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**Fred Dacimo**  
Vice President, Operations

March 3, 2003  
NL-03-037

Annette L. Vietti-Cook, Secretary  
Office of the Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, DC 20555-0001

**SUBJECT:** Entergy Nuclear Operations, Inc.  
Indian Point Nuclear Generating Stations 2 and 3  
Docket Nos. 50-247 and 50-286  
**Answer to February 11, 2003 Order to Modify PWR Licenses for  
Interim Inspection Requirements for Reactor Pressure Vessel Heads**

- References:**
1. NRC letter dated February 11, 2003; S. Collins to Holders of Licenses for Operating Pressurized Water Reactors, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors."
  2. Entergy letter to NRC, IPN-02-095; "Reactor Pressure Vessel Head and Penetration Nozzles Inspection Plan for Spring 2003 Refueling Outage," dated December 19, 2002.

Dear Ms. Vietti-Cook,

Pursuant to the requirements of 10 CFR 2.202(a)(2), Entergy Nuclear Operations, Inc (ENO) hereby submits for filing, in Attachment I, the answer to the NRC Order of February 11, 2003 regarding interim inspection requirements for reactor pressure vessel heads at pressurized water reactors. ENO consents to the Order modifying the licenses for Indian Point Unit 2 and Indian Point Unit 3. This response is being provided per the instructions stated in Section V of the Order.

ENO is currently planning to perform an inspection of the Indian Point 3 reactor pressure vessel head during the refueling outage (3R12) scheduled to begin March 28, 2003. The planned inspection, described in Reference 2, includes bare metal visual and, to the extent allowed by the outage schedule, NDE. Since the EDY (as defined in Section IV. A of the Order) for IP3 is in the moderate category for this outage, only one of these inspections is required to satisfy the conditions of the Order. However ENO is still planning to perform both inspections. This approach is desirable to obtain a baseline of data and to maintain the flexibility of performing either visual or

NDE inspection if the EDY remains in the moderate category for the subsequent outage (3R13). Therefore ENO is requesting the following relaxation pursuant to the procedure specified in Section IV.F of the Order.

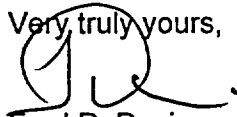
Section IV.C (2)(b)(i) of the Order requires: "Ultrasonic testing of each RPV head penetration nozzle (i.e., nozzle base material) from two (2) inches above the J-groove weld to the bottom of the nozzle and .....".

ENO can not comply with the requirement for ultrasonic testing 'to the bottom of the nozzle' because the penetration nozzles at Indian Point 3 are designed with a threaded region on the bottom 0.75 inches to accommodate the installation of guide funnels. Meaningful ultrasonic test data can not be obtained in this region. The ultrasonic testing will extend from two (2) inches above the J-groove weld to the top of the threaded region at the bottom of the penetration nozzle. This coverage provides an acceptable level of quality and safety because it encompasses the weld heat affected zone, which is the area susceptible to primary water stress corrosion cracking.

In addition to the above relaxation request, ENO is providing a clarification regarding Footnote 1 of the Order, which identifies certain guidance to address flaw evaluations. ENO plans to use other guidance (EPRI MRP-44 and MRP-55) for flaw evaluations, as stated in Attachment I.

There are no new commitments identified by this letter. Should you have questions regarding this matter, please contact Mr. Kevin Kingsley at 914-734-5581.

Very truly yours,



Fred R. Dacimo  
Vice President, Operations  
Indian Point Energy Center

Attachments:

- I. Licensee's Answer to February 11, 2003 Commission Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors.
- II. Certificate of Service

cc: next page

cc:

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
ENTERGY NUCLEAR OPERATIONS, INC.	)	
	)	Docket Nos. 50-247 and
Indian Point Nuclear Generating Unit 2 and	)	
	)	50-286
Indian Point Nuclear Generating Unit 3;	)	
	)	(EA-03-009)

LICENSEES' ANSWER TO FEBRUARY 11, 2003 COMMISSION ORDER  
ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR  
REACTOR VESSEL HEADS AT PRESSURIZED WATER REACTORS

On February 11, 2003, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an immediately effective order in the captioned matter entitled Order Modifying Licenses (Effective Immediately) ("Order") to, *inter alia*, Entergy Nuclear Operations, Inc. The Order stated that recent experience indicated that current inspection requirements in Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code ("ASME Code") and related NRC regulations do not provide adequate assurance that reactor coolant pressure boundary integrity will be maintained for all combinations of construction materials, operating conditions, and operating histories at pressurized water reactors ("PWRs"). The Commission stated that long-term resolution of reactor pressure vessel ("RPV") head penetration inspection requirements is expected to involve changes to the ASME Code and NRC regulations, specifically 10 CFR 50.55a. Consequently, the Commission stated that it was necessary to establish a minimum set of RPV head inspection requirements, as a supplement to existing inspection and other requirements in the ASME Code and NRC regulations, through the issuance of the Order. Therefore, the Commission imposed interim inspection requirements set forth in Section IV of the Order pending the development of consensus standards and

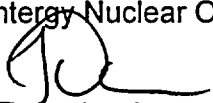
incorporation of revised inspection requirements into 10 CFR 50.55a, directly or through reference to a future version of the ASME Code.

Pursuant to 10 CFR 2.202(d), Entergy Nuclear Operations, Inc. ("ENO") consents to the Order modifying the licenses for Indian Point Unit 2 and Indian Point Unit 3, as set forth in Section IV of the Order, and does not request a hearing in either of the dockets.

Footnote 1 of the Order cites a November 21, 2001, letter from J. Strosnider, NRC, to A. Marion, Nuclear Energy Institute, for guidance to address flaw evaluation. In lieu of the cited guidance, ENO intends to use the guidance in Electric Power Research Institute Report MRP-55, Revision 1, "Materials Reliability Program Crack Growth Rates for Evaluating Primary Water Stress Corrosion Cracking ("PWSCC") of Thick-Wall Alloy 600 Materials", to evaluate PWSCC crack growth for the reactor vessel head penetration nozzle base metal comprising the inside surface and the portion of the outside surface protruding below the attachment J-groove weld. Also, ENO intends to use the guidance in Electric Power Research Institute Report MRP-44, "PWR Materials Reliability Project Interim Alloy 600 Safety Assessments for US PWR Plants" (TP-1001491, Part 2, May 2001), to calculate the required ligament for circular cracks above the J-weld.

I declare under penalty of perjury that the foregoing is true and correct. Executed March 3, 2003.

Respectfully submitted,  
Entergy Nuclear Operations, Inc.

  
Fred R. Dacimo  
Vice President, Operations

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
ENTERGY NUCLEAR OPERATIONS, INC.	)	
	)	Docket Nos. 50-247 and
Indian Point Nuclear Generating Unit 2, and	)	
	)	50-286
Indian Point Nuclear Generating Unit 3	)	
	)	(EA-03-009)

CERTIFICATE OF SERVICE

I hereby certify under penalty of perjury that copies of the LICENSEES' ANSWER TO FEBRUARY 11, 2003 COMMISSION ORDER ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL HEADS AT PRESSURIZED WATER REACTORS in the captioned action have been served on the following by deposit in the United States mail and, in addition, by facsimile (indicated by an asterisk ' \* ' ) as directed in Section V of the order, on this third day of March 2003.


\* Annette L. Vietti-Cook, Secretary  
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