

November 03, 2005

U.S. Nuclear Regulatory Commission
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Ladies and Gentlemen:

ULNRC-05226



**DOCKET NUMBER 50-483
CALLAWAY PLANT
UNION ELECTRIC COMPANY
RESPONSES TO REQUESTS FOR
ADDITIONAL INFORMATION CONCERNING
LICENSE AMENDMENT REQUEST (LAR) OL-1258
FOR REVISION OF TECHNICAL SPECIFICATION 3.7.3,
"MAIN FEEDWATER ISOLATION VALVES (MFIVs)"**

References: 1) ULNRC-05206, dated September 9, 2005
2) ULNRC-05224, dated October 24, 2005

Reference 1 (ULNRC-05206) transmitted to the NRC AmerenUE's (Union Electric) requested amendment of the Facility Operating License for the Callaway Plant (License No. NPF-30) to revise Technical Specification (TS) 3.7.3, "Main Feedwater Isolation Valves (MFIVs)." The primary change proposed per the amendment request (which is still under review by the NRC) is to revise the stroke time test requirement for the MFIVs such that the single-value 15-second stroke time limit currently specified in TS 3.7.3 for the MFIVs would be replaced with a reference to a figure that specifies the stroke time limit as a function of steam generator steam pressure.

Reference 2 (ULNRC-05224) transmitted a supplement to the original amendment request in order to partially modify the changes that were originally proposed, and to provide additional information in response to questions/requests for additional information from the NRC. Subsequent to the Reference 2 submittal, AmerenUE received additional questions from the NRC.

This letter provides AmerenUE's responses to the additional NRC questions. Specifically, Attachment 1 to this letter provides statements of the questions and the AmerenUE responses. In addition, Attachment 2 to this letter provides a color version of the MFIV Performance Curve that was originally provided to the NRC as Attachment 6 to Reference 1 (ULNRC-05206).

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ULNRC-05226
November 03, 2005
Page 2

In providing this additional information, the determination pursuant to 10 CFR 50.92 that the proposed license amendment request and its supplement does not involve a significant hazard consideration, including the basis for that determination, remains unchanged.

Please contact us for any questions you may have regarding this transmittal of additional information.

I declare under penalty of perjury that the foregoing is true and correct.

Very truly yours,

Executed on: November 03, 2005



Michael S. Evans
Manager, Business Operations

DJW/jdg

Attachments: 1) Responses to NRC Questions Regarding LAR OL-1258
2) MFIV Performance Curve

ULNRC-05226
November 03, 2005
Page 3

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ULNRC-05226

ATTACHMENT 1

RESPONSES TO NRC QUESTIONS REGARDING LAR OL-1258

Responses to NRC Questions Regarding LAR OL-1258

1. *The 15 seconds in the current SR 3.7.3.1 is based on the premise that any higher closure time would be an indication of degradation of the valve. Therefore, the NRC staff needs to know that higher closure times below 500 psig SG pressure (SGP) in the proposed Figure 3.7.3-1 would not be showing that the MFIV being tested has degraded.*

Response:

The main feedwater isolation valves (MFIVs) are tested under the Inservice Testing (IST) Program. Valves tested under the IST Program are governed by the testing requirements of the ASME OM Code. The ASME OM Code requires that stroke time test results shall be compared to the initial reference values or new reference values established for subject valves. Although the stroke-time limits for the MFIVs are being changed (pursuant to the license amendment request), the ASME OM Code test requirements will not change for the main feedwater isolation valves.

When comparing the stroke time test results to the initial reference values, the ASME OM Code specifies, for each type of valve (based on actuator type), the exact stroke time ranges to be used for stroke time acceptance criteria. If a valve fails to meet the stroke time acceptance criteria range, the valve shall be immediately retested or declared inoperable. If the valve is retested and the second set of data also does not meet the stroke time acceptance criteria range, the data shall be analyzed within 96 hours to verify that the new stroke time represents acceptable valve operation, or the valve shall be declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation shall be analyzed and the results documented in the record of tests. Valves declared inoperable may be repaired or replaced, or the data may be analyzed to determine the cause of the deviation. The latter may yield a determination, in some cases, that the valve is operating acceptably. [ASME OM Code 1988 Part 10 Paragraphs 4.2.1.8 and 4.2.1.9]

When new reference values are established, the ASME OM Code specifies that reference values shall only be established when the valve is known to be operating acceptably. Deviations between the previous and new reference values shall be identified and analyzed. Verification that the new values represent acceptable operation shall be documented in the record of test. [ASME OM Code 1988 Part 10 Paragraph 3.3 and 3.4]

Therefore, although longer stroke times would be noted for the MFIVs at lower pressures (consistent with the characteristics of the system-medium actuators for these valves), application of the Code-required reference value and acceptance range for each MFIV will ensure that valve degradation is detected or investigated. This would be true for any test pressure since, as explained in the response to the next question, for a deviation seen at one particular test pressure a deviation would also be seen at any other test pressure (in relation to the characteristic stroke-time curve established for the MFIVs).

2. *What are the conditions that the MFIVs would be tested at to be in accordance with the proposed SR 3.7.3.3, and what is the basis that testing an MFIV at those conditions ensures that the valve closure times at other conditions would meet the proposed Figure 3.7.3-1?*

Response:

Per the proposed surveillance test procedure to be used for implementing SR 3.7.3.3, the MFIVs will be tested at a nominal system pressure (steam generator steam pressure) of approximately 100 psig (during Mode 4, prior to entry into Mode 3). As described in the response to Question 1 above, testing at this point will provide a reference stroke time value that will be used to establish the test acceptance criteria for each MFIV under the IST program.

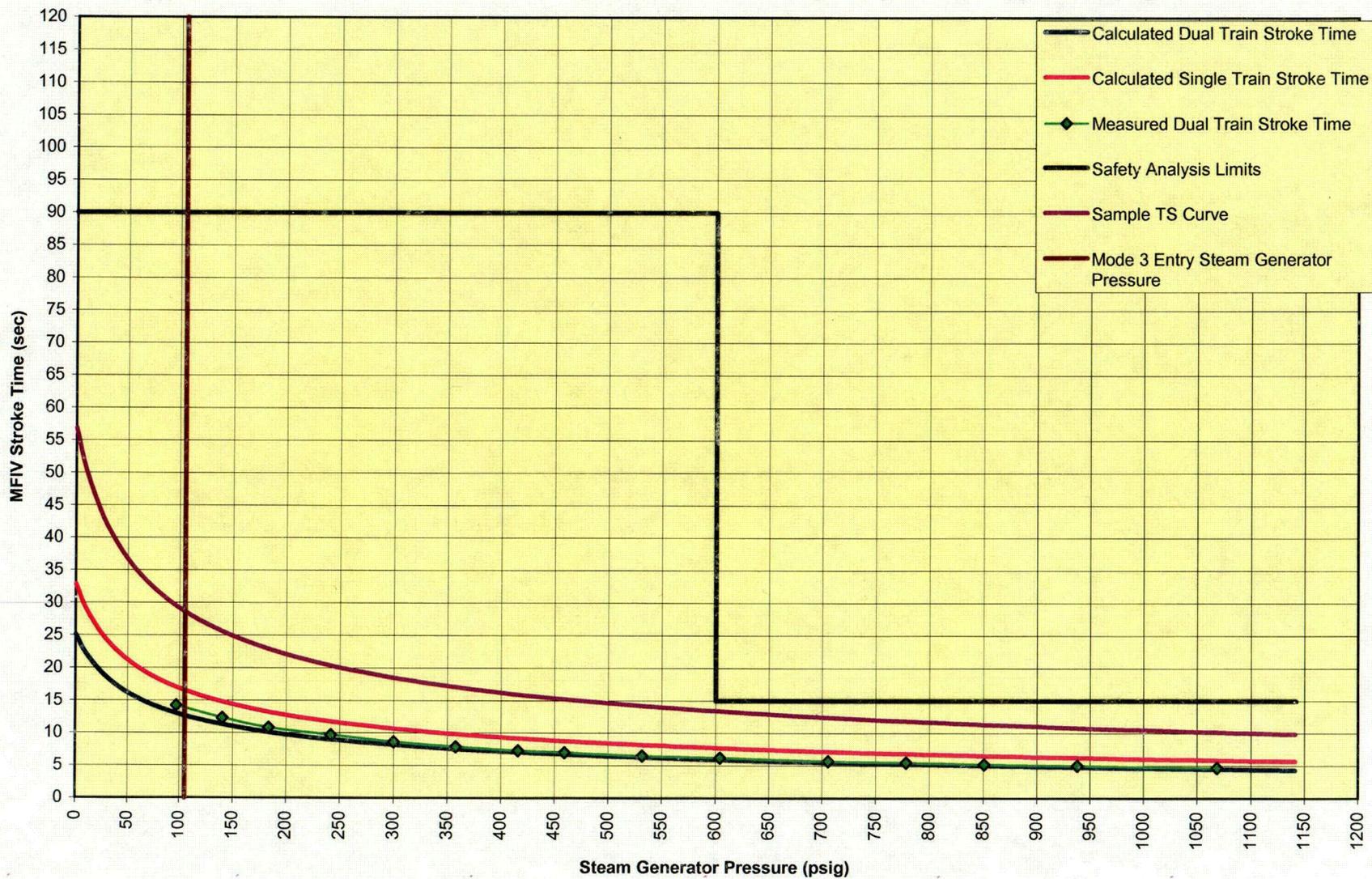
As described in the amendment request, the proposed TS acceptance curve for SR 3.7.3.3 is based on the MFIV performance curve (provided as Attachment 6 to the September 9 amendment request). The shape of the performance curve reflects the operating characteristics of the MFIVs (with respect to how fast the valves may be expected to close at any pressure throughout the expected pressure range of operation). This curve was supported by testing done at the valve manufacturer, as well as field tests done at Callaway. In addition, and as also noted in the amendment request, the shape of the acceptance/performance curve(s) will be verified by baseline testing to be done during restart from the current refueling outage. [For the baseline testing, each MFIV will be stroked to close at five different pressures throughout the applicable pressure range. The measured stroke times will then be compared and evaluated to verify the shape of the performance/acceptance curve(s).] Since the acceptance curve is based on the characteristic curve for the valves, a deviation from the stroke time at one point on the acceptance curve would be expected to yield a proportional deviation from the stroke time at any other point on the curve.

ULNRC-05226

ATTACHMENT 2

MFIV PERFORMANCE CURVE

MFIV Stroke Time Curves



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