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Docket Nos. 50-237
and 50-249

JUN 0 8 1976

Commonwealth Edison Company
ATTN: Mr. R. L. Bolger
Assistant Vice President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

The Commission has issued the enclosed Amendment Nos. 20 and 18 to Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station Unit Nos. 2 and 3, respectively. These amendments consist of changes in the Technical Specifications in accordance with your request dated March 3, 1976.

These amendments incorporate into the Dresden Unit Nos. 2 and 3 Technical Specifications revised requirements for containment suppression pool water volume when the reactor is shutdown.

During our review of the proposed Technical Specification change, we determined that certain modifications to the proposed change should be made to meet our requirements. These modifications have been discussed with your staff and were made.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Original signed by:
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Amendment No. 20 to DPR-19
2. Amendment No. 18 to DPR-25
3. Safety Evaluation
4. Federal Register Notice

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SURNAME ➔	RMDiggs	RDSilver:esp		DLZiemann		
DATE ➔	5/ /76	5/ /76	5/ /76	6/9/76		

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

June 9, 1976

Docket Nos. 50-237
and 50-249

Commonwealth Edison Company
ATTN: Mr. R. L. Bolger
Assistant Vice President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

The Commission has issued the enclosed Amendment Nos. 20 and 18 to Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station Unit Nos. 2 and 3, respectively. These amendments consist of changes in the Technical Specifications in accordance with your request dated March 3, 1976.

These amendments incorporate into the Dresden Unit Nos. 2 and 3 Technical Specifications revised requirements for containment suppression pool water volume when the reactor is shutdown.

During our review of the proposed Technical Specification change, we determined that certain modifications to the proposed change should be made to meet our requirements. These modifications have been discussed with your staff and were made.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Amendment No. 20 to DPR-19
2. Amendment No. 18 to DPR-25
3. Safety Evaluation
4. Federal Register Notice

cc w/enclosures:
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Mr. William Waters
Chairman, Board of Supervisors
of Grundy County
Grundy County Courthouse
Morris, Illinois 60450

cc w/enclosures and cy of CECo's
filing dtd. 3/3/76:
Mr. Leroy Stratton
Bureau of Radiological Health
Illinois Department of Public Health
Springfield, Illinois 62706

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 20
License No. DPR-19

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

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated March 3, 1976, 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. After weighing the environmental aspects involved, 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 9, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 20

FACILITY OPERATING LICENSE NO. DPR-19

DOCKET NO. 50-237

Replace the existing pages of the Technical Specifications listed below with attached revised pages bearing the same numbers. Changes on these pages are shown by marginal lines.

Pages 81
85
108

and control rod drive maintenance performed provided that the spent fuel pool gates are open, the fuel pool water level is maintained above the low level alarm point, and the minimum total condensate storage reserve is maintained at 230,000 gallons, and provided that not more than one control rod drive housing is open at one time, the control rod drive housing is blanked following removal of the control rod drive, no work is being performed in the reactor vessel while the housing is open and a special flange is available which can be used to blank an open housing in the event of a leak.

5. When irradiated fuel is in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft^3 of water in the suppression pool, provided that: 1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft^3; 2) the fuel storage pool gate is removed; 3) the low pressure coolant injection and core spray systems are operable; and 4) the automatic mode of the drywell sump pumps is disabled.

H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge of these systems to the last check valve shall be filled.

H. Maintenance of Filled Discharge Pipe

The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray, LPCI, and HPCI are filled:

Dresden Units 2 and 3 share certain process systems such as the makeup demineralizers and the radwaste system and also some safety systems such as the standby gas treatment system, batteries, and diesel generators. All of these systems have been sized to perform their intended function considering the simultaneous operation of both units.

For the safety related shared features of each plant, the Technical Specifications for that unit contain the operability and surveillance requirements for the shared feature; thus, the level of operability for one unit is maintained independently of the status of the other. For example, the shared diesel (2/3 diesel) would be mentioned in the specifications for both Units 2 and 3 and even if Unit 3 were in the Cold Shutdown Condition and needed no diesel power, readiness of the 2/3 diesel would be required for continuing Unit 2 operation.

F. Specification 3.5.F.4 provides that should this occur, no work will be performed which could preclude adequate emergency cooling capability being available. Work is prohibited unless it is in accordance with specified procedures which limit the period that the control rod drive housing is open and assures that the worst possible loss of coolant resulting from the work will not result in uncovering the reactor core. Thus, this specification assures adequate core cooling. Specification 3.9 must be consulted to determine other requirements for the diesel generator.

Specification 3.5.F.5 provides assurance that an adequate supply of coolant water is immediately available to the low pressure core cooling systems and that the core will remain covered in the event of a loss of coolant accident while the reactor is depressurized with the head removed.

H. Maintenance of Filled Discharge Pipe - If the discharge piping of the core spray, LPCI, and HPCI are not filled, a water hammer can develop in this piping when the pump and/or pumps are started.

3.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the operating status of the primary and secondary containment systems.

Objective:

To assure the integrity of the primary and secondary containment systems.

Specification:

A. Primary Containment

1. At any time that the nuclear system is pressurized above atmospheric or work is being done which has the potential to drain the vessel, except as permitted by Specification 3.5.F.3, 3.5.F.4, or 3.5.F.5, the suppression pool water volume and temperature shall be maintained within the following limits.

   a. Maximum water volume - 115,655 ft^3

   b. Minimum water volume - 112,000 ft^3

   c. Maximum water temperature

      (1) During normal power operation - 95°F.

      (2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 10°F above the normal power operation limit specified in (1).

4.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the primary and secondary containment integrity.

Objective:

To verify the integrity of the primary and secondary containment.

Specification:

A. Primary Containment

1.a. The suppression pool water level and temperature shall be checked once per day.

   b. Whenever there is indication of relief valve operation or testing which adds heat to the suppression pool, the pool temperature shall be continually monitored and also observed and logged every 5 minutes until the heat addition is terminated.

   c. Whenever there is indication of relief valve operation with the temperature of the suppression pool reaching 160°F or more and the primary coolant system pressure greater than 150 psig, an external visual examination of the suppression chamber shall be conducted before resuming power operation.

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 18
License No. DPR-25

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

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated March 3, 1976, 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. After weighing the environmental aspects involved, 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 9, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 18

FACILITY OPERATING LICENSE NO. DPR-25

DOCKET NO. 50-249

Replace the existing pages of the Technical Specifications listed below with attached revised pages bearing the same numbers. Changes on these pages are shown by marginal lines.

Pages 81
85
108

and control rod drive maintenance performed provided that the spent fuel pool gates are open, the fuel pool water level is maintained above the low level alarm point, and the minimum total condensate storage reserve is maintained at 230,000 gallons, and provided that not more than one control rod drive housing is open at one time, the control rod drive housing is blanked following removal of the control rod drive, no work is being performed in the reactor vessel while the housing is open and a special flange is available which can be used to blank an open housing in the event of a leak.

5. When irradiated fuel is in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft^3 of water in the suppression pool, provided that: 1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft^3; 2) the fuel storage pool gate is removed; 3) the low pressure coolant injection and core spray systems are operable; and 4) the automatic mode of the drywell sump pumps is disabled.

H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge of these systems to the last check valve shall be filled.

H. Maintenance of Filled Discharge Pipe

The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray, LPCI, and HPCI are filled:

Dresden Units 2 and 3 share certain process systems such as the makeup demineralizers and the radwaste system and also some safety systems such as the standby gas treatment system, batteries, and diesel generators. All of these systems have been sized to perform their intended function considering the simultaneous operation of both units.

For the safety related shared features of each plant, the Technical Specifications for that unit contain the operability and surveillance requirements for the shared feature; thus, the level of operability for one unit is maintained independently of the status of the other. For example, the shared diesel (2/3 diesel) would be mentioned in the specifications for both Units 2 and 3 and even if Unit 3 were in the Cold Shutdown Condition and needed no diesel power, readiness of the 2/3 diesel would be required for continuing Unit 2 operation.

F. Specification 3.5.F.4 provides that should this occur, no work will be performed which could preclude adequate emergency cooling capability being available. Work is prohibited unless it is in accordance with specified procedures which limit the period that the control rod drive housing is open and assures that the worst possible loss of coolant resulting from the work will not result in uncovering the reactor core. Thus, this specification assures adequate core cooling. Specification 3.9 must be consulted to determine other requirements for the diesel generator.

Specification 3.5.F.5 provides assurance that an adequate supply of coolant water is immediately available to the low pressure core cooling systems and that the core will remain covered in the event of a loss of coolant accident while the reactor is depressurized with the head removed.

H. Maintenance of Filled Discharge Pipe - If the discharge piping of the core spray, LPCI, and HPCI are not filled, a water hammer can develop in this piping when the pump and/or pumps are started.

3.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the operating status of the primary and secondary containment systems.

Objective:

To assure the integrity of the primary and secondary containment systems.

Specification:

A. Primary Containment

1. At any time that the nuclear system is pressurized above atmospheric or work is being done which has the potential to drain the vessel, except as permitted by Specification 3.5.F.3, 3.5.F.4, or 3.5.F.5, the suppression pool water volume and temperature shall be maintained within the following limits.

   a. Maximum water volume - 115,655 ft^3

   b. Minimum water volume - 112,000 ft^3

   c. Maximum water temperature

      (1) During normal power operation - 95°F.

      (2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 10°F above the normal power operation limit specified in (1).

4.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the primary and secondary containment integrity.

Objective:

To verify the integrity of the primary and secondary containment.

Specification:

A. Primary Containment

1.a. The suppression pool water level and temperature shall be checked once per day.

   b. Whenever there is indication of relief valve operation or testing which adds heat to the suppression pool, the pool temperature shall be continually monitored and also observed and logged every 5 minutes until the heat addition is terminated.

   c. Whenever there is indication of relief valve operation with the temperature of the suppression pool reaching 160°F or more and the primary coolant system pressure greater than 150 psig, an external visual examination of the suppression chamber shall be conducted before resuming power operation.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 20 AND 18

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

COMMONWEALTH EDISON COMPANY

DRESDEN NUCLEAR POWER STATION UNITS 2 AND 3

DOCKET NOS. 50-237 AND 50-249

INTRODUCTION

By letter dated March 3, 1976, Commonwealth Edison Company (CECo) requested amendments to Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station Unit Nos. 2 and 3. The requests involve revisions to the Technical Specifications to permit the performance of work which has the potential to drain the reactor vessel while the reactor is shutdown and the suppression pool water volume is less than that specified in Section 3.7.4.1 of the Technical Specifications.

During our review of the proposed CECo Technical Specification change we determined that certain modifications of the proposed change should be made to meet our requirements. These changes which would be incorporated have been discussed with and accepted by representatives of CECo.

DISCUSSION

Dresden Unit Nos. 2 and 3 are boiling water reactors housed in Mark I primary containments. The Mark I containment is a pressure suppression type containment that consists of a drywell and a suppression chamber (or torus). The torus contains a volume of water which serves as a reservoir for the reactor core cooling systems. When the reactor is in the cold shutdown condition with the reactor vessel head removed, the reactor core must be covered with water to remove radioactive fission product decay heat. Should a leak develop which could drain the reactor vessel, the torus water is a primary source of makeup water to the vessel. In the cold shutdown condition, Dresden Unit Nos. 2 and 3 have the capability to supply torus water to the vessel via either of two core spray systems or the Low Pressure Coolant Injection (LPCI) system.

When the reactor vessel head is removed the water above the reactor in the fuel storage pool, reactor well, and the dryer-separator storage pool is also available for core cooling. This water can flow into the reactor vessel by gravity if both the fuel pool gates and the dryer-separator pool shield blocks are removed. Because of the design of the Mark I containment, if a reactor vessel leak should occur when the vessel head is removed, the water stored above the reactor could flow from the vessel to the drywell. From the drywell, the water would drain into the torus and replenish the water inventory in the suppression pool.

Present Dresden Unit Nos. 2 and 3 Technical Specifications permit performance of work which has the potential to drain the reactor vessel as long as the suppression pool water volume and temperature are maintained within limits. The minimum specified water volume is 112,000 ft^3.

The proposed Technical Specification change would permit the performance of work which could drain the reactor vessel with less than 112,000 ft^3 of water in the suppression pool provided that the reactor vessel head is removed, the total volume of water in the suppression pool, dryer separator pool above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft^3, the fuel storage pool gate is removed, and the low pressure coolant injection and core spray systems are operable.

To assure that water in the drywell is not diverted away from the torus, the proposed change has been modified to require disabling the automatic mode of the drywell sump pumps.

EVALUATION

We have evaluated the proposed Technical Specification change and concluded that whether the coolant supply for the low pressure core cooling systems is stored in the torus, as presently required, or is stored partly in the torus and partly in the refueling pool, refueling cavity, and dryer separator pool, as is proposed, the total volume of water available for core cooling would remain unchanged at 112,200 ft^3. Since the amount of water required for core cooling would remain unchanged, and the low pressure core cooling system is required to be operable, there would be no degradation in the performance of the emergency core cooling system. In addition, the disabling of the automatic mode of the drywell sump pumps would assure that cooling water does not bypass the torus.

Based on the above, we conclude that operation of the facility in the manner proposed would maintain a level of safety equivalent to the present requirements and therefore would be acceptable.

ENVIRONMENTAL CONSIDERATIONS

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental statement, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

CONCLUSION

We have concluded, based on the considerations above, that: (1) because the changes do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the changes do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: June 9, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-237 AND 50-249

COMMONWEALTH EDISON COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 20 and 18 to Facility Operating License Nos. DPR-19 and DPR-25 (respectively), issued to Commonwealth Edison Company, which revised Technical Specifications for operation of the Dresden Nuclear Power Station Unit Nos. 2 and 3 (the facilities) located in Grundy County, Illinois. These amendments are effective as of their date of issuance.

These amendments revise requirements for containment suppression pool water volume while the reactor is shutdown.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant

to 10 CFR §51.5(d)(4) an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of the amendments.

For further details with respect to this action, see (1) the application for amendment dated March 3, 1976, (2) Amendment Nos. 20 and 18 to License Nos. DPR-19 and DPR-25, respectively, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Morris Public Library at 604 Liberty Street in Morris, Illinois 60451. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 9th day of June, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors