



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BLVD
ARLINGTON, TEXAS 76011-4511

May 24, 2013

LICENSEE: Omaha Public Power District (OPPD)
FACILITY: Fort Calhoun Station
SUBJECT: SUMMARY OF MEETING WITH OMAHA PUBLIC POWER DISTRICT

On May 17, 2013, a Category 1 meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and Omaha Public Power District (OPPD) at the Comfort Inn & Suites located at 7007 Grover Street, Omaha, Nebraska.

The NRC presented the preliminary results of a Manual Chapter 0350 Team inspection that reviewed the licensee's progress in addressing items in the Confirmatory Action Letter Restart Checklist (Enclosure 1.) The licensee presented details of their progress for issue resolution and plant restart activities (Enclosure 2.)

A video of the public meeting will be posted on the website devoted to the special oversight at Fort Calhoun Station, available at:

<http://www.nrc.gov/info-finder/reactor/fcs/special-oversight.html>.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agency wide Documents Access and Management System (ADAMS). ADAMS is accessible from the Public Electronic Reading Room page of the NRC's public web site at:

<http://www.nrc.gov/readingrm/adams.html>.

To receive a summary of future meetings and other plant-specific e-mail distributions, you must subscribe to the Operating Reactor Correspondence electronic distribution for this plant via:

<http://www.nrc.gov/public-involve/listserver/plants-by-region.html>

Once subscribed, if you wish to discontinue receiving electronic distribution, you may unsubscribe at any time by visiting the same web address above.

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Docket No.: 50-285

Enclosure 1: NRC Presentation Slides
Enclosure 2: OPPD Presentation Slides

Fort Calhoun Station Public Meeting

Nuclear Regulatory Commission
May 17, 2013
Omaha, Nebraska

Opening and Introductions

- Welcome
- Introduction of NRC personnel

Purpose

- NRC will present preliminary results of a team inspection
 - NRC will discuss results
 - Allow for public comments and questions
 - OPPD response to inspection results
 - Allow for additional public comments and questions



MC 0350 Team Inspection Preliminary Results

- Team Lead – Greg Warnick



Public questions and comments to NRC

OPPD Discussion

Lou Cortopassi
Vice President and Chief Nuclear Officer
Omaha Public Power District



NRC Remarks

Closing Remarks

Open discussion

Open to the public

- The NRC places a high priority on keeping the public and stakeholders informed of its activities
- At www.nrc.gov, you can:
 - Find public meeting dates and transcripts;
 - Read NRC testimony, speeches, press releases, and policy decisions;
 - Access the agency's Electronic Reading Room to find NRC publications and documents; and
 - Subscribe to automatically receive correspondence from the NRC



Contacting the NRC

- Report an emergency
 - (301) 816-5100 (call collect)
- Report a safety concern
 - (800) 695-7403
 - Allegation@nrc.gov
- General information or questions
 - www.nrc.gov



Inspection Procedures

- Provide the objectives, requirements, and specific guidance for inspection activities, which are focused on safety.
- IP 95003: provides NRC with supplemental info. regarding licensee performance.
 - Determines breadth and depth of safety, organizational, and programmatic issues
 - More diagnostic than indicative
 - Includes review of programs and processes not inspected under baseline program

Inspection Procedure 95003

- **Objectives:**
 - independently assess of the extent of risk significant issues
 - independently assess the adequacy of the programs and processes used by the licensee to identify, evaluate, and correct performance issues
 - independently evaluate the adequacy of programs and processes in the affected strategic performance areas
 - provide insight into the overall root and contributing causes of identified performance deficiencies
 - determine if the NRC oversight process provided sufficient warning to significant reductions in safety
 - evaluate the licensee's safety culture

Inspection Procedure 95003

- **Key Attributes:**
 - Design
 - Human performance
 - Procedure quality
 - Equipment performance
 - Configuration control
 - Emergency response
 - Occupational radiation safety
 - Public radiation safety
 - Security



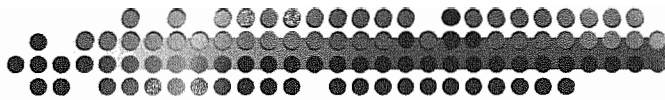
Confirmatory Action Letter

- Confirmatory Action Letters (CAL): confirms the required actions OPPD must take prior to the restart of Fort Calhoun Station
- NRC approval for restart is required. NRC focus is safety, restart is not a foregone conclusion



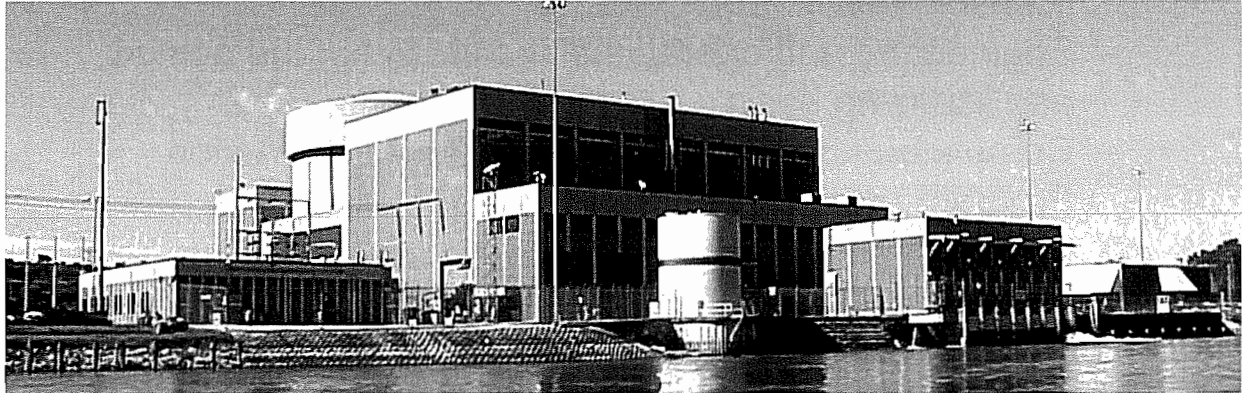
Restart Checklist

- The purpose of the Restart Checklist is to verify that the issues that resulted in the prolonged performance decline at Fort Calhoun Station are resolved.
- The Restart Checklist includes an assessment of each of the key attributes described in NRC Inspection Procedure 95003



Fort Calhoun Station Driving Through Restart

Public Meeting with the U.S. Nuclear Regulatory Commission



May 17, 2013

1



Topics for Discussion

- Insights from NRC Inspection
- Progress Toward Restart
- Status of Select Technical Issues
- Plan for Sustained Improvement
 - Design and Licensing Basis
 - Corrective Action Program
 - Operations Procedures
- Independent Assessment
- Closing Remarks

Fort Calhoun Station

Vision

Safe and efficient restart of Fort Calhoun Station and achievement of sustained excellence

Mission

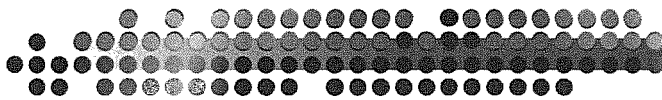
Safe, event-free, cost-effective, nuclear production of electricity

Values

- Safety – Nuclear, Industrial, Radiological, & Environmental
- Alignment
- Accountability
- Bias for Action
- Strong Nuclear Safety Culture

2





Recovery Work Completed

- From June 1, 2012 to present:
 - 26,869 Condition Reports identified
 - Generated 7,808 startup actions – 1,957 actions remain to be completed
 - Root Cause Analyses
 - 21 Root Cause Analyses completed
 - 11 Root Cause Analyses in process
 - 157 Apparent Cause Analyses conducted
- 15 Fundamental Performance Deficiencies identified, analyzed and being addressed
- Organizational effectiveness, human performance and safety improved

5

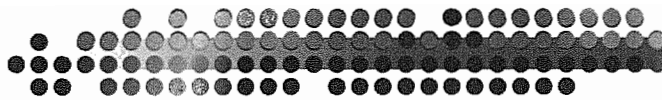


Equipment Reliability Improvements

- Emergency diesel generator voltage regulators replacement
- Equipment Service Life addressed (hundreds of component/part replacements)
- 4160 Volt breakers replacement and maintenance
- Reactor Protection System power supplies replacement
- Chemical and Volume Control System piping replacement with additional supports
- Raw water pumps/motors overhaul
- Manholes 5 and 31 restoration
- Auxiliary feedwater pump motor rewind
- Various parts and components replacement to address environmental qualification
- Digital turbine controls installation
- Main generator stator replacement
- Nuclear detector well coolers installation
- Heater drain tank replacement

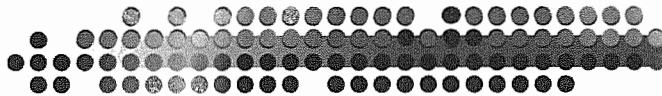
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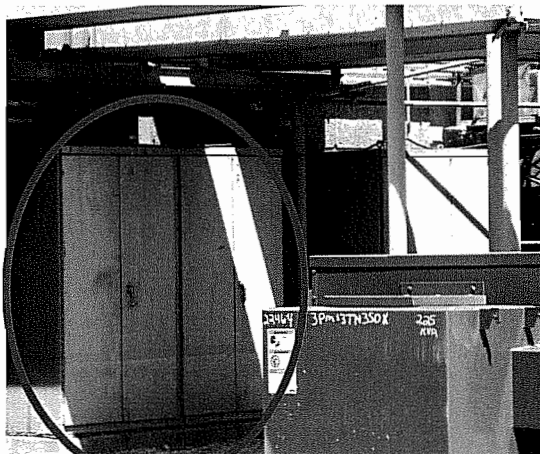


Tornado Protection Concerns

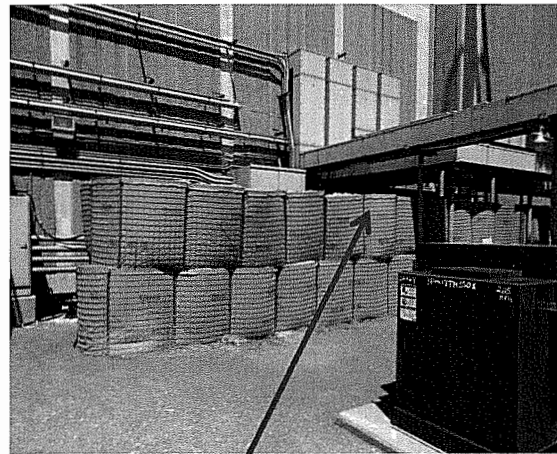
Vulnerability	Resolution	Milestone
Raw water pump power pull boxes	Barriers	Fuel reload
Intake structure – raw water system components	In process	Fuel reload
Control Room ventilation condenser units	Cage around condenser units	Heat-up
Diesel generator fuel oil tank fill lines	Beams and grating	Heat-up
Diesel generator fuel oil tank vent lines	Analysis	Heat-up
Turbine driven auxiliary feed water pump exhaust stack	Cage around exhaust stack	Heat-up
Emergency feed water storage tank (Room 81)	Cage around roof opening	Heat-up



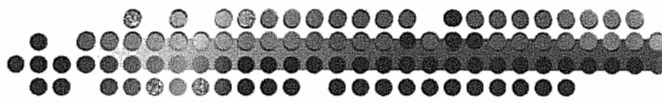
Tornado Protection Modification for Raw Water Pump Power Pull Boxes



Before



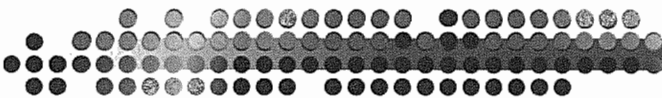
After



Containment Internal Structures

- NRC inspection of containment internal structure calculations is in progress
- Structural calculations being revised to clarify specific technical issues
 - Internal structures
 - Reactor cavity and compartments
 - Reactor head stand
- Operability evaluations are being finalized for fuel load and restart
- Third-party technical reviews in progress

13



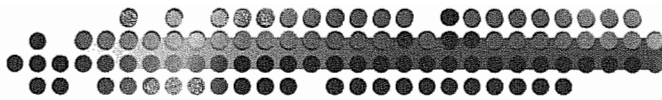
Containment Electrical Penetrations

- All 172 spare penetrations removed and capped
- 342 active penetrations being replaced
 - 274 penetrations have been replaced
 - Remaining 68 penetrations are in progress
- All work will be completed and penetrations leak-tested before heat-up

14

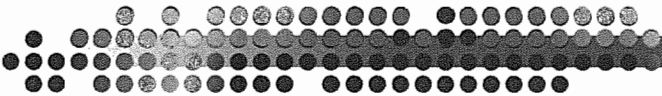


Enclosure 2



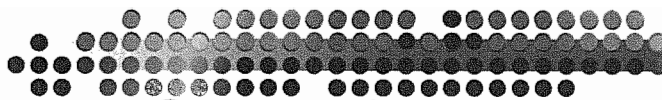
Design and Licensing Basis

- Some additional items have been identified by the NRC and OPPD since October 2012
- Accuracy and completeness of the design and licensing basis challenge the engineers' ability to perform key station processes efficiently
- A new design and licensing basis Root Cause Analysis was commissioned on March 18, 2013
- Scope of the review covers the period from 1968 when the construction permit was issued to the current day



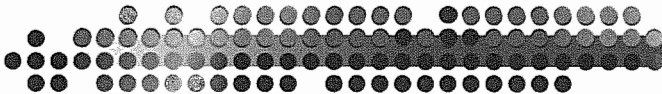
Design and Licensing Basis

- The Root Cause Analysis identified that several activities had been performed in the past to enhance the accuracy and completeness of the design and licensing basis documentation
- One example was the development of Design Basis Documents (DBDs) for specific topical areas which provide roadmaps to information
- DBDs were not always updated in a timely manner to ensure the information was accurate and there were missed opportunities to ensure open items were closed correctly



Corrective Action Program Root Cause Analysis

- Root Cause Analysis initiated using outside experts
 - Preliminary insights
 - Procedures are adequate to support the station
 - Issue identification is good
 - Improvements needed in
 - Consistent quality of root and apparent cause analyses
 - Rigor and timeliness for action item closure
- Short-term actions
 - Department level improvement plans initiated 1st quarter 2013
 - Enhanced monitoring of department CAP performance
- Increased management attention to Corrective Action Program effectiveness
- Improvement noted in all departments



Operations Procedures

- FCS benchmarking and NRC inspection identified need for operating procedures improvement
- Key procedures targeted for evaluation before restart
 - Emergency and Abnormal Operating Procedures
 - Annunciator Response Procedures
 - Operating Instructions
- Dedicated team established to complete review
- Results to date
 - Team has reviewed approximately half of the targeted procedures
 - Approximately half of the procedures reviewed are being enhanced



Nuclear Safety Review Board (NSRB)

- Replaces the Safety Audit and Review Committee
- Implementing Exelon Fleet Standards for NSRB
 - NSRB Chairman and Sub-Committee Chairs have extensive nuclear experience
 - Members perform NSRB duties at approximately 50% of the US nuclear plants
 - Enhanced Sub-Committee function
- Reports provided to the CNO, CEO and the Board of Directors
- Met April 30 and May 1 to review site performance and status of restart efforts

25



Closing Remarks

Today we updated you on

- Insights from NRC Inspection
- Progress Toward Restart
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26

