

SAFETY EVALUATION BY THE
OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 1 TO
FACILITY LICENSE NO. NPF-8
ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2
DOCKET NO. 50-364

Background

Alabama Power Company, in a letter dated November 18, 1980, has requested relief from the Farley 2 Technical Specification 4.8.1.1.2.C.7 and the part of Technical Specification 4.8.1.2 that relates to 4.8.1.1.2.C.7. The specifications require that, during the preoperational test program and every 18 months thereafter, a 24-hour full load test shall be performed on the diesel generators; 22-hours at a load equivalent to the continuous rating of the diesel generator and 2-hours at a load equivalent to the 2-hour rating of the diesel generator. Immediately after completing this 24-hour test, a loss of offsite power test shall be performed per specification 4.8.1.1.2.C.4. The source of this specification is Regulatory Guide 1.108, "Periodic Testing of Diesel Generators Used as Onsite Electric Power Systems at Nuclear Power Plants."

During the preoperational testing of Farley Unit 2, a 24-hour load test and a loss of offsite power test, were successfully completed. However, the loss of offsite power test was not performed immediately following the 24-hour load test as per specification 4.8.1.1.2.C.7 and 4.8.1.2, because at the time of the preoperational tests, the Technical Specifications for Farley 2 had not been issued. Also at the time the preoperational tests were performed, Farley 2 had not been committed to meet Regulatory Guide 1.108. In order to meet the surveillance requirements of 4.8.1.2 and 4.8.1.1.2.C.7 a retest would have to be performed in the hot functional plant configuration.

In lieu of the retest in the hot functional mode, Alabama Power Company will perform testing per specifications 4.8.1.1.2.C.7 and 4.8.1.2 after the initial fuel loading but prior to initial criticality. This is a one-time change applicable to plant operation prior to initial criticality.

Evaluation and Discussion

The pre-operational tests, which were performed on Farley Unit 2 diesel generators included a 24-hour test and a loss of offsite power test. However, these tests differ from the tests specified per specification 4.8.1.1.2.C.7 in the following manner:

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- (1) The preoperational test was run at 35% load for 8-hours, 70% load for 8-hours, 100% load for 8-hours and 110% load for 2-hours; whereas, specification 4.8.1.1.2.C.7 requires 110% load for 2-hours and 100% load for 22-hours.
- (2) The preoperational test of loss of offsite power was not run immediately following the diesel generator 24-hour tests as prescribed in specification 4.8.1.1.2.C.7.

The loading used in the preoperational tests, although different than the loading specified per 4.8.1.1.2.C.7, is acceptable for the time interval for which relief is requested because these tests demonstrated the ability of the diesel generator to run continuously for 24-hours with the last 8-hour at its continuous rating followed by two hour at 100% of its rating.

The fact that the capability of the diesel generator to start immediately following the 24-hour test (from hot equilibrium temperature conditions) on loss of offsite power signal has not been demonstrated is also acceptable for the interval for which relief is requested. This is because (1) the capability of the diesel generator to start from its design cold ambient conditions on loss of offsite power signal has been demonstrated during the preoperational testing, and (2) during this brief relief period before the specified test is performed the diesel generators are not likely to be challenged to start from hot equilibrium temperature conditions. In addition, the capability of the diesel generator to start from design hot equilibrium temperature condition has been demonstrated during the diesel generator reliability qualification testing program.

We conclude that a one time relief from performing the tests of surveillance requirement 4.8.1.1.2.C.7 and the part of surveillance requirement 4.8.1.2 is acceptable for the time interval from initial fuel loading to initial criticality. Our conclusion is based on the successful completion of preoperational tests and reliability qualification tests which indicate that a high degree of confidence can be placed on the Farley Unit 2 diesel generators to assure their reliability for continuous full load operation and hot start until the requirements of specifications 4.8.1.1.2.C.7 and 4.8.1.2 are fully performed prior to initial criticality. Our conclusion is also based on the unlikely occurrence of a challenge to start the diesel generators from hot equilibrium conditions during this time interval.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we

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have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: