

Docket Nos: STN 50-... and STN 50-455

Ms. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

JUN 06 1986

Dear Mr. Farrar:

SUBJECT: AMENDMENT TO BYRON TECHNICAL SPECIFICATIONS - ACCEPTANCE CRITERIA FOR RHR PUMP PERFORMANCE

The Commission has issued the enclosed Amendment No. 3 to Facility Operating License NPF-37 for Byron Station, Unit 1. This amendment also applies to the technical specifications for Byron Station, Unit 2, although Unit 2 does not have an operating license. Byron Station, Units 1 and 2 have common Technical Specifications (NUREG-1113). This amendment is in response to your application dated March 11, 1986, as supplemented by your letter dated April 11, 1986.

The amendment approves changes to Technical Specifications that replace the minimum differential pressure for the Residual Heat Removal (RHR) pumps with the RHR pump Minimum Acceptable Performance Curve.

A Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the FEDERAL REGISTER on April 9, 1986 (51 FR 12226). The State of Illinois Department of Nuclear Safety, by telephone call on May 13, 1986, stated that no adverse findings exist as a result of their review of the proposed amendment. No requests for hearing were received.

A copy of our related Safety Evaluation is also enclosed. This action will appear in the Commission's bi-weekly notice in the FEDERAL REGISTER.

Sincerely,

Vincent S. Noonan, Director
PWR Project Directorate #5
Division of PWR Licensing -A

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6/1/86

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- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility Operating License No. NPF-37 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 3, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

15/

V. S. Noonan, Director
 PWR Project Directorate #5
 Director of PWR Licensing-A

Attachment:
 Changes to the Technical
 Specifications

Date of Issuance: JUN 06 1986

PD#5/
 M. J. Rushbrook
 5/27/86

PD#5
 L. O'Leary
 5/23/86

OELD LHZ
 SH Lewis
 5/30/86
 No legal
 objection

DIR:PD#5
 V. Noonan
 6/1/86





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

JUN 06 1986

Docket Nos: STN 50-454 and STN 50-455

Ms. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

SUBJECT: AMENDMENT TO BYRON TECHNICAL SPECIFICATIONS - ACCEPTANCE CRITERIA FOR
RHR PUMP PERFORMANCE

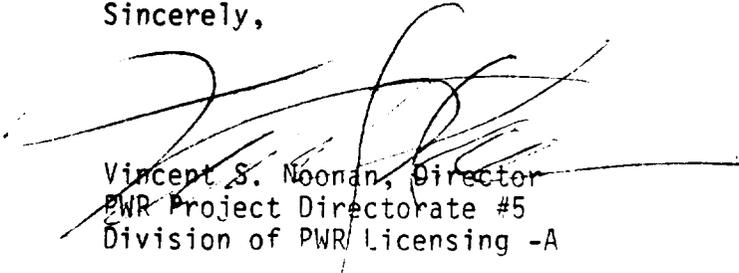
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The amendment approves changes to Technical Specifications that replace the minimum differential pressure for the Residual Heat Removal (RHR) pumps with the RHR pump Minimum Acceptable Performance Curve.

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A copy of our related Safety Evaluation is also enclosed. This action will appear in the Commission's bi-weekly notice in the FEDERAL REGISTER.

Sincerely,



Vincent S. Noonan, Director
PWR Project Directorate #5
Division of PWR Licensing -A

Enclosures:

1. Amendment No. 3-NPF-37
2. Related Safety Evaluation

cc: w/enclosure see next page

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MAR 6 1986

Mr. Dennis L. Farrar
Commonwealth Edison Company

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-454

BYRON STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 3
License No. NPF-37

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Commonwealth Edison Company (the licensee) dated March 11, 1986, as supplemented by letter dated April 11, 1986, 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.

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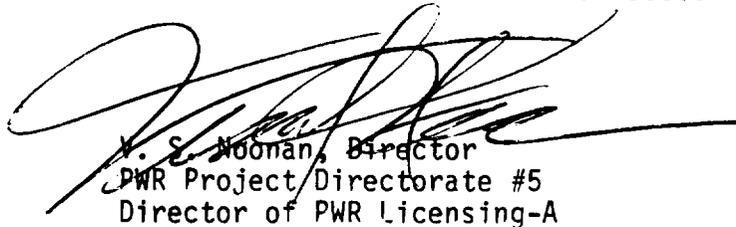
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility Operating License No. NPF-37 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 3, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Y. S. Noonan, Director
PWR Project Directorate #5
Director of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: **JUN 06 1986**

ATTACHMENT TO LICENSE AMENDMENT NO. 3
FACILITY OPERATING LICENSE NO. NPF-37
DOCKET NO. STN 50-454

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages (*) have been provided to maintain document completeness.

REMOVE

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EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 1) For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and
 - 2) Of the areas affected within containment at the completion of each containment entry when CONTAINMENT INTEGRITY is established.
- d. At least once per 18 months by:
- 1) Verifying automatic isolation and interlock action of the RHR System from the Reactor Coolant System by ensuring that:
 - a) With a simulated or actual Reactor Coolant System pressure signal greater than or equal to 360 psig the interlocks prevent the valves from being opened, and
 - b) With a simulated or actual Reactor Coolant System pressure signal greater than or equal to 662 psig the interlocks will cause the valves to automatically close.
 - 2) A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.
- e. At least once per 18 months, during shutdown, by:
- 1) Verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection test signal and on a RWST Level-Low-Low test signal, and
 - 2) Verifying that each of the following pumps start automatically upon receipt of a Safety Injection actuation test signal:
 - a) Centrifugal charging pump,
 - b) Safety Injection pump, and
 - c) RHR pump.
- f. By verifying that each of the following pumps develops the indicated differential pressure on recirculation flow when tested pursuant to Specification 4.0.5:
- 1) Centrifugal charging pump \geq 2396 psid,
 - 2) Safety Injection pump \geq 1412 psid, and
 - 3) RHR pump In accordance with Figure 4.5-1

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- g. By verifying the correct position of each mechanical position stop for the following ECCS throttle valves:
- 1) Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE, and
 - 2) At least once per 18 months.

High Head SI System
Valve Number
SI8810 A,B,C,D

SI System
Valve Number
SI8822 A,B,C,D
SI8816 A,B,C,D

- h. By performing a flow balance test, during shutdown, following completion of modifications to the ECCS subsystems that alter the subsystem flow characteristics and verifying that:
- 1) For centrifugal charging pump lines, with a single pump running:
 - a) The sum of the injection line flow rates, excluding the highest flow rate, is greater than or equal to 330 gpm, and
 - b) The total pump flow rate is less than or equal to 550 gpm, including a simulated seal injection flow of 80 gpm.
 - 2) For Safety Injection pump lines, with a single pump running:
 - a) The sum of the injection line flow rates, excluding the highest flow rate, is greater than or equal to 439 gpm, and
 - b) The total pump flow rate is less than or equal to 655 gpm.
 - 3) For RHR pump lines, with a single pump running, the sum of the injection line flow rates is greater than or equal to 3804 gpm.

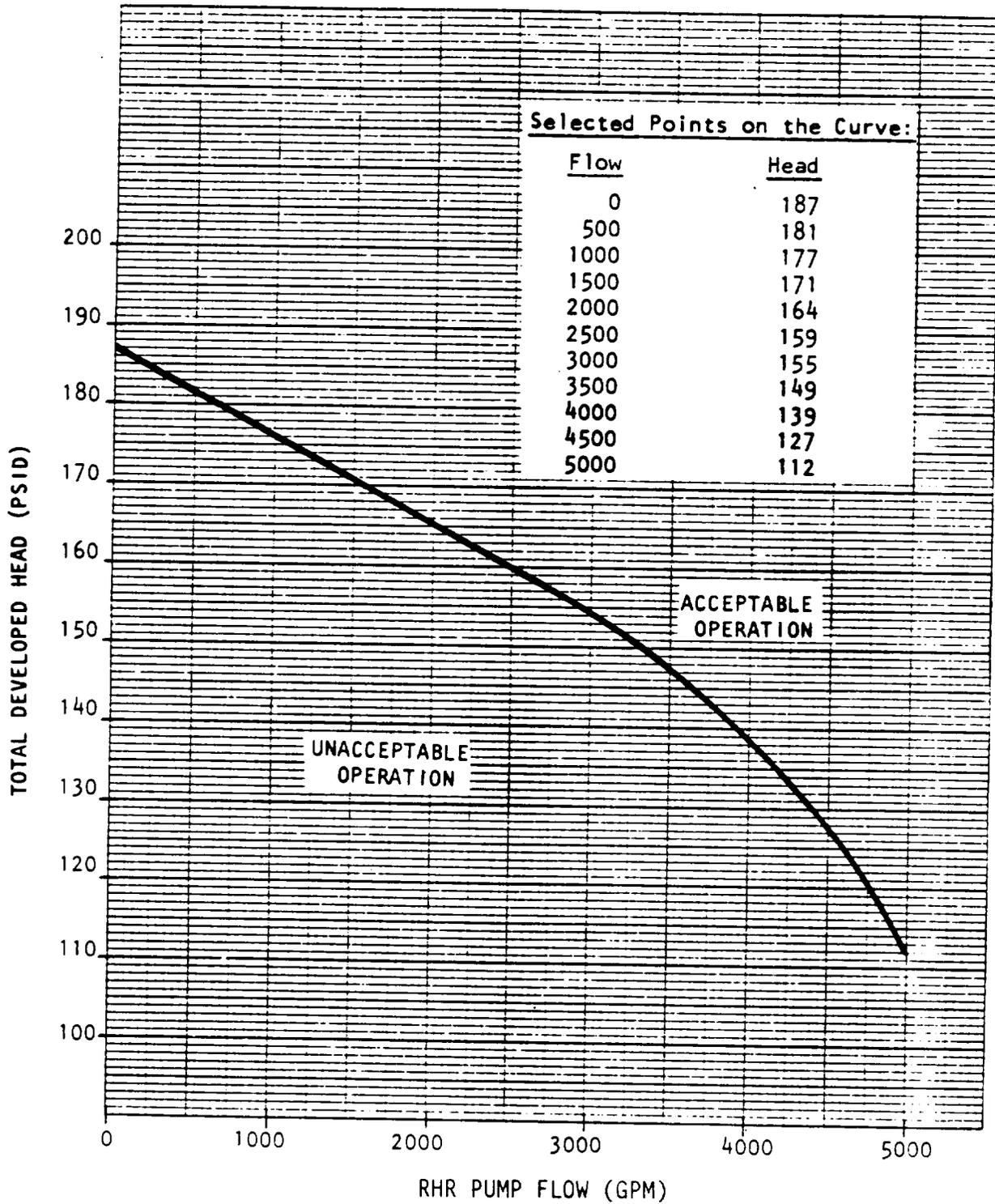


FIGURE 4.5-1

RESIDUAL HEAT REMOVAL PUMP
 MINIMUM ACCEPTABLE PERFORMANCE CURVE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 3 TO FACILITY OPERATING LICENSE NO. NPF-37

COMMONWEALTH EDISON COMPANY

BYRON STATION, UNIT NO. 1

DOCKET NO. STN 50-454

1.0 INTRODUCTION

By application dated March 11, 1986, as supplemented by letter dated April 11, 1986, Commonwealth Edison Company (the licensee) requested an amendment to the Technical Specifications for Byron Station, Units 1 and 2. The proposed Technical Specification change replaces the minimum differential pressure for the Residual Heat Removal (RHR) pumps with the RHR pump Minimum Acceptable performance curve.

2.0 DISCUSSION AND EVALUATION

Technical Specification 4.5.2f requires the performance of each Residual Heat Removal (RHR) pump to be periodically tested by verifying that the pump develops a specified differential pressure on recirculation flow. The specified differential pressure corresponds to a flow rate of 500 gpm on the minimum acceptance performance curve. When operating an RHR pump on recirculation flow during this surveillance, the licensee stated that flow rates in excess of 650 gpm have been observed. These higher flow rates correspond to a lower differential pressure. The proposed change, which would allow use of the minimum acceptable performance curve instead of a point on the curve, provides more flexibility in demonstrating the required performance of the RHR pumps.

The staff has evaluated the impact of the proposed amendment on the accident analysis in the Byron FSAR and on the functionality of the RHR system. The pump performance requirements are consistent with the FSAR safety analyses. RHR pump performance in the acceptable region, as defined by the pump performance curve proposed by the licensee, is sufficient to assure adequate reactor coolant flow through the RHR heat exchangers to meet the plant cooldown requirements. The proposed revision to the Byron Station Technical Specifications forwarded by the licensee's letter dated March 11, 1986, as supplemented by letter dated April 11, 1986, are considered acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment replaces the minimum differential pressure for the RHR pumps with the RHR pump Minimum Acceptable Performance Curve. The staff has determined that the amendment involves no increase in the amounts, and no change in the types, of any effluents that may be released offsite

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and that there is no increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets 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 amendment.

4.0 CONCLUSION

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

5.0 ACKNOWLEDGEMENT

R. Karsch and L. Olshan prepared this Safety Evaluation.

Dated: JUN 06 1986