

**EXHIBIT 7**  
**PREDECISIONAL**  
**CALLAWAY PLANT PERFORMANCE SUMMARY**  
**- UPDATED 02-13-03 -**

Assessment Period: January 2002 through December 2002

**I Operating Summary**

The plant began and ended the assessment period at 100 percent power. During the assessment period the following power changes took place:

- On January 31 the plant was taken off line to inspect and remove the internal floating cover in the condensate storage tank. The plant was restarted February 15 and returned to 100 percent power.
- On October 23 the licensee began refueling Outage 12. On November 26, the licensee closed the main generator output breaker ending the refueling outage. Total outage duration was 34 days.
- On December 14 the unit experienced an automatic reactor trip on Over Temperature/Delta Temperature (OTDT). The trip occurred while completing a power reduction from 100% to 85% to secure a condensate pump for maintenance. The pump was repaired and the gain to the OTDT trip setpoint was adjusted. The unit was restarted on December 17. The unit remained at full power for the remainder of the assessment period.

**II Performance Overview**

**A. Current Overall Assessment**

Plant performance for the most recent quarter was in the Regulatory Response Column of the Action Matrix, as a result of one White finding in the Mitigating Systems cornerstone in January 2002 due to the motor-driven auxiliary feedwater (AFW) pump being inoperable.

A substantive cross-cutting issue was identified during the midcycle performance assessment in the area of Problem Identification and Resolution.

**B. Previous Assessment Results**

in accordance with the Freedom of Information Act, exemptions 5  
FOIA- 2013-0180

B/2

Plant performance in the first quarter 2002 was in the Degraded Cornerstone Response Column of the Action Matrix, as a result of a White finding in the Mitigating Systems cornerstone in June 2001 ( inoperability of one train of the essential service water system) and the above mentioned white issue. The licensee was in the Regulatory Response Column during the second and third quarters of 2002 as the result of the white finding for the AFW pump.

### III Inspection and Performance Indicator Results

#### A. Results by Strategic Performance Areas and Cornerstones

##### Reactor Safety

- **Initiating Events**

##### Inspection Findings:

One Green finding was identified during the most recent quarter, and no findings were identified during the previous three quarters.

(Self Disclosing) A noncited violation of 10 CFR Part 50, Appendix B, Criteria III, Design Control, occurred when the licensee failed to maintain control of the over temperature-delta temperature delta flux penalty circuit amplifier gain. The finding contributed to an unplanned reactor trip, an initiating event (IR 02-06 / December 14, 2002).

Performance Indicators: All three performance indicators were green throughout the assessment period.

- **Mitigating Systems**

##### Inspection Findings:

Over the course of the assessment period, the inspectors identified [REDACTED] findings involving mitigating systems. Most of the findings occurred early in the assessment period or were existing conditions that were identified and documented during the period. [Handwritten signature]

- a. (NRC, White) Between January 1992 and January 31, 2002, several opportunities were missed to promptly identify and correct a significant condition adverse to quality involving foreign material in the auxiliary feedwater system and condensate storage tank. The failure to promptly identify the degraded condition resulted in the failure of an auxiliary feedwater pump (IR 02-07 / February 27, 2002).

- b. (Self Disclosing) A noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, occurred when the licensee failed to take corrective action to ensure that abnormally high vibration on both motor driven trains of the auxiliary feedwater system was corrected. During the past 12 years, the licensee had identified this condition five times. The licensee did not determine the actual cause of auxiliary feedwater piping vibration and consequently did not take appropriate corrective action (IR 01-07 / February 8, 2002).
- c. (NRC) A noncited violation of Technical Specification 3.0.3 occurred five times during the time that the Essential Service Water pump was inoperable (February 9-15, 2001), three of which exceeded the one hour requirement for initiating actions identified in Technical Specification 3.0.3 (IR 02-08 / March 13, 2002).
- d. (NRC) It was determined that the licensee failed to promptly identify the need for and implement corrective action to address the flow anomaly condition of the auxiliary feedwater system Train B that existed between February 2000 and March 28, 2001, where the flow through the recirculation valve was below the required flow. The condition existed between February 2000 and March 2001 (IR 02-08 / March 13, 2002).
- e. (Licensee) Calculations for auxiliary feedwater pump net positive suction head did not account for nitrogen saturated water. The failure of calculational methods to verify the adequacy of net positive suction head requirements for the auxiliary feedwater pumps was a violation of 10 CFR Part 50, Appendix B, Criterion III (IR 02-07 / February 27, 2002).
- f. (NRC) The screws that held the overspeed trip switch intact were found to be loose and the emergency diesel generator had to be removed from service for repair. Repair consisted of tightening the screws that held the switch in place. No other repair action was taken nor was a root cause analysis conducted even though this was the second time this had occurred (IR 02-02 / April 9, 2002).
- g. (Self Disclosing) A leather weld rod pouch lodged inside the fill valve to the condensate storage tank could have adversely affected the auxiliary feedwater system if the pouch became dislodged while filling the tank (IR 02-02 / April 23, 2002).
- h. (NRC) Two licensee calculations contained incomplete and incorrect methods of evaluating degraded voltage conditions. Calculation E-B-21, "LSELS Degraded Voltage Setpoint Calculation," Revision 0, did not consider the voltage requirements for non-motor loads in determining the degraded voltage relay setting. In addition, Calculation ZZ-214, "Motor Operated Valve Feeder Cable Voltage Drops," Addenda 1, Revision 2, for determining minimum voltage to motor-operated valves, did not consider

the effect of motor starting currents in circuit elements upstream of the motor control centers (IR 02-04 / May 24, 2002).

- i. (NRC) Requirements in Procedure EDP-ZZ-04023, "Calculations", Revision 14, were not applied correctly to the diesel generator steady-state loading calculation contained in Callaway Drawing E-21005, "List of Loads Supplied by Emergency Diesel Generator," Revision 25 (IR 02-04 / May 24, 2002).
- j. (NRC) Calculation E-B-21, "LSELS Degraded Voltage Setpoint Calculation," Revision 0, used to determine the degraded voltage relay dropout setting, referred to superseded calculations for important design inputs, and had not been updated to reflect plant configuration and loading changes (IR 02-04 / May 24, 2002).
- k. (NRC) A noncited violation of Operating License Condition 2.C(5)(c) occurred when the licensee failed to take compensatory action when the 3-hour rated fire doors that separated the two trains of control room air conditioning were unlatched and not closed (IR 02-02 / June 25, 2002).

Performance Indicators: All five performance indicators were green throughout the assessment period.

#### ***Barrier Integrity***

##### Inspection Findings:

No findings were identified during the assessment period.

Performance Indicators: The two performance indicators were green throughout the assessment period.

#### ***Emergency Preparedness***

##### Inspection Findings:

No findings were identified during the assessment period.

Performance Indicators: The three performance indicators were green throughout the assessment period.

### ***Radiation Safety***

#### ***Occupational Radiation Safety***

##### Inspection Findings:

No findings were identified during the assessment period.

Performance Indicators: The performance indicator (Occupational Exposure Control Effectiveness) was green throughout the assessment period.

### **Public Radiation Safety**

#### Inspection Findings:

No findings were identified during the assessment period.

Performance Indicators: The performance indicator was green throughout the assessment period.

## **Safeguards**

### **Physical Protection**

#### Inspection Findings:

No findings were identified during the assessment period.

Performance Indicators: The performance indicator was green throughout the assessment period.

## **IV. Other Issues**

### **A. Inspection Results for Cross-Cutting Areas**

"Human Performance": Over the course of the assessment period [REDACTED] issues were identified related to human performance/errors. Most occurred early in, or were identified and documented in, this assessment period, but all were in the mitigating systems cornerstone. These included:

Skulpton  
5

Green. A noncited violation of 10 CFR Part 50, Appendix B, Criteria III, Design Control, occurred when the licensee failed to maintain control of the over temperature-delta temperature delta flux penalty circuit amplifier gain. The finding contributed to an unplanned reactor trip, an initiating event (IR 0206 / December 14, 2002).

Green. A noncited violation of Technical Specification 3.0.3 occurred five times during the time that the Essential Service Water pump was inoperable, three of which exceeded the one hour requirement for initiating actions identified in Technical Specification 3.0.3 (IR 02-08 / March 13, 2002).

Green. Calculations for auxiliary feedwater pump net positive suction head did not account for nitrogen saturated water. The failure of calculational methods to verify the adequacy of net positive suction head requirements for the auxiliary feedwater pumps was a violation of 10 CFR Part 50, Appendix B, Criterion III (IR 02-07 / February 27, 2002).

Green. Two licensee calculations contained incomplete and incorrect methods of evaluating degraded voltage conditions. Calculation E-B-21, "LSELS Degraded Voltage Setpoint Calculation," Revision 0, did not consider the voltage requirements for non-motor loads in determining the degraded voltage relay setting. In addition, Calculation ZZ-214, "Motor Operated Valve Feeder Cable Voltage Drops," Addenda 1, Revision 2, for determining minimum voltage to motor-operated valves, did not consider the effect of motor starting currents in circuit elements upstream of the motor control centers (IR 02-04 / May 24, 2002).

Green. Requirements in Procedure EDP-ZZ-04023, "Calculations", Revision 14, were not applied correctly to the diesel generator steady-state loading calculation contained in Callaway Drawing E-21005, "List of Loads Supplied by Emergency Diesel Generator," Revision 25 (IR 02-04 / May 24, 2002).

Green. Calculation E-B-21, "LSELS Degraded Voltage Setpoint Calculation," Revision 0, used to determine the degraded voltage relay dropout setting, referred to superseded calculations for important design inputs, and had not been updated to reflect plant configuration and loading changes (IR 02-04 / May 24, 2002).

Green. A noncited violation of Operating License Condition 2.C(5)(c) occurred when the licensee failed to take compensatory action when the 3-hour rated fire doors that separated the two trains of control room air conditioning were unlatched and not closed (IR 02-02 / June 25, 2002).

**"Safety-Conscious Working Environment"**: Interviews during followup of an employee concern, and interviews during the Problem Identification and Resolution inspection did not identify a reluctance to raise safety issues. However, a corrective action document was generated regarding an internal licensee survey that indicated a number of employees believed raising safety concerns resulted in negative repercussions. This aspect of the survey had not been specifically addressed by the licensee and is the subject of a letter to the licensee asking for further information and planned actions.

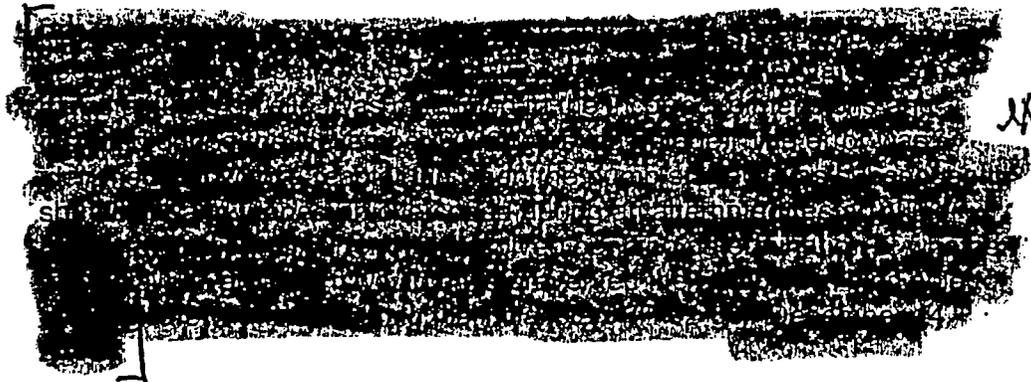
**"Problem Identification and Resolution"**: Over the course of the first half of the assessment period, the inspectors identified [REDACTED] findings where problem identification and/or resolution were inadequate. Specifically, the causal relationship of the findings listed below was inadequate problem recognition on the part of the Callaway staff, and inadequate implementation of the corrective action program. Additionally, there was one finding not related to the SDP that identified multiple missed problem identification

Exemption  
H

opportunities. One recent finding regarding the turbine-driven auxiliary feedwater pump is still in the resolution phase, but will be at least green.

White. Between January 1992 and January 31, 2002, several opportunities were missed to promptly identify and correct a significant condition adverse to quality involving foreign material in the auxiliary feedwater system and condensate storage tank (IR 02-07 / February 27, 2002).

N/A. Several opportunities were missed to promptly identify and correct a risk significant condition adverse to quality involving the degraded condition of the condensate storage tank diaphragm seal. Quality assurance personnel were not actively involved in providing oversight of the event review team and root cause investigation processes (IR 02-07 / February 27, 2002).



Green. The screws that held the overspeed trip switch intact were found to be loose and the emergency diesel generator had to be removed from service for repair. Repair consisted of tightening the screws that held the switch in place. No other repair action was taken nor was a root cause analysis conducted. On April 9, 2002, the same screws on the same switch were loose and found to be damaged. This also required the emergency diesel generator to be removed from service for (IR 02-02 / April 9, 2002).

Green. The licensee failed to promptly identify the need for and implement corrective action to address the flow anomaly condition of the auxiliary feedwater system Train B that existed between February 2000 and March 28, 2001, where the flow through the recirculation valve was below the required flow (IR 02-08 / March 13, 2002).

Green. A noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, occurred when the licensee failed to take corrective action to ensure that abnormally high vibration on both motor driven trains of the auxiliary feedwater system was corrected. During the past 12 years, the licensee had identified this condition five times. The licensee did not determine the actual cause of auxiliary feedwater piping vibration and consequently did not take appropriate corrective action (IR 01-07 / February 8, 2002).

Region IV considers these issues to constitute a substantive cross-cutting issue in the area of problem identification and resolution (PI&R), as previously identified in the Mid-Cycle Assessment Letter. The region will conduct a PI&R inspection in June 2003 to further assess licensee progress in addressing this substantive cross-cutting issue. This will be communicated to the licensee in the upcoming annual assessment letter.

**B. Performance Indicator Verification**

The performance indicators were reviewed during the assessment period. PI verifications did not identify any deficiencies or discrepancies with the most recent PI submittal.

**C. Non-SDP Enforcement Action**

None

**V. Miscellaneous Topics/Conclusions/Recommendations**

The substantive crosscutting issue in problem identification and resolution will remain open and will be addressed in the EOC assessment letter.

Following Q4 2002, there will be no issues greater than green outstanding at Callaway Plant.

A special inspection is planned for February 2003 to review the circumstances associated with the failure to provide some emergency notification (tone alert) radios in remote areas of the licensee's EPZ

**VI. Attachments**

PIM for previous 12 months (1)  
Proposed Inspection Plan through March 31, 2004  
Previous Mid-cycle Assessment Letter

(1) [www.nrc.gov/NRR/OVERSIGHT/Assess/Call/call-pim.html#IE1st](http://www.nrc.gov/NRR/OVERSIGHT/Assess/Call/call-pim.html#IE1st)

# Callaway

Updated: 01/29/03

		1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02	1Q 03	2Q 03	3Q 03
<b>REACTOR SAFETY</b> Enter the number and color(s) of the PI and findings												
Initiating Events	PI											
	Findings											
Mitigating Systems	PI											
	Findings		W	W	W	2W	W	W	W			
Barrier Integrity	PI											
	Findings											
Emergency Preparedness	PI											
	Findings											
<b>RADIATION SAFETY</b>												
Occupational Radiation Safety	PI											
	Findings	3W	3W									
Public Radiation Safety	PI											
	Findings											
<b>SAFEGUARDS</b>												
Physical Protection	PI											
	Findings											
<b>SIGNIFICANT CROSS-CUTTING (enter N for no and Y for yes to indicate if any identified)</b>												
Problem Identification and Resolution		N	N	N	N	N	N	Y	Y			
Human Performance		N	N	N	N	N	N	N	N			
Safety Conscience Work Environment		N	N	N	N	N	N	N	N			