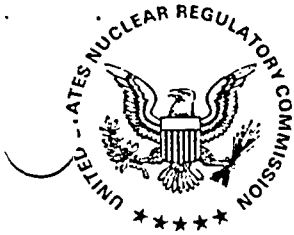


Submitted: August 10, 2015

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



ENTERGY NUCLEAR INDIAN POINT 2, LLC  
AND ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

AMENDED FACILITY OPERATING LICENSE

License No. DPR-26  
Amendment No. 220

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for amendment by the Consolidated Edison Company of New York, Inc. (Con Edison), Entergy Nuclear Indian Point 2, LLC (ENIP2), and Entergy Nuclear Operations, Inc. (ENO) submitted under cover letter dated December 12, 2000, as supplemented by letters dated April 12, 2001, from Con Edison and dated April 16, May 24, June 6, and June 8, 2001, from ENIP2 and ENO complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
  - B. Construction of the Indian Point Nuclear Generating Unit No. 2 (IP2 or facility) has been substantially completed in conformity with provisional Construction Permit No. CPPR-21, as amended, and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
  - E. ENO is technically and financially qualified and ENIP2 is financially qualified to engage in the activities authorized by this amended license in accordance with the rules and regulations of the Commission;
  - F. ENIP2 and ENO have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

Amendment No. 220

- G. The issuance of this amended license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this amendment to Facility Operating License No. DPR-26, subject to the conditions for the protection of the environment set forth herein, is in accordance with 10 CFR Part 50, Appendix D, of the Commission's regulations and all applicable requirements of said Appendix D have been satisfied; and
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this amended license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40 and 70, including 10 CFR Section 30.33, 40.32, 70.23, and 70.31.
2. Facility Operating License No. DPR-26, as amended, (previously issued to Con Edison) issued to ENIP2 and ENO, is hereby amended in its entirety to read as follows:
- A. This amended license applies to the Indian Point Nuclear Generating Unit No. 2, a pressurized water nuclear reactor and associated equipment (the facility), which is owned by ENIP2 and operated by ENO. The facility is located in Westchester County, New York, and is described in the "Final Facility Description and Safety Analysis Report", as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
    - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", (a) ENIP2 to possess and use, and (b) ENO to possess, use and operate, the facility at the designated location in Westchester County, New York, in accordance with the procedures and limitations set forth in this amended license;
    - (2) ENO pursuant to the Act and 10 CFR Part 70, to receive, possess, and use, at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Facility Description and Safety Analysis Report, as supplemented and amended and as described in the Commission's authorization through Amendment No. 75 to this license. Amdt. 75  
1-11-82
    - (3) ENO pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use, at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor Amdt. 42  
10-17-78

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Rod Group Alignment Limits

LCO 3.1.4 All shutdown and control rods shall be OPERABLE.

AND

Individual indicated rod positions shall be within the following limits:

- a. When THERMAL POWER is > 85% RTP, the difference between each individual indicated rod position and its group step counter demand position shall be within the limits specified in Table 3.1.4-1 for the group step counter demand position; and
- b. When THERMAL POWER is ≤ 85% RTP, the difference between each individual indicated rod position and its group step counter demand position shall be ≤ 24 steps.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more rod(s) inoperable.	A.1.1 Verify SDM to be within the limits specified in the COLR.	1 hour
	<u>OR</u>	
	A.1.2 Initiate boration to restore SDM to within limit.	1 hour
	<u>AND</u>	
	A.2 Be in MODE 3.	6 hours
B. One rod not within alignment limits.	B.1 Restore rod to within alignment limits.	1 hour
	<u>OR</u>	

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
	<p>B.2.1.1 Verify SDM to be within the limits specified in the COLR.</p> <p><u>OR</u></p> <p>B.2.1.2 Initiate boration to restore SDM to within limit.</p> <p><u>AND</u></p> <p>B.2.2 Reduce THERMAL POWER to <math>\leq 75\%</math> RTP.</p> <p><u>AND</u></p> <p>B.2.3 Verify SDM is within the limits specified in the COLR.</p> <p><u>AND</u></p> <p>B.2.4 Perform SR 3.2.1.1.</p> <p><u>AND</u></p> <p>B.2.5 Perform SR 3.2.2.1.</p> <p><u>AND</u></p> <p>B.2.6 Re-evaluate safety analyses and confirm results remain valid for duration of operation under these conditions.</p>	<p>1 hour</p> <p>1 hour</p> <p>2 hours</p> <p>Once per 12 hours</p> <p>72 hours</p> <p>72 hours</p> <p>5 days</p>
<p>C. Required Action and associated Completion Time of Condition B not met.</p>	<p>C.1 Be in MODE 3.</p>	<p>6 hours</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. More than one rod not within alignment limit.	D.1.1 Verify SDM is within the limits specified in the COLR.	1 hour
	<u>OR</u>	
	D.1.2 Initiate boration to restore required SDM to within limit.	1 hour
	<u>AND</u>	
	D.2 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 ----- <p style="text-align: center;">- NOTE -</p> Not required to be met for individual control rods until 1 hour after completion of control rod movement. ----- Verify individual rod positions within alignment limit.	12 hours
SR 3.1.4.2 Verify rod freedom of movement (trippability) by moving each rod* not fully inserted in the core $\geq 10$ steps in one direction.	92 days
SR 3.1.4.3 Verify rod drop time of each rod, from the fully withdrawn position, is $\leq 2.4$ seconds from the gripper release to dashpot entry, with:  a. $T_{avg} \geq 500^{\circ}\text{F}$ and  b. All reactor coolant pumps operating.	Prior to criticality after each removal of the reactor head

\*Control Rod G-3 need not be moved until repaired in the next forced outage of sufficient duration prior to the refuel outage of 2016 or during the refuel outage in 2016.

Table 3.1.4-1

Maximum Permissible Rod Misalignment when > 85% RTP  
(IRPI Rod Position minus Group Step Counter Demand Position)

Group Step Counter Demand Position (steps)	Maximum Positive Deviation (IRPIs reading greater than Group Step Counter Demand Position)	Maximum Negative Deviation (IRPIs reading less than Group Step Counter Demand Position)
≤ 209	+12	-12
210 to 221	+16	-12
222	+16	-13
223	+16	-14
224	+16	-15
≥ 225	+16	-16

3.1 REACTIVITY CONTROL SYSTEMS

3.1.5 Shutdown Bank Insertion Limits

LCO 3.1.5            Each shutdown bank shall be within insertion limits specified in the COLR.

APPLICABILITY:    MODES 1 and 2.

- NOTE -

This LCO is not applicable while performing SR 3.1.4.2.

**ACTIONS**

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more shutdown banks not within limits.	A.1.1    Verify SDM is within the limits specified in the COLR.	1 hour
	<u>OR</u>	
	A.1.2    Initiate boration to restore SDM to within limit.	1 hour
	<u>AND</u>	
	A.2       Restore shutdown banks to within limits.	2 hours
B. Required Action and associated Completion Time not met.	B.1       Be in MODE 3.	6 hours