



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

May 21, 1991

Docket No. 50-348

Mr. W. G. Hairston, III
Senior Vice President
Alabama Power Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201

Dear Mr. Hairston:

SUBJECT: TEMPORARY WAIVER OF COMPLIANCE FOR MAIN STEAM LINE ISOLATION
VALVE RESPONSE TIME FOR JOSEPH M. FARLEY NUCLEAR PLANT,
UNIT 1 (TAC NO. 80413)

By letter dated May 17, 1991, Alabama Power Company (APCO) submitted a request for a Temporary Waiver of Compliance and an amendment request for relief from the requirements of Technical Specification 4.3.2.3 concerning engineered safety features (ESF) response time for steam line isolation. This Temporary Waiver of Compliance would permit plant startup from the current outage and operation with an ESF steam line isolation response time of ≤ 11.0 seconds in place of the current required ≤ 9.0 seconds. APCO proposed that the Temporary Waiver of Compliance remain in effect until issuance of a technical specification change by the NRC.

During response time testing for startup of Joseph M. Farley Nuclear Plant, Unit 1, APCO discovered that the technical specification response time of ≤ 9.0 seconds in Table 3.3-5, Item 5.a, for steam line isolation on high steam flow coincident with T-average low-low could not be satisfied for the main steam isolation bypass valves. The T-average low-low signal is derived from the resistance temperature detectors (RTDs) that were newly installed during this outage. Amendment No. 87 to Operating License NPF-2, issued on March 8, 1991, authorized the replacement of the original RTD bypass system with thermowell mounted RTDs.

Amendment No. 87 also increased the technical specification overtemperature delta-T reactor trip response time from 4 seconds to 6 seconds. This was consistent with the allowable channel response time assumed in the safety analysis. While performing response time testing on Unit 1, the licensee identified that the ESF response time for steam line isolation exceeded the current technical specification limit of ≤ 9.0 seconds. The licensee stated that the T-average low-low signal utilized for steam line isolation is derived from the same RTDs as the overtemperature delta-T signal and that a response time increase of 2 seconds should also be included for the steam line isolation function. This change was not included in Amendment No. 87. Therefore, in a letter dated May 17, 1991, the licensee requested that the ESF response time for the steam line isolation function be changed from ≤ 9.0 seconds to ≤ 11.0 seconds to incorporate the response time difference between the RTD bypass manifold system and thermowell mounted RTDs.

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APCO indicated that the high steam flow coincident with T-average low-low ESF function is not taken credit for in any safety analysis. Protection for postulated accidents is provided by other protection signals. Steam line isolation on high steam flow in two steam lines coincident with T-average low-low is provided as a diverse signal that does not provide primary protection for any event. Protection for main steam pipe breaks is provided by the overpower protection, overtemperature delta-T, and low pressurizer pressure reactor trip functions and the low steam line pressure, high steam line differential pressure, low pressurizer pressure, High-1 containment pressure ESF functions. Primary main steam line isolation protection is provided by the low steam line pressure and High-2 containment pressure ESF functions. Therefore, APCO stated that the increase in response time to ≤ 11.0 seconds will have no effect on any previously analyzed accident.

The NRC reviewed APCO's May 17, 1991, request for a Temporary Waiver of Compliance and concluded that the granting of the requested temporary waiver was appropriate since diverse ESF signals with faster response times will still be generated which will cause isolation of the main steam lines. Therefore, the isolation time for the main steam lines for postulated accidents will be unchanged.

This letter confirms our verbal granting of the requested Temporary Waiver of Compliance which was provided in a telephone conference call on May 17, 1991. This waiver will remain in effect until issuance of an emergency technical specification change.

Sincerely,

Original Signed By Frederick Hebdon for
 Gus C. Lainas, Assistant Director
 for Region II Reactors
 Division of Reactor Projects - I/II
 Office of Nuclear Reactor Regulation

cc: See next page

* See previous concurrence.

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Joseph M. Farley Nuclear Plant

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