

#### UNITED STATES NUCLEAR REGULATORY COMMISSION REGION IV 611 RYAN PLAZA DRIVE, SUITE 400 ARLINGTON, TEXAS 76011-4005

August 27, 2003

Garry L. Randolph, Senior Vice President and Chief Nuclear Officer Union Electric Company P.O. Box 620 Fulton, Missouri 65251

## SUBJECT: CALLAWAY PLANT - NRC INSPECTION REPORT 05000483/2003011

Dear Mr. Randolph:

On August 22, 2003, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Callaway Plant. The enclosed inspection report documents the inspection findings, which were discussed on August 22, 2003, with Mr. R. Affolter and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/ by RLN for

Charles S. Marschall, Chief Engineering and Maintenance Branch Division of Reactor Safety

Docket: 50-483 License: NPF-30

#### Union Electric Company

Enclosure: Inspection Report 05000483/2003011

cc w/enclosure: Professional Nuclear Consulting, Inc. 19041 Raines Drive Derwood, Maryland 20855

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 Initials: <u>CJP</u>

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# **ENCLOSURE**

# U.S. NUCLEAR REGULATORY COMMISSION REGION IV

Docket:	50-483
License:	NPF-30
Report :	05000483/2003-011
Licensee:	Union Electric Company
Facility:	Callaway Plant
Location:	Junction Highway CC and Highway O Fulton, Missouri
Dates:	August 18-22, 2003
Lead Inspector:	C. Paulk, Senior Reactor Inspector, Engineering and Maintenance Branch
Inspectors:	L. Ellershaw, Senior Reactor Inspector, Engineering and Maintenance Branch T. McConnell, Reactor Inspector, Engineering and Maintenance Branch
Accompanying Persons:	B. Henderson, Reactor Inspector, Engineering and Maintenance Branch G. George, Reactor Inspector
Approved By:	Charles S. Marschall, Chief Engineering and Maintenance Branch Division of Reactor Safety

#### SUMMARY OF FINDINGS

IR 05000483/2003011; 8/18-22/2003; Callaway Plant; Plant Design Pilot, Enclosure 2

The NRC conducted an inspection with three regional inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

No findings of significance were identified.

### Report Details

#### 1. **REACTOR SAFETY**

#### Introduction

The NRC has undertaken a pilot inspection program to determine if efficiencies or resource savings can be gained by consolidating selected baseline inspection procedures. This inspection report documents the performance of Attachment 71111.DS, "Plant Design - Pilot," Enclosure 2. This enclosure is normally performed using Attachment 71111.17, "Permanent Plant Modifications."

The NRC conducted an inspection to verify that the design basis, licensing basis, and performance capability of risk-significant systems, structures, and components have not been degraded and to verify that modifications performed during increased risk-significant configurations did not place the plant in an unsafe condition. Acceptance criteria used by the NRC inspectors included NRC regulations, the technical specifications, applicable sections of the Updated Safety Analysis Report, applicable industry codes and standards, and industry initiatives implemented by the licensee's programs.

#### 1RDS Plant Design (71111.DS)

1RDS2 Enclosure 2: Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed the eight design changes listed in the attachment. The inspectors reviewed procedures governing design changes to evaluate the effectiveness of the programs for implementing modifications to risk-significant systems, structures, and components to verify that such changes did not adversely affect the design and licensing bases of the facility.

The inspectors interviewed the cognizant design and system engineers for the identified modifications as to their understanding of the modification packages. The inspectors evaluated the effectiveness of the Callaway Action Request System to identify and correct problems concerning the performance of design changes.

#### b. Findings

No findings of significance were identified.

## ATTACHMENT

## **KEY POINTS OF CONTACT**

#### Licensee:

- R. Affolter, Vice President, Nuclear
- T. Antweiler, Coordinator, Maintenance Rule
- D. Carstens, System Engineer
- A. Gerling, Construction Supervisor
- G. Harris, Design Engineer
- T. Herman, Supervisor, Design Engineering
- T. Herrmann, Superintendent, Nuclear Engineering Steam Generator Replacement and Accident Analysis
- R. Lamb, General Superintendent, Work Control
- J. Nurrenbern, Coordinator, Maintenance Rule
- S. Petzel, Engineer, Regional Regulatory Affairs
- M. Reidmeyer, Supervisor, Regional Regulatory Affairs
- T. Schroer, Supervisor, Administrative Support
- D. Stepanovic, Superintendent, Nuclear Engineering Trchnical Support
- W. Witt, Plant Manager

## LIST OF DOCUMENTS REVIEWED

Calculations:

NUMBER	TITLE	REVISION
ARC-197	Review Auxiliary Feedwater For An Operating Temperature of 120°F	0
ARC-205	Evaluate Vent Lines in Auxiliary Feedwater Piping	0
EF-31	ESW Orifice Sizing	01, Addenda 1 & 2
EF-45	Acceptance Criteria for Essential Service Water Flow Balance Procedures	5
EF-75	Orifice Sizing Calculation for Flow Restricting EFFO001 and EFFO002	0
	tion Requests (CARe)	

#### Callaway Action Requests (CARs)

200102697	200103014	200306225	200306229
200102775	200306108	200306228	200306230

# Design Changes:

NUMBER	SUBJECT	REVISION
88-1044	Installation of Four Differential Pressure Indicators in the Essential Service Water System	A
98-1020	Modify Valves for Hot Shorts	А
99-1034	ESW Back-pressure Orifice Change to Resolve the Low System Back-pressure	A, FCNs 1-4
00-1020	Installation of Additional Back-pressure Orifice Plates in the ESW Headers at the UHS	A, FCN 1
00-1035	Replace ESW Carbon Steel Pipe with Stainless Steel	А
01-1016	Rewire EGHV132 to Close Against High DP	А
02-1008	Aux Feed Water Vents	А
02-1018	Replace AFPs' Discharge Check Valves with Automatic Recirculation Valves	A
Drawings:		
NUMBER	TITLE	REVISION
E-23EG09A	Component Cooling Water Containment Isolation Valve	4
M-143-00003	Outline Drawing Concentric Restricting Orifice Plates	16

M-22EF02	Piping and Instrumentation Diagram Essential Service Water System	47
M-22AL01	Auxiliary Feedwater System	24
M-23AL01	Auxiliary Feedwater Pumps Suction Piping	7
M-23AL02	Motor Driven Auxiliary Feedwater Pump 'A' Discharge Piping	1
M-23AL03	Motor Driven Auxiliary Feedwater Pump 'B' Discharge Piping	1

## Miscellaneous Documents

# Procedure Qualification Records for WPS 01008T01; 9, 23, 24, and 25

#### Preventive Maintenance Packages

690229 690230 690231 P712484 P712744 P712589

## Procedures:

NUMBER	TITLE	REVISION
APA-ZZ-00143	10CFR50.59 Reviews	0
APA-ZZ-00600	Design Change Control	22
EDP-ZZ-04015	Evaluating and Processing Requests for Resolution (RFR'S [sic])	35
EDP-ZZ-04024	Configuration Control	16
MTW-ZZ-WP003	Control of Welding Materials	15
MTW-ZZ-WP505	General Welding Specification	6
OTN-AL-00001	Auxiliary Feedwater System	13
WPS 0108T0	Welding Procedure Specification for SMAW and GTAW welding of P1 to P8 Materials	6
Work Requests		

A199329A	A690757	A690759	W196692
A690534A	A690757A	A690759A	W199228
A690756	A690758	C690534	
A690756A	A690758A		