

July 2, 2004

Mr. Michael R. Kansler
President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3 -
AMENDMENTS RE: EXTENDING THE INSPECTION INTERVAL FOR
REACTOR COOLANT PUMP FLYWHEELS (TAC NOS. MC2299 AND MC2300)

Dear Mr. Kansler:

The Commission has issued the enclosed Amendment No. 240 to Facility Operating License No. DPR-26 and Amendment No. 221 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit Nos. 2 and 3, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated March 3, 2004.

The amendments revise the TS administrative controls regarding the reactor coolant pump flywheel inspection program to increase the inspection interval from 10 years to 20 years.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

/RA/

Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

Enclosures: 1. Amendment No. 240 to DPR-26
2. Amendment No. 221 to DPR-64
3. Safety Evaluation

cc w/encls: See next page

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Accession Number: ML041840005

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DATE	05/25/04	06/30/04	07/01/04	07/01/04

Official Record Copy

DATED: July 2, 2004

AMENDMENT NO. 240 TO FACILITY OPERATING LICENSE NO. DPR-26 INDIAN POINT
UNIT 2

AMENDMENT NO. 221 TO FACILITY OPERATING LICENSE NO. DPR-64 INDIAN POINT
UNIT 3

PUBLIC

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Indian Point Nuclear Generating Unit Nos. 2 & 3

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ENTERGY NUCLEAR INDIAN POINT 2, LLC

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 240
License No. DPR-26

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Nuclear Operations, Inc. (the licensee) dated March 3, 2004, 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-26 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 240, 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 within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard J. Laufer, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 2, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 240

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page

5.5-5

Insert Page

5.5-5

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 221
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Nuclear Operations, Inc. (the licensee) dated March 3, 2004, 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-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 221, 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 within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard J. Laufer, Chief, Section I
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 2, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 221

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page

5.0-11

Insert Page

5.0-11

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 240 TO FACILITY OPERATING LICENSE NO. DPR-26

AND

AMENDMENT NO. 221 TO FACILITY OPERATING LICENSE NO. DPR-64

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3

DOCKET NOS. 50-247 AND 50-286

1.0 INTRODUCTION

By letter dated March 3, 2004 (ADAMS Accession No. ML040720634), Entergy Nuclear Operations, Inc. (the licensee) submitted a request for changes to the Technical Specifications (TSs) for Indian Point Nuclear Generating Unit Nos. 2 and 3. The changes would extend the reactor coolant pump (RCP) motor flywheel examination frequency from the currently approved 10-year inspection interval to an interval not to exceed 20 years. These changes are based on Technical Specification Task Force (TSTF) change traveler TSTF-421 (Revision 0) that has been approved generically for the Westinghouse Standard Technical Specifications (STS), NUREG-1431. A notice announcing the availability of this proposed TS change using the consolidated line item improvement process (CLIIP) was published in the *Federal Register* on October 22, 2003 (68 FR 60422).

2.0 REGULATORY EVALUATION

The function of the RCPs in the reactor coolant system (RCS) of a pressurized-water reactor plant is to maintain an adequate cooling flow rate by circulating a large volume of primary coolant water at high temperature and pressure through the RCS. Following an assumed loss of power to the RCP motor, the flywheel, in conjunction with the impeller and motor assembly, provides sufficient rotational inertia to assure adequate primary coolant flow during the RCP coastdown, thus resulting in adequate core cooling. A concern regarding the overspeed of the RCP and its potential for failure led to the issuance of Regulatory Guide (RG) 1.14, "Reactor Coolant Pump Flywheel Integrity," Revision 1, dated August 1975. RG 1.14 describes a method acceptable to the Nuclear Regulatory Commission (NRC) staff of addressing concerns related to RCP vibration and the possible effects of missiles that might result from the failure of the RCP flywheel. The need to protect components important to safety from such missiles are included in General Design Criterion 4, "Environmental and Dynamic Effects Design Basis," of Appendix A, "General Design Criteria for Nuclear Power Plants," to

10 CFR Part 50, "Licensing of Production and Utilization Facilities," which is applicable to plants that obtained their construction permits after May 21, 1971.

Specific requirements to have an RCP flywheel inspection program consistent with RG 1.14 or previously issued relaxations from the RG are included in the Administrative Controls Section of the TSs. The purpose of the testing and inspection programs defined in the TSs is to ensure that the probability of a flywheel failure is sufficiently small such that additional safety features are not needed to protect against a flywheel failure. The RG provides criteria in terms of critical speeds that could result in the failure of an RCP flywheel during normal or accident conditions. In addition to the guidance in RG 1.14, the NRC has more recently issued RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," which provides guidance and criteria for evaluating proposed changes that use risk-informed justifications.

A proposed justification for extending the RCP flywheel inspections from a 10-year inspection interval to an interval not to exceed 20 years was provided by the Westinghouse Owners Group (WOG) in Topical Report (TR) WCAP-15666, "Extension of Reactor Coolant Pump Motor Flywheel Examination," transmitted by letter dated August 24, 2001. The TR addressed the proposed extension for all domestic WOG plants. The NRC accepted the TR for referencing in license applications in a letter and safety evaluation (SE) dated May 5, 2003 (ADAMS Accession No. ML031250595).

3.0 TECHNICAL EVALUATION

The administrative TS "Reactor Coolant Pump Flywheel Inspection Program," (TS 5.5.5 for Unit 2 and TS 5.5.6 for Unit 3) reflects the licensee's previous adoption of a TS change that defined the allowable alternative to the inspections described in RG 1.14. Flywheel inspections are described in the STS, NUREG-1431, as in-place ultrasonic examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius or an alternative surface examination (magnetic particle testing (MT) and/or liquid penetrant testing (PT)) of exposed surfaces defined by the volume of the disassembled flywheel. The allowable interval for these inspections was established in previous amendments to approximately 10-year intervals coinciding with the inservice inspection schedule as required by the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI. The change proposed in this amendment application would revise the allowable inspection interval to 20 years.

The justification for the proposed change was provided in WCAP-15666, which the NRC staff accepted for referencing in license applications by a letter and SE dated May 5, 2003. The TR addresses the three critical speeds defined in RG 1.14: (a) the critical speed for ductile failure, (b) the critical speed for non-ductile failure, and (c) the critical speed for excessive deformation of the flywheel. The staff found that the TR adequately addressed these issues and demonstrated that acceptance criteria, for normal and accident conditions defined in RG 1.14, would continue to be met for all domestic WOG plants following an extension of the inspection interval. The TR also provided a risk assessment for extending the RCP flywheel inspection interval. The staff's review, documented in the SE for the TR, determined that the analysis methods and risk estimates are acceptable when compared to the guidance in RG 1.174.

In conclusion, the staff finds that the regulatory positions in RG 1.14 concerning the three critical speeds are satisfied, and that the evaluation indicating that critical crack sizes are not expected to be attained during a 20-year inspection interval is reasonable and acceptable. The potential for failure of the RCP flywheel is, and will continue to be, negligible during normal and accident conditions. The change is therefore acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes 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. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents 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 amendment involves no significant hazards consideration and there has been no public comment on such finding (69 FR 19566). Accordingly, the 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.

6.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: W. Reckley

Date: July 2, 2004