May 4, 1989

Docket Nos. 50-348
and 50-364

DISTRIBUTION
See attached sheet

Mr. W. G. Hairston, III
Senior Vice President
Alabama Power Company
Post Office Box 2641
Birmingham, Alabama 35291-0400

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. NPF-2 AND AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-8 - JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2, REGARDING REACTOR VESSEL LEVEL INDICATING SYSTEM TECHNICAL SPECIFICATIONS (TAC NOS. 59732 AND 59733)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 80 to Facility Operating License No. NPF-2 and Amendment No. 72 to NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your submittal dated December 14, 1988, as supplemented April 6, 1989.

The amendments change the TS to incorporate provisions for the reactor vessel level indicating system (RVLIS) into TS 3/4.3.3.8, "Accident Monitoring Instrumentation." In addition, an editorial change has been made for Unit 1 to remove the one-time change approved in Amendment No. 34.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's regular bi-weekly Federal Register notice.

Sincerely,

Elinor Adensam/for

Edward A. Reeves, Senior Project Manager
Project Directorate II-1
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 80 to NPF-2
2. Amendment No. 72 to NPF-8
3. Safety Evaluation

cc w/enclosures:
See next page

DFDL
4/1

OFC	:LA:PD21:DRPR	:PM:PD21:DRPR	:D:PD21:DRPR	:	:	:	:
NAME	: PAnderson	: EReeves:/	: EAdensam	:	:	:	:
DATE	: 4/27/89	: 4/21/89	: 5/4/89	:	:	:	:

OFFICIAL RECORD COPY

cc:
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Executive Vice President
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Birmingham, Alabama 35291-0400

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Southern Company Services, Inc.
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Chairman
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U.S. Nuclear Regulatory Commission
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Atlanta, Georgia 30323

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State Health Officer
State Department of Public Health
State Office Building
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Mr. D. N. Morey
General Manager - Farley Nuclear Plant
P. O. Box 470
Ashford, Alabama 36312

AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. NPR-2 - FARLEY, UNIT 1
AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-8 - FARLEY, UNIT 2

Docket File
NRC PDR
Local PDR
PDII-1 Reading
S. Varga (14E4)
G. Lainas
E. Adensam
P. Anderson
E. Reeves (2)
OGC
D. Hagan (MNBB 3302)
E. Jordan (MNBB 3302)
B. Grimes (9A2)
T. Meeks (8) (P1-137)
W. Jones (P-130A)
E. Butcher (11F23)
T. Huang (8-E-23)
W. Hodges (8-E-23)
ACRS (10)
GPA/PA
ARM/LFMB

cc: Licensee/Applicant Service List

OFO1
1/1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 72
License No. NPF-8

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Alabama Power Company (the licensee), dated December 14, 1988, as supplemented April 6, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-8 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 72, are hereby incorporated in the license. Alabama Power Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to startup from the refueling outage for Cycle 7.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:
Elinor G. Adensam, Director
Project Directorate II-1
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 4, 1989

OFC	:LA:PD21:DRPR	:PM:PD21:DRPR	:PM:PD21:DRPR	:SRXB	:OGC	:D:PD21:DRPR	:
NAME	:PAnderson	:BMozafari:jw	:EReeves	:WHodges	:SHLewis	:EAdensam	:
DATE	:4/27/89	:4/27/89	:4/27/89	:4/28/89	:4/ /89	:5/4/89	:

OFFICIAL RECORD COPY

ATTACHMENT TO LICENSE AMENDMENT NO. 72

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages	Insert Pages
3/4 3-56	3/4 3-56
3/4 3-57	3/4 3-57
	3/4 3-57a
3/4 3-58	3/4 3-58
B 3/4 3-4	B 3/4 3-4
B 3/4 3-5	B 3/4 3-5

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The accident monitoring instrumentation channels shown in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

As shown in Table 3.3-11. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
1. Reactor Coolant Outlet Temperature-T_{hot}-Wide Range	2	1	1,2
2. Reactor Coolant Inlet Temperature-T_{cold}-Wide Range	2	1	1,2
3. Reactor Coolant Pressure-Wide Range	2	1	1,2
4. Steam Generator Water Level-Wide Range or Narrow Range	2/steam generator	1/steam generator	1,2
5. Refueling Water Storage Tank Water Level	2	1	1,2
6. Containment Pressure	2	1	1,2
7. Pressurizer Water Level	2	1	1,2
8. Steam Line Pressure	2/steam generator	1/steam generator	1,2
9. Auxiliary Feedwater Flow Rate	2	1	1,2
10. Reactor Coolant System Subcooling Margin Monitor	2	1	1,2
*11. PORV Position Indicator	1/valve	1/valve	1,2
**12. PORV Block Valve Position Indicator	1/valve	1/valve	1,2
13. Safety Valve Position Indication (One channel is position indicator and one channel is discharge temperature)	2/valve	1/valve	1,2
14. Containment Water Level - Narrow Range	1***	1***	1,2
15. Containment Water Level - Wide Range	2	1	1,2
16. Incore Thermocouples	4/core quadrant	2/core quadrant	1,2
17. Reactor Vessel Level Indicating System	2#	1#	3,4

* Not applicable if the associated block valve is in the closed position.

** Not applicable if the block valve is verified in the closed position and power removed.

*** Operation may continue up to 30 days with less than minimum channels operable for narrow range instruments.

A channel is a probe with eight sensors. A channel is operable if at least four sensors are operable.

Table 3.3-11 (Continued)

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION 2 - With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION 3 - With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, restore the inoperable channel to OPERABLE status within 7 days. If repairs are not feasible without shutting down, prepare and submit a Special Report to the Commission pursuant to the Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

ACTION 4 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, restore the inoperable channels to OPERABLE status within 48 hours. If repairs are not feasible without shutting down:

1. Initiate an alternate method of monitoring the reactor vessel inventory; and

2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status; and

3. Restore at least one channel to OPERABLE status at the next scheduled refueling outage.

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Reactor Coolant Outlet Temperature-T_{hot}-Wide Range	M	R
2.	Reactor Coolant Temperature-T_{cold}-Wide Range	M	R
3.	Reactor Coolant Pressure-Wide Range	M	R
4.	Steam Generator Water Level - Wide Range or Narrow Range	M	R
5.	Refueling Water Storage Tank Water Level	M	R
6.	Containment Pressure	M	R
7.	Pressurizer Water Level	M	R
8.	Steam Line Pressure	M	R
9.	Auxiliary Feedwater Flow Rate	M	R
10.	Reactor Coolant System Subcooling Margin Monitor	M	R
*11.	PORV Position Indicator	M	R
**12.	PORV Block Valve Position Indicator	M	R
13.	Safety Valve Position Indicator	M	R
14.	Containment Water Level - Narrow Range	M	R
15.	Containment Water Level - Wide Range	M	R
16.	Incore Thermocouples	M	R
17.	Reactor Vessel Level Indicating System	M	R

* Not applicable if the associated block valve is in the closed position.
** Not applicable if the block valve is verified in the closed position and power removed.

3/4.3.3.8 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident.

In the event more than four sensors in a reactor vessel level indicating system channel are inoperable, repairs may only be possible during the next refueling outage. This is because the sensors are accessible only after the missile shield is removed. If only one channel is inoperable, it shall be restored to OPERABLE status as soon as reasonably possible. If both channels are inoperable, at least one channel should be restored to OPERABLE status no later than by the end of the next refueling outage.

With the number of OPERABLE RVLIS channels less than the minimum channels required to be OPERABLE, the inoperable channels must be restored within 48 hours or an alternate method of monitoring the reactor vessel level must be initiated. Monitoring pressurizer level and upperhead subcooling is an acceptable alternative to the RVLIS since the RVLIS is primarily used to detect the formation of a void in the reactor vessel head.

A channel check of the RVLIS is a comparison of each valid sensor with its corresponding sensor in the opposite train to verify they display the same state (i.e. covered or uncovered). If the corresponding sensor in the opposite train is invalid then the level at that location can be determined based upon the state of the next highest sensor, pressurizer level, and upperhead subcooling.

A channel calibration of the RVLIS involves the calibration of the digital to analog and analog to digital converters, the cold reference junction, and the power supplies.

3/4.3.3.9 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.3.10 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.11 RADIOACTIVE GASEOUS EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.4 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety related components, equipment or structures.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 80
License No. NPF-2

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Alabama Power Company (the licensee), dated December 14, 1988, as supplemented April 6, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-2 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 80 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to startup from the refueling outage for Cycle 10.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:

Elinor G. Adensam, Director
Project Directorate II-1
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 4, 1989

OFC	:LA:PD21:DRPR	:PM:PD21:DRPR	:PM:PD21:DRPR	:OGC	:D:PD21:DRPR	:	:
NAME	: PAnderson	:BMozafari:jw	:EReeves	:SH Lewis	:EAdensam	:	:
DATE	:4/27/89	:4/27/89	:4/27/89	:4/4/89	:5/4/89	:	:

OFFICIAL RECORD COPY

ATTACHMENT TO LICENSE AMENDMENT NO. 80

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages	Insert Pages
3/4 3-56	3/4 3-56
3/4 3-57	3/4 3-57
	3/4 3-57a
3/4 3-58	3/4 3-58
B 3/4 3-4	B 3/4 3-4
B 3/4 3-5	B 3/4 3-5

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The accident monitoring instrumentation channels shown in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

As shown in Table 3.3-11. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

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2. Reactor Coolant Inlet Temperature-T_{cold}-Wide Range	2	1	1,2
3. Reactor Coolant Pressure-Wide Range	2	1	1,2
4. Steam Generator Water Level-Wide Range or Narrow Range	2/steam generator	1/steam generator	1,2
5. Refueling Water Storage Tank Water Level	2	1	1,2
6. Containment Pressure	2	1	1,2
7. Pressurizer Water Level	2	1	1,2
8. Steam Line Pressure	2/steam generator	1/steam generator	1,2
9. Auxiliary Feedwater Flow Rate	2	1	1,2
10. Reactor Coolant System Subcooling Margin Monitor	2	1	1,2
*11. PORV Position Indicator	1/valve	1/valve	1,2
**12. PORV Block Valve Position Indicator	1/valve	1/valve	1,2
13. Safety Valve Position Indication (One channel is position indicator and one channel is discharge temperature)	2/valve	1/valve	1,2
14. Containment Water Level - Narrow Range	1***	1***	1,2
15. Containment Water Level - Wide Range	2	1	1,2
16. Incore Thermocouples	4/core quadrant	2/core quadrant	1,2
17. Reactor Vessel Level Indicating System	2#	1#	3,4

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* Not applicable if the associated block valve is in the closed position.

** Not applicable if the block valve is verified in the closed position and power removed.

*** Operation may continue up to 30 days with less than minimum channels operable for narrow range instruments.

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Table 3.3-11 (Continued)

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ACTION 1 - With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

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ACTION 4 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, restore the inoperable channels to OPERABLE status within 48 hours. If repairs are not feasible without shutting down:

1. Initiate an alternate method of monitoring the reactor vessel inventory; and

2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status; and

3. Restore at least one channel to OPERABLE status at the next scheduled refueling outage.

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Reactor Coolant Outlet Temperature-T_{hot}-Wide Range	M	R
2.	Reactor Coolant Temperature-T_{cold}-Wide Range	M	R
3.	Reactor Coolant Pressure-Wide Range	M	R
4.	Steam Generator Water Level - Wide Range or Narrow Range	M	R
5.	Refueling Water Storage Tank Water Level	M	R
6.	Containment Pressure	M	R
7.	Pressurizer Water Level	M	R
8.	Steam Line Pressure	M	R
9.	Auxiliary Feedwater Flow Rate	M	R
10.	Reactor Coolant System Subcooling Margin Monitor	M	R
*11.	PORV Position Indicator	M	R
**12.	PORV Block Valve Position Indicator	M	R
13.	Safety Valve Position Indicator	M	R
14.	Containment Water Level - Narrow Range	M	R
15.	Containment Water Level - Wide Range	M	R
16.	Incore Thermocouples	M	R
17.	Reactor Vessel Level Indicating System	M	R

* Not applicable if the associated block valve is in the closed position.
** Not applicable if the block valve is verified in the closed position and power removed.

3/4.3.3.8 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident.

In the event more than four sensors in a reactor vessel level indicating system channel are inoperable, repairs may only be possible during the next refueling outage. This is because the sensors are accessible only after the missile shield is removed. If only one channel is inoperable, it shall be restored to OPERABLE status as soon as reasonably possible. If both channels are inoperable, at least one channel should be restored to OPERABLE status no later than by the end of the next refueling outage.

With the number of OPERABLE RVLIS channels less than the minimum channels required to be OPERABLE, the inoperable channels must be restored within 48 hours or an alternate method of monitoring the reactor vessel level must be initiated. Monitoring pressurizer level and upperhead subcooling is an acceptable alternative to the RVLIS since the RVLIS is primarily used to detect the formation of a void in the reactor vessel head.

A channel check of the RVLIS is a comparison of each valid sensor with its corresponding sensor in the opposite train to verify they display the same state (i.e. covered or uncovered). If the corresponding sensor in the opposite train is invalid then the level at that location can be determined based upon the state of the next highest sensor, pressurizer level, and upperhead subcooling.

A channel calibration of the RVLIS involves the calibration of the digital to analog and analog to digital converters, the cold reference junction, and the power supplies.

3/4.3.3.9 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.3.10 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.11 RADIOACTIVE GASEOUS EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.4 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety related components, equipment or structures.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. NPF-2

AND AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-8

ALABAMA POWER COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated December 10, 1982, the NRC issued Generic Letter 82-28, "Inadequate Core Cooling Instrumentation System." Licensees were told to install an inadequate core cooling instrumentation system in accordance with Item II.F.2 of NUREG-0737. Alabama Power Company, the licensee, installed a reactor vessel level indicating system (RVLIS) and, in a letter dated September 20, 1988 committed to submit Technical Specifications (TS) changes reflecting the addition of a RVLIS.

By letter dated December 14, 1988, as supplemented April 6, 1989, the licensee requested changes to the TS for the Joseph M. Farley Nuclear Plant, Units 1 and 2 (Farley). The proposed amendments would incorporate the plant-specific TS for the RVLIS. The RVLIS has been installed and tested at Farley for two operating cycles, and is the last portion of the Inadequate Core Cooling System (ICCS) requiring TS. The NRC staff has previously reviewed and approved the ICCS and related TS for Farley. The details and basis for the approval are documented in the staff's Safety Evaluation (SE) dated January 30, 1989. The TS changes are proposed as the final step toward compliance with the NUREG-0737, Item II.F.2, and our SE noted above.

The April 6, 1989 submittal contained a change from the previous submittal in the proposed wording of an Action Statement. No new information was included. The change was requested by our staff to clarify the licensee's intent. Therefore, there was no change in the Commission's proposed determination of no significant hazards consideration (54 FR 1019), and this amendment request was not renoticed.

2.0 DISCUSSION

The criterion for determining if a RVLIS channel is operable is based on the quality of information needed by an operator to determine if a coolant void is forming in the top of the reactor vessel (RV) and the extent of the void.

Each channel of RV level measurement consists of eight heated junction thermocouples. Two are located in the reactor head and six are in the upper plenum region. In evaluations on other plants with RVLIS systems of this type, we have determined that with only half of these sensors functioning the operators can still determine if a void has formed, is growing, or operator corrective action is succeeding in reducing the void. The TSs, therefore, should require that, as a minimum, four out of eight sensors must be functioning to declare a channel operational. A minimum of one channel must be operational prior to startup after a refueling outage. These minimum requirements are considered adequate to track the course of a postulated loss-of-coolant accident (LOCA).

3.0 EVALUATION

The RVLIS is neither credited nor required for mitigation of the evaluated LOCA for the Farley Plant. The system is not relied upon for reactor trip or initiation of any plant safety systems. It is intended solely to enhance the operator's ability to understand and manage transients and events by providing additional corroborative information. In the unlikely event that both RVLIS channels became inoperable, and repairs are not feasible without shutting down, the facility may continue to operate, provided an alternate method of monitoring the RV inventory is initiated and a special report is provided to the Commission in accordance with TS requirements.

We conclude that the proposed TS 3/4.3.3.8, and related Tables, Action Statements, and Bases provide reasonable assurance that the RVLIS information will be available to the operator when needed to enhance the operator's ability to understand and manage transients and events. These TS fulfill the requirements of NUREG-0737, Item II.F.2, and are acceptable. In addition, the removal of a one-time change approved in Amendment No. 34 is considered editorial, applicable to a previous cycle, with no impact on safe operation and is, therefore, acceptable as well.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the surveillance requirements. The staff has determined that these amendments involve no significant increase in the amounts, and not significant change in the types, of any effluents that may be released off site; and that there is no significant increase in individual or cummulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there has neen no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 1019) on January 11, 1989, and consulted with the State of Alabama. No public comments or requests for hearing were received, and the State of Alabama did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: May 4, 1989