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SUBJECT: Provides revised response to Generic Ltr 88-14, "Instrument Air Supply Sys Problems Affecting Safety-Related Equipment."

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August 12, 1991

U.S. Nuclear Regulatory Commission
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Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
McGuire Nuclear Station
Docket Nos. 50-369, -370
Catawba Nuclear Station
Docket Nos. 50-413, -414
Revised Response to Generic Letter 88-14
(Instrument Air Supply System Problems Affecting
Safety-Related Equipment)

Gentlemen:

The purpose of this letter is to provide a portion of the revised response to the subject generic letter. Our letter of September 20, 1990 indicated that several items were underway which would constitute our revised response to GL 88-14. These items were as follows:

1) Review all air operated valves to the criteria of GL 88-14 and supplement the present responses as necessary

2) Identify other air operated components that meet the criteria of the generic letter

3) Revise the verification testing program provided in the initial response so that it is consistent with the scope of the generic letter for each identified component (both valves and other air operated components)

4) Develop a schedule for completion of verification testing of each identified component

5) Define how the instrument air system is to be tested and what the acceptance criteria should be

6) For the newly identified components (not previously identified in the initial response), review the response to generic letter verification action item 2 to verify completeness and accuracy

7) Submit to the NRC the updated information developed as a result of this action plan.

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Our letter of April 15, 1991 advised the NRC of a delay in providing the above additional information and indicated that the information would be provided by July 1, 1991.

Attached are supplemental lists of safety-related air operated components for Oconee, McGuire, and Catawba. These compilations include both active and passive components. (Note that while the exact definition of "active" and "passive" varies for each station, Duke Power is revising its response to GL 88-14 to include all safety-related components. See the attachments for a definition of active components for each station.) These lists were developed in response to our commitment to revise our original reply to GL 88-14. These lists do not include components that were already identified in our original response to GL 88-14; rather, they only include those additional components that were identified as a result of our supplemental review of the generic letter.

Not all work has been completed regarding standards for testing of air quality. In addition, functional verification testing of air operated equipment is still being conducted and is not expected to be completed until 1992 for Oconee and McGuire and mid-1993 for Catawba (testing must be conducted during outages). We anticipate making another partial submittal by December 1, 1991 which will report on additional actions taken and provide more defined schedular information for items remaining to be completed.

Also, by letter dated January 15, 1991 Duke Power committed to adding three small, non-load shed compressors, aftercoolers, desiccant dryers, and filters to support the operation of certain critical valves and instruments at Oconee. Unit 1 was scheduled for End-of-Cycle 13. This schedule is being revised to Unit 1 End-of-Cycle 14. The schedule remains as previously committed to for the other two units.

If you have any questions concerning this material, please call L.J. Rudy at (704) 373-3413.

Very truly yours,

M.S. Tuckman

M.S. Tuckman

LJR/s

Attachments

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Senior Resident Inspector

ATTACHMENT 1
OCONEE SAFETY-RELATED AIR OPERATED EQUIPMENT

For Oconee, an active valve is any valve that must move to accomplish its safety function. This can be applied to any valve; manual, relief, EMO, etc. A passive valve is any valve that must remain in its position to accomplish its safety function. Again, this can be applied to any valve.

ACTIVE AIR OPERATED VALVES

Oconee Valve #
1,2,3 C-176
1,2,3 C-187
1,2,3 FDW-32
1,2,3 FDW-35
1,2,3 FDW-41
1,2,3 FDW-44
1,2,3 MS-19
1,2,3 MS-22
1,2,3 MS-28
1,2,3 MS-31
1,2 MS-46
1,2 V-88

Keowee Valve #
1,2 WL-11

PASSIVE AIR OPERATED VALVES

Oconee Valve #
1,2,3 GWD-19
1,2,3 HP-22
1,2,3 HP-31
3 LP-92
3 LP-93
1,2,3 LRT-17
1,2 LPSW-251*
1,2 LPSW-252*
3 LPSW-404*
3 LPSW-405*
1,2,3 MS-50
1,2,3 MS-59
1,2,3 MS-68
1,2,3 PR-13
1,2,3 PR-17
1,2,3 PR-20*
1,2,3 V-98
1,2,3 V-104
1,2,3 V-118
1,2,3 V-124
1,2,3 V-138
1,2,3 V-144

* These valves have been reclassified as passive. (They were classified as active in the original list, which was submitted in a letter dated May 8, 1989.)

In addition, valves 1,2,3 HP-120, 1,2,3 PR-3, and 1,2,3 PR-4 were included in the original list. These valves have been deleted from the list.

SAFETY-RELATED AIR OPERATED OCONEE INSTRUMENTATION

Unit 1,2 HPI flow (main injection header and crossover line)
Unit 1,2 LPI flow
Unit 1,2 RBS flow
Unit 1,2,3 LPI cooler LPSW flow

The above instruments are safety-related in the sense that they are instruments that are used to initiate, monitor, or control a function which is necessary to mitigate a design basis event. For the HPI, LPI, and RBS flow instrumentation above, Unit 1's instruments are being changed to electronic during the current refueling outage. Unit 2's

will be changed to electronic during the next refueling outage.

SAFETY-RELATED AIR OPERATED KEOWEE EQUIPMENT

Air circuit breakers
Governors
Turbine-generator cooling water isolation valves

ATTACHMENT 2
MCGUIRE SAFETY-RELATED AIR OPERATED EQUIPMENT

For McGuire, an active component is a component which is required to change position to accomplish the required function(s) of shutting down the reactor to the cold shutdown condition, of maintaining the cold shutdown condition, or of mitigating the consequences of an accident. A passive component is a component which maintains position and is not required to change position to accomplish the required function(s) above.

Refer to the following lists of active and passive safety-related air operated components for McGuire.

In addition to the following lists of components, it has been determined that the personnel air locks need to be included within the scope of the generic letter. Existing test procedures adequately demonstrate that the air lock seals will perform their intended function upon loss of instrument air. However, they still need to be evaluated against other requirements of the generic letter (e.g., maintenance procedures, air quality). Any required corrective actions will be identified upon completion of these evaluations.

Active Valves	Passive Valves
1/2NV0035A*	1/2KC0122
1/2SM0083**	1/2NI0050
1/2SM0089**	1/2NI0061
1/2SM0095**	1/2NI0072
1/2SM0101**	1/2NI0084
1YC0054#	1/2NI0056
1YC0076#	1/2NI0067
1YC0113#	1/2NI0078
1YC0135#	1/2NI0090
1YC0148#	1/2NI0057
1YC0162#	1/2NI0068
1YC0176#	1/2NI0079
1YC0190#	1/2NI0091
1YC0204#	1/2NI0058
1YC0218#	1/2NI0069
1YC0232#	1/2NI0080
1YC0246#	1/2NI0092
	1/2NI0130
	1/2NI0131
	1/2NI0132
	1/2NI0133
	1/2NI0153
	1/2NI0154
	1/2NI0163
	1/2NI0174
	1/2NI0179

* To be added to IWV test program
** Reclassified as active valves
# Have been added to IWV test program

Active Dampers	Passive Dampers
2ABF-D-3 (VA)	1ABF-D-3* (VA)
1ABF-D-4A (VA)	1ABF-D-1 (VA)
2ABF-D-4A (VA)	2ABF-D-1 (VA)
1ABF-D-4B (VA)	1ABF-D-2 (VA)
2ABF-D-4B (VA)	2ABF-D-2 (VA)
1ABF-D-5A (VA)	1RAF-D-5 (VX)
2ABF-D-5A (VA)	1RAF-D-6 (VX)
1ABF-D-5B (VA)	1RAF-D-7 (VX)
2ABF-D-5B (VA)	1RAF-D-8 (VX)
1ABS-D-1 (VA)	1RAF-D-9 (VX)
2ABS-D-1 (VA)	1RAF-D-10 (VX)
1ABS-D-3 (VA)	2RAF-D-5 (VX)
2ABS-D-3 (VA)	2RAF-D-6 (VX)
CR-OAD-1 (VC)	2RAF-D-7 (VX)
CR-OAD-3 (VC)	2RAF-D-8 (VX)
CR-OAD-5 (VC)	2RAF-D-9 (VX)
CR-OAD-7 (VC)	2RAF-D-10 (VX)
CRA-OAD-3 (VC)	
CRA-OAD-4 (VC)	
DGR-OAID-1A (VD)	
DGR-OAID-1B (VD)	
DGR-OAID-2A (VD)	
DGR-OAID-2B (VD)	

* Instrument air has been removed

ATTACHMENT 3
CATAWBA SAFETY-RELATED AIR OPERATED EQUIPMENT

For Catawba, an active mechanical component is defined as any powered component which falls into one or more of the following categories:

1. Performs a reactor coolant system pressure boundary isolation function
2. Performs an automatic containment isolation function
3. Is required to operate on safety signals "S", "T", or "P"
4. Is required to perform a specific function in proceeding to cold shutdown in mitigating the consequences of a Design Basis Event (DBE) or following a Safe Shutdown Earthquake (SSE).

For Catawba, check valves and safety valves are not included as active components (with the exception of the pressurizer safety valves which perform a reactor coolant pressure boundary isolation function and the main steam safety valves which perform a containment isolation function).

Valves

1/2NI050 C-leg accum 'A' N2 supply isol
1/2NI056 C-leg accum 'A' fill isol
1/2NI061 C-leg accum 'B' N2 supply isol
1/2NI067 C-leg accum 'B' fill isol
1/2NI072 C-leg accum 'C' N2 supply isol
1/2NI078 C-leg accum 'C' fill isol
1/2NI084 C-leg accum 'D' N2 supply isol
1/2NI090 C-leg accum 'D' fill isol

These valves are part of the ECCS pressure boundary and are relied upon to be closed during a Safety Injection to ensure proper cold leg accumulator injection. These valves are currently categorized as non-active. These valves are not administratively controlled nor are they periodically verified closed per any procedure checklist. Therefore, they will be tested per Item 3 of GL 88-14.

Dampers

1/2ARF-D-5
1/2ARF-D-6
1/2ARF-D-7
1/2ARF-D-8
1/2ARF-D-9
1/2ARF-D-10

These are VX outlet bypass dampers (non-active) and are used for testing of the return air fans ARF-1A, 1B, 2A, and 2B. These dampers allow air discharged from these fans to bypass the ice bed. These dampers are not currently administratively controlled and will be tested per Item 3 of GL 88-14.

Other Equipment

Auxiliary feedwater pump turbine governor
Personnel air lock inflatable seals and accumulator tanks