UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 8, 1995

Mr. D. L. Farrar
Manager, Nuclear Regulatory Services
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: ISSUANCE OF AMENDMENTS RELATED TO TSUP SECTION 3/4.4 (TAC NOS. M84926, M84927, M84928, AND M84929)

Dear Mr. Farrar:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 133 to Facility Operating License No. DPR-19 for Dresden, Unit 2, Amendment No. 127 to Facility Operating License No. DPR-25 for Dresden, Unit 3, Amendment No. 154 to Facility Operating License No. DPR-29 for Quad Cities, Unit 1, and Amendment No. 150 to Facility Operating License No. DPR-30 for Quad Cities, Unit 2. The amendments are in response to your application dated October 15, 1992, as supplemented March 9, 1993.

As a result of findings by a Diagnostic Evaluation Team (DET) inspection performed by the NRC staff at the Dresden Nuclear Power Station in 1987, Commonwealth Edison Company (ComEd, the licensee) made a decision that both the Dresden Nuclear Power Station and sister site Quad Cities Nuclear Power Station, need attention focused on the existing custom Technical Specifications (TS) being used at both sites.

The licensee made the decision to initiate a Technical Specification Upgrade Program (TSUP) for both Dresden and Quad Cities. The licensee evaluated the Dresden and Quad Cities current TS against the Standard Technical Specifications (STS) contained in NUREG-0123, Revision 4, "Standard Technical Specification General Electric Plants BWR/4." The licensee's evaluation identified numerous potential improvements such as clarifying requirements, changing the TS to make them more understandable to eliminate interpretation, and deleting requirements that are no longer considered current with industry practice. As a result of the evaluation, ComEd elected to upgrade both the Dresden and Quad Cities TS to the STS contained in NUREG-0123.

The TSUP for Dresden and Quad Cities is not a complete adaption of the STS. The TSUP focuses on (1) integrating additional information such as equipment operability requirements during shutdown conditions, (2) clarifying requirements such as limiting conditions for operation and action statements utilizing STS terminology, (3) deleting superseded requirements and modifications to the TS based on the licensee's responses to Generic Letters (GL), and (4) relocating specific items to more appropriate TS locations.

CP-1

140087

DF01

The application dated October 15, 1992, as supplemented March 9, 1993, contains the proposed upgrade of section 3/4.4, "Standby Liquid Control System" of the Dresden and Quad Cities TS.

The review guidance to be used by the NRC staff in the review of the TSUP is described in Section 2.0 of the enclosed Safety Evaluation (SE). The staff reviewed the proposed changes and evaluated all deviations and changes between the proposed TS, the STS, and the current TS.

Based on discussions between ComEd and the staff, it has been mutually agreed upon that the NRC will review the sections of TSUP as they are submitted and provide ComEd an amendment for each submittal. Once all of the TSUP sections have been reviewed and the amendments issued, it is our understanding that ComEd will make one final submittal addressing any changes that may be required as a result of problems uncovered during the course of this effort. Upon receipt and review of this final submittal, the staff will issue a final amendment which addresses any remaining open items and any changes or corrections to the previous amendments. The applicable TSUP TS will be issued with each amendment and will become effective no later than December 31, 1995, for Dresden and June 30, 1996, for Quad Cities.

The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by:

John F. Stang, Senior Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254, 50-265

Enclosures:
1. Amendment No. 133 to DPR-19
2. Amendment No. 127 to DPR-25
3. Amendment No. 154 to DPR-29
4. Amendment No. 150 to DPR-30
5. Safety Evaluation

cc w/encls: see next page

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DATE	05/15/95	05/16/95	05/17/95	05/17/95	05/17/95	06/8/95	05/5/95

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The application dated October 15, 1992, as supplemented March 9, 1993, contains the proposed upgrade of section 3/4.4, "Standby Liquid Control System" of the Dresden and Quad Cities TS.

The review guidance to be used by the NRC staff in the review of the TSUP is described in Section 2.0 of the enclosed Safety Evaluation (SE). The staff reviewed the proposed changes and evaluated all deviations and changes between the proposed TS, the STS, and the current TS.

Based on discussions between ComEd and the staff, it has been mutually agreed upon that the NRC will review the sections of TSUP as they are submitted and provide ComEd an amendment for each submittal. Once all of the TSUP sections have been reviewed and the amendments issued, it is our understanding that ComEd will make one final submittal addressing any changes that may be required as a result of problems uncovered during the course of this effort. Upon receipt and review of this final submittal, the staff will issue a final amendment which addresses any remaining open items and any changes or corrections to the previous amendments. The applicable TSUP TS will be issued with each amendment and will become effective no later than December 31, 1995, for Dresden and June 30, 1996, for Quad Cities.

The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

John F. Stang

John F. Stang, Senior Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254, 50-265

Enclosures:
1. Amendment No. 133 to DPR-19
2. Amendment No. 127 to DPR-25
3. Amendment No. 154 to DPR-29
4. Amendment No. 150 to DPR-30
5. Safety Evaluation

cc w/encl: see next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 133
License No. DPR-19

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

   A. The application for amendment by the Commonwealth Edison Company (the licensee) dated October 15, 1992, as supplemented March 9, 1993, 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-19 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 133 , 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 the date of its issuance and shall be implemented no later than December 31, 1995.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stang, Senior Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1995

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 127
License No. DPR-25

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

   A. The application for amendment by the Commonwealth Edison Company (the licensee) dated October 15, 1992, as supplemented March 9, 1993, 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 3.B. of Facility Operating License No. DPR-25 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 127, 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 the date of its issuance and shall be implemented no later than December 31, 1995.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stang, Senior Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1995

ATTACHMENT TO LICENSE AMENDMENT NOS. 133 AND 127

FACILITY OPERATING LICENSE NOS. DPR-19 AND DPR-25

DOCKET NOS. 50-237 AND 50-249

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number. The new inserted pages completely replace the removed pages.

REMOVE	INSERT
3/4.4-1	3/4.4-1
3/4.4-2	3/4.4-2
3/4.4-3	3/4.4-3
3/4.4-4	3/4.4-4
3/4.4-5	-
B 3/4.4-6	B 3/4.4-1
B 3/4.4-7	B 3/4.4-2

3.4 - LIMITING CONDITIONS FOR OPERATION

A. Standby Liquid Control System (SLCS)

The standby liquid control system (SLCS) shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 5[a].

ACTION:

1. In OPERATIONAL MODE 1 or 2:

   a. With one subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

   b. With both standby liquid control subsystems inoperable, restore at least one subsystem to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.

2. In OPERATIONAL MODE 5[a]:

   a. With one subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 30 days or fully insert all insertable control rods within the next hour.

   b. With both standby liquid control subsystems inoperable, fully insert all insertable control rods within 1 hour.

4.4 - SURVEILLANCE REQUIREMENTS

A. Standby Liquid Control System

The standby liquid control system shall be demonstrated OPERABLE:

1. At least once per 24 hours by verifying that:

   a. The temperature of the sodium pentaborate solution is greater than or equal to the limits of Figure 3.4.A-1.

   b. The volume of the sodium pentaborate solution is greater than or equal to the limits shown in Figure 3.4.A-2.

   c. The heat tracing circuit is OPERABLE by determining the temperature of the pump suction piping to be greater than or equal to 83°F.

2. At least once per 31 days by:

   a. Verifying the continuity of the explosive charge.

   b. Determining[b] by chemical analysis that the available concentration of boron in solution is 14% by weight to 16.5% by weight.

   c. Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

---

a With any control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b This surveillance shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limits specified by Figure 3.4.A-1.

3.4 - LIMITING CONDITIONS FOR OPERATION

4.4 - SURVEILLANCE REQUIREMENTS

3. When tested pursuant to Specification 4.0.E, by demonstrating that the minimum flow requirement of 40 gpm per pump at a pressure of greater than or equal to 1275 psig is met.

4. At least once per 18 months by:

   a. Initiating one of the standby liquid control subsystems, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. Both injection loops shall be tested in 36 months.

   b. Demonstrating that the pump relief valve setpoint is between 1455 and 1545 psig and verifying that the relief valve does not actuate during recirculation to the test tank at normal system pressures.

   c. Demonstrating that the pump suction line from the storage tank is not plugged by manually initiating the system, except the explosive valves, and pumping solution in the recirculation path.

FIGURE 3.4.A-1

SODIUM PENTABORATE SOLUTION TEMPERATURE REQUIREMENTS

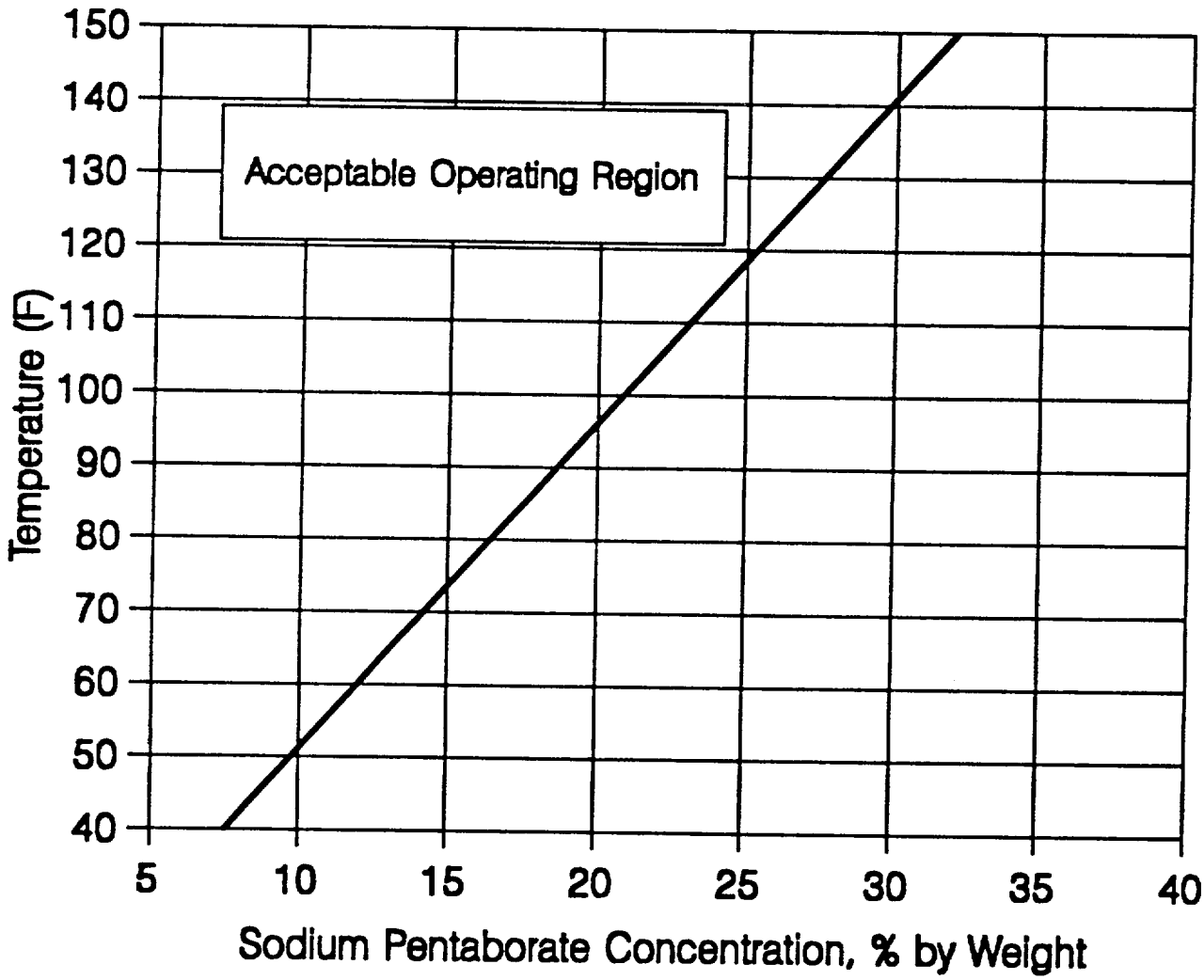
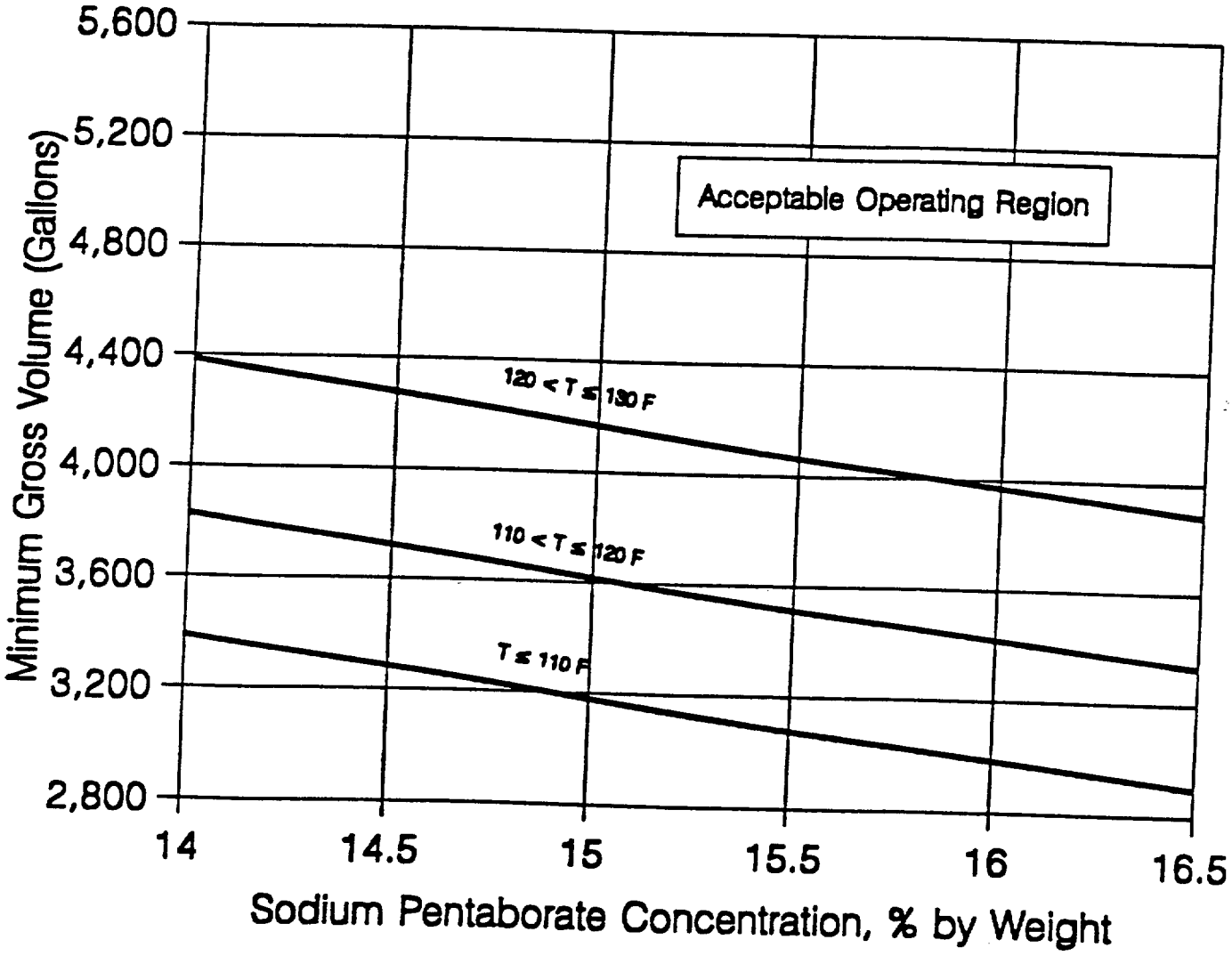


FIGURE 3.4.A-2

SODIUM PENTABORATE SOLUTION VOLUME REQUIREMENTS



3/4.4.A STANDBY LIQUID CONTROL SYSTEM

The standby liquid control system consists of an unpressurized tank for low temperature sodium pentaborate solution storage, a pair of full capacity positive displacement pumps, two explosive actuated shear plug valves, the poison sparger ring, and the necessary piping, valves and instrumentation. An OPERABLE standby liquid control system provides backup capability for reactivity control independent of normal reactivity control provisions provided by the control rods. OPERABILITY of the system is based on the conditions of the borated solution in the storage tank and the availability of a flow path to the reactor pressure vessel, including the pumps and valves. Two subsystems are required to be OPERABLE; each contains a pump, an explosive valve, and the associated piping, valves, and necessary instruments and controls to ensure an OPERABLE flow path. Inoperability of a nonredundant component, such as the tank, affects both subsystems.

The standby liquid control system provides the capability for bringing the reactor from full power to a cold, xenon-free shutdown assuming that none of the withdrawn control rods can be inserted. To meet this objective, it is designed to inject a quantity of boron which produces a concentration of no less than 600 ppm of boron in the reactor core in less than 100 minutes. This boron concentration is required to bring the reactor from full power to a 3% $\Delta k/k$ or more subcritical condition, considering the hot to cold reactivity swing and xenon poisoning. An additional margin of 25% boron is provide to compensate for possible losses and imperfect mixing of the chemical solution in the reactor water. This results in an average concentration of 750 ppm of boron in the reactor core assuming no losses. A net quantity of 3035 gallons of solution at less than or equal to 110°F and having a 14 weight percent sodium pentaborate ($NA_2B_{10}O_{16} \cdot 10H_2O$) concentration is required to meet this shutdown requirement. An additional volume of solution is contained below the pump suction and is not available for injection. Other equivalent combinations of increased concentration and reduced volume are also acceptable provided they have considered required temperatures and net positive suction head.

The specified pumping rate of 40 gpm will meet the above design objective. This insertion rate of boron solution will override the rate of reactivity insertion due to cooldown of the reactor following the xenon peak. Two-pump operation will enable faster reactor shutdown for anticipated transients without scram (ATWS) events. The required minimum flow combined with the solution concentration requirements are sufficient to comply with the requirements of 10 CFR 50.62.

With redundant pumps and explosive injection valves and with a highly reliable control rod scram system, operation of the reactor is permitted to continue for short periods of time with the system inoperable or for longer periods of time with one of the subsystems inoperable.

Surveillance requirements are established on a frequency that assures a high reliability of the system. The standby liquid control system is operated by a five-position control switch which allows single pump operation for surveillance testing. This testing demonstrates the capability of firing the explosive trigger assemblies, and injects clean demineralized water from the test tank to the reactor vessel to demonstrate the injection line is not plugged. Locally controlled testing circulates sodium pentaborate from the storage tank, through one suction line, through a pump, and back into the storage tank. This is done separately for each system to demonstrate that both

suction lines are not plugged. The only practical time to test the standby liquid control system is during a refueling outage. Components of the system are checked periodically and make a more frequent functional test of the entire system unnecessary. A test of explosive charges from one manufacturing batch is made to assure that the charges are satisfactory. A continual check of the firing circuit continuity is provided by pilot lights in the control room.

The two pump operation switch positions will be used for the injection of the sodium pentaborate into the vessel during an ATWS event. By using the two pump operation position, the standby liquid control system will comply with the requirements of 10 CFR 50.62. Comparison of the initial two-pump test data with initial single-pump test data has verified the capability of the piping to support two-pump flow. Periodic single-pump test data is compared to the required flow rate and to the previous test data to identify any significant degradation.

A 10°F margin is included in Figure 3.4.A-1 above saturation temperature to guard against boron precipitation. Temperature and liquid level alarms for the system are annunciated in the control room. Once the solution has been made up, boron concentration will not vary significantly unless more boron or more water is added. Tank level indication and alarms are provided to indicate whether the solution volume has changed, which might indicate a possible solution concentration change.

Figure 3.4.A-2 provides additional requirements for minimum solution volume, based on existing solution temperature and concentration, to ensure adequate net positive suction head exists for two pump operation. It is permissible to interpolate between the temperature curves.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-254

QUAD CITIES NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 154
License No. DPR-29

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

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated October 15, 1992, as supplemented March 9, 1993, 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 3.B. of Facility Operating License No. DPR-29 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 154, 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 the date of its issuance and shall be implemented no later than June 30, 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1995

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-265

QUAD CITIES NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 150
License No. DPR-30

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

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated October 15, 1992, as supplemented March 9, 1993, 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 3.B. of Facility Operating License No. DPR-30 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 150 , 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 the date if its issuance and shall be implemented no later than June 30, 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1995

ATTACHMENT TO LICENSE AMENDMENT NOS. 154 AND 150

FACILITY OPERATING LICENSE NOS. DPR-29 AND DPR-30

DOCKET NOS. 50-254 AND 50-265

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number. The new inserted pages completely replace the removed pages.

REMOVE	INSERT
3/4.4-1	3/4.4-1
3/4.4-2	3/4.4-2
3/4.4-3	3/4.4-3
3/4.4-4	3/4.4-4
*3/4.4-5	-
-	B 3/4.4-1
-	B 3/4.4-2
Figure 3.4-1	-
Figure 3.4-2	-

* Quad Cities Unit 1 only

3.4 - LIMITING CONDITIONS FOR OPERATION

A. Standby Liquid Control System (SLCS)

The standby liquid control system (SLCS) shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 5[a].

ACTION:

1. In OPERATIONAL MODE 1 or 2:

   a. With one subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

   b. With both standby liquid control subsystems inoperable, restore at least one subsystem to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.

2. In OPERATIONAL MODE 5[a]:

   a. With one subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 30 days or fully insert all insertable control rods within the next hour.

   b. With both standby liquid control subsystems inoperable, fully insert all insertable control rods within 1 hour.

4.4 - SURVEILLANCE REQUIREMENTS

A. Standby Liquid Control System

The standby liquid control system shall be demonstrated OPERABLE:

1. At least once per 24 hours by verifying that:

   a. The temperature of the sodium pentaborate solution is greater than or equal to the limits of Figure 3.4.A-1.

   b. The volume of the sodium pentaborate solution is greater than or equal to the limits shown in Figure 3.4.A-2.

   c. The heat tracing circuit is OPERABLE by determining the temperature of the pump suction piping to be greater than or equal to 83°F.

2. At least once per 31 days by:

   a. Verifying the continuity of the explosive charge.

   b. Determining[b] by chemical analysis that the available concentration of boron in solution is 14% by weight to 16.5% by weight.

   c. Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

---

a With any control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b This surveillance shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limits specified by Figure 3.4.A-1.

3.4 - LIMITING CONDITIONS FOR OPERATION

4.4 - SURVEILLANCE REQUIREMENTS

3. When tested pursuant to Specification 4.0.E, by demonstrating that the minimum flow requirement of 40 gpm per pump at a pressure of greater than or equal to 1275 psig is met.

4. At least once per 18 months by:

   a. Initiating one of the standby liquid control subsystems, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. Both injection loops shall be tested in 36 months.

   b. Demonstrating that the pump relief valve setpoint is between 1455 and 1545 psig and verifying that the relief valve does not actuate during recirculation to the test tank at normal system pressures.

   c. Demonstrating that the pump suction line from the storage tank is not plugged by manually initiating the system, except the explosive valves, and pumping solution in the recirculation path.

FIGURE 3.4.A-1

SODIUM PENTABORATE SOLUTION TEMPERATURE REQUIREMENTS

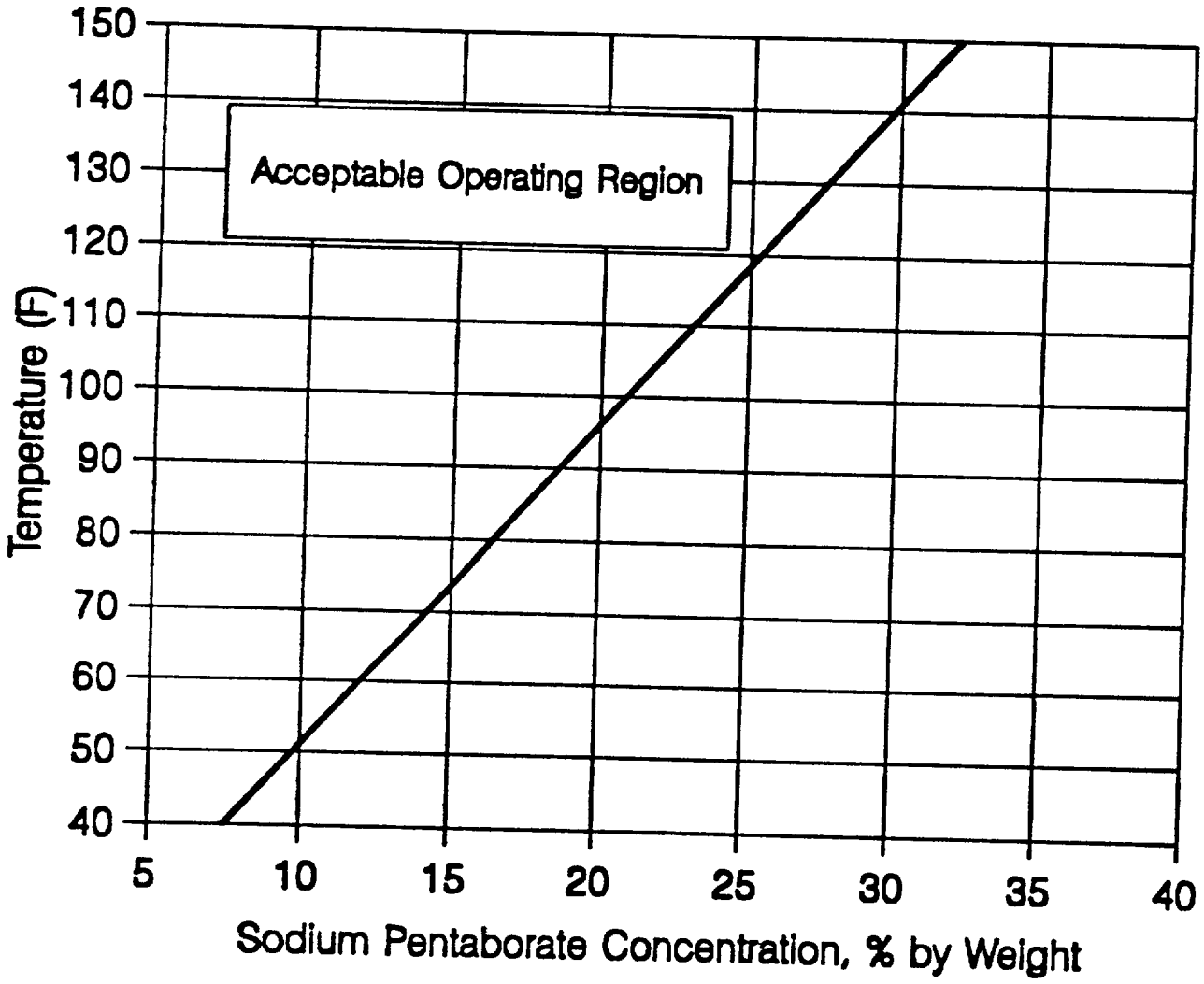
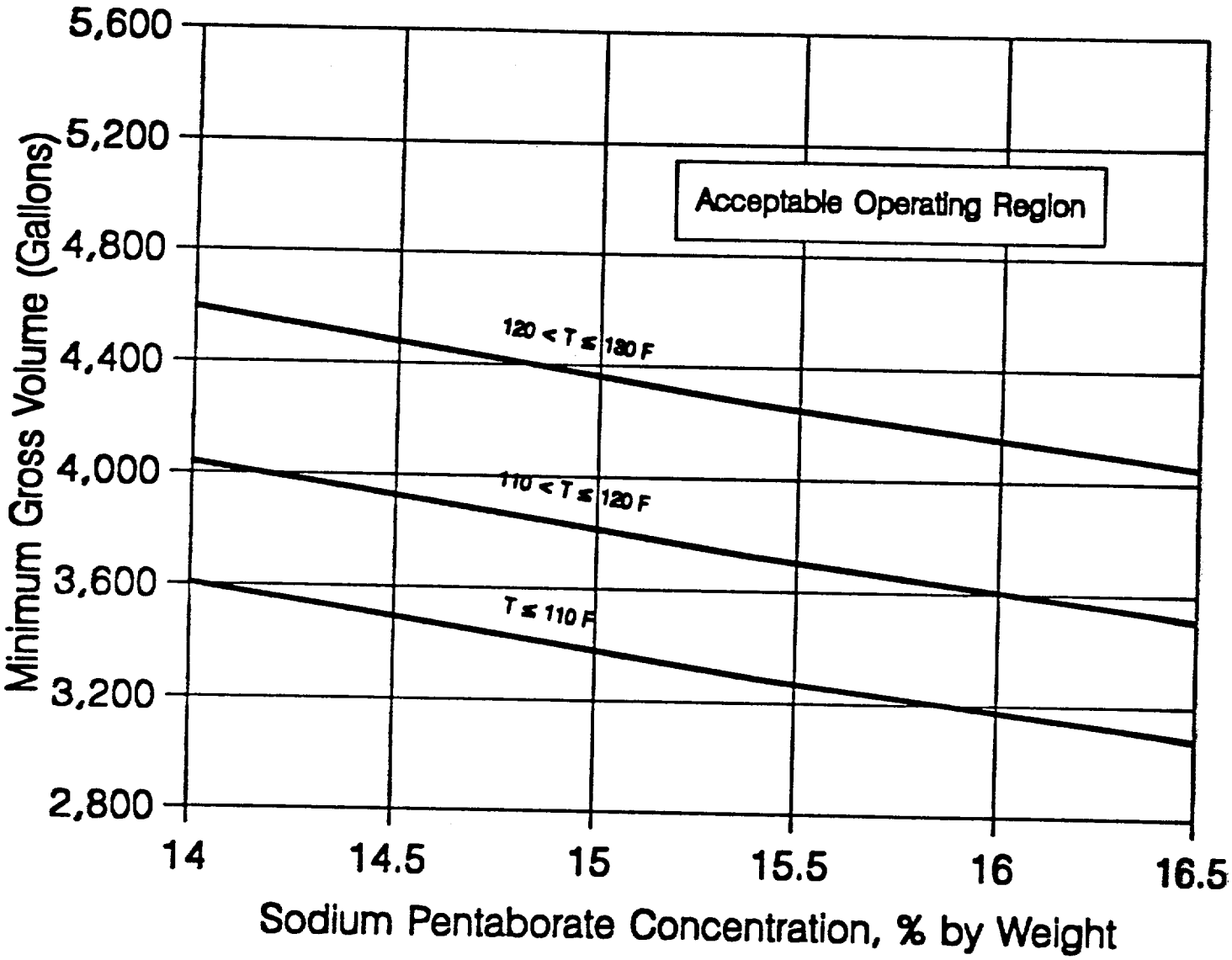


FIGURE 3.4.A-2

SODIUM PENTABORATE SOLUTION VOLUME REQUIREMENTS



3/4.4.A STANDBY LIQUID CONTROL SYSTEM

The standby liquid control system consists of an unpressurized tank for low temperature sodium pentaborate solution storage, a pair of full capacity positive displacement pumps, two explosive actuated shear plug valves, the poison sparger ring, and the necessary piping, valves and instrumentation. An OPERABLE standby liquid control system provides backup capability for reactivity control independent of normal reactivity control provisions provided by the control rods. OPERABILITY of the system is based on the conditions of the borated solution in the storage tank and the availability of a flow path to the reactor pressure vessel, including the pumps and valves. Two subsystems are required to be OPERABLE; each contains a pump, an explosive valve, and the associated piping, valves, and necessary instruments and controls to ensure an OPERABLE flow path. Inoperability of a nonredundant component, such as the tank, affects both subsystems.

The standby liquid control system provides the capability for bringing the reactor from full power to a cold, xenon-free shutdown assuming that none of the withdrawn control rods can be inserted. To meet this objective, it is designed to inject a quantity of boron which produces a concentration of no less than 600 ppm of boron in the reactor core in less than 100 minutes. This boron concentration is required to bring the reactor from full power to a 3% $\Delta k/k$ or more subcritical condition, considering the hot to cold reactivity swing and xenon poisoning. An additional margin of 25% boron is provide to compensate for possible losses and imperfect mixing of the chemical solution in the reactor water. This results in an average concentration of 750 ppm of boron in the reactor core assuming no losses. A net quantity of 3254 gallons of solution at less than or equal to 110°F and having a 14 weight percent sodium pentaborate ($NA_2B_{10}O_{16} \cdot 10H_2O$) concentration is required to meet this shutdown requirement. An additional volume of solution is contained below the pump suction and is not available for injection. Other equivalent combinations of increased concentration and reduced volume are also acceptable provided they have considered required temperatures and net positive suction head.

The specified pumping rate of 40 gpm will meet the above design objective. This insertion rate of boron solution will override the rate of reactivity insertion due to cooldown of the reactor following the xenon peak. Two-pump operation will enable faster reactor shutdown for anticipated transients without scram (ATWS) events. The required minimum flow combined with the solution concentration requirements are sufficient to comply with the requirements of 10 CFR 50.62.

With redundant pumps and explosive injection valves and with a highly reliable control rod scram system, operation of the reactor is permitted to continue for short periods of time with the system inoperable or for longer periods of time with one of the subsystems inoperable.

Surveillance requirements are established on a frequency that assures a high reliability of the system. The standby liquid control system is operated by a five-position control switch which allows single pump operation for surveillance testing. This testing demonstrates the capability of firing the explosive trigger assemblies, and injects clean demineralized water from the test tank to the reactor vessel to demonstrate the injection line is not plugged. Locally controlled testing circulates sodium pentaborate from the storage tank, through one suction line, through a pump, and back into the storage tank. This is done separately for each system to demonstrate that both

suction lines are not plugged. The only practical time to test the standby liquid control system is during a refueling outage. Components of the system are checked periodically and make a more frequent functional test of the entire system unnecessary. A test of explosive charges from one manufacturing batch is made to assure that the charges are satisfactory. A continual check of the firing circuit continuity is provided by pilot lights in the control room.

The two pump operation switch positions will be used for the injection of the sodium pentaborate into the vessel during an ATWS event. By using the two pump operation position, the standby liquid control system will comply with the requirements of 10 CFR 50.62. Comparison of the initial two-pump test data with initial single-pump test data has verified the capability of the piping to support two-pump flow. Periodic single-pump test data is compared to the required flow rate and to the previous test data to identify any significant degradation.

A 10°F margin is included in Figure 3.4.A-1 above saturation temperature to guard against boron precipitation. Temperature and liquid level alarms for the system are annunciated in the control room. Once the solution has been made up, boron concentration will not vary significantly unless more boron or more water is added. Tank level indication and alarms are provided to indicate whether the solution volume has changed, which might indicate a possible solution concentration change.

Figure 3.4.A-2 provides additional requirements for minimum solution volume, based on existing solution temperature and concentration, to ensure adequate net positive suction head exists for two pump operation. It is permissible to interpolate between the temperature curves.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 133 TO FACILITY OPERATING LICENSE NO. DPR-19, AMENDMENT NO. 127 TO FACILITY OPERATING LICENSE NO. DPR-25, AMENDMENT NO. 154 TO FACILITY OPERATING LICENSE NO. DPR-29, AND AMENDMENT NO. 150 TO FACILITY OPERATING LICENSE NO. DPR-30

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-237, 50-249, 50-254 AND 50-265

1.0 INTRODUCTION

By letter dated October 15, 1992, as supplemented by letter dated March 9, 1993, Commonwealth Edison Company (ComEd, the licensee) submitted an amendment requesting to upgrade Section 3/4.4, "Standby Liquid Control System" of the Dresden Nuclear Power Station, Units 2 and 3, and the Quad Cities Nuclear Power Station, Units 1 and 2, Technical Specifications (TS). The changes have been requested as part of their Technical Specification Upgrade Program (TSUP).

As a result of findings by a Diagnostic Evaluation Team inspection performed by the NRC staff at the Dresden Nuclear Power Station in 1987, ComEd made a decision that both the Dresden Nuclear Power Station and sister site Quad Cities Nuclear Power Station, needed attention focused on the existing custom TS used at the sites.

The licensee made the decision to initiate a TSUP for both Dresden and Quad Cities. The licensee evaluated the current TS for both stations against the Standard Technical Specifications (STS) contained in NUREG-0123, "Standard Technical Specifications General Electric Plants BWR/4, Revision 4." Both Dresden and Quad Cities are BWR-3 designs and are nearly identical plants. The licensee's evaluation identified numerous potential improvements such as clarifying requirements, changing the TS to make them more understandable and to eliminate the need for interpretation, and deleting requirements that are no longer considered current with industry practice. As a result of the

evaluation, ComEd elected to upgrade both the Dresden and Quad Cities TS to the STS contained in NUREG-0123.

The TSUP for Dresden and Quad Cities is not a complete adoption of the STS. The TSUP focuses on (1) integrating additional information such as equipment operability requirements during shutdown conditions, (2) clarifying requirements such as limiting conditions for operations and action statements utilizing STS terminology, (3) deleting superseded requirements and modifications to the TS based on the licensee's responses to Generic Letters (GL), and (4) relocating specific items to more appropriate TS locations.

The application dated October 15, 1992, as supplemented March 9, 1993, proposed to upgrade only the section of the TS to be included in TSUP section 3/4.4, "Standby Liquid Control System" of the Dresden and Quad Cities TS.

The staff reviewed the proposed changes and evaluated all deviations and changes between the proposed TS, the STS, and the current TS. In no case did the licensee propose a change in the TS that would result in the relaxation of the current design requirements as stated in the Updated Final Safety Analysis Reports (UFSAR) for Dresden or Quad Cities.

In response to the staff's recommendations, the licensee submitted identical TS for Quad Cities and Dresden except for plant-specific equipment and design differences. Technical differences between the units are identified as appropriate in the proposed amendment.

2.0 EVALUATION

Review Guidelines - The licensee's purpose for the TSUP was to reformat the existing Dresden and Quad Cities TS into the easier to use STS format. Plant specific data, values, parameters, and equipment specific operational requirements contained in the current TS for Dresden and Quad Cities were retained by the licensee in the TSUP.

The STS contained in NUREG-0123 were developed by the NRC and industry because of the shortcomings associated with the custom TS which were issued to plants licensed in early 1970's (i.e., Dresden (1971) and Quad Cities (1972)). The STS developed by the NRC and industry provided an adequate level of protection for plant operation by assuring required systems are operable and have been proven to be able to perform their intended functions. The limiting conditions for operation (LCO), the allowed out-of-service times, and the required surveillance frequencies were developed based on industry operating experience, equipment performance, and probabilistic risk assessment analysis during the 1970's. The STS were used as the licensing basis for plants licensed starting in the late 1970's.

For the most part, ComEd's adoption of the STS resulted in more restrictive LCOs and surveillance requirements (SR). In some cases, however, the STS provides relief from the Dresden and Quad Cities current TS requirements. In all these cases, the adoption of the STS requirements for LCOs or SR does not

change the current design requirements of either plant as described in the UFSAR. In addition, the success criteria for the availability and operability of all required systems contained in the current TS are maintained by the adoption of the STS requirements in the proposed TSUP TS.

In addition to adopting the STS guidelines and requirements in the TSUP, ComEd has also evaluated Generic Letters (GLs) concerning line item improvements for TS. These GLs were factored into TSUP to make the proposed TS in the TSUP reflect industry lessons learned in the 1980's and early 1990's.

Deviations between the proposed specifications, the STS, and the current TS were reviewed by the staff to determine if the deviations were due to plant specific features or if they posed a technical deviation from the STS guidelines. Plant specific data, values, parameters, and equipment specific operational requirements contained in the current TS for Dresden and Quad Cities were retained by the licensee in the upgraded TS.

Administrative Changes - Non-technical, administrative changes were intended to incorporate human factor principles into the form and structure of the STS so that they would be easier for plant operation's personnel to use. These changes are editorial in nature or involve the reorganization or reformatting of requirements without affecting technical content of the current TS or operational requirements. Every section of the proposed TS reflects this type of change.

More Restrictive Requirements - The proposed TSUP TS include certain more restrictive requirements than are contained in the existing TS. Examples of more restrictive requirements include the following: placing an LCO on plant equipment which is not required by the present TS to be operable; adding more restrictive requirements to restore inoperable equipment; and adding more restrictive surveillance requirements.

Less Restrictive Requirements - The licensee provided a justification for less restrictive requirements on a case-by-case basis as discussed in this SE. When requirements have been shown to provide little or no safety benefit, their removal from the TS may be appropriate. In most cases, these relaxations had previously been granted to individual plants on a plant-specific basis as the result of (a) generic NRC actions, and (b) new NRC staff positions that have evolved from technological advancements and operating experience.

The Dresden and Quad Cities plant design was reviewed to determine if the specific design basis was consistent with the STS contained in NUREG-0123. All changes to the current TS and deviations between the licensee's proposed TS and the STS were reviewed by the staff for acceptability to determine if adequate justification was provided (i.e., plant specific features, retention of existing operating values, etc.).

Deviations the staff finds acceptable include: (1) adding clarifying statements, (2) incorporating changes based on GL, (3) reformatting multiple

steps included under STS action statements into single steps with unique identifiers, (4) retaining plant specific steps, parameters, or values, (5) moving ACTION statements within a TS, (6) moving ACTION statements from an existing TS to form a new TS section, and (7) omitting the inclusion of STS steps that are not in existing TS.

Relocation of Technical Specifications - The proposed TS include the relocation of some requirements from the TS to licensee-controlled documents. Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to state Technical Specifications to be included as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

The Commission has provided guidance for the contents of TS in its "Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," 58 Fed. Reg. 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies Section 182a of the Energy Reorganization Act. The Final Policy Statement identified four criteria to be used in determining whether a particular matter is required to be included in the TS, as follows: (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary; (2) a process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; (3) a structure, system, or component that is part of a primary success path and which functions or actuates to mitigate a Design Basis Accident of Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; (4) a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety. As a result, existing TS requirements which fall within or satisfy any of the criteria in the Final Policy Statement must be retained in the TS, while those TS requirements which do not fall within or satisfy these criteria may be relocated to other, licensee-controlled documents.

The following sections provide the staff's evaluations of the specific proposed TS changes.

3.0 EVALUATION OF TSUP PROPOSED TS SECTION 3/4.4, "STANDBY LIQUID CONTROL SYSTEM"

The following sections provide the staff's evaluation of the TS changes reflected in proposed TSUP TS Section 3/4.4, "Standby Liquid Control System (SLCS)." Proposed TSUP TS Section 3/4.4 assures the availability of a

reactivity control system independent of the control rods during power operation and during cold shutdown with any control rod withdrawn.

3.1 LCO and Applicability

Proposed TS 3.4.A, "Standby Liquid Control System," incorporates the requirements of STS Section 3.1.5 and current TS requirements from Section 3.4. The current TS for Dresden and Quad Cities require that the SLCS be operable during periods when fuel is in the reactor except when the reactor is in cold shutdown and all control rods are fully inserted and Specification 3.3.A is met. The proposed TS state that the LCO applies to modes 1 and 2, and to mode 5 when any control rod is withdrawn. The proposed applicability statement is consistent with STS. The proposed applicability statement requires that SLCS be operable in operational modes where control rods can be withdrawn. SLCS is not required in modes 3 or 4 because the control rods are fully inserted. The proposed TS applicability is equivalent to the current provisions, but is more clearly defined. The proposed applicability statement is an enhancement of the current TS and is consistent with the STS and is, therefore, acceptable.

3.2 Actions

Proposed TS 3.4.A Action 1 incorporates the requirements of current TS 3.4.B and 3.4.D and STS 3.1.5 Action a. Proposed TS Action 1 requires that, with one SLCS subsystem inoperable in modes 1 or 2, the inoperable subsystem must be restored to operable status within 7 days or the unit must be in hot shutdown within 12 hours. This is similar to the current TS except that the current TS require cold shutdown within 24 hours if the allowed outage time is exceeded. If SLCS is inoperable, it is not necessary to bring the plant to cold shutdown. Once the control rods have been successfully inserted into the reactor core, which is achieved in Mode 3 "Hot Shutdown", the SLCS is no longer needed because control rod insertion provides adequate reactivity control. The current TS requirement to take the reactor to cold shutdown when SLCS is inoperable is not required and results in unnecessary thermal cycles on the reactor vessel. The staff finds eliminating the requirement to take the reactor to Cold Shutdown is acceptable. Therefore, this change from the current TS is acceptable.

The current TS Section 3.4 does not specify action to be taken when both subsystems of SLCS are inoperable. If both subsystems of SLCS became inoperable, under the current TS the unit would be required to enter Section 3.0.A of the current TS and be in hot shutdown in 12 hours and cold shutdown in 24 hours. If both subsystems are inoperable, the proposed TS require one subsystem to be restored within 8 hours or be in hot shutdown within the next 12 hours. The proposed TS, therefore, is a relaxation of 8 hours to begin entering hot shutdown. The proposed allowed outage time is a reasonable period of time to attempt repairs before initiating a potentially unnecessary shutdown. The 8 hour allowed outage time is based on operating experience at other sites, will not significantly increase the probability or consequences of an accident, and is consistent with STS. The proposed TS provide a

clarification and the relaxation of current TS will not reduce the current safety limits. Therefore, the proposed Action 1 is acceptable.

Proposed TS 3.4.A Action 2 incorporates the requirements of current TS 3.4.B and 3.4.D and STS 3.1.5 Action b. Action 2 requires that, with one subsystem inoperable in mode 5 with any control rod withdrawn, the inoperable subsystem must be restored to operable status within 30 days or all insertable control rods must be inserted within 1 hour. With both subsystems inoperable, all insertable control rods must be inserted within 1 hour. The current TS do not separate the provisions for operational modes 1 and 2 from those of operational mode 5. Therefore, the current TS allow only a 7 day LCO under these circumstances. In operational mode 5, the SLCS is not as likely to be required to perform an accident mitigation function as in operational modes 1 or 2 since only one control rod can be withdrawn when refueling interlocks are active. Therefore, for operational mode 5, 30 days is allowed to restore an inoperable subsystem. This action is consistent with STS. The proposed TS addresses the actual plant conditions and is, therefore, an enhancement over the current TS which are overconservative for mode 5. The proposed TS are more conservative than current TS in mode 5 when both subsystems are inoperable because action is required within 1 hour to insert all control rods whereas the current TS do not address this situation. The staff has determined that, based on the above evaluation, an increase in the AOT to 30 days for mode 5 will not reduce the current safety limits. Therefore, the proposed Action 2 is acceptable.

Current TS 4.4.B requires that when a component becomes inoperable, its redundant component shall be demonstrated operable immediately and daily thereafter. The requirement has been eliminated in the proposed TS. This change is consistent with the guidelines of NUREG-0123, the new improved STS in NUREG-1433, "Improved BWR-4 Technical Specifications," dated September 1992 and GLs 93-04 and 94-01. Industry practice has shown that demonstrating opposite train equipment operable through additional surveillance reduces system reliability. Therefore, the staff finds discontinuing the opposite subsystem verification acceptable.

3.3 Surveillance Requirements

Proposed TS 4.4.A.1.b requires verification that the volume of sodium pentaborate solution is greater than or equal to the limits of Figure 3.4.A-1, Sodium Pentaborate Concentration Versus Minimum Gross Volume. This proposed TS is consistent with current TS 4.4.C.2. STS 4.1.5.a.2 specifies a number of gallons of sodium pentaborate solution that must be present. The proposed TS deviate from STS by varying the required volume according to temperature. By maintaining the minimum equivalent solution, the licensee believes a wider operating range can be achieved by varying the concentration of the sodium pentaborate decahydrate from 14 to 16.5 percent inside the SLCS storage tank. This requirement is more conservative than the STS. Therefore, the staff finds the deviation from the STS to be acceptable.

Proposed TS 4.4.A.1.c requires that the heat tracing circuit be verified operable every 24 hours by determining the temperature of the pump suction to be greater than or equal to 83 degrees Fahrenheit. The current TS do not contain this requirement. The proposed SR incorporates the requirements of STS 4.1.5.a.3. This change is an enhancement of the current TS and is acceptable.

Proposed TS 4.4.A.2.a requires that the licensee verify the continuity of the explosive charge once per 31 days. This requirement is not in the current TS and incorporates the requirements of STS 4.1.5.b.1. This change is an enhancement of the current TS and is acceptable.

Proposed TS 4.4.A.2.c requires that each valve in the flow path that is not locked or otherwise secured in position, be verified to be in its correct position every 31 days. This requirement is not in current TS. It incorporates the requirements of STS 4.1.5.b.3. This change is an enhancement of the current TS and is acceptable.

Proposed TS 4.4.A.3 requires that, when the pumps are tested pursuant to TS Section 4.0.E, the pumps must meet a minimum flow requirement of 40 gpm per pump at a pressure of greater than or equal to 1275 psig. The proposed TS refers to TS 4.0.E which states that surveillance requirements for inservice testing (IST) be performed at the frequency specified by Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code except where relief has been granted by the Commission. This deviates from current TS 4.4.A.1 which requires that this test be performed every 31 days. The SLCS pumps are currently included in the IST program. The current IST required test frequency for the SLCS pumps is also 31 days, therefore the test frequency does not change. Proposed TS 4.4.A.3 does not change any requirements but, rather, indicates that the testing frequency will be in accordance with the IST program by reference to TS 4.0.E. Revisions to the IST program are controlled by the requirements of 10 CFR 50.55a. The staff finds that sufficient regulatory controls exist under 10 CFR 50.55a to assure continued protection of the public health and safety. This requirement is consistent with STS 4.1.5.c. Based on the above evaluation, the staff finds that the relocation of this requirement from the TS is acceptable.

Proposed TS 4.4.A.4 incorporates the requirement of current TS 4.4.A.2.b. The current TS requires that every 18 months two explosive charges be exploded out of a six charge batch. In addition, the explosive operated shear plug valve is disassembled and checked. The proposed TS requires that every 18 months a complete activation of the shear plug valve be initiated and water passed through the valve into the reactor vessel. The valve is then reset and the explosive charge is replaced from the same batch. The proposed TS is more conservative than the current TS because complete valve operation, including operation of the explosive charge in the valve and water flow through the valve into the reactor vessel, is verified as opposed to separate testing of

the explosive charges and the valve disassembly. Therefore, the staff finds the deviation between the current TS and the proposed TS to be acceptable.

Proposed TS 4.4.A.4.c requires demonstration that the pump suction line from the storage tank is not plugged by manually initiating the system, except the explosive valves, and pumping solution in the recirculation path every 18 months. This SR deviates from STS 4.1.5.d.3 because the STS requirement applies to a system design which is inconsistent with that at Dresden or Quad Cities. The STS requires a demonstration that the heat traced piping between the storage tank and the reactor vessel is unblocked by pumping solution from the storage tank to the test tank. The licensee does not incorporate heat traced piping up to the reactor vessel nor a test tank in the recirculation path. The proposed TS Section 4.4.A.4.c adequately demonstrates the operability of the system design and meets the intention of the STS guidelines. Therefore, the staff finds that the licensee has met the intent of the STS and the deviation is acceptable.

3.4 Technical Specification Bases

The staff has reviewed the proposed Bases for TS 3/4.4. The proposed Bases have been prepared using the guidelines of the STS. The staff finds these proposed Bases acceptable.

3.5 Conclusion

The changes in proposed TS 3/4.4, "Standby Liquid Control System" do not adversely affect the safe operation of Dresden and Quad Cities Station. The proposed TS clarifies the requirements of the present TS through the adoption of STS format (where practical), adds more restrictive requirements, and incorporates changes to correct inconsistencies with the STS. Based on the above evaluation, the staff finds the proposed TS 3/4.4 acceptable.

4.0 SUMMARY

The proposed TS for Section 3/4.4 will be clearer and easier to use as a result of the adaptation of the STS format. The changes result in additional limitations, restrictions, or changes based on generic guidance. It is the staff's assessment that the changes proposed in this amendment do not pose any decrease in safety, or an increase in the probability of an analyzed or unanalyzed accident. The revised TS changes do not reduce the existing margin of safety set forth by the current TS. Therefore, the staff finds the proposed TS changes acceptable.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 36429). Accordingly, the 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 the amendments.

7.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Stang/ D. Skay

Date: June 8, 1995