEI-52	Preparation of Field Design Change Requests	1
PED-QP-2	Configuration Change Control	18 and 29
SO-G-21	Modification Control	66
SO-G-30	Procedure Changes and Generation	80
SO-O-25	Temporary Modification Control	54
SO-O-34	Administrative Control for the Locking of Components	60

### CONDITION REPORTS REVIEWED

199902345	199802226
199902336	199801467
199901683	199801311
199901225	199801212
199901223	199800429
199901085	199800424
199901079	199800160
199900920	199800146
199900352	

10 CFR 50.59 SAFETY EVALUATIONS FOR THE FOLLOWING DOCUMENTS

<u>Document Type</u>	<u>Number</u>	<u>Title and/or Description</u>
Permanent Modification	MR-FC-97-027	Raw Water Pump Impeller Size Increase
Permanent Modification	MR-FC-98-006	RM-064 Availability Improvements
Permanent Modification	MR-FC-98-016	Reactor Coolant Pump and Steam Generator Snubber Hydraulic Reservoir Tubing Modification
Temporary Modification	98-015	Install Flanged Spacer on Piping While HCV-402B is Removed From the System for Maintenance
Temporary Modification	98-017	Cross Tie LT-106 and LT-101X Liquid Legs
Updated Safety Analysis Report Change	96-74	Updated Safety Analysis Report (Technical Specification Interpretation, TSI 94-09)
Updated Safety Analysis Report Change	99-004	Updated Safety Analysis Report Section 6.2.3.7
Engineering Analysis	EA-FC-97038	Containment Spray System and Analysis
Engineering Analysis	EA-FC-91-014	Effect of Loss of Cooling Water on SI/CS Pumps

10 CFR 50.59 SCREENINGS FOR THE FOLLOWING DOCUMENTS

<u>Document Type</u>	<u>Number</u>	<u>Title and/or Description</u>
Permanent Modification	MR-FC-96-013	Snubber Upgrades
Procedure Change	50245	Reactor Coolant Pump Malfunctions
Procedure Change	53205	Calibration of Reactor Coolant Flow Loop A/F-144
Procedure Change	51281	OI-RC-1A, Reactor Coolant System Instrumentation
Engineering Change Notice	94-247	Abandon Containment Electrical Penetrations Temperature Recorder
Engineering Change Notice	97-344	Epoxy Coating of FW-1A/B Tubesheets and Water Boxes

NUCLEAR SAFETY REVIEW GROUP REPORTS

<u>Number</u>	<u>Title</u>	<u>Date</u>
98-SRG-014	Nuclear Safety Review Group (NSRG) Report for SARC Meeting March 13, 1998	February 25, 1998
98-SRG-022	Nuclear Safety Review Group (NSRG) Report for SARC Meeting 4-98 (May 22, 1998)	April 30, 1998
98-SRG-024	Nuclear Safety Review Group (NSRG) Report for SARC Meeting 5-98 (July 17, 1998)	July 6, 1998
98-SRG-027	Nuclear Safety Review Group (NSRG) Report for SARC Meeting 6-98 (September 18, 1998)	September 2, 1998
98-SRG-029	Nuclear Safety Review Group (NSRG) Report for SARC Meeting 8-98 (November 20, 1998)	November 5, 1998
99-SRG-004	Nuclear Safety Review Group (NSRG) Report for the SARC Meeting held on April 23, 1999	March 31, 1999
99-SRG-011	Nuclear Safety Review Group (NSRG) Report for the SARC Meeting held on July 23, 1999	July 1, 1999

PERMANENT PLANT MODIFICATIONS

<u>Number</u>	<u>Title</u>
MR-FC-94-018	Raw Water Connection For Emergency Refill of FW-19 (Emergency Feedwater Storage Tank)
MR-ECN-95-266	Raw Water Pump Sparging Line Improvements
MR-FC-95-003	Replacement of Bad Actor Relays For DG-1 and DG-2
MR-FC-96-003	Prevention of HCV-348 Bonnet Over Pressurization
MR-ECN-97-029	Modify RCP Motor Oil Collection System Drains

MISCELLANEOUS DOCUMENTS

<u>Title</u>	<u>Revision or Date</u>
OPPD Guidelines for 10 CFR 50.59 Safety Evaluations	Revision 2
Quality Assurance Surveillance Report No. E13-98-3, 10 CFR 50.59 Safety Evaluations	October 5, 1998
Quality Assurance SARC Audit Report No. 72, Engineering Configuration Management	January 5, 1998
10 CFR 50.59 Report and Updated Safety Analysis Report for Fort Calhoun Station	December 4, 1998
10 CFR 50.59 Report and Updated Safety Analysis Report for Fort Calhoun Station	July 28, 1999
Memorandum OSC-10, 50.59 Oversight Committee Minutes - May 1998	May 13, 1998