



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 126  
License No. DPR-33

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 5, 1985, 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 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. DPR-33 is hereby amended to read as follows:

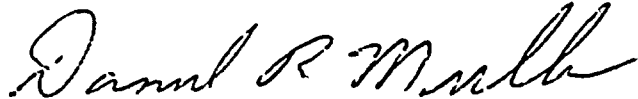
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 126, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
BWR Project Directorate #2  
Division of BWR Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 13, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 126

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

52, 76, 285

2. The marginal lines on these pages denote the areas being changed.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.2.D Off-Gas Post Treatment Isolation Functions

(b) From and after the date that one of the two offgas post treatment radiation monitors is made or found to be inoperable, continued reactor power operation is permissible during the next seven days, provided that the inoperable monitor is tripped in the downscale position. One radiation monitor may be out of service for four hours for functional test and/or calibration without the monitor being in a downscale tripped condition. Both monitors may be taken out of service for less than one hour for purging of monitors during SI performance.

(c) Upon the loss of both off-gas post treatment radiation monitors, initiate an orderly shutdown and shut the mainsteam isolation valves or the off-gas isolation valve within 10 hrs. Purging during SI performance is not considered a loss of monitoring capability.

E. Drywell Leak Detection

The limiting conditions of operation for the instrumentation that monitors drywell leak detection are given in Table 3.2.E.

F. Surveillance Instrumentation

The limiting conditions for the instrumentation that provides surveillance information readouts are given in Table 3.2.F.

G. Control Room Isolation

The limiting conditions for instrumentation that isolates the control room and initiates the control room emergency pressurization systems are given in Table 3.2.G.

4.2.D Off-Gas Post Treatment Isolation Function

E. Drywell Leak Detection

Instrumentation shall be calibrated and checked as indicated in Table 4.2.E.

F. Surveillance Instrumentation

Instrumentation shall be calibrated and checked as indicated in Table 4.2.7.

G. Control Room Isolation

Instrumentation shall be calibrated and checked as indicated in Table 4.2.G.

TABLE 3.2.D  
OFF-GAS POST TREATMENT ISOLATION INSTRUMENTATION

<u>Min. No. Operable (1) (4)</u>	<u>Function</u>	<u>Trip Level Setting</u>	<u>Action(2)</u>	<u>Remarks</u>
2	Off-Gas Post Treatment Monitor	Note 3	A or B	1. 2 upscales, or 1 downscale and 1 upscale, or 2 down-scales will isolate off-gas line.
1	Off Gas Post Treatment Isolation	Note 3	B	1. One trip system with auto transfer to another source

Notes:

1. Whenever the minimum number operable cannot be met, the indicated action shall be taken. Purging during SI performance is not considered a loss of monitoring capability.
2. Action
  - A. Refer to Section 3.2.D.1.b
  - B. Refer to Section 3.2.D.1.c
3. Trip setting to correspond to Specification 3.2.D.1.a



8. Radioactive gases released from each unit's turbine and reactor building roof vents, the radwaste building roof vents, and the main stack shall be continuously monitored. To accomplish this, at least one reactor building and one turbine building vent monitoring system per unit shall be operating whenever that unit's building ventilation system is in service. Also, one radwaste building system vent monitoring channel shall be operating whenever the radwaste ventilation system is in service. At least one main stack monitoring channel shall be operating whenever any unit's air ejector, mechanical vacuum pump, or a standby gas treatment system train is in service. If normal monitoring systems are not available, temporary monitors or other systems shall be used to monitor effluent. A monitoring channel may be out-of-service for 4 hours for functional testing and calibration without providing a temporary monitor. Both stack monitors may be taken out-of-service for less than 1 hour for purging of monitors during SI performance.

If these requirements are not satisfied for the stack or radwaste monitor, the reactors shall be in the hot shutdown condition within 24 hours for the stack and 10 days for the radwaste vent. Purging during SI performance is not considered a loss of monitoring capability.

If these requirements are not satisfied for the reactor and turbine building vents, the affected reactor shall be in hot shutdown condition within 10 days.

#### 4.8.B Airborne Effluents



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 121  
License No. DPR-52

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 5, 1985, 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 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. DPR-52 is hereby amended to read as follows:

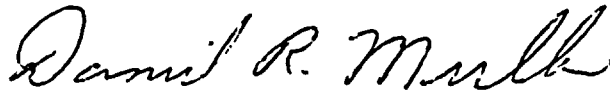


(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 121, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
BWR Project Directorate #2  
Division of BWR Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 13, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 121

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

52, 76, 285

2. The marginal lines on these pages denote the areas being changed.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.2.D Off-Gas Post Treatment Isolation Functions

(b) From and after the date that one of the two offgas post treatment radiation monitors is made or found to be inoperable, continued reactor power operation is permissible during the next seven days, provided that the inoperable monitor is tripped in the downscale position. One radiation monitor may be out of service for four hours for functional test and/or calibration without the monitor being in a downscale tripped condition. Both monitors may be taken out of service for less than one hour for purging of monitors during SI performance.

(c) Upon the loss of both off-gas post treatment radiation monitors, initiate an orderly shutdown and shut the mainsteam isolation valves or the off-gas isolation valve within 10 hrs. Purging during SI performance is not considered a loss of monitoring capability.

E: Drywell Leak Detection

The limiting conditions of operation for the instrumentation that monitors drywell leak detection are given in Table 3.2.E.

F. Surveillance Instrumentation

The limiting conditions for the instrumentation that provides surveillance information readouts are given in Table 3.2.F.

G. Control Room Isolation

The limiting conditions for instrumentation that isolates the control room and initiates the control room emergency pressurization systems are given in Table 3.2.G.

4.2.D Off-Gas Post Treatment Isolation Function

E. Drywell Leak Detection

Instrumentation shall be calibrated and checked as indicated in Table 4.2.E.

F. Surveillance Instrumentation

Instrumentation shall be calibrated and checked as indicated in Table 4.2.7.

G. Control Room Isolation

Instrumentation shall be calibrated and checked as indicated in Table 4.2.G.

TABLE 3.2.D  
OFF-GAS POST TREATMENT ISOLATION INSTRUMENTATION

Min. No. Operable (1) (4)	Function	Trip Level Setting	Action(2)	Remarks
2	Off-Gas Post Treatment Monitor	Note 3	A or B	1. 2 upscales, or 1 downscale and 1 upscale, or 2 downscales will isolate off-gas line.
1	Off Gas Post Treatment Isolation	Note 3	B	1. One trip system with auto transfer to another source

Notes:

1. Whenever the minimum number operable cannot be met, the indicated action shall be taken. Purging during SI performance is not considered a loss of monitoring capability.
2. Action
  - A. Refer to Section 3.2.D.1.b
  - B. Refer to Section 3.2.D.1.c
3. Trip setting to correspond to Specification 3.2.D.1.a

8. Radioactive gases released from each unit's turbine and reactor building roof vents, the radwaste building roof vents, and the main stack shall be continuously monitored. To accomplish this, at least one reactor building and one turbine building vent monitoring system per unit shall be operating whenever that unit's building ventilation system is in service. Also, one radwaste building system vent monitoring channel shall be operating whenever the radwaste ventilation system is in service. At least one main stack monitoring channel shall be operating whenever any unit's air ejector, mechanical vacuum pump, or a standby gas treatment system train is in service. If normal monitoring systems are not available, temporary monitors or other systems shall be used to monitor effluent. A monitoring channel may be out-of-service for 4 hours for functional testing and calibration without providing a temporary monitor. Both stack monitors may be taken out-of-service for less than 1 hour for purging of monitors during SI performance.

If these requirements are not satisfied for the stack or radwaste monitor, the reactors shall be in the hot shutdown condition within 24 hours for the stack and 10 days for the radwaste vent. Purging during SI performance is not considered a loss of monitoring capability.

If these requirements are not satisfied for the reactor and turbine building vents, the affected reactor shall be in hot shutdown condition within 10 days.

#### 4.8.B Airborne Effluents



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-296

BROWNS FERRY NUCLEAR PLANT, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 97  
License No. DPR-68

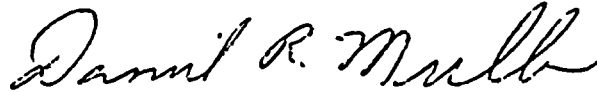
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 5, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules 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 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. DPR-68 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 97, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
BWR Project Directorate #2  
Division of BWR Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 13, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 97

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

52, 79, 306, 307

2. The marginal lines on these pages denote the areas being changed.



3.2 PROTECTIVE INSTRUMENTATIOND. Off-Gas Post Treatment Isolation Function

continued  
reactor power operation is permissible during the next seven days, provided that the inoperable monitor is tripped in the downscale position. One radiation monitor may be out-of-service for four hours for functional test and/or calibration without the monitor being in a downscale tripped condition. Both monitors may be taken out-of-service for less than one hour for purging of monitors during SI performance.

- (c) Upon the loss of both off-gas post treatment radiation monitors, initiate an orderly shutdown and shut the mainsteam isolation valves or the off-gas isolation valve within 10 hours. Purging during SI performance is not considered a loss of monitoring capability.

4.2 PROTECTIVE INSTRUMENTATION

TABLE 3.2.D  
OFF-GAS POST TREATMENT ISOLATION INSTRUMENTATION

<u>Min. No. Operable (1) (4)</u>	<u>Function</u>	<u>Trip Level Setting</u>	<u>Action(2)</u>	<u>Remarks</u>
2	Off-Gas Post Treatment Monitor	Note 3	A or B	1. 2 upscales, or 1 downscale and 1 upscale, or 2 downscales will isolate off-gas line.
1	Off Gas Post Treatment Isolation	Note 3	B	1. One trip system with auto transfer to another source

Notes:

1. Whenever the minimum number operable cannot be met, the indicated action shall be taken. Purging during SI performance is not considered a loss of monitoring capability.
2. Action
  - A. Refer to Section 3.2.D.1.b
  - B. Refer to Section 3.2.D.1.c
3. Trip setting to correspond to Specification 3.2.D.1.a



8. Radioactive gases released from each unit's turbine and reactor building roof vents, the radwaste building roof vents, and the main stack shall be continuously monitored. To accomplish this, at least one reactor building and one turbine building vent monitoring system per unit shall be operating whenever that unit's building ventilation system is in service. Also, one radwaste building system vent monitoring channel shall be operating whenever the radwaste ventilation system is in service. At least one main stack monitoring channel shall be operating whenever any unit's air ejector, mechanical vacuum pump, or a standby gas treatment system train is in service. If normal monitoring systems are not available, temporary monitors or other systems shall be used to monitor effluent. A monitoring channel may be out-of-service for 4 hours for functional testing and calibration without providing a temporary monitor. Both stack monitors may be taken out-of-service for less than 1 hour for purging of monitors during SI performance.

If these requirements are not satisfied for the stack or radwaste monitor, the reactors shall be in the hot shutdown condition within 24 hours for the stack and 10 days for the radwaste vent. Purging during SI performance is not considered a loss of monitoring capability.

If these requirements are not satisfied for the reactor and turbine building vents, the affected reactor shall be in hot shutdown condition within 10 days.

#### 4.8.B Airborne Effluents

3.8 RADIOACTIVE MATERIALSC. Mechanical Vacuum Pumps

1. Each mechanical vacuum pump shall be capable of being automatically isolated and secured on a signal of high radioactivity in the steam lines whenever the main steam isolation valves are open.
2. If a vacuum pump cannot meet the limits of 3.8.C.1, that vacuum pump shall be isolated.

4.8 RADIOACTIVE MATERIALSC. Mechanical Vacuum Pumps

At least once during each operating cycle verify automatic securing and isolation of the mechanical vacuum pumps.