

Oconee Nuclear Station, Units 1, 2, and 3,
Subsequent License Renewal Application (SLRA)

TRP 027, Fire Water System
Breakout Audit Questions Follow-up

Breakout Question #5

During the breakout session, the NRC staff sought clarification on the implementation schedule for the Fire Water System program commitments in SLRA Table A6.0-1.

SLRA Table A6.0-1 states, "Program enhancements for SLR will be implemented 6 months prior to the SPEO. Inspections or tests that are to be completed prior to SPEO are completed 6 months prior to the SPEO or no later than the last refueling outage prior to the SPEO."

The applicant stated in the response to Breakout Question #5 that the Oconee Fire Water System program does not have any requirements for testing or inspections to begin 5 years prior to the SPEO.

The NRC staff notes that the implementation schedule for the Fire Water System program in Table XI-01 of GALL-SLR states, "Program is implemented and inspections or tests begin 5 years before the subsequent period of extended operation. Inspections or tests that are to be completed prior to the subsequent period of extended operation are completed 6 months prior to the subsequent period of extended operation or no later than the last refueling outage prior to the subsequent period of extended operation." Therefore, the implementation schedule for the Fire Water System program includes the following three actions: (1) implement the program 5 years before the SPEO, (2) begin inspections or tests 5 years before the SPEO (this would include inspections and tests not currently required as part of the Oconee Fire Water System program but will be required as part of the program for SPEO), and (3) complete inspections or tests that are to be completed prior to the SPEO 6 months prior to the SPEO or no later than the first refueling outage prior to the SPEO. The 6 months implementation schedule is related only to inspections or tests that are to be completed prior to the SPEO, not implementation of the Fire Water System program.

Please discuss the basis/justification for implementing the program enhancements 6 months prior to SPEO rather than, consistent with GALL-SLR, implementing the program 5 years before the SPEO and why an implementation schedule was not included for beginning inspections and tests that will be required for SPEO 5 years before the SPEO.

Breakout Question #6

During the breakout session, the NRC staff sought clarification on whether the results of flushes are trended.

Neither SLRA Section B2.1.16 nor Revision 1 of SLR-ONS-AMPR-XI.M27 state that results of flushes are trended.

The "monitoring and trending" program element in GALL-SLR Report XI.M27 states, "Results of flow testing (e.g., buried and underground piping, fire mains, and sprinkler), flushes, and wall thickness measurements are monitored and trended."

The applicant stated in the response to Breakout Question #6 that “no trendable data is collected during system flushing,” however, the applicant also stated, “Abnormal results from flushing, such as length of time required to flush the line or the amount of sediment flushed out, are entered into the corrective action program for evaluation.” The applicant goes on to state that for the HPSW system, that the corrective action program is monitored for repeat issues which could indicate ongoing fouling issues. The NRC staff notes that increased time to flush the line and increased corrosion products, sediment, or debris could be an indication that something is occurring.

If activities are being performed to adequately monitor and trend flush results, then the SLRA and the Fire Water System program evaluation report should describe those monitoring and trending activities to demonstrate consistency with the recommendations of GALL-SLR Report XI.M27.

Breakout Question #10

During the breakout session, the NRC staff sought clarification on Enhancement 3 in SLRA Section B2.1.16, which states, “Perform a one-time volumetric wall thickness inspection on a representative sample deluge system supply piping that is periodically subjected to flow during functional testing.” Specifically, given that the one-time volumetric wall thickness inspection is not included in the One-Time Inspection program, the staff wanted to ensure that protocols similar to the One-Time Inspection program will be applicable (i.e., sample size, identification of inspection locations, acceptance criteria, and evaluation of the need for follow-up examinations).

The applicant stated in response to Breakout Question #10 that the representative sample size will be based on the population of deluge system piping that is periodically subject to flow but is normally dry, criteria for selection of locations will be developed during program implementation, acceptance criteria will be established, and the need for follow-up examinations will be based on inspection results. Since the one-time volumetric wall thickness inspection on a representative sample deluge system supply piping that is periodically subjected to flow during functional testing is not included in the One-Time Inspection program, and, therefore, to provide assurance that the previously stated protocols will be included in the one-time volumetric wall thickness inspection, this information should be included as part of Enhancement 3.