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September 13, 1983

Docket No. 50-247

Mr. John D. O'Toole, Vice President
Nuclear Engineering and Quality Assurance
Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Dear Mr. O'Toole:

The Commission has issued the enclosed Amendment No. 85 Facility Operating License No. DPR-26 for the Indian Point Nuclear Generating Unit No. 2. This amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated May 3, 1983, supplemented by letter dated June 14, 1983.

The amendment revises the Technical Specifications with respect to the requirements for reactor cavity level monitoring instrumentation.

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

Sincerely,

Roger L. Pedersen, Project Manager
Operating Reactors Branch No. 1
Division of Licensing

Enclosures:
1. Amendment No. 85 to DPR-26
2. Safety Evaluation

cc w/enclosures:
See next page

Immediate effective since Staff to Petition or Comments. If any one wants to ELD.

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Subject to changes

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

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 85
License No. DPR-26

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

   A. The application for amendment by Consolidated Edison Company of New York, Inc. (the licensee) dated May 3, 1983, as supplemented June 14, 1983, 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. 85 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 13, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 85

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.1-17	3.1-17
3.1-20	3.1-20
3.1-21	3.1-21

3.1.F. REACTOR COOLANT SYSTEM LEAKAGE AND LEAKAGE INTO THE CONTAINMENT FREE VOLUME

Specification

1. LEAKAGE DETECTION AND REMOVAL SYSTEMS

a. The reactor shall not be brought above cold shutdown unless the following leakage detection and removal systems are operable:

(1) Two containment sump pumps.
(2) Two containment sump level monitors.
(3) A containment sump discharge line flow monitoring system.
(4) Two recirculation sump level monitors.
(5) Two reactor cavity level monitors.
(6) Two of the following three systems:

(a) A containment atmosphere gaseous radioactivity monitoring system.
(b) A containment atmosphere particulate radioactivity monitoring system.
(c) The containment fan cooler condensate flow monitoring system.

b. When the reactor is above cold shutdown, the requirements of specification 3.1.F.1.a may be modified as follows:

(1) One containment sump pump may be inoperable for a period not to exceed seven (7) consecutive days provided that on a daily basis the other containment sump pump is started and discharge flow is verified.

(2) One of the two required containment sump level monitors may be inoperable for a period not to exceed seven (7) consecutive days.

(3) The containment sump discharge line flow monitoring system may be inoperable for a period not to exceed seven (7) consecutive days provided a detailed Waste Holdup Tank water inventory balance is performed daily.

(4) One of the two required recirculation sump level monitors may be inoperable for a period not to exceed fourteen (14) consecutive days.

(5) One of the two required reactor cavity level monitors may be inoperable for a period not to exceed thirty (30) consecutive days.

(3) If water level in the containment sump reaches EL. 45' or the water level in the recirculation sump reaches EL. 35', or the water level in the reactor cavity reaches EL. 20', the reactor shall be placed in a cold shutdown condition within the next 36 hours unless the water level(s) is reduced below the specified limit(s).

(4) If the water level in the containment sump increases above EL. 45' and the water level in the recirculation sump increases above EL. 39'-9", or the water level in the reactor cavity increases above EL. 20' 5", immediately place the reactor in a subcritical condition and initiate an expeditious cooldown of the reactor to the cold shutdown condition.

Basis

Water inventory balances, monitoring equipment, radioactive tracing, boric acid crystalline deposits, and physical inspections can disclose reactor coolant leaks. Any leak of radioactive fluid, whether from the reactor coolant system primary boundary or not can be a serious problem with respect to in-plant radioactivity contamination and cleanup or it could develop into a still more serious problem; and therefore, first indications of such leakage will be followed up soon as practicable.

Although some leak rates on the order of gpm may be tolerable from a dose point of view, especially if they are to closed systems, it must be recognized that leaks on the order of drops per minute through any pressure boundary of the primary system could be indicative of materials failure such as by stress corrosion cracking. If depressurization, isolation and/or other safety measures are not taken promptly, these small leaks could develop into much larger leaks, possibly into a gross pipe rupture.

If leakage is to the containment, it may be identified by one or more of the following methods:

a. The containment air particulate monitor is sensitive to low rates. The rates of reactor coolant leakage to which the instrument is sensitive are 0.025 gpm to greater than 10 gpm, assuming corrosion product activity and no fuel cladding leakage. Under these conditions, an increase in reactor coolant system leakage of 1 gpm is detectable within 1 minute after it occurs.

b. The containment radiogas monitor is less sensitive than the air particulate monitor. The sensitivity range of the instrument is within $10^{-2}\mu c/cc$ to $10^{-7}\mu c/cc$.

c. A leakage detection system collects and measures moisture condensed from the containment atmosphere by cooling coils of the main air recirculation units including leaks from the cooling coils themselves. This system provides a dependable and accurate means of measuring the total leakage from these sources. Condensate flows from approximately 1 gpm to 15 gpm per detector can be measured by this system. Condensate flows greater than 15 gpm can be determined using weir calibration curves. Condensate flows less than 1 gpm may be determined by periodic observation of the water accumulation in the standpipes of the condensate collection system.

d. Leakage detection via the containment sump level and discharge flow monitoring systems will determine leakage losses from all fluid systems to the containment free volume. Water collecting on the containment floor will normally be delivered to the containment sump via the containment floor trench system. Level monitoring of the containment sump is in part provided by two level instruments which actuate control room lights at discrete sump/containment water levels and provide an audible alarm for certian discrete levels within the containment sump. In addition, another level monitoring device provides a continuous level readout in the control room. When the water level in the containment sump reaches predetermined levels, one or both containment sump pumps will automatically start and pump the fluid out of containment to the liquid waste disposal system. Flow in the containment sump pump discharge line from containment to the Waste Holdup Tank is monitored on a continuous basis. Thus, monitoring of both the flow indication systems will provide a positive means for determining leakage into the containment free volume.

e. Water may also collect in the recirculation sump and/or the reactor cavity depending on the size and location of the leak. However, under most circumstances, the containment sump will be filled prior to the recirculation sump filling and both sumps will be filled prior to water level increasing on containment floor (EL. 46') sufficient to initiate filling of the reactor cavity. Level monitoring of the recirculation sump is provided by two level instruments which actuate control room lights at discrete sump/containment water levels and provide an audible alarm for certain discrete levels within the recirculation sump. In addition, another level monitoring device provides a continuous level readout in the control room. Level monitoring of the reactor cavity is provided by a single analog continuous level indication in the control room and two separate and independent level switches each of which actuates an audible alarm in the control room.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 85 TO FACILITY OPERATING LICENSE NO. DPR-26

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

DOCKET NO. 50-247

1.0 Introduction

By letter dated May 3, 1983 (as supplemented by letter dated June 14, 1983), the Consolidated Edison Company of New York (the licensee) requested a modification of the Indian Point Unit No. 2 (IP-2) Technical Specifications for reactor cavity level monitoring instrumentation. The existing Technical Specifications had been modified by license Amendment No. 69 dated April 22, 1981. As amended the Technical Specifications require the reactor cavity continuous level monitoring system and one of the two independent reactor cavity level alarms be operable. If either condition is not met and cannot be restored within 30 days, a visual inspection of containment at least once per shift must be performed or the reactor must be placed in the cold shutdown condition.

Since the issuance of Amendment No. 69 the licensee has experienced difficulty with the operability of the reactor cavity continuous level monitor. During these episodes both independent level alarms were operable. It is the licensees position that neither the radiation exposure associated with containment inspection nor the plant shutdown is warrented in these cases since redundant reactor cavity level indication is still available. Therefore, the licensee has requested relief from this requirement.

2.0 Evaluation

The reactor cavity level instrumentation consists of a continuous level monitor which indicates over the range of El. 19'-9" to El. 46'-9" in the reactor cavity and two separate and independent level switches each of which actuates an audible alarm in the control room. The "Hi" level switch actuates an alarm and starts reactor cavity pump No. 1 at El. 19'-7½" while the "Hi-Hi" level switch actuates an alarm and starts reactor cavity pump No. 2 at El. 20'-5".

The original specifications require that the continuous level monitor and one of the level switches be operable. This required that the continuous level monitor remain operable at all times, though reactor operation could continue for up to 30 days if it were to become inoperable. The proposed change to the specifications would require that any two of the three reactor cavity level instruments be operable and that one of the required two could be inoperable for up to 30 days.

The purpose for the proposed change is to provide a certain amount of flexibility in reactor operations in that the failure of the continuous level monitor which is generally not repairable during reactor operation will not require reactor shutdown as long as the redundant level switches are available.

The proposed changes to the specifications meet the requirements of IE Bulletin No. 80-24, which required redundant means of detecting and alerting control room operators of significant accumulation of water in the reactor cavity. The proposed changes also meet the Standard Technical Specifications which only require level detection in the containment sump.

Specification 3.1.F.1.d(3) of the Indian Point Unit 2 specifications requires that if the water level in the reactor cavity reaches El. 20', the reactor shall be placed in a cold shutdown condition within the next 36 hours unless the water level is reduced to below the 20' limit. Since the continuous level monitor is no longer required to be operable, the licensee has proposed administrative controls to insure that this limiting condition of operation is met. The IP-2 alarm response procedures will be revised so that upon receipt of the first level alarm an investigation will be initiated to determine the cause of the indication. In the case that the continuous level monitor is inoperable this investigation includes a containment entry to distinguish between an actual water level indication and a failed monitor.

Based on our review of the proposed changes to the Indian Point 2 plant Technical Specifications, specifically Specification 3.1.F, we conclude that the proposed changes are in accordance with IE Bulletin No. 80-24 and the Standard Technical Specifications. We, therefore, conclude that the proposed changes do not represent an increased risk to public health and safety and that they are acceptable.

Environmental Consideration

We have determined that the amendment does 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 amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have 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.