

Attachment 1

Marked-up Technical Specification Page

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PLANT SYSTEMSSURVEILLANCE REQUIREMENTS (Continued)c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8f. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to determine system operability with an unacceptable snubber. If operability cannot be justified, the system shall be declared inoperable and the ACTION requirements shall be met.

d. Transient Event Inspection *

An inspection shall be performed of all hydraulic and mechanical snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients as determined from a review of operational data and a visual inspection of the systems within 6 months following such an event. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement; or (2) evaluation of in-place snubber piston setting; or (3) stroking the mechanical snubber through its full range of travel.

* *The surveillance of the alternate charging line portion of the Chemical and Volume Control System may be extended until prior to startup following the next entry into Mode 3 or November 1, 1993, whichever occurs first.*

Attachment 2

Re-typed Technical Specification Page

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PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8f. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to determine system operability with an unacceptable snubber. If operability cannot be justified, the system shall be declared inoperable and the ACTION requirements shall be met.

d. Transient Event Inspection*

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- * The surveillance of the alternate charging line portion of the Chemical and Volume Control System may be extended until prior to startup following the next entry into Mode 3 or November 1, 1993, whichever occurs first.

Attachment 3

Nuclear Safety Evaluation

SAFETY EVALUATION

This amendment application requests a revision to Technical Specification (T/S) 3/4.7.8, Surveillance Requirement 4.7.8.d. This specification is revised to allow a one-time schedule extension from the snubber transient event inspection requirement for the alternate charging line portion of the Chemical and Volume Control System. Pursuant to T/S 4.7.8.d, the inspection is due to be performed by April 30, 1993 (within 6 months of the transient) because the alternate charging line experienced an unexpected transient on October 30, 1992. The surveillance inspection has been extended to June 14, 1993 based on the provisions of T/S 4.0.2 which allow a 25% extension of the surveillance interval. This extension beyond June 14, 1993 is required because the alternate charging line is located within the confines of the bioshield wall and, therefore, is inaccessible during power operation. The next scheduled plant shutdown is October 1, 1993 when Callaway will commence Refuel 6.

Background and Safety Analysis

The Charging line is an integral part of the Chemical and Volume Control System (CVCS). The CVCS maintains the required water inventory in the Reactor Coolant System (RCS), provides seal water injection to the Reactor Coolant Pump (RCP) mechanical seals, controls the RCS chemistry conditions, activity levels and boric acid concentration, provides a means to fill, drain and pressure test the RCS and finally, provides the high head portion of the Emergency Core Cooling System (ECCS). The charging line fulfills only a portion of the required function of the CVCS. The charging line assists in maintaining the water inventory in the RCS, provides RCP seal injection to the mechanical seals, controls the RCS chemistry conditions, activity levels and boric acid concentration and provides a method to fill and pressure test the RCS.

The charging system is further divided into the seal injection and charging line subsystems. The seal injection portion is located just downstream of the charging pumps to direct a portion of the pump flow to the RCP mechanical seals. The remainder of the flow is directed through the normal or alternate charging paths to the RCS to maintain water inventory and provide for filling and pressure testing. During normal plant operation, the charging line flow is directed through the normal charging header. Only during a malfunction of the normal charging line header isolation valve is the alternate charging line utilized. As a result, the alternate charging line isolation valve, BGHV8147, is normally in the closed position.

The alternate and normal charging lines each contain two check valves in series at the RCS penetration. During normal operations, the check valves in the alternate charging flowpath are closed and the valves in the normal charging flowpath are open. This provides for capture of the fluid in the alternate

charging flowpath between the check valves at the RCS penetration and valve BGHV8147.

During a routine monthly containment entry, a packing leak was identified on valve BGHV8147. A work authorizing document was generated to tighten the packing gland at the next monthly containment entry. A retest was assigned to the work to verify that the valve freely stroked. It was during the post maintenance stroking of valve BGHV8147 on October 30, 1992 that a water hammer transient occurred.

This transient was identified from the observed operational parameters at the time of the valve stroking. The loose parts monitor was initiated and the seal injection flow dropped, momentarily. Based upon these observations, a transient was declared.

The root cause of the event was determined to be a result of depressurization of the alternate charging header due to the packing leak on valve BGHV8147. As discussed above, the alternate charging line is isolated from the RCS by the two series check valves and from the charging pumps by the closure of valve BGHV8147. This section of piping is maintained at or near the RCS pressure due to minimal leakage past the check valves. When the packing was leaking at valve BGHV8147, the flow out of the system through the packing was in excess of the leakage past the check valves and the system depressurized. The heat in the RCS transferred to this depressurized section of piping and saturation conditions were reached. This resulted in the formation of a steam void in the piping. When valve BGHV8147 was stroked open, the void collapsed causing the transient.

Pursuant to Technical Specification 4.7.8.d, a physical inspection to determine if the transient was potentially damaging is required to be performed within 6 months. Performance of this surveillance for the alternate charging line would require the plant to be in Hot Standby (Mode 3) because a large portion of the alternate charging line is located within the confines of the bioshield wall which is a radiological exclusion area. The portion of the alternate charging line located outside the bioshield wall was inspected after the transient and no damage was found.

This amendment request would allow a one-time schedule extension from the snubber transient event inspection requirement until prior to startup following the next entry into Mode 3 or November 1, 1993, whichever occurs first. This extension is required to avoid a cool down transient that would be imposed upon the plant by the shutdown to Mode 3 and the radiation exposure to individuals performing the inspection within the confines of the bioshield wall.

An engineering evaluation of the transient event was performed by comparing this transient to a previous event evaluated in 1990. In the previous transient event, snubber BG21-R005, which consists of a pair of axial PSA-1/4 snubbers, would not hand stroke due to overloading. A system walk down was performed to evaluate any

damage to the piping or support system. No other damage was observed. All snubbers in the affected piping system were hand stroked to establish their operability and no additional snubber failures were found. The piping system was re-analyzed in the as-found condition and we demonstrated the system would remain within code allowables.

We believe snubber BG21-R005 is the most likely snubber to fail, due to the October 30, 1992 transient event, based on orientation (axial), size (PSA-1/4) and past experience. We believe that damage, if any, would be similar to that experienced during the previous transient event and be limited to this snubber. We have concluded therefore, that the previous evaluation envelopes any potential failures from this transient.

Based upon a review of the previous transient, the system has been declared operable.

Evaluation

The proposed change to Technical Specifications does not involve an unreviewed safety question because operation of the Callaway Plant with this change would not:

1. Increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report. There is no increase in the probability of occurrence or the consequences of an accident. The alternate charging line is not required in any FSAR Chapter 15 analysis.
2. Create a possibility for an accident or malfunction of a different type than any previously evaluated in the safety analysis report. There is no new type of accident or malfunction created and the method and manner of plant operation will not change. The alternate charging line is not used during normal operation of the plant. The alternate charging line will remain isolated from the RCS unless a malfunction would occur in the normal charging path.
3. Reduce the margin of safety as defined in the basis for any technical specification. This is based on the fact that no plant design changes are involved and the method and manner of plant operation remains the same.

Given the above discussions as well as those presented in the Significant Hazards Evaluation, the proposed change does not adversely affect or endanger the health or safety of the general public or involve a significant safety hazard.

Attachment 4

Significant Hazards Evaluation

SIGNIFICANT HAZARDS EVALUATION

This amendment application requests a revision to Technical Specification 3/4.7.8 Surveillance Requirement 4.7.8.d. This specification is revised to allow for a one-time schedule extension from the snubber transient event inspection requirement for the alternate charging line portion of the Chemical and Volume Control System. The inspection is required to be performed by June 14, 1993 (6 months from October 30, 1992 plus a 25% surveillance interval extension per T/S 4.0.2) because the alternate charging line experienced an unexpected transient on October 30, 1992. This extension beyond June 14, 1993 is required because the alternate charging line is located within the confines of the bioshield wall and, therefore, is inaccessible during power operation.

This extension is required to avoid an unnecessary plant transient that would be imposed by a shutdown to Mode 3 and to reduce the radiation exposure to individuals performing the walkdown of the portion of the alternate charging line located within the bioshield wall. In addition, an engineering evaluation of a previous transient of the alternate charging line concluded that thermal stresses were within code allowable values with a failed snubber. The alternate charging line is considered operable. We believe that the snubber failure mode for this transient, if any, would be similar to the previous transient event.

The proposed change does not involve a significant hazards consideration because operation of Callaway Plant with this change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. The Callaway FSAR Chapter 15 analysis has been reviewed and been found to be unaffected by this proposed change. This change will not increase the probability or consequences of any accident or malfunction of equipment. The alternate charging line is not required in any FSAR Chapter 15 analysis.
2. Create the possibility of a new or different kind of accident from any previously evaluated. There is no new type of accident or malfunction created and the method and manner of plant operation will not change. The alternate charging line is not used during normal plant operation. The alternate charging line will remain isolated unless a malfunction occurs in the normal charging line.
3. Involve a significant reduction in a margin of safety. The margin of safety remains unaffected since no design change is made and plant operation remains the same.

As discussed above, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated or create the possibility of a new or different kind of accident from any previously evaluated. This change does not result in a significant reduction in a margin of safety. Therefore, it has been determined that the proposed change does not involve a significant hazards consideration.

Attachment 5

Environmental Consideration

ENVIRONMENTAL CONSIDERATION

This amendment application requests a revision to Technical Specification 3/4.7.8 Surveillance Requirement 4.7.8.d. This specification is revised to allow a one-time schedule extension from the snubber transient event inspection requirement for the alternate charging line portion of the Chemical and Volume Control System. The inspection is required to be performed by June 14, 1993 (6 months from October 30, 1992 plus a 25% surveillance interval extension per T/S 4.0.2) because the alternate charging line experienced an unexpected transient on October 30, 1992. This extension is required because the alternate charging line is located within the confines of the bioshield wall and, therefore, is inaccessible during power operation.

The proposed amendment involves changes with respect to the use of facility components located within the restricted area as defined in 10 CFR Part 20, and changes a surveillance requirement. Union Electric has determined that the proposed amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.