

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

MFIV Actuator Replacement and Increased MFIV Stroke Time

[* * *], the increase in MFIV stroke time does not adversely impact the NSSS [nuclear steam system supplier] design transients evaluated for the Callaway Plant. The increase in MFIV stroke time will result in a slightly longer normal post trip cool down. Although the plant post trip cool down is expected to be slightly longer for the increased MFIV stroke time, the plant response does not significantly deviate from its current evaluated response following a normal reactor trip.

Evaluations assessing the impact of the change in MFIV actuators and the increase in MFIV stroke time on LOCA [loss-of-coolant accident] mass and energy releases; main steamline break mass and energy releases; LOCA and LOCA[-]related transients; non-LOCA transients; LOCA hydraulic forces[;] and steam releases used for radiological consequence calculations were also performed. The increase in isolation time and change in MFIV actuators either do not provide an adverse impact or have no impact. Except for the SGTR [steam generator tube rupture] with overfill accident, the results presented in the FSAR [Callaway Final Safety Analysis Report] remain valid. The increase in MFIV stroke time was evaluated for impact on the SGTR with overfill accident. [* * *], the results from the re-analysis of the SGTR with overfill accident confirm that there is no significant increase in the probability or consequences of an accident previously evaluated.

The replacement of the existing electro-hydraulic MFIV actuators with system-medium actuators and the increase in MFIV stroke time from 5 seconds to 15 seconds will not result in a significant increase in the probability or consequences of an accident previously evaluated.

MDAFP [Motor Driven Auxiliary Feedwater Pump] ARC Valve and Increased Maximum AFW Flow

The replacement of existing MDAFP discharge check valves with the ARC valves results in increased maximum AFW flow to the steam generators [(SGs)]. In many accident scenarios the increase in AFW flow to the SGs is beneficial to mitigation of the event. The evaluations [* * *] demonstrate that in those accident scenarios where maximum AFW flow is limiting, except for the SGTR with overfill accident, the increase in AFW flow remains bounded by FSAR analyses. The increase in maximum AFW flow was evaluated for impact on the SGTR with overfill accident. [* * *], the results from the re-analysis of the SGTR with overfill

accident confirm that there is no significant increase in the probability or consequences of an accident previously evaluated. The AFW system is not the initiator of any accident and there is no possibility of a significant increase in the probability of an accident or malfunction previously evaluated.

Use of the ARC valve is an enhancement and the associated increase in the maximum AFW flow will not result in a significant increase in the probability or consequences of an accident previously evaluated.

Use of Revised Methods in Re-Analysis of SGTR With Overfill

The re[-]analysis of the design basis accident for SGTR with overfill does not significantly increase the probability or consequences of an accident previously evaluated. The re-analysis of an accident is not an initiator [of an accident]. The SGTR accident is classified as an ANS [American Nuclear Society] Condition IV Event, Limiting Faults, and is only postulated and not expected to occur. The re[-]analysis activity being evaluated does not change the ANS classification for this design basis event. The re-analysis does provide dose consequences that are minimal increases to the doses in the Analysis of Record.

However, the doses remain well below regulatory limits. In support of this methodology the proposed TS definition for DOSE EQUIVALENT I-131 will allow the use of ICRP 30 based DCFs [dose conversion factors]. Section 4.1.2 and [* * *] Appendix E of Regulatory Guide 1.195 find acceptable and recommend the [proposed] method revisions.

In summary, using the proposed revised methods for the re-analysis of the SGTR with overfill does not result in a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

MFIV Actuator Replacement and Increased MFIV Stroke Time

The change in MFIV actuators and associated increase in MFIV stroke time will not prevent the main feedwater or auxiliary feedwater systems from performing their safety functions. The proposed increase will not affect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of the increase. Although the modification does alter the design of the MFIV actuators, it does not prevent the main feedwater or AFW systems from performing their safety functions.

Therefore, the proposed changes do not create a new or different kind of accident from any accident previously evaluated.

MDAFP ARC Valve and Increased Maximum AFW Flow

The new MDAFP ARC valve and associated increase in the maximum AFW flow [* * *] will not prevent the AFW system from performing its safety function. The proposed increase in AFW system flow

margin will not effect the normal method of plant operation. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of the increase in AFW system flow margin. Although the modification alters the design of the MDAFP discharge check valves, it does not prevent the AFW system from performing its safety functions.

Therefore, the proposed changes do not create a new or different kind of accident from any accident previously evaluated.

Use of Revised Methods in Re-Analysis of SGTR With Overfill

The revision to the Technical Specifications to allow the use of ICRP 30[-]based DCFs is based on methodologies found acceptable to the NRC and recommended for use as described in Section 4.1.2 of Regulatory Guide 1.195. The re [-]analysis of the design basis accident for SGTR with overfill and the use of recommended analysis methods acceptable to the NRC does not introduce the possibility of a new accident. Accident re-analysis is not an initiator of any accident and no new failure modes are introduced. In summary, there is no increase in the possibility of an accident of a different type.

Therefore, the proposed changes do not create a new or different kind of accident from any accident previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

MFIV Actuator Replacement and Increased MFIV Stroke Time

The replacement of the MFIV actuator and the associated increase in the MFIV stroke time does not affect the manner in which safety limits or limiting safety system settings are determined, nor will there be any adverse effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no significant impact on the overpower limit, departure from nucleate boiling ratio limits, heat flux hot channel factor (F_Q), nuclear enthalpy rise hot channel factor ($F_{\Delta H}$), loss[-]of[-]coolant accident peak cladding temperature (LOCA PCT), peak local power density, or any other margin of safety. The radiological dose consequence acceptance criteria listed in the [NRC] Standard Review Plan will continue to be met.

Therefore, the proposed changes do not involve a significant reduction in the margin of safety.

MDAFP ARC Valve and Increased Maximum AFW Flow

The use of the MDAFP ARC valve and the associated increase in AFW system flow margin does not affect the manner in which safety limits or limiting safety system settings are determined nor will there be any adverse effect on those plant systems necessary to assure the accomplishment of protection functions. There will be no significant impact on the overpower limit, departure from nucleate boiling ratio limits, heat flux hot channel factor (F_Q), nuclear enthalpy rise hot channel factor ($F_{\Delta H}$), loss[-]of[-]coolant accident peak cladding temperature (LOCA PCT), peak local power density, or any other margin of safety. The radiological dose