



**Entergy
Operations**

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U. S Nuclear Regulatory Commission
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Subject: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
Request for Extension to Complete
Generic Letter 89-10 Recommendations

Gentlemen:

Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance", dated June 28, 1989, and Supplements 1 thru 4 provide the NRC scope of the motor-operated valve (MOV) testing and analysis requirements. Entergy Operations at Arkansas Nuclear One (ANO) has been aggressively working towards implementation of these requirements. The initial ANO response (OCAN128913), dated December 28, 1989, identified the concern of differential pressure (DP) testing a large valve population within the recommended schedule. In the ANO follow-up submittal, (OCAN019105), dated January 16, 1991, Entergy Operations identified a testing approach that would allow the recommended schedule to be met. An MOV program inspection was conducted at ANO during the week of May 4, 1992. NRC Inspection Report Nos. 50-313/92-18; 50-368/92-18 stated that "The licensee had initiated a comprehensive program for verifying the capabilities of safety-related motor-operated valves (MOVs)." This report also stated that "The inspectors advised the licensee to keep the NRC informed of any schedule changes in a timely manner and to have justification onsite for any such change." The purpose of this submittal is to provide the NRC with a current ANO MOV Program status and to request extension of the ANO MOV Program beyond the currently committed schedule provided to the NRC to assure maintenance of a quality program.

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ANO has continued to review the MOV program test scope and schedule along with the modification requirements and the test results to ensure an effective and timely MOV Program completion. Since the beginning of the ANO MOV program in early 1986, Entergy Operations has maintained an aggressive approach in both the testing of MOVs and their modification. This approach has been evident in ANO's voluntary extension of the switch-setting program to all safety-related valves even before the issuance of the generic letter and the modification of more than 100 MOVs to improve margin. As industry developments occur, they are reviewed and applied as appropriate to improve our MOV program, testing activities and the accuracy of our testing equipment.

The current program valve scope and status is provided in the table below.

	Unit 1	Unit 2
Valves in Program	124	160
Valves Static Tested	124	144
DP Tests Completed*	35	30
Possible DP Tests Remaining**	52	84

* These numbers do not reflect any tests required due to corrective maintenance.

**Based on MOVs which can be tested in situ.

Our initial workscope and schedule have been impacted by various ANO and industry issues such as:

- During the entire period of the MOV program, industry testing and analysis activities have continued to improve which has required a considerable amount of valve rework.
- Re-evaluation and revising switch settings have been a much larger part of current activities than anticipated.
- When concern emerged over accuracy of diagnostic equipment, ANO began utilizing the VOTES System as our primary MOV testing system which resulted in additional resources for installation and retesting of valves already tested.
- To date, the application of similarity methodology has not been satisfactorily supported by the industry to justify ANO not testing all testable valves.

As a consequence, with the large MOV population at ANO and the number of modifications made, the number of dynamic tests completed has been less than anticipated. It is now expected that additional time will be required to complete Stage 1 (dynamic testing) and the associated Stage 2 (hand calculation or computer model) evaluations. Stage 2 evaluations apply to all valves which cannot be DP tested $\geq 80\%$ Maximum Expected Differential Pressure (MEDP) and to those valves where no dynamic testing is possible.

Actions which are still to be completed include:

1. Completion and documentation of the design basis review, including seismic and degraded voltage considerations.
2. Prioritization of all valves in the program according to availability and safety significance for initial testing and retesting. The safety significance of the valves to be DP tested during the extended outage will be evaluated.
3. Development of a comprehensive data base used to track completion of actions for each valve in the program.
4. Development of a trending program and integration of test data into the ANO predictive maintenance program.
5. Completion of initial static testing of all valves in the program.
6. Completion of Stage 1 testing for as many of the high priority valves as possible and completion of Stage 2 evaluations based on timely availability of the EPRI models and data. Based on the current EPRI schedule, globe and butterfly verified hand calculations will be available for utility use during late 1993. The computer model for the gate valves will not be available until April 1994. Stage 2 evaluations will be initiated and completed in a timely manner, based on the receipt of these models.

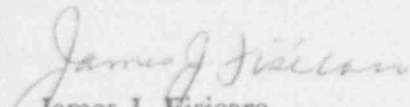
Actions 1 thru 5 above are expected to be completed within the original generic letter schedule. Completion of these actions is expected to provide reasonable assurance of the operability of the MOVs in the program.

The specific extension requested is one outage plus 120 days (which will allow completion of testing to the extent practicable and completion of test data analysis) for both ANO-1 and 2. This extension will include the 120 day period beyond 1R12 and 2R11 currently scheduled to commence in spring and fall of 1995, respectively. The basis for this extension request and the specific schedule for completion of testing and analysis are available on site for inspection.

We believe that due to the aggressive ongoing ANO program, this extension is expected to provide a significant improvement in the quality of the ANO MOV program. This proposed schedule change has been discussed with the ANO Project Managers.

Should you have any questions regarding this submittal, please contact me.

Very truly yours,


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Director, Licensing

JJF/JRH/sjf

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