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**Michael R. Kansler**  
Senior Vice President &  
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September 7, 2001  
IPN-01-065

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop O-P1-17  
Washington, DC 20555-0001

SUBJECT: Indian Point 3 Nuclear Power Plant  
Docket No. 50-286  
**Proposed Change to Technical Specifications Regarding  
Post Accident Monitoring Instrumentation**

Dear Sir:

This application for amendment to the Indian Point 3 Technical Specifications proposes the following changes to Table 3.3.3-1 of Section 3.3.3, "Post Accident Monitoring Instrumentation":

- Reword the number of required channels stated for the core exit thermocouples (CETs) to be the same as the Standard Technical Specifications. The existing wording is "2 per train" and the intended meaning was two CETs required in each of the two required channels (trains). However, this wording can be interpreted to mean two channels per train, incorrectly implying that the design consists of four channels. The wording used in the Standard Technical Specifications provides a preferable alternative for stating the requirement.
- Delete Notes that describe the redundant channels for RCS Hot Leg Temperature, RCS Cold Leg Temperature, and Main Steam Line Radiation. These Notes unnecessarily complicate the Table and are not needed to ensure that appropriate Condition Statements are entered. The design information provided in these Notes is more appropriately stated in the Bases. The referenced condition in the Table for these functions can also be deleted.
- Modify the Note pertaining to the redundant channel for Steam Generator Level (Wide Range) to clarify what Condition Statements apply when this instrument channel and / or the Auxiliary Feedwater Flow instrument channel is inoperable.

Other existing notes in the Table are being renumbered to accommodate the above changes. The requested amendment is needed to ensure that Regulatory Guide 1.97 requirements for Indian Point 3 are properly reflected in the Technical Specifications.

Enclosed for filing is the signed original of a document entitled, "Application for Amendment to Operating License." Attachment I to this application contains the proposed new Technical

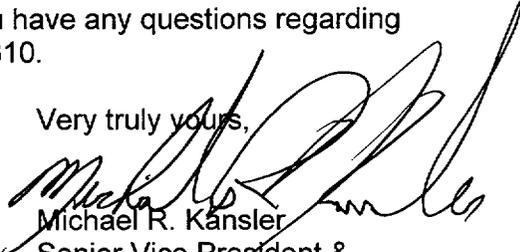
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Specification and Attachment II is the supporting Safety Evaluation. A markup of the existing Technical Specification pages showing the proposed changes is provided in Attachment III, for information only.

In accordance with 10 CFR 50.91, a copy of this application and the associated attachments are being submitted to the designated New York State official.

There are no new commitments made by this application. If you have any questions regarding this submittal, please contact Mr. John Donnelly at (914) 736-8310.

Very truly yours,



Michael R. Kansler  
Senior Vice President &  
Chief Operating Officer

cc: Mr. Hubert J. Miller  
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BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
ENTERGY NUCLEAR OPERATIONS, INC.  
Indian Point Nuclear Generating Unit No. 3

)  
) Docket No. 50-286  
)

**APPLICATION FOR AMENDMENT TO OPERATING LICENSE**

Pursuant to Section 50.90 of the regulations of the Nuclear Regulatory Commission, Entergy Nuclear Operations, Inc. (ENO), as holder of Facility Operating License No. DPR-64, hereby applies for an Amendment to the Technical Specifications (TS) contained in Appendix A of the license.

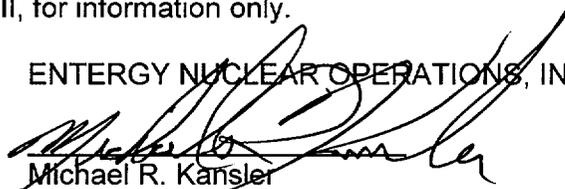
This application for amendment to the Indian Point 3 Technical Specifications proposes the following changes to Table 3.3.3-1 of Section 3.3.3, "Post Accident Monitoring Instrumentation":

- Reword the number of required channels stated for the core exit thermocouples (CETs) to be the same as the Standard Technical Specifications. The existing wording is "2 per train" and the intended meaning was two CETs required in each of the two required channels (trains). However, this wording can be interpreted to mean two channels per train, incorrectly implying that the design consists of four channels. The wording used in the Standard Technical Specifications provides a preferable alternative for stating the requirement.
- Delete Notes that describe the redundant channels for RCS Hot Leg Temperature, RCS Cold Leg Temperature, and Main Steam Line Radiation. These Notes unnecessarily complicate the Table and are not needed to ensure that appropriate Condition Statements are entered. The design information provided in these Notes is more appropriately stated in the Bases. The referenced condition in the Table for these functions can also be deleted.
- Modify the Note pertaining to the redundant channel for Steam Generator Level (Wide Range) to clarify what Condition Statements apply when this instrument channel and / or the Auxiliary Feedwater Flow instrument channel is inoperable.

Other existing notes in the Table are being renumbered to accommodate the above changes. The requested amendment is needed to ensure that Regulatory Guide 1.97 requirements for Indian Point 3 are properly reflected in the Technical Specifications.

Attachments I to this application contains the proposed new Technical Specification and Attachment II is the supporting Safety Evaluation. A markup of the existing Technical Specification pages showing the proposed changes is provided in Attachment III, for information only.

ENTERGY NUCLEAR OPERATIONS, INC.



Michael R. Kansler  
Senior Vice President &  
Chief Operating Officer

STATE OF NEW YORK  
COUNTY OF WESTCHESTER

Subscribed and sworn to before me  
This 7<sup>th</sup> day of September 2001.

  
Notary Public

**EILEEN E. O'CONNOR**  
Notary Public, State of New York  
No. 4991062  
Qualified in Westchester County  
Commission Expires January 21, 2002

ATTACHMENT I TO IPN-01-065

**PROPOSED TECHNICAL SPECIFICATION CHANGES REGARDING  
POST ACCIDENT MONITORING INSTRUMENTATION**

Remove Page

Table 3.3.3-1, Page 1 of 2  
Table 3.3.3-1, Page 2 of 2

Insert Page

Table 3.3.3-1, Page 1 of 2  
Table 3.3.3-1, Page 2 of 2

Table 3.3.3-1 (page 1 of 2)  
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1	SR 3.3.3.2 FREQUENCY
1. Neutron Flux	2	F	24 months
2. RCS Hot Leg Temperature (Wide Range)	1 per loop	N/A	24 months
3. RCS Cold Leg Temperature (Wide Range)	1 per loop	N/A	24 months
4. RCS Pressure (Wide Range)	2	E	24 months
5. Reactor Vessel Water Level	2	E	24 months
6. Containment Water Level (Wide Range)	2	E	24 months
7. Containment Water Level (Recirculation Sump)	2	E	24 months
8. Containment Pressure	2	E	18 months
9. Automatic Containment Isolation Valve Position	2 per penetration flow path(a) (b)	F	24 months
10. Containment Area Radiation (High Range)	2	F	24 months
11. Containment Hydrogen Monitors	2 (c)	E	92 days
12. Pressurizer Level	2	E	24 months
13. SG Water Level (Narrow Range)	2 per SG	E	24 months
14. SG Water Level (Wide Range)	1 per SG (d)	E	24 months
15. Auxiliary Feedwater Flow	1 per SG (d)	E	18 months
16. Steam Generator Pressure	2 per SG	E	24 months
17. Condensate Storage Tank Level	2	F	24 months
18. Core Exit Thermocouples-Quadrant 1	2 (e)	E	24 months
19. Core Exit Thermocouples-Quadrant 2	2 (e)	E	24 months
20. Core Exit Thermocouples-Quadrant 3	2 (e)	E	24 months
21. Core Exit Thermocouples-Quadrant 4	2 (e)	E	24 months
22. Main Steam Line Radiation	1 per steam line	N/A	24 months
23. Gross Failed Fuel Detector	2	F	24 months
24. RCS Subcooling	2	E	24 months

See NOTES, next page

(continued)

Table 3.3.3-1 (page 2 of 2)  
Post Accident Monitoring Instrumentation

## NOTES:

- (a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.
- (b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.
- (c) Hydrogen monitor OPERABILITY requires that at least one of the associated containment fan cooler unit is OPERABLE.
- (d) Steam Generator Level (Wide Range) and Auxiliary Feedwater Flow are redundant means for monitoring decay heat removal capability. Loss of either channel (per steam generator) is a loss of redundancy and Condition A applies. Loss of both channels (per steam generator) is a loss of function and Condition C applies.
- (e) A channel consists of two core exit thermocouples (CETs).

**ATTACHMENT II TO IPN-01-065**

**SAFETY EVALUATION FOR  
PROPOSED TECHNICAL SPECIFICATION CHANGE REGARDING  
POST ACCIDENT MONITORING INSTRUMENTATION**

**ENTERGY NUCLEAR OPERATIONS, INC.  
INDIAN POINT 3 NUCLEAR POWER PLANT  
DOCKET NO. 50-286  
DPR-64**

## **Section I - Description of Proposed Changes**

The proposed changes to Table 3.3.3-1 of Technical Specification 3.3.3, "Post Accident Monitoring Instrumentation" are described below:

1. Revise wording for Required Channels for Core Exit Thermocouples (Functions 18 through 21). Replace "2 per train" with "2 (e)" and add new note: "(e) A channel consists of two core exit thermocouples."
2. Delete Notes (a), (b) and (g). The referenced condition in the Table for the related functions 2, 3, and 22 is changed from "E" or "F" to "N/A".
3. Revise and renumber Note (f) as follows:  
Replace "(f) The redundant channel in each steam generator is the auxiliary feedwater flow rate channel for that steam generator.",  
with "(d) Steam Generator Level (Wide Range) and Auxiliary Feedwater Flow are redundant means for monitoring decay heat removal capability. Loss of either channel (per steam generator) is a loss of redundancy and Condition A applies. Loss of both channels (per steam generator) is a loss of function and Condition C applies."
4. Renumber other Table notes to accommodate the above changes. "(c)" becomes "(a)", "(d)" becomes "(b)", and "(e)" becomes "(c)".

## **Section II - Purpose of Proposed Changes**

The requested amendment is needed to ensure that Regulatory Guide 1.97 requirements for Indian Point 3 are properly reflected in the Technical Specifications. The revised wording of required channels for the core exit thermocouples adopts the wording from the Standard Technical Specifications. The existing wording could be interpreted to impose a more restrictive requirement that is not consistent with the design of the system. Deleting Notes (a), (b), and (g) is needed to reduce unnecessary complication in the Table. The information describes the design of the system and is more appropriately stated in the Bases. This information is plant specific and is not included in the Standard Technical Specifications. Revising the wording of Note (f) is needed, based on experience with implementation of the Improved Technical Specifications, to more explicitly state the requirements for the affected functions.

## **Section III - Safety Implication of Proposed Changes**

1. Rewording of 'Required Channel' statement for Core Exit Thermocouples

Core Exit Thermocouples (CETs) are provided for verification and long term surveillance of core cooling. The system design provides for 10 CETs in each of two trains with a minimum of 2 CETs per train in each of the four core quadrants. The location of the CETs is such that an evaluation can be made of core radial decay heat distribution. The wording of the requirement in the Standard Technical Specifications is applicable to the Indian Point 3 design and licensing basis and is preferable to the existing wording. The existing wording is: "2 per train" which can be interpreted to mean 2 channels per train and since there are two trains, this would imply that four channels are required. This would result in a requirement that is unintentionally more restrictive

than the Standard Technical Specification. This also is not consistent with the system design which has two trains which are intended to be the required 2 channels. Although the Bases explain that 2 CETs are required in each train, it is preferable to use the wording from the Standard Technical Specifications to eliminate potential confusion.

## 2. Deleting Notes (a), (b), and (g)

The design of the Post Accident Monitoring instrumentation at Indian Point 3 does not provide redundant instrument channels for all Type A / Category 1 variables. In these cases, a different variable is used to provide appropriate information to satisfy the redundancy requirement. This configuration was found acceptable in the NRC Safety Evaluation Report (Reference 1) for implementation of Regulatory Guide 1.97 requirements at Indian Point 3. The existing Notes (a), (b), and (g) related to Functions 2, 3, and 22 identify the redundant variables that can be used for RCS Hot Leg Temperature (Wide Range), RCS Cold Leg Temperature (Wide Range), and Main Steam Line Radiation, respectively. In each of these cases, there is only one channel (per loop) provided by design. Therefore, in order to meet the redundancy requirement, an alternate variable is monitored to provide information to plant operators.

The structure of the Technical Specifications is such that one condition statement applies if there is a loss of redundancy for the monitored variable and another, more restrictive condition statement applies if there is a loss of function. For example, as stated in existing Note (b) for Function 3, the redundant channel in each of the four loops for RCS Cold Leg Temperature is any channel of steam generator pressure for that loop. The intent of the note was to clarify that loss of function and entry into Condition C (7-day completion time) does not result from an inoperable cold leg temperature channel, even though the design provides for only one instrument channel per loop. Any operable channel of steam generator pressure instrumentation in that loop can be credited as the redundant channel so that Condition A (30-day completion time) is entered. For the scenario where both required channels of steam generator pressure are inoperable, further plant operation would be limited by Condition C regardless of the operability status of the RCS Cold Leg Temperature channel.

Therefore, these notes do not contribute to the application of the Technical Specification condition statements. The notes represent design information that is more suitable for inclusion in the Technical Specification Bases and is already included in the Indian Point 3 UFSAR (Reference 2). These changes will be processed under the Bases Control Program required by Technical Specification 5.5.13.

Related to this change is the deletion of the referenced condition ("E" for Functions 2 and 3, and "F" for Function 22) from the Table. The referenced condition will be changed from "E" or "F" to "N/A" because this column will never be reached as various Technical Specification condition statements are entered for these Functions. The controlling condition for loss of function for these monitored variables is maintained by the referenced condition specified in the Table for the alternate variable. Using the same example as previously discussed, the existing referenced condition for RCS Cold Leg Temperature (Function 3) is "E". The alternate variable is steam generator pressure (Function 16) and the referenced condition is also "E". Therefore, condition E will be appropriately entered via Function 16 if there is a loss of function for monitoring RCS Cold Leg Temperature.

## 3. Revise and renumber Note (f)

Existing Note (f) is similar to existing Notes (a), (b), and (g) as described in item 2, with the exception that neither of the instrumentation channels for the two related functions have redundant channels. A bounding condition statement does not result when the single channel in both functions is inoperable. Therefore a note is required in the specification to ensure that further plant operation is appropriately limited. The existing note was intended to establish the requirement, but plant experience after implementation of the Improved Technical Specifications at Indian Point 3 indicated a need for further clarification. The expanded note is proposed to more explicitly state how the condition statements apply to these functions.

#### 4. Renumber other Table Notes

Renumbering of other Table Notes is an editorial change only, to keep the identification of notes in sequential order.

The above proposed changes are consistent with the criteria stated in 10 CFR 50.36(c) regarding the required content of Technical Specifications.

### **Section IV Evaluation of Significant Hazards Consideration**

Consistent with the criteria of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information:

- (1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response:

The proposed amendment involves rewording or clarification of technical specification requirements to properly reflect the design of post accident monitoring instrumentation at Indian Point 3. The proposed rewording of the required channels for core exit thermocouples adopts the wording from the Standard Technical Specifications, which is applicable to the Indian Point 3 design. The proposed deletion of Notes (a), (b), and (g) removes design information that is not needed for the specification to limit plant operation in response to inoperable instrument channels. The proposed rewording of Note (f) clarifies the existing requirement by making a more explicit statement about the applicable conditions for the affected functions. Renumbering other Table notes is an editorial change to keep the notes in sequential order.

The proposed amendment does not involve any changes to plant equipment, setpoints, or the way in which the plant is operated. These changes do not affect accident initiators or accident mitigating systems. Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

## Response

The proposed amendment involves rewording or clarification of technical specification requirements to properly reflect the design of post accident monitoring instrumentation at Indian Point 3. The proposed amendment does not involve any changes to plant equipment, setpoints, or the way in which the plant is operated. These changes do not affect accident initiators or accident mitigating systems. Therefore the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- 3) Does the proposed license amendment involve a significant reduction in a margin of safety?

## Response:

The proposed amendment involves rewording or clarification of technical specification requirements to properly reflect the design and licensing basis of post accident monitoring instrumentation at Indian Point 3. The proposed rewording of the required channels for core exit thermocouples adopts the wording from the Standard Technical Specifications, which is applicable to Indian Point 3. This will ensure that appropriate condition statements are entered in the event that core exit thermocouples become inoperable. Notes (a), (b), and (g) provide design information that is not needed in the specification for plant operators to enter appropriate condition statements when inoperable instrument channels in the affected functions are identified. The rewording of Note (f) more clearly states the existing requirement and makes no change to the required actions or completion times for the associated inoperable instrument channels.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

## **Section V - Implementation of the Proposed Change**

This amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) as follows:

- The amendment involves no significant hazards consideration.

As described in Section IV of this evaluation, the proposed change involves no significant hazards consideration.

- There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed change does not involve the installation of any new equipment or the modification of any equipment that may affect the amounts or types of effluents that may be released offsite. The changes do not revise any procedures that affect the amounts or types of effluents that may be released offsite. The changes remove

information from the Technical Specifications that does not affect the specifications and clarifies the required channels for CETs.

- There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes do not involve any physical plant changes or introduce any new mode of plant operation or testing. The changes will not have any significant increase in individual or cumulative occupational radiation exposure.

Based on the above, Entergy concludes that the proposed changes meet the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 51.21 relative to requiring a specific environmental assessment by the Commission.

## **Section VI - Conclusion**

The Plant Operating Review Committee (PORC) and Safety Review Committee (SRC) have reviewed the proposed changes to the Technical Specifications and concluded that these changes:

- a) will not significantly increase the probability or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report;
- b) will not significantly increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; and,
- c) will not significantly reduce the margin of safety as defined in the bases for any technical specification.

Therefore, the change involves no significant hazards considerations as defined in 10 CFR 50.92.

## **Section VII – References**

1. NRC letter to Power Authority of the State of New York, "Emergency Response Capability - Conformance to Regulatory Guide 1.97, Revision 3, for Indian Point 3," dated April 3, 1991.
2. Indian Point 3, Updated Final Safety Analysis Report; Section 7.5, Process Instrumentation.

**ATTACHMENT III TO IPN-01-065**

**MARKED PAGES FOR THE PROPOSED TECHNICAL  
SPECIFICATION CHANGE REGARDING POST ACCIDENT MONITORING  
INSTRUMENTATION**

**ENTERGY NUCLEAR OPERATIONS, INC.  
INDIAN POINT 3 NUCLEAR POWER PLANT  
DOCKET NO. 50-286  
DPR-64**

Table 3.3.3-1 (page 1 of 2)  
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1	SR 3.3.3.2 FREQUENCY
1. Neutron Flux	2	F	24 months
2. RCS Hot Leg Temperature (Wide Range)	1 per loop <del>(a)</del>	<del>E</del> N/A	24 months
3. RCS Cold Leg Temperature (Wide Range)	1 per loop <del>(b)</del>	<del>E</del> N/A	24 months
4. RCS Pressure (Wide Range)	2	E	24 months
5. Reactor Vessel Water Level	2	E	24 months
6. Containment Water Level (Wide Range)	2	E	24 months
7. Containment Water Level (Recirculation Sump)	2	E	24 months
8. Containment Pressure	2	E	18 months
9. Automatic Containment Isolation Valve Position	2 per penetration flow path <del>(e)</del> <del>(d)</del> (a) (b)	F	24 months
10. Containment Area Radiation (High Range)	2	F	24 months
11. Containment Hydrogen Monitors	2 <del>(e)</del> (c)	E	92 days
12. Pressurizer Level	2	E	24 months
13. SG Water Level (Narrow Range)	2 per SG	E	24 months
14. SG Water Level (Wide Range)	1 per SG <del>(f)</del> (d)	E	24 months
15. Auxiliary Feedwater Flow	1 per SG (d)	E	18 months
16. Steam Generator Pressure	2 per SG	E	24 months
17. Condensate Storage Tank Level	2	F	24 months
18. Core Exit Thermocouples-Quadrant 1	2 <del>per train</del> (e)	E	24 months
19. Core Exit Thermocouples-Quadrant 2	2 <del>per train</del> (e)	E	24 months
20. Core Exit Thermocouples-Quadrant 3	2 <del>per train</del> (e)	E	24 months
21. Core Exit Thermocouples-Quadrant 4	2 <del>per train</del> (e)	E	24 months
22. Main Steam Line Radiation	1 per steam line	<del>F</del> N/A	24 months
23. Gross Failed Fuel Detector	2	F	24 months
24. RCS Subcooling	2	E	24 months

See NOTES, next page.

Table 3.3.3-1 (page 2 of 2)  
Post Accident Monitoring Instrumentation

## NOTES:

- ~~(a) The redundant channel in each of four loops is any qualified CET in the quadrant associated with that loop.~~
- ~~(b) The redundant channel in each of four loops is any channel of steam generator pressure for that loop.~~
- (a)
- (e) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.
- (b)
- ~~(d) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.~~
- (c)
- (e) Hydrogen monitor OPERABILITY requires that at least one of the associated containment fan cooler unit is OPERABLE.
- (d)
- ~~(f) The redundant channel in each steam generator is the auxiliary feedwater flow rate channel for that steam generator.~~  
Steam Generator Level (Wide Range) and Auxiliary Feedwater Flow are redundant means for monitoring decay heat removal capability. Loss of either channel (per steam generator) is a loss of redundancy and Condition A applies. Loss of both channels (per steam generator) is a loss of function and Condition C applies.
- ~~(g) The redundant channel in each steam line is any one steam generator narrow range level indicator for that loop.~~
- (e) A channel consists of two core exit thermocouples (CETs).