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DUKE POWER

December 19, 1995

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369, -370
Supplemental Response to Generic Letter 88-14
Instrument Air Supply System Problems Affecting Safety-Related Equipment

Reference: T. C. McMeekin's letter to NRC Document Control Desk dated May 8, 1989,
T. C. McMeekin's letter to NRC Document Control Desk dated December 2, 1991,
McGuire's Response to Deviation 50-369 and 50-370/95-14 dated August 31, 1995

Gentlemen:

The purpose of this letter is to revise McGuire's response to Generic Letter 88-14 and to provide the NRC an update on commitments made in our letters dated May 8, 1989, December 2, 1991 and August 31, 1995. This letter changes our commitment to develop and implement a filter regulator PM program for both safety and non-safety related valves, dampers, and instrumentation to safety related and critical to plant operation air demand equipment. The following items reflect our actions associated with and commitment changes relative to Generic Letter 88-14 requirements:

- a) The Instrument Air dewpoint deficiency was corrected by the installation of new dryers in 1993.
- b) Five micron filters have been installed on all critical to plant operation air operated valves (AOVs,) and all but twenty-three safety related AOVs. Five micron filters will be installed on the remaining twenty-three safety related AOVs by the end of the 2EOC10 outage.
- c) The PM program for AOVs will be limited to the 56 critical to plant operation AOVs.
- d) The PM frequency for point of use instrument air filter elements will be changed from a two year to a maximum 2R (every other refueling outage.)
- e) A PM program for AOD point of use instrument air filter elements is not warranted
- f) Apart from instrumentation associated with the critical to plant operation AOVs , no additional instrumentation requires inclusion in a filter regulator PM program.

Attachment 1 is McGuire's updated response relative to the requirements of Generic Letter 88-14.

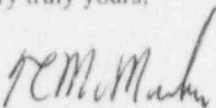
In summary, following the installation of five micron filters on the remaining twenty-three safety related AOVs by the end of the 2EOC10 outage, corrective actions associated with Generic Letter 88-14 will be considered complete.

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Questions or problems should be directed to Kay Crane, McGuire Regulatory Compliance at (704) 875-4306.

Very truly yours,



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**McGuire Nuclear Station
Attachment 1
Response to Generic Letter 88-14**

- 1. Verify by test that actual instrument air quality is consistent with manufacturers' recommendations for individual components served by instrument air.**

Response:

McGuire's original response to the NRC dated May 8, 1989 provided the instrument air quality testing results and indicated that these results would be evaluated against future acceptance criteria that were to be developed. A review of manufacturer air quality requirements for components served by the instrument air system was performed. Based upon this review, test acceptance criteria were issued which defined the minimum instrument air quality requirements at McGuire. If met, these minimum requirements would ensure that the instrument air quality remains consistent with manufacturer recommendations. At that time, periodic testing of instrument air quality indicated that dewpoint and particulate of the system were frequently greater than the maximum allowed by the test acceptance criteria.

- a) Dewpoint deficiency:

Testing of the existing dryers indicated that attempts to lower the existing dewpoint from the dryers to values below the test acceptance criteria maximum were unsuccessful. The long term resolution to the dewpoint deficiency has been corrected by the installation of new dryers in 1993. VI system dewpoints are now acceptable.

- b) Particulate Problem:

The particulate problem was to be corrected by the installation of 5 micron filters in each filter regulator by the end of 1993. Five micron elements will be installed in each point of use filter regulator associated with safety related AOVs, AODs, and critical to plant operation AOVs. Items 2a and 2c address the status of the installation of 5 micron filters.

- 2. Verify that maintenance practices, emergency procedures, and training are adequate to ensure that safety-related equipment will function as intended upon loss of instrument air.**

Response:

As stated in our December 2, 1991 letter, a thorough review of instrument air related maintenance practices, emergency procedures, and training was completed. Adequate preventive maintenance (PM) was determined to be in place for all supply side equipment. However, on the demand side, filter regulator PMs still needed to be developed for the instrument air portion of both safety and non-safety-related valves, dampers and instrumentation. Station emergency procedures and training were deemed to be adequate to ensure proper operation of plant equipment and systems upon a loss of instrument air. The emergency procedures and training related portions of this requirement are closed. However, further maintenance related actions were to be completed. The following maintenance related actions have been taken regarding item #2:

- a) Five micron filters have been installed on all critical to operation air operated valves (AOVs) and all but twenty-three safety related AOVs. Five micron filters will be installed on the remaining twenty-three safety related AOVs by the end of the 2EOC10 outage.

T. C. McMeekin's letter dated December 2, 1991 stated that a filter regulator PM program for both safety and non-safety-related valves would be developed; however, after further evaluation it has been determined that the scope of this commitment should have been limited to the 56 critical to plant operation AOVs. Therefore, the PM program for AOVs will be limited to these 56 critical to plant operation AOVs.

- b) H. B. Tucker's letter to the NRC dated May 8, 1989 stated that a Preventative Maintenance (PM) Program was being established for critical instrument air demand equipment. A list of approximately 56 critical to operation AOVs were identified to have their associated air regulator filters replaced. This letter indicated that maintenance frequencies would be established at a maximum of two years. At the time this commitment was made, the refueling cycle was about 12 months due to core life. The increase of our core life has lead to approximately three years between maintenance cycles. A review of the work request history for the critical to plant operation AOVs has shown that our point of use instrument air filter elements are sufficient to prevent any problems due to clogged filter elements. Additionally, the work history review did not find any filter element failures associated with clogged elements. Therefore, the PM frequency for point of use instrument air filter elements will be changed from a two year to a maximum 2R (every other refueling outage.)

- c) McGuire Engineering has evaluated all safety related Air Operated Dampers (AODs) to determine if five micron filters should be installed. A thorough study of Vendor Drawings MCM 1211.00-0678, MCM 1211.00-707, MCM 1211.00-782, along with Manufacturer Bulletin, AF-908-4 from MCC Powers, and Bulletins, Series 67F and 67FR from Fisher Products indicate that this equipment was purchased and installed as packaged units. Therefore, Engineering has concluded that the filtration elements that are provided by the manufacturer are sufficient to meet the requirements of the installed equipment, and changing the filtration elements to the five micron filter elements is not warranted.

A work history on all safety related AODs revealed that the station has had no recorded incidents in which the AOD or associated equipment failed due to clogged filtration problems. Therefore, a PM program on AOD point of use instrument air filter elements is not warranted.

- d) An evaluation by McGuire Engineering determined that, apart from the instrumentation associated with the above AOVs (item a), no additional instrumentation required inclusion in a filter regulator PM program.

3. **Verify that the design of the entire instrument air system, including air or other pneumatic accumulators, is in accordance with its intended function. This analysis should include an analysis of current air operated component failure positions to verify that they are correct for assuring required safety functions. Also, verify by test that air operated safety-related components will perform as expected during all design basis events, including a loss of the normal instrument air system.**

Response:

A review of the supply side instrument air equipment has revealed that its design is adequate to allow this equipment to perform its intended function. A similar design review of demand side equipment revealed that active and passive AOVs and other components will perform their intended functions. All required testing to verify that these components perform as expected during all design basis events has been completed.