November 5, 2001

Re: Indian Point Unit No. 2
Docket No. 50-247
NL-01-124

Mr. Brian E. Holian
Deputy Director
Division of Reactor Safety
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Subject: Documentation of October 29, 2001, Telephone Conference between Entergy Nuclear Operations Inc. and NRC

Dear Mr. Holian:

The purpose of this letter is to document the information provided by Entergy Nuclear Operations Inc. (ENOI) during the subject telephone conference regarding licensed operator requalification examination performance at Indian Point Unit 2. In consideration of two recent crew requalification examination failures, ENOI performed an integrated assessment of the licensed operators' ability to safely perform their duties. ENOI has concluded that continued safe operation can be assured while the longer term corrective actions to improve licensed operator performance are developed and implemented. Included in the assessment was the basis for our conclusion that no significant operator or performance issues remain undetected. The immediate actions taken to strengthen licensed operator performance and provide added assurance were also discussed and are described below. Subsequent to the telephone conference, an independent assessment of the Indian Point Unit 2 operator requalification examination performance was conducted by the Indian Point Unit 3 training department using NRC Examination Standards ES-604 and ES-303. A report describing the results of this assessment is attached.

During recent operator requalification examinations, seven licensed Indian Point 2 operating crews were evaluated using ENOI dynamic simulator and job performance measures and evaluation standards which are derived from NUREG-1021, “Operator Licensing Examination Standards for Power Reactors.” Among the seven crews were five on-shift crews and two staff crews. All crews, except for one of the on-shift crews, were given three simulator exams (the one crew was given two). In addition, each licensed operator was evaluated in a minimum of two dynamic simulator scenarios. The results of the exam performance showed that thirty-four of forty-four operators

passed the individual simulator exam, and three of seven crews passed the simulator exams.

ENOI reviewed the data and found that the annual requalification examination evaluated a total of 67 critical tasks designed to prevent events defined by the Westinghouse Owners Group, or mitigate their severity. The seven crews examined successfully completed 65 of the 67 (97 percent) critical tasks. Additionally, of the four crews that failed a simulator scenario, each successfully passed two other simulator scenarios. Finally, crew competencies, when reviewed as an aggregate of the annual simulator exams per crew, probably would have resulted in five of the seven crews passing, and no less than four crews passing the requalification training.

The results of the annual evaluations are summarized and tabulated in Attachment 1.

A Significance Level 1 condition report was generated to document this condition in the corrective action program. The team formed to respond to this condition report is scheduled to complete its investigation by November 8, 2001. Additional corrective actions to resolve the operator requalification issue may be generated from their report.

The following questions and answers were discussed during the conference call.

Question 1: What is the basis for continued operation in light of recent events?

Licensed operators meet safety standards with respect to avoiding core damage and providing protection to the health and safety of the public. However, Indian Point 2 licensed operators have not performed up to ENOI expectations in the areas of procedure adherence, correct response to plant events or system challenges, and event diagnosis during both actual plant events and during annual simulator examinations.

ENOI conducted a review of both the 2001 simulator annual examination failures and actual plant events. Personnel from the Indian Point 3 operator training organization were part of the team to provide a fresh perspective. ENOI concluded that Indian Point 2 licensed operators have a high probability of correctly mitigating events based on successful completion of critical tasks. This was based on the following:

- The 2001 annual requalification exam tested a total of 67 critical tasks designed to prevent events as defined by the Westinghouse Owners Group, or mitigate their severity. The crews successfully completed 65 of the 67 (97 percent) critical tasks. Additionally, of the four crews that failed a simulator scenario, each successfully passed the other two simulator scenarios.

- Crew competencies when reviewed as an aggregate of the annual simulator exams per crew probably would have resulted in five of the seven crews passing, and no less than four crews passing requalification training.

Licensed operators who failed annual simulator examination will be successfully remediated prior to returning to licensed activities.

Individuals that failed either as a crew, or as an individual, twice over the last three years, or demonstrated poor performance in training, or poor performance on shift were administratively removed from control room watchstanding duties, or have had their licenses permanently removed.

- Seven individuals with active licenses were administratively removed from control room watchstanding duties.

- In February 2001, two reactor operators had their licenses permanently removed due to training performance.

- In October 2001, the decision was made to permanently remove one senior reactor operator due to training performance and an additional senior reactor operator due to poor on shift performance. Formal documentation to terminate these licenses will be submitted to the NRC no later than November 23, 2001.

Indian Point 2 took the following steps to maintain a heightened sense of alertness during the current mid-cycle outage.

- The shutdown and startup activities are being treated as Infrequently Performed Evolutions and have senior management oversight in the control room.

- Licensed operators have had real time simulation of the shutdown, including a complete shift turnover in the simulator prior to actual performance.

- Licensed operators have had real time simulation of the reactor startup.

Commencing with the plant heat-up above 200 degrees, a senior manager from the ENOI organization shall be assigned to the Indian Point 2 control room to ensure compliance with standards and expectations on an around the clock basis. The shift management mentor program will follow this action.

Station senior management will establish a shift management mentor program under the direction of the operations manager. The mentors are individuals with previous experience in a nuclear management position of at least shift manager or higher, and are currently or have previously held SRO licenses. The shift mentors will provide monitoring and guidance to licensed operators for procedure adherence, operator response to plant events, operator diagnosis of plant response and plant evolutions, control board operations, reactivity management, and reinforcement of all operations management standards and expectations.

The operations manager has conducted extensive stand-downs in the operations department with a focus on reactivity management and procedure adherence.

Question 2: Have all knowledge and abilities or generic competencies been identified?

ENOI conducted a historical review of the condition reporting system and simulator annual exam failures. The review, which went back to 1998, was for all annual simulator examination failures and individual competencies as well as for related condition reports. ENOI identified the following five commonalties in station events and annual simulator examination failures: procedure adherence, understanding plant and system response, diagnosis of plant events or conditions, control board operations, and reactivity management.

Based on station reviews, no additional competencies were identified as common.

Question 3: What other compensatory actions will be taken?

- Commencing with the next two year qualification cycle, licensed operator enhancement training will be conducted as part of the licensed operator requalification program. The licensed operator enhancement training will focus on procedure adherence, understanding plant and system response, diagnosis of events and conditions, control board operations, reactivity management, and reinforce all operations management standards and expectations.

- Designated licensed operators received loss of Residual Heat Removal training on the simulator during the mid-cycle outage.

- Three of the incumbent shift managers are scheduled to rotate off shift within the next 90 days.

- Prior to criticality, the shift operating crew that will bring the reactor critical will be assessed by the new operations manager in a dynamic simulator scenario. Additionally, relief crews will be assessed by the new operations manager in a dynamic simulator scenario prior to taking the watch.

The Station Nuclear Safety Committee reviewed the above information at a special meeting on October 28, and agreed with the assessment team that the licensed operators meet safety standards. In addition, the Significance Level 1 condition report that is being developed on this issue will be reviewed by both the Corrective Actions Review Board, as well as the Station Nuclear Safety Committee.

ENOI has concluded that the Significance Determination Process (Appendix I, “Operator Requalification Human Performance”) should assign a risk significance of no greater than WHITE to the inspection findings associated with the operator requalification crew exam failures. The basis for this conclusion is as follows:

A principle goal of the Reactor Oversight Program is to be objective and consistent. The SDP indicates that if more than 50% of the crews fail requalification training, a yellow finding should be assigned. However, the definition of what constitutes a crew requalification exam failure may be different for each licensee. In order to apply the regulatory standard consistently between licensees, a common benchmark for what should constitute a crew failure needs to be applied. It should not be possible for the same level of crew performance, and therefore the same level of risk associated with operator performance, to result in a green finding for one licensee, and a yellow finding for another just because the licensee implements a stricter grading standard. Therefore, for the purpose of applying the SDP, ENOI believes it is appropriate to apply the grading standard that would be applied if NRC were conducting the requalification examination as the "common denominator" for assigning risk significance. These are the Examiner Standards described in NUREG-1021. The principle difference between this grading criteria and the one used at Indian Point 2 is in the area of crew "competencies". The Indian Point 2 grading policy will fail a crew if they do not demonstrate all of the evaluated crew competencies in each drill scenario, even if they successfully perform all of the critical functions in each scenario. NRC Examiner Standards allow the averaging of crew competency performance in the aggregate of the scenarios. If this standard were applied, probably only two, but no more than three out of seven crews would have failed requalification. This initial assessment, which was discussed during the subject telephone conference, has subsequently been confirmed by the independent review provided in Attachment 2. Therefore, ENOI believes that the SDP color assignment could possibly be GREEN but no worse than WHITE for this inspection finding.

Based on the above, ENOI has determined that Indian Point 2 licensed operators' performance is safe and continues to protect the health and safety of the public.

Commitments made by ENOI contained in this letter are listed in Attachment 3 to this letter.

Should you or your staff have any questions regarding this matter, please contact Mr. John McCann, Manager, Nuclear Safety & Licensing at (914) 734-5074.

Sincerely,

Fred Dacimo
Vice President - Operations
Indian Point 2

Attachments

cc: See next page

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ATTACHMENT 1

Summary of Results

Entergy Nuclear Operations Inc.
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Requalification Licensed Operator Evaluation Standards:

Indian Point 2 operating evaluations, dynamic simulator and job performance measures, evaluation standards are derived from NUREG-1021, Rev 8 Supplement 1 pursuant to 10 CFR 55.45, “Operating Tests” and contained within Training Administrative Directive 501, “Licensed Operator Requalification Examinations.”

Each license operator is evaluated in a minimum of two dynamic simulator scenarios. Senior Reactor Operators are evaluated at their highest qualified position, Control Room Supervisor or Shift Manager.

All crews except one on-shift crew were given three simulator exams.

In 2000 there were five on-shift crews and three staff crews. In 2001 there are five on-shift crews and two staff crews

Individual Simulator Pass Rate:	Crew Simulator Pass Rate:
1999 – 63% (17/46 operators failed)	1999 - 63% (3/8 crews failed)
2000 – 96% (2/52 operators failed)	2000 - 75% (2/8 crews failed)
2001 – 77% (10/44 operators failed)	2001 - 43% (4/7 crews failed)

- Three simulator evaluations during 2001 licensed operator requalification training (LORT) prior to 2001-06 Annual Operating Evaluations
- Shift manager evaluations conducted with OM identified crew weaknesses prior to Annual Evaluation, 2/5 operating crews unsuccessful during requalification observations, 0/2 staff crews unsuccessful
- Crew P only repeat crew unsatisfactory, 2001 - 2000
- Crew R, remediated after 2000 failure, successful in 2001 annual
- Crew O remediated after LORT cycle failure, successful in 2001 annual
- Crew R remediated after LORT cycle failure, successful in 2001 annual

Annual Evaluation 2001 to Annual Evaluation 1999

Crew	2001	2000	1999
Operating Crew M	Fail	Pass	Pass
Operating Crew O	Pass	Pass	Pass
Operating Crew P	Fail	Fail	Fail
Operating Crew Q	Pass	Pass	Fail
Operating Crew R	Pass	Fail	Pass
Staff Crew S	Fail	Pass	Fail
Staff Crew T	Fail	Pass	Pass

Annual Evaluation Results

Individual	2001	2000	1999	1998	2001 Crew	2000 Crew
Individual 1 SRO	Fail	Weak	Pass	Pass	Fail	Fail
Individual 2, RO	Fail	Pass	Fail	Fail	Fail	Fail
Individual 3, RO	Fail	Pass	Pass	Pass	Pass	Pass
Individual 4, SRO	Fail	Weak	Fail	Pass	Fail	Pass
Individual 5, RO	Fail	Pass	Pass	Pass	Fail	Pass
Individual 6, SRO	Fail	Pass	Pass	Pass	Fail	Pass
Individual 7, SRO	Fail	Pass	Fail	Pass	Fail	Pass
Individual 8, RO	Fail	Pass	Pass	Pass	Fail	Pass
Individual 9, RO	Fail	Pass	Pass	Pass	Fail	Pass
Individual 10, SRO	Fail	Pass	Pass	Pass	Fail	Pass
Individual 11	Pass	Fail	Pass	Pass	Pass	Fail
Individual 12	Pass	Fail	Pass	Pass	Pass	Pass
Individual 13	NA	NA	NA	Fail	NA	NA
Individual 14	NA	NA	NA	Fail	NA	NA
Individual 15	Pass	Pass	Fail	Fail	NA	NA
Individual 16	Pass	Pass	Pass	Fail	NA	NA
Individual 17	NA	NA	NA	Fail	NA	NA
Individual 18	NA	NA	NA	Fail	NA	NA

Requalification Cycle 2001-01, -02, -05 Simulator Evaluation Unsatisfactory

Crew	2001-01	2001-02	2001-05	ANNUAL
Operating Crew O	Pass	Pass	Fail	Pass
Operating Crew R	Fail	Fail	Pass	Pass

ATTACHMENT 2

Independent Assessment Results

Entergy Nuclear Operations Inc.
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ATTACHMENT 3

Regulatory Commitments

Entergy Nuclear Operations Inc.
Indian Point Unit No. 2
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Regulatory Commitments

The following list identified those actions committed to by Entergy Nuclear Operations Inc. in this document. No further regulatory commitments are contained herein.

Commitment	Due Date
A Significance Level 1 condition report was generated to document this condition in the corrective action program. The team formed to respond to this condition report is scheduled to complete its investigation by November 8, 2001.	November 8, 2001
All licensed operators that experienced annual simulator examination failures will be successfully remediated prior to returning to licensed activities.	Prior to returning to licensed activities.
In October 2001, the decision was made to permanently remove one senior reactor operator due to training performance and an additional senior reactor operator due to poor on shift performance. Formal documentation to terminate these licenses will be submitted to the NRC no later than November 23, 2001.	November 23, 2001
Commencing with the plant heat-up above 200 degrees, a senior manager from the ENOI organization shall be assigned to the Indian Point 2 control room to ensure compliance with standards and expectations on an around the clock basis.	Prior to the plant exceeding 200 F during the current start-up.
Station senior management will establish a shift management mentor program under the direction of the operations manager. This program will consist of individuals with previous experience in a nuclear management position of at least shift manager or higher, and are currently or have previously held SRO licenses. The shift mentors will provide monitoring and guidance to licensed operators for procedure adherence, operator response	November 12, 2001

to plant events, operator diagnosis of plant response and plant evolutions, control board operations, reactivity management, and reinforcement of all operations management standards and expectations.	
Licensed operator enhancement training will be conducted as part of the licensed operator requalification program commencing this year. The licensed operator enhancement training will focus on procedure adherence, understanding plant and system response, diagnosis of event and conditions, control board operations, reactivity management, and reinforce all operations management standards and expectations.	Commencing with the next two year qualification cycle.
Prior to criticality, the shift operating crew that will bring the reactor critical shall be assessed by the new operations manager in a dynamic simulator scenario.	Prior to the plant returning to criticality from the current mid-cycle outage.
Subsequent relieving crews will be assessed by the new operations manager in a dynamic simulator scenario prior to taking the watch.	Prior to taking the watch, after the plant has returned to criticality from the current mid-cycle outage.