



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

May 9, 1989

Docket Nos. 50-259/260/296

Mr. Oliver D. Kingsley, Jr.
Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: GENERIC LETTER 88-14 - INSTRUMENT AIR SUPPLY SYSTEM PROBLEMS
AFFECTING SAFETY-RELATED EQUIPMENT (TAC NOS. 71631/71632/71633)

On August 8, 1988, the NRC staff issued NRC Generic Letter 88-14, "Instrument Air Supply System Problems Affecting Safety-Related Equipment." The letter requested licensees to review NUREG-1275, Volume 2 ("Operating Experience Feedback Report - Air Systems Problems"), and perform a design and operations verification of the instrument air system. The letter also requested that within 180 days of its receipt; licensees provide a written response that:

1. Verified by test that actual instrument air quality is consistent with the manufacturer's recommendations for individual components served.
2. Verified that maintenance practices, emergency procedures, and training are adequate to ensure that safety-related equipment will function as intended on loss of instrument air.
3. Verified that the design of the entire instrument air system including air or other pneumatic accumulators is in accordance with its intended function, including verification by test that air-operated safety-related components will perform as expected in accordance with all design-basis events, including a loss of the normal instrument air system. This design verification should include an analysis of current air-operated component failure positions to verify that they are correct for assuring required safety functions.

In addition to the above, each licensee/applicant was requested to provide a discussion of their program for maintaining proper instrument air quality.

In a letter dated February 23, 1989, you responded to Generic Letter 88-14, describing the status of your verification of the above for the Browns Ferry facility, as well as the implementation of a program for maintaining proper instrument air quality.

In order to satisfy the intent of the bulletin, you made the following schedular commitments to comply with the items listed above:

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1. TI-34 will be revised prior to Unit 2 restart to verify that adequate margin (between the ambient air temperature and dew point range at air dryer outlets) is maintained.
2. Air quality testing will be performed on the Drywell Control Air (DCA) system prior to restart of the respective units.
3. Additional Preventative Maintenance Procedures (PMs) will be established to change the dryer desiccant in the control air system on a regular basis by March 28, 1989.
4. Site Director Standard Practice (SDSP)-6.9, "Cleanliness of Fluid Systems," will be changed by April 28, 1989, to add a cleanliness criteria for hydrocarbons, particulate and moisture for control air.
5. Specific procedures detailing maintenance work on the control air supply to pneumatic operators will be changed by April 28, 1989, to incorporate a check that the control air system is maintained per the guidelines of SDSP-6.9.
6. Maintenance procedures detailing work on the control air compressors will be changed by April 28, 1989, to specify approved cleaning solvents and to incorporate the cleanliness criteria of SDSP-6.9.
7. Mechanical Maintenance Instruction (MMI)-42, "MSIV/ADS Accumulator Leakage" will be changed by March 28, 1989, to test for both slow and rapid depressurization.
8. The Abnormal Operating Instructions (AOIs) for loss of control air will be reviewed to address symptoms, automatic actions, failure position of critical valves, expected system response, operator actions, and system restorations for Unit 2 and common prior to Unit 2 restart. Procedures specific to Units 1 and 3 will be revised prior to the unit's respective restart.
9. The control air end users identified have been or will be tested to ensure that they fail to their as-designed position upon loss of air except in cases where not testing is justified. Presently, 96 of the 129 components have been tested; the remainder will be tested for loss of air prior to restart of Unit 2.
10. Seven additional air operated components that were not included in the Restart Test Program (RTP) will be tested for loss of air prior to the restart of Unit 2.
11. MMI-42 will be revised to include testing the MSRV and MSIV accumulators for both rapid and gradual loss of air. This testing is scheduled as part of the RTP to be completed prior to Unit 2 restart.
12. The program for restart of Units 1 and 3 will include a similar verification of design and verification by test that safety-related, air-operated components and accumulators perform in accordance with their intended function prior to restart of the affected unit.

13. Electrical controls and annunciators for the control air dryers are inspected yearly for proper operation per Electrical Preventive Instruction (EPI)-32-DRY001. The frequency for this procedure will be evaluated and revised if necessary prior to Unit 2 restart.
14. PMs will be developed to periodically change dryer desiccant and dryer inlet and outlet filters. These PMs will be established and implemented by March 28, 1989.
15. A program will be developed to monitor control air on a six-month frequency for hydrocarbons and particulate. This program will be implemented by July 1, 1989.

These commitments fulfill your requirements in responding to Generic Letter 88-14. When you have implemented all the above commitments, we request that you notify the staff in writing that all work related to Generic Letter 88-14 is completed.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by

Suzanne C. Black, Assistant Director
for Projects
TVA Projects Division
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cc: See next page

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