

October 11, 1984

Docket Nos. 50-259/260/296

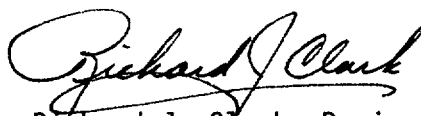
Mr. Hugh G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

On April 30, 1984, we issued Amendment Nos. 98, 92 and 65 to Facility Operating License Nos. DPR-33, DPR-52 and DPR-68 in response to your applications dated July 29, 1977, as supplemented April 29, 1979, July 20, 1979, and November 17, 1981.

As you noted in your letter dated May 4, 1984, those amendments contain editorial errors. Corrected copies of pages requiring correction are enclosed.

Sincerely,



Richard J. Clark, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
As stated

cc w/enclosures:
See next page

DISTRIBUTION
Docket File
NRC PDR
Local PDR
ORB#2 Reading
DEisenhut
OELD
SNorris
WLong
RClark
Gray File

JPartlow
LJHarmon
ELJordan
JNGrace
TBarnhart (12)
WJones
DBrinkman
ACRS (10)
OPA, CMiles
RDiggs
Extra - 5

DL:ORB#2
SNorris:ajs
10/10/84

DL:ORB#2
WLong
10/11/84

DL:ORB#2
RClark
10/11/84

DL:ORB#2
DVassallo
10/11/84

8411010291 841011
PDR ADDCK 05000259
PDR

Mr. Hugh G. Parris
Tennessee Valley Authority
Browns Ferry Nuclear Plant, Units 1, 2 and 3

cc:

H. S. Sanger, Jr., Esquire
General Counsel
Tennessee Valley Authority
400 Commerce Avenue
E 11B 330
Knoxville, Tennessee 37902

Mr. Ron Rogers
Tennessee Valley Authority
400 Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Mr. Charles R. Christopher
Chairman, Limestone County Commission
Post Office Box 188
Athens, Alabama 35611

Ira L. Meyers, M.D.
State Health Officer
State Department of Public Health
State Office Building
Montgomery, Alabama 36130

Mr. H. N. Culver
249A HBD
400 Commerce Avenue
Tennessee Valley Authority
Knoxville, Tennessee 37902

James P. O'Reilly
Regional Administrator
Region II Office
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

U. S. Environmental Protection
Agency
Region IV Office
Regional Radiation Representative
345 Courtland Street, N. W.
Atlanta, Georgia 30308

Resident Inspector
U. S. Nuclear Regulatory Commission
Route 2, Box 311
Athens, Alabama 35611

Mr. Donald L. Williams, Jr.
Tennessee Valley Authority
400 West Summit Hill Drive, W10B85
Knoxville, Tennessee 37902

George Jones, Manager, BFNP
Tennessee Valley Authority
Post Office Box 2000
Decatur, Alabama 35602

Mr. Oliver Havens
U. S. Nuclear Regulatory Commission
Reactor Training Center
Osborne Office Center, Suite 200
Chattanooga, Tennessee 37411

James A. Coffey
Site Director, BFNP
Tennessee Valley Authority
Post Office Box 2000
Decatur, Alabama 35602

CORRECTION TO LICENSE AMENDMENT NO. 98

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.

<u>Page</u>	<u>Correction</u>
iii	Page number for "3.6.G" corrected.
vii	Table 4.6.A deleted.
182	Title of "3.6.F" changed. Expired footnote deleted.
183	Margin bar corrected.
184	"4.6.G.6" changed to "4.6.G.3."

<u>Section</u>	<u>Page No.</u>
C. Coolant Leakage	180
D. Relief Valves	181
E. Jet Pumps	181
F. Recirculation Pump Operation	182
G. Structural Integrity	183
H. Seismic Restraints, Supports, and Snubbers	185
3.7/4.7 Containment Systems	227
A. Primary Containment	227
B. Standby Gas Treatment System	236
C. Secondary Containment	240
D. Primary Containment Isolation Valves	242
E. Control Room Emergency Ventilation	244
F. Primary Containment Purge System	246
G. Containment Atmosphere Dilution System (CAD)	248
H. Containment Atmosphere Monitoring (CAM) System H ₂ analyzer	249
3.8/4.8 Radioactive Materials	251
A. Liquid Effluents	281
B. Airborne Effluents	282
C. Mechanical Vacuum Pump	286
D. Miscellaneous Radioactive Materials Sources	285
3.9/4.9 Auxiliary Electrical System	292
A. Auxiliary Electrical Equipment	292
B. Operation with Inoperable Equipment	295
C. Operation in Cold Shutdown	298
3.10/4.10 Core Alterations	302
A. Refueling Interlocks	302

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	105
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation	106
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	107
4.2.J	Seismic Monitoring Instrument Surveillance	108
3.5-1	Minimum RHRSW and EECW Pump Assignment	152a
3.5.I	MAPLEGR Versus Average Planar Exposure	171, 172, 172a
3.7.A	Primary Containment Isolation Valves	250
3.7.B	Testable Penetrations with Double O-Ring Seals	256
3.7.C	Testable Penetrations with Testable Bellows	257
3.7.D	Air Tested Isolation Valves	258
3.7.E	Primary Containment Isolation Valves which Terminate below the Suppression Pool Water Level	262
3.7.F	Primary Containment Isolation Valves Located in Water Sealed Seismic Class I Lines	263
3.7.H	Testable Electrical Penetrations	265
4.8.A	Radioactive Liquid Waste Sampling and Analysis	287
4.8.B	Radioactive Gaseous Waste Sampling and Analysis	288
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start	298a
3.11.A	Fire Protection System Hydraulic Requirements	324
6.8.A	Minimum Shift Crew Requirements	360

3.6.F Recirculation Pump Operation

1. The reactor shall not be operated with one recirculation loop out of service for more than 24 hours. With the reactor operating, if one recirculation loop is out of service, the plant shall be placed in a hot shutdown condition within 24 hours unless the loop is sooner returned to service.
2. Following one pump operation, the discharge valve of the low speed pump may not be opened unless the speed of the faster pump is less than 50% of its rated speed.
3. Steady state operation with both recirculation pumps out of service for up to 12 hours is permitted. During such interval restart of the recirculation pumps is permitted, provided the loop discharge temperature is within 75°F of the saturation temperature of the reactor vessel water as determined by dome pressure. The total elapsed time in natural circulation and one pump operation must be no greater than 24 hours.

4.6.E Jet Pumps

- b. The indicated value of core flow rate varies from the value derived from loop flow measurements by more than 10%.
 - c. The diffuser to lower plenum differential pressure reading on an individual jet pump varies from the mean of all jet pump differential pressures by more than 10%.
2. Whenever there is recirculation flow with the reactor in the Startup or Run Mode and one recirculation pump is operating with the equalizer valve closed, the diffuser to lower plenum differential pressure shall be checked daily and the differential pressure of an individual jet pump in a loop shall not vary from the mean of all jet pump differential pressures in that loop by more than 10%.

4.6.F Recirculation Pump Operation

1. Recirculation pump speeds shall be checked and logged at least once per day.
2. No additional surveillance required.
3. Before starting either recirculation pump during steady state operation, check and log the loop discharge temperature and dome saturation temperature.

3.6.G Structural Integrity

1. The structural integrity of the primary system shall be maintained at the level required by the original acceptance standards throughout the life of the plant. The reactor shall be maintained in a cold shutdown condition until each indication of a defect has been investigated and evaluated.

4.6.G Structural Integrity

1. Inservice inspection of ASME Code Class 1, Class 2, and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

2. Additional inspections shall be performed on certain circumferential pipe welds as listed to provide additional protection against pipe whip, which could damage auxiliary and control systems.

Feedwater	- GFW-9, KFW-13 GFW-12, GFW-26, KFW-31, GFW-29, KFW-39, GFW-15, KFW-38, and GFW-32
Main steam	- GMS-6, KMS-24, GMS-32, KMS-104 GMS-15, and GMS-24
RHR	- DSRHR-4, DSRHR-7, DSRHR- 8A
Core Spray	- DSCS-12, DSCS-11, DSCS-5, and DSCS-4

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6.G Structural Integrity

4.6.G Structural Integrity

Reactor

Cleanup - DSRWC-4, DSRWC-3
DSRWC-6, DSRWC-5

HPCI - THPCI-152
THPCI-153B
THPCI-153
THPCI-154

3. For Unit 1 an augmented inservice surveillance program shall be performed to monitor potential corrosive effects of chloride residue released during the March 22, 1975 fire. The augmented inservice surveillance program is specified as follows:
 - a. Browns Ferry Mechanical Maintenance Instruction 53, dated September 22, 1975, paragraph 4, defines the liquid penetrant examinations required during the first, second, third and fourth refueling outages following the fire restoration.
 - b. Browns Ferry Mechanical Maintenance Instruction 46, dated July 18, 1975, Appendix B, defines the liquid penetrant examinations required during the sixth refueling outage following the fire restoration.

CORRECTION TO LICENSE AMENDMENT NO. 92

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.

<u>Page</u>	<u>Correction</u>
iii	Page number for "3.6.G" corrected.
vii	Table 4.6.A deleted.
183	Restores Amendment No. 92 changes erroneously omitted during issuance of Amendment No. 96.

<u>Section</u>	<u>Page No.</u>
C. Coolant Leakage	180
D. Relief Valves	181
E. Jet Pumps	181
F. Recirculation Pump Operation	182
G. Structural Integrity	183
H. Seismic Restraints, Supports, and Snubbers . .	185
3.7/4.7 Containment Systems	227
A. Primary Containment	227
B. Standby Gas Treatment System	236
C. Secondary Containment	240
D. Primary Containment Isolation Valves	242
E. Control Room Emergency Ventilation	244
F. Primary Containment Purge System	246
G. Containment Atmosphere Dilution System (CAD) . .	248
H. Containment Atmosphere Monitoring (CAM) System H ₂ Analyzer	249
3.8/4.8 Radioactive Materials	281
A. Liquid Effluents	281
B. Airborne Effluents	282
C. Mechanical Vacuum Pump	286
D. Miscellaneous Radioactive Materials Sources . .	286
3.9/4.9 Auxiliary Electrical System	292
A. Auxiliary Electrical Equipment	292
B. Operation with Inoperable Equipment	295
C. Operation in Cold Shutdown	298
3.10/4.10 Core Alterations	302
A. Refueling Interlocks	302

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	105
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation	106
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	107
4.2.J	Seismic Monitoring Instrument Surveillance	108
3.5-1	Minimum RHRSW and EECW Pump Assignment	152a
3.5.I	MAPLGR Versus Average Planar Exposure	171, 172,
3.7.A	Primary Containment Isolation Valves	250
3.7.B	Testable Penetrations with Double O-Ring Seals	256
3.7.C	Testable Penetrations with Testable Bellows	257
3.7.D	Air Tested Isolation Valves	258
3.7.E	Primary Containment Isolation Valves which Terminate below the Suppression Pool Water Level	262
3.7.F	Primary Containment Isolation Valves Located in Water Sealed Seismic Class 1 Lines	263
3.7.H	Testable Electrical Penetrations	265
4.8.A	Radioactive Liquid Waste Sampling and Analysis	287
4.8.B	Radioactive Gaseous Waste Sampling and Analysis	288
4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start	298a
3.11.A	Fire Protection System Hydraulic Requirements	324
6.8.A	Minimum Shift Crew Requirements	360

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.6.G Structural Integrity

1. The structural integrity of the primary system shall be maintained at the level required by the original acceptance standards throughout the life of the plant. The reactor shall be maintained in a cold shutdown condition until each indication of a defect has been investigated and evaluated.

4.6.G Structural Integrity

1. Inservice inspection of ASME Code Class 1, Class 2, and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

2. Additional inspections shall be performed on certain circumferential pipe welds as listed to provide additional protection against pipe whip, which could damage auxiliary and control systems.

Feedwater	-	CFW-9, KFW-13 CFW-12, CFW-26, KFW-31, CFW-29, KFW-19, CFW-15, KFW-38, and CFW-32
Main steam	-	GMS-6, KMS-24, GMS-32, KMS-104 GMS-15, and GMS-24
RHR	-	DSRHR-4, DSRHR-7, DSRHR-6
Core Spray	-	TCS-407 TCS-423 TSCS-408 TSCS-424

CORRECTION TO LICENSE AMENDMENT NO. 65

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.

<u>Page</u>	<u>Correction</u>
vii	Table 4.6.A deleted.
196	Editorial changes to "3.6.G.1" for consistency with Units 1 and 2 Margin bar added for "4.6.G.1."
197	Restores Amendment No. 65 changes erroneously omitted when Amendment No. 69 was issued.
209 - 214	Replaces 203 - 208 to correct error resulting from page renumbering.

2. Restore the following pages which were incorrectly deleted by Amendment No. 65.

203 (Amendment No. 55)
204 (Amendment No. 55)
205 (Amendment No. 55)
206 (Amendment No. 55)
207 (Amendment No. 55)
208 (Amendment No. 55)

These pages (not enclosed) are available from your files.

4.2.E	Minimum Test and Calibration Frequency for Drywell Leak Detection Instrumentation	101
4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	102
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation	103
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	104
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	105
3.5.-1	Minimum RHRSW and EECW Pump Assignment	156a
3.5.I	MAPLHCR vs. Average Planar Exposure	181, 182, 182a, 182b
3.7.A	Primary Containment Isolation Valves	262
3.7.B	Testable Penetrations with Double O-Ring Seals	268
3.7.C	Testable Penetrations with Testable Bellows	269
3.7.D	Air Tested Isolation Valves	270
3.7.E	Primary Containment Isolation Valves which Terminate Below the Suppression Pool Water Level	279
3.7.F	Primary Containment Isolation Valves Located in Water Sealed Seismic Class 1 Lines	280
3.7.G	Deleted	
3.7.H	Testable Electrical Penetrations	283
4.8.A	Radioactive Liquid Waste Sampling and Analysis	310
4.8.B	Radioactive Gaseous Waste Sampling and Analysis	311
4.9.A.4.c	Voltage Relay Setpoints/Diesel Generator Start	326a
3.11.A	Fire Protection System Hydraulic Requirements	355a
6.8.A	Minimum Shift Crew Requirements	390

PRIMARY SYSTEM BOUNDARYG. Structural Integrity

1. The structural integrity of the primary system shall be maintained at the level required by the original acceptance standards throughout the life of the plant. The reactor shall be maintained in a cold shutdown condition until each indication of a defect has been investigated and evaluated.

4.6 PRIMARY SYSTEM BOUNDARYG. Structural Integrity

1. Inservice inspection of ASME Code Class 1, Class 2, and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

2. Additional inspections shall be performed on certain circumferential pipe welds as listed to provide additional protection against pipe whip, which could damage auxiliary and control systems.

Feedwater- GFW-9, KFW-13,
GFW-12, GFW-26,
KFW-31, GFW-29,
KFW-39, GFW-15,
KFW-38, and GFW-32

3.6 PRIMARY SYSTEM BOUNDARY4.6 PRIMARY SYSTEM BOUNDARY

Main steam-GMS-6, KMS-24,
GMS-32, KMS-104,
GMS-15, and GMS-24

RHR -DSRHR-6, DSRHR-7,
and DSRHR-4

Core Spray TCS-407 TCS-423
TSCS-408 TSCS-424

Reactor
Cleanup -DSRWC-4, DSRWC-3,
DSRWC-6, and DSRWC-5

HPCI -THPCI-70
THPCI-70A
THPCI-71, and
THPCI-72

REFERENCE

1. Plant Safety Analysis
(BFNP PSAR subsection
4.12)

PAGES
DELETED

209-214

Amendment No. 65