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J.E. Pollock
Site Vice President

NL-11-013

February 10, 2011

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Revised Tables from Responses to Requests for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3 (TAC No. ME0799)
Indian Point Unit No. 3
Docket No. 50-286
License No. DPR-64

- References:
1. Entergy letter NL-11-007, Response to December 16, 2010 Request for Additional Information Regarding Request for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3 (TAC No. ME0799), dated January 19, 2011
 2. NRC letter dated December 16, 2010, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Request for Additional Information Regarding Request for Exemption (TAC Nos. ME0798 and ME0799)"
 3. Entergy letter NL-10-101, "Response to August 11, 2010 Request for Additional Information Regarding Request for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3 (TAC No. ME0799)," dated September 29, 2010
 4. NRC letter dated August 11, 2010, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Request for Additional Information Regarding Request for Exemption (TAC Nos. ME0798 and ME0799)"

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5. Entergy letter NL-10-043, "Response to January 20, 2010 Request for Additional Information Regarding Request for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3 (TAC No. ME0799)," dated May 4, 2010
6. NRC letter dated January 20, 2010, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Request for Additional Information Regarding Request for Exemption (TAC Nos. ME0798 and ME0799)"
7. Entergy letter NL-09-117, "Revision to Request for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3," dated October 1, 2009
8. Entergy letter NL-09-032, "Request for Exemption from 10 CFR 50, Appendix R, Paragraph III.G.2 for Use of Operator Manual Actions for Indian Point Unit No. 3," dated March 6, 2009

Dear Sir or Madam:

By letter dated March 6, 2009 (Reference 8), Entergy Nuclear Operations, Inc. (Entergy) requested exemptions from the requirements of 10 CFR 50, Appendix R in accordance with the guidance contained in NRC Regulatory Issue Summary 2006-010 (Regulatory Expectations with Appendix R Paragraph III.G.2 Operator Manual Actions), and in accordance with 10 CFR 50.12, "Specific exemptions." A revision to the exemption request was submitted by letter dated October 1, 2009 (Reference 7). Responses to the Request for Additional Information contained in NRC letter dated January 20, 2010 (Reference 6) were provided by letter dated May 4, 2010 (Reference 5). Responses to the Request for Additional Information contained in NRC letter dated August 11, 2010 (Reference 4) were provided by letter dated September 29, 2010 (Reference 3). Responses to the Request for Additional Information contained in NRC letter dated December 16, 2010 (Reference 2) were provided by letter dated January 19, 2011 (Reference 1).

The purpose of this letter is to provide changes to tables of information previously provided in References 1 and 5. Tables RAI-06.1-1 and RAI-08.1-1 through RAI-08.1-8 from Reference 5 were previously revised in Reference 3, and additional changes were determined to be required during the preparation of Reference 1. Reference 1 stated that these changes would be made in a separate letter. Changes to Tables RAI-01.1-1 and RAI-01.1-2 from Reference 1 were also determined to be required during the preparation of this current letter. Complete tables have been provided with additions indicated by bold underline and deletions by bold strikethrough. These tables replace the tables previously provided.

There are no new commitments being made in this submittal. If you have any questions or require additional information, please contact Mr. Robert W. Walpole, IPEC Licensing Manager at (914) 734-6710.

Sincerely,



JEP/gd

Attachments:

1. Revised Table RAI-06.1-1 from Entergy Letter NL-10-043 dated May 4, 2010
2. Revised Tables RAI-08.1-1 through 08.1-8 from Entergy Letter NL-10-043 dated May 4, 2010
3. Revised Table RAI-01.1-1 from Entergy Letter NL-11-007 dated January 19, 2011
4. Revised Table RAI-01.1-2 from Entergy Letter NL-11-007 dated January 19, 2011

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. William Dean, Regional Administrator, NRC Region I
NRC Resident Inspector's Office, Indian Point Energy Center
Mr. Paul Eddy, New York State Department of Public Service
Mr. Francis J. Murray, Jr., President and CEO, NYSERDA

ATTACHMENT 1

TO

NL-11-013

**Revised Table RAI-06.1-1 from
Entergy Letter NL-10-043 dated May 4, 2010**

**ENTERGY NUCLEAR OPERATIONS, INC.
Indian Point Nuclear Generating Unit No. 3
Docket No. 50-286
License No. DPR-64**

Summary of Required Changes to Table RAI-06.1-1 from Entergy Letter NL-10-043 dated May 4, 2010		
Change	Reason for Change	Letter with Change
REVISE SSD Feature column to specify only 33 AFW Pump in Fire Area/Zone AFW-6/23	Table RAI-06.1 discusses cables for all AFW pumps and flow control valves (implicitly) in Fire Area/Zone AFW-6/23 , but the Required OMA per Table RAI-08.1-1 is only for the operation of 33 AFW Pump	Entergy Letter NL-10-101 dated September 29, 2010
REVISE SSD Feature column to DELETE "/227" for the following Fire Areas/Zones: ETN-4{1}/60AS and PAB-2{5}/59A	The response to RAI-11.1 in Entergy letter NL-10-043 incorrectly identified valve 227 as a motor-operated valve where in actuality it is a manual valve	Entergy Letter NL-10-101 dated September 29, 2010
REVISE SSD Feature column to ADD Service Water Pump strainers 32, 34, and 36 for Fire Area/Zone ETN-4{1}/60AN	These strainers were inadvertently omitted from the table	Entergy Letter NL-11-013 dated February 10, 2011
DELETE entry for Fire Area/Zone PAB-2{5}/4A	Cables associated with 32 Charging Pump have been determined by field walkdown to not be routed in Fire Area/Zone PAB-2{5}/4A	Entergy Letter NL-11-013 dated February 10, 2011
ADD entry for Fire Area/Zone PAB-2{5}/17A	This zone was inadvertently omitted from the table	Entergy Letter NL-11-013 dated February 10, 2011
DELETE entry for Fire Area/Zone PAB-2{5}/18A	Cables associated with 32 Charging Pump have been determined by field walkdown to not be routed in Fire Area/Zone PAB-2{5}/18A	Entergy Letter NL-10-101 dated September 29, 2010

Summary of Required Changes to Table RAI-06.1-1 from Entergy Letter NL-10-043 dated May 4, 2010		
Change	Reason for Change	Letter with Change
DELETE entry for Fire Area/Zone PAB-2{5}/62A	Cables associated with HCV-142 have been determined by field walkdown to not be routed in Fire Area/Zone PAB-2{5}/62A	Entergy Letter NL-10-101 dated September 29, 2010
REVISE SSD Feature column to DELETE 38 Service Water pump strainer for the following Fire Areas/Zones: TBL-5/38A, TBL-5/43A, TBL-5/44A	This component was inadvertently included	Entergy Letter NL-11-013 dated February 10, 2011
DELETE entry for Fire Area/Zone TBL-5/54A . While other cables for safe-shutdown components are located in this zone, none of these cables are associated with components for which III.G.2 OMAs are credited.	Cables associated with valves FCV-406A/B have been determined by field walkdown to not be routed in Fire Area/Zone TBL-5/54A	Entergy Letter NL-10-101 dated September 29, 2010

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
AFW-6 / 23	<u>All three Control cables associated with 33 AFW pumps, flow control valves, and associated cables</u>	Small quantities of cable in overhead trays, with pumps and valves at floor elevation. The trays containing cables serving the AFW flow control valves are also located in the overhead area.	The cable runs and pump motors are the credible ignition sources. Cables serving the AFW pumps and flow control valves are located in or adjacent to overhead trays above the AFW pumps.	<p>Nonmechanistic ignition of control or instrument cables in the overhead trays would present an immediate impact on redundant AFW trains, as the trays contain (in part) control cables serving the AFW flow control valves</p> <p>The remaining fixed combustibles, consisting of a minute quantity of lube oil and electrical cabinets, present no credible challenge to the AFW components in the zone</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic wet-pipe sprinkler system provides assurance of effective control of any significant fire that may occur, sharply limiting the scope of any fire damage.</p>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
ETN-4{1} / 7AS South region of Fire Zone 7A as described herein	Cables associated with: 32 CCW pump; AFW flow control valves FCV-405B, D; FCV-406B	The dominant combustible material in the zone is cable in trays. The subject cables, in part, are located in these trays.	Ignition sources consist only of cable tray runs in the zone	<p>Combustibles other than cables in trays are minimal throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure.</p> <p>The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity.</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic preaction sprinkler system for all cable trays in the area provides assurance of prompt control of any credible fire, sharply minimizing the potential area of damage.</p>
ETN-4{1} / 7AN North region of Fire Zone 7A as described herein	Cables associated with: 31 AFW Pump; 31 AFW Pump recirculation valve FCV-1121; AFW flow control valves FCV-405B, D; FCV-406B; 32 Charging Pump	The dominant combustible material in the zone is cable in trays. The subject cables, in part, are located in these trays.	Ignition sources consist only of cable tray runs in the zone	<p>Combustibles other than cables in trays are minimal throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure.</p> <p>The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity.</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic preaction sprinkler system for all cable trays in the area provides assurance of prompt control of any credible fire, sharply minimizing the potential area of damage.</p>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
ETN-4{1} / 60AS	Cables associated with: 32 AFW Pump steam supply valve PCV-1139, steam supply isolation valves PCV-1310A, 1310B, and speed control valve HCV-1118; 31 Charging Pump; AFW flow control valves FCV-405B, D, FCV-406B; Charging makeup path valve(s) HCV-142/ 227 ; Charging suction path valves LCV-112B/C	The dominant combustible material in the zone is cable in trays. The subject cables, in part, are located in these trays.	Ignition sources consist only of cable tray runs in the zone	<p>Combustibles other than cables in trays are minimal throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure.</p> <p>The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity.</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic preaction sprinkler system for all cable trays in the area provides assurance of prompt control of any credible fire, sharply minimizing the potential area of damage.</p>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
ETN-4{1} / 60AN	Cables associated with: 32 AFW Pump steam supply isolation valves PCV-1310A, 1310B; <u>32, 34, 36, 38</u> Service Water Pump strainers	The dominant combustible material in the zone is cable in trays. The subject cables, in part, are located in these trays.	Ignition sources consist only of cable tray runs in the zone	<p>Combustibles other than cables in trays are minimal throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure.</p> <p>The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic preaction sprinkler system for all cable trays in the area provides assurance of prompt control of any credible fire, sharply minimizing the potential area of damage.</p>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

Table RAI-06.1-1
Proximity of Redundant Safe-Shutdown Cables/Components,
Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern

Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
ETN-4{3} / 73A	Cables associated with: 32 AFW Pump speed control valve HCV-1118; 32 AFW Pump steam supply valve PCV-1139; 32 AFW Pump steam isolation valves PCV-1310A/B; AFW flow control valves FCV-405C, D	The dominant combustible material in the zone is cable in trays. The subject cables, in part, are located in these trays.	Principal ignition sources consist of cable tray runs, junction boxes, and electrical cabinets distributed throughout the zone, and one dry transformer, located near the north end of the zone. The cables of concern are located in or adjacent to trays that are above one or more of the junction boxes and electrical cabinets.	Combustibles other than cables in trays are minimal throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure, or a fire initiating at the single transformer in the zone. The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity, whether the cables are involved as <i>primary</i> or <i>secondary</i> combustibles (as in the case of a fire initiated at the transformer in the zone) The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development. The automatic preaction sprinkler system for all cable trays in the area provides assurance of prompt control of any credible fire, sharply minimizing the potential area of damage.
PAB-2{3} / 6	Cables associated with Charging pump suction path valves LCV-112C/B Manual valve 288 is also located in this zone	Cables and valve LCV-112B are located adjacent to the Charging pump, containing lubricating oil, the dominant combustible in the zone	The only credible ignition source, the Charging pump motor, is located at the midpoint of the zone, while LCV-112B and cables are located at the south end of the zone.	There is no clear mechanism for ignition of the lubricating oil contained within the pump The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

Table RA1-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
PAB-2(5) / 4A	Cables associated with 32 Charging Pump	Fixed combustibles in the zone are minimal, consisting of a small quantity of cable in trays, and incidental combustibles. Cables associated with 32 Charging Pump are routed in the overhead of the zone.	Ignition sources are three electrical cabinets, widely spaced in the zone, and one dry-type transformer, located in the southeast end of the zone. The cables of concern are routed above one or more ignition sources.	The open arrangement of the corridor and spacing between ignition sources, and small inventory of cables, provides reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
<u>PAB-2{5} / 17A</u>	<u>Cables associated with 32 Charging Pump and LCV-112C</u>	<u>Fixed combustibles in the zone consist of cable in trays and incidental combustibles. Cables associated with 32 charging pump and LCV-112C are routed through the overhead of the zone.</u>	<u>This is a central corridor in the PAB 55' elev. Ignition sources are MCCs, dry transformers, a water heater, elect cabinets, a lighting power supply panel w/ two dry transformers, and an Instrument Panel. Except for the MCCs and lighting power supply panel located at the west end of the zone, electrical cabinets and other ignition sources are widely spaced throughout the zone. The cables of concern are routed above one or more of the ignition sources.</u>	<p><u>The area wide smoke detection system located throughout the corridor, and an additional localized smoke detection system located over and under the area of the MCCs, provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire.</u></p> <p><u>The flame-retardant characteristics of the cables ensure that any fire would be limited in scope and severity, whether the cables are involved as the primary or secondary combustible.</u></p> <p><u>The open arrangement of the corridor, robust smoke detection systems, and the generally wide spacing between ignition sources, provides reasonable assurance that any fire occurring in the zone will be minimal in scope or damage.</u></p> <p><u>A credible fire scenario would likely involve transient combustibles, which are tightly controlled in the zone to "Level 2" limits per administrative procedures and controls, minimizing the impact of such a scenario.</u></p>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area/ Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
PAB-2{5}/ 18A	Cables associated with 32 Charging Pump	Fixed combustibles in the zone are minimal, consisting of a small quantity of cable in trays, and incidental combustibles. Cables associated with 32 Charging Pump are routed in the overhead of the zone.	Ignition sources are two waste gas compressor motors and a cable run. The cables of concern are routed above one or more of the ignition sources.	The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
PAB-2{5} / 19A	Cables associated with 32 Charging Pump	Fixed combustibles in the zone are minimal, consisting of a small quantity of cable in trays, and incidental combustibles. Cables associated with 32 Charging Pump are routed in the overhead of the zone.	Ignition sources include a cable run, electrical cabinets, and transformers located in the northeast and northwest corners of the zone. The cables of concern are routed above one or more of the ignition sources.	The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred
PAB-2{5} / 27A	Cables associated with Charging pump suction path valves LCV-112B/C	The fixed combustibles in the zone are minimal, consisting principally of Operations and Rad Pro materials and supplies, and a small quantity of cables in trays	Ignition sources consist of several widely spaced electrical boxes, a cable run, and a water heater. The cables of concern are routed in the vicinity of one or more of the ignition sources.	Combustibles other than cables in trays are minimal, throughout the zone. The credible fire scenario would involve transient combustibles, which are tightly controlled to "Level 2" limits, per administrative control procedure. Combustibles in this large zone are widely distributed, presenting minimal potential for significant involvement, in response to initiation by any single ignition source in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
PAB-2{5} / 30A	Cables associated with Charging pump suction path valves LCV-112B/C	Combustibles in the zone consist of a small quantity of cables in trays and incidental materials. The cables of concern are routed in or adjacent to the trays in the zone.	The sole ignition source is the cable tray run, presenting a minimal potential for fire initiation	The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred
PAB-2{5} / 58A	Cables associated with 32 Charging Pump	Combustibles in the zone consist of a small quantity of cables in trays and incidental materials. The cables of concern are routed in or adjacent to the trays in the zone.	The sole ignition source is the cable tray run, presenting a minimal potential for fire initiation	<p>The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development</p>
PAB-2{5} / 59A	Cables associated with Charging makeup path valve(s) HCV-142/ 227	Combustibles in the zone consist of a small quantity of cables in trays and incidental materials. The cables of concern are routed in or adjacent to the trays in the zone.	The ignition sources consist of the cable tray run and a junction box, presenting a minimal potential for fire initiation	<p>The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred</p> <p>The smoke detection system provides assurance of early warning of a fire condition, enabling brigade response prior to significant fire development</p>

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<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
PAB-2{5} / 62A	Cables associated with Charging makeup path valve(s) HCV-142/227	Combustibles in the zone consist of a small quantity of cables in trays and incidental materials. The cables of concern are routed in or adjacent to the trays in the zone.	The sole ignition source is the cable tray run, presenting a minimal potential for fire initiation.	The minimal ignition sources and small inventory of cables provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred
TBL-5 / 37A	Cables associated with all (31 through 36) Service Water pump strainers	Combustibles in the zone include cables in trays, lube oil, and electrical cabinets distributed throughout the zone. A flammable liquids storage cabinet is located at the south end of the zone. The cables of concern are routed in the overhead, above one or more of the combustible elements in the zone.	Ignition sources include cable runs, switchgear, MCCs, transformers, and electrical cabinets. The cables of concern are in proximity to one or more ignition sources in the zone.	This zone contains 6.9kV switchgear, presenting the potential for a HEAF concern, if circuit breaker operational failures are postulated Fire detection provided in the 6.9kV switchgear area and above an MCC, as well as in battery and charger rooms, provides assurance of prompt notification of a developing fire at these locations. The general area coverage sprinkler system provides assurance of control of the likely fire scenario involving transient materials, minimizing the scope and severity of any fire damage.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
TBL-5 / 38A	Cables associated with all (31 through 36, 38) Service Water pump strainers	Combustibles in the zone include cables in trays, electrical cabinet, MCC, and flammable liquids storage cabinets, distributed throughout the zone, as well as a range of chemicals in the chemical storage area. The cables of concern are routed in the overhead, above one or more of the combustible elements in the zone.	Ignition sources include the MCC and electrical cabinet. The cables of concern are in proximity to one or more ignition sources in the zone.	<p>The minimal ignition sources and spatial separation of combustibles provide reasonable assurance that any fire occurring in the zone will be minimal in scope of damage incurred</p> <p>The sprinkler system in the chemical storage area and the smoke detection provided above the MCC located in the zone, provide reasonable assurance of annunciation and control of any fire development at either of these hazards</p>

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<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
TBL-5 / 43A	Cables associated with all (31 through 36, 38) Service Water pump strainers	Combustibles in the zone include cables in trays, electrical cabinets, MCC, switchgear, and flammable liquids storage cabinets, distributed throughout the zone, as well as a range of chemicals in the chemical storage area. The cables of concern are routed in the overhead, above one or more of the combustible elements in the zone.	Ignition sources include the cable runs, switchgear, MCC, electrical cabinets, and transformer, which are distributed throughout the zone. The cables of concern are in proximity to one or more ignition sources in the zone.	This zone is provided with a full-area wet-pipe sprinkler system, providing assurance of effective control of any fire that may occur in the area. Water flow alarms received in the CCR upon actuation of the sprinkler system provide effective notification to enable deployment of the fire brigade. Given the broad distribution of combustibles in the area, there is reasonable assurance that a fire would be constrained to a limited fire damage footprint within the zone.

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<p>Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
TBL-5 / 44A	Cables associated with all (31 through 36, 38) Service Water pump strainers	Combustibles in the zone include cables in trays, electrical cabinets, one dry-type transformer, and incidental combustibles. The cables of concern are routed in the overhead, above one or more of the combustible elements in the zone.	Ignition sources include the cable runs, electrical cabinets, and transformer, which are distributed throughout the zone. The cables of concern are in proximity to one or more ignition sources in the zone.	The minimal combustibles in the zone, and the distribution of the combustibles and ignition sources throughout the zone, provide reasonable assurance that a credible fire scenario would be limited in scope and severity of fire damage
TBL-5 / 52A	Cables associated with: 31 AFW Pump recirculation valve FCV-1121; 31 AFW Pump flow control valves FCV-406A, B	The zone contains negligible fixed combustibles	Motors on two penetration blowers, and two electrical cabinets, represent the ignition sources in this zone. The ignition sources are located in the south end of the zone, as are the SSD cables listed as SSD Features.	This area is devoid of significant fixed combustibles, and a substantial fire capable of challenging the integrity of the cables of concern is not considered a credible event

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<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
TBL-5 / 54A	Cables associated with 31 AFW Pump flow control valves FCV-406A, B	The zone contains negligible fixed combustibles	Ignition sources consist of a cable run, electrical cabinet, and motors on valve operators. The cables of concern are proximate to the cable runs.	The minimal combustibles in the zone, and the distribution of the combustibles and ignition sources throughout the zone, provide reasonable assurance that a credible fire scenario would be limited in scope and severity of fire damage
YARD-7 / 22	Cables associated with (as well as the components themselves): 31-36 SW Pump, 31-36 SW Pump Strainer	The service water pumps and strainers are segregated from the significant combustibles of the zone by a security barrier enclosure. Combustibles within the enclosure are insignificant.	Ignition sources consist of several electrical boxes and the SW pump motors themselves	Fire detection provided in the zone would annunciate any developing fire condition, enabling fire brigade response for manual suppression of the fire. The limited ignition sources and combustibles within the zone do not present a significant fire challenge capable of rendering all SW pumps inoperable.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">Table RAI-06.1-1 Proximity of Redundant Safe-Shutdown Cables/Components, Fire Hazards, and Ignition Sources Within Fire Areas and Fire Zones of Concern</p>				
Fire Area / Zone	SSD Feature	Proximity to Significant Fixed Combustibles	Proximity to Ignition Sources	Comments
YARD-7 / 222	Cables associated with 38 SW Pump Strainer	This zone contains only small quantities of cables, consisting of the cables serving the backup SW pump and strainer. The required cables for BU SW Pump/SW System operation are the combustibles in the zone.	Ignition sources consist of the BU SW Pump and strainer motors. A fire ignited by one of these components would simply result in the use of one of the redundant pump/strainer combinations in the area.	The fire challenge in the zone is insignificant, and any accumulation of transient combustibles that could present a significant fire challenge would not concurrently challenge the redundant SW Pumps 31 through 36, located in Zone 22

ATTACHMENT 2

TO

NL-11-013

**Revised Tables RAI-08.1-1 through RAI-08.1-8 from
Entergy Letter NL-10-043 dated May 4, 2010**

**ENTERGY NUCLEAR OPERATIONS, INC.
Indian Point Nuclear Generating Unit No. 3
Docket No. 50-286
License No. DPR-64**

**Summary of Required Changes to Tables RAI-08.1-1 through RAI-08.1-8
from Entergy Letter NL-10-043 dated May 4, 2010**

Change	Reason for Change	Letter with Change
REVISE Table RAI-08.1-2 OMA Initiator column to ADD Zone 60AN as an Initiator Zone for the Required OMA of "Locally operate PCV-1310A, 1310B to ensure steam supply to 32 AFW Pump"	This zone was inadvertently omitted from the table	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-6 OMA Initiator column to DELETE Zone 4A as an Initiator Zone for the Required OMAs of "Locally close supply breaker for 32 Charging [previously "CVCS"] Pump" AND "Locally control 32 Charging [previously "CVCS"] Pump using scoop tube positioner."	Cables associated with 32 Charging Pump have been determined by field walkdown to not be routed in Fire Area/Zone PAB-2{5}/4A	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-6 OMA Initiator column to ADD Zone 17A as an Initiator Zone for the Required OMAs of "Locally close supply breaker for 32 Charging [previously "CVCS"] Pump" AND "Locally control 32 Charging [previously "CVCS"] Pump using scoop tube positioner."	This zone was inadvertently omitted from the table	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-6 OMA Initiator column to DELETE Zone 18A as an Initiator Zone for the Required OMAs of "Locally close supply breaker for 32 Charging [previously "CVCS"] Pump" AND "Locally control 32 Charging [previously "CVCS"] Pump using scoop tube positioner."	Cables associated with 32 Charging Pump have been determined by field walkdown to not be routed in Fire Area / Zone PAB-2{5}/18A	Entergy Letter NL-10-101 dated September 29, 2010

**Summary of Required Changes to Tables RAI-08.1-1 through RAI-08.1-8
from Entergy Letter NL-10-043 dated May 4, 2010**

Change	Reason for Change	Letter with Change
REVISE Table RAI-08.1-6 OMA Initiator column to delete Zone 62A as an Initiator Zone for the Required Action "Open valve 227 to establish Charging flowpath to RCS around potentially failed closed HCV-142." Zone 62A continues to be an OMA Performance Zone.	Cables associated with HCV-142 have been determined by field walkdown to not be routed in Fire Area/Zone PAB-2{5}/62A	Entergy Letter NL-10-101 dated September 29, 2010
REVISE Table RAI-08.1-6 OMA Initiator column to DELETE Zones 27A and 30A and to ADD Zone 60A as an Initiator Zone for the Required OMA of "Open valve 227 to establish Charging flowpath to RCS around potentially failed closed HCV-142"	Cables associated with HCV-142 have been determined by field walkdown to not be routed in Fire Area/Zones PAB-2{5}/27A and /30A Zone 60A was inadvertently omitted	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-6 OMA Initiator column to DELETE Zone 21A and to ADD Zones 6, 17A, 20A, 60A as an Initiator Zone for the Required OMA of "Locally close valve LCV-112C and open valve 288 to establish flowpath from RWST to Charging pump suction"	Zone 21A was inadvertently included, zone 17A was inadvertently omitted, and zones 6, 20A, and 60A were added as a result of response to December 16, 2010 in Entergy letter NL-11-007	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-7 OMA Initiator column to DELETE Zone 54A as an Initiator Zone for the Required OMA of "Locally operate FCV-406A, 406B to control AFW flow to SGs"	Cables associated with valves FCV-406A/B have been determined by field walkdown to not be routed in Fire Area / Zone TBL-5/54A	Entergy Letter NL-10-101 dated September 29, 2010

**Summary of Required Changes to Tables RAI-08.1-1 through RAI-08.1-8
from Entergy Letter NL-10-043 dated May 4, 2010**

Change	Reason for Change	Letter with Change
REVISE Table RAI-08.1-7 OMA Initiator column to DELETE "YARD" as an Initiator Zone for the Required OMA of "Locally start ARDG to supply MCC 312A in support of the use of SW Pump 38"	This is not a zone and was inadvertently included on the table	Entergy Letter NL-11-013 dated February 10, 2011
REVISE Table RAI-08.1-7 OMA Initiator column to DELETE Zones 37A, 38A, 43A, and 44A in Fire Area TBL-5 as Initiator Zones, and ADD Zones 22 and 222 for Fire Area YARD-7 as Initiator Zones for the Required OMA of "Locally/manually backwash SW pump strainer as required if power to strainer associated with selected SW pump is lost"	Fire Area TBL-5 and its zones were inadvertently included on and Fire Area YARD-7 and its zones were inadvertently omitted from the table	Entergy Letter NL-11-013 dated February 10, 2011

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-1 FIRE AREA AFW-6 CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA ²	Actual Time to Complete OMA ³	Total Time to Complete and Resultant Margin ⁴	OMA Initiator (I) Fire Area/Zone ⁵	Comments
					OMA Performance (P) Fire Area/Zone ⁶	
Locally start 33 AFW Pump from breaker on Bus 6A	30 m	4.5 m	13 m (a)	TTC: 17.5 m Margin: 12.5 m; 41%	I: Area AFW-6, Zone 23 P: Area CTL-3, Zone 14	Target: 33 AFW Pump control cables
Locally operate valves FCV-1123, FCV-406C, FCV-406D	-	-	-	-	-	WITHDRAWN See response to RAI-02.1
(a) The Total Time to Complete is revised to 13 minutes, whereas the previous submittals showed a value of 7 minutes for the Actual Time to Complete						

These notes apply to Tables RAI-08.1-1 through RAI-08.1- 8:

1. Represents the available time to complete the action to ensure fulfillment of the Appendix R performance goals
2. Elapsed time from start of announced fire event for operators in simulator environment to detect failure
3. Actual Time to Complete = travel time + time to execute OMA + time to report completion/validate action
4. Total Time to Complete (TTC) = Actual Time to Diagnose Need for OMA + Actual Time to Complete OMA
Resultant Margin = $100 \times (\text{Required Time to Complete} - \text{TTC}) / \text{Required Time to Complete}$
5. Fire Area/Zone in which the postulated fire may cause cable or component damage resulting in the need for the OMA to recover the required SSD function
6. Fire Area/Zone in which the OMA is actually performed

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-1 FIRE AREA AFW-6 CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA ²	Actual Time to Complete OMA ³	Total Time to Complete and Resultant Margin ⁴	OMA Initiator (I) Fire Area/Zone ⁵	Comments
					OMA Performance (P) Fire Area/Zone ⁶	
Locally operate PCV-1139, PCV-1310A, PCV-1310B, HCV-1118, FCV-405C or FCV-405D (if 32 AFW Pump is used)	-	-	-	-	-	WITHDRAWN See response to RAI-02.1
Locally operate Steam Generator Atmospheric Dump Valve (SGADV) PCV-1134, PCV-1135, PCV-1136, or PCV-1137	-	-	-	-	-	WITHDRAWN See response to RAI-02.1

Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Swap 32 CCW Pump to alternate power supply OR align city water to Charging pumps	> 1 hour	< 1m	34 m (b)	TTC: 35 m Margin: >25 m; >42%	I: Area ETN-4{1}, Zone 7AS P: Area TBL-5, Zone 37A and Area PAB 2{2}, Zone 1; OR Area PAB-2{4}, Zone 17A	Target: 32 CCW Pump cables
Operate 480V Bus 3A breaker locally to start 31 AFW Pump	30 m	4.5 m	7 m	TTC: 11.5 m Margin: 18.5 m; 61%	I: Area ETN-4{1}, Zone 7AN P: Area CTL-3, Zone 11	Target: 31 AFW Pump control cable
Locally operate FCV-1121 in support of use of 31 AFW Pump, OR	30 m	4.5 m	8 m	TTC: 12.5 m Margin: 17.5 m; 58%	I: Area ETN-4{1}, Zone 7AN P: Area AFW-6, Zone 23	Target: FCV-1121 control cable
Operate HCV-1118 manually to control 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{1}, Zone 60AS P: Area AFW-6, Zone 23	Target: HCV-1118 control cable

(b) The Total Time to Complete is revised to 34 minutes, whereas the previous submittals showed a value of 10 minutes for the Actual Time to Complete

Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Align Appendix R Diesel Generator (ARDG) to 480V Buses 2A, 3A, 5A, and 312 (c)	75 m	<1 m	50 m	TTC: <51 m Margin: 24 m; 32%	I: Area ETN-4{1} P: Area TBL-5, Zone 37A; Area YARD-7, Zones 131, 131A; Area CTL-3, Zone 11	Nonmechanistic Loss of Offsite Power can be postulated at outset of scenario, effectively eliminating diagnosis time
Swap 31 or 32 Charging Pump to alternate power supply	75 m	30 m	8 m	TTC: 38 m Margin: 37 m; 49%	I: Area ETN-4{1}, Zone 7AN, 60AS P: Area PAB-2-{3}	Target: 31 and 32 Charging Pump cables
Start ARDG and align power to 480V Buses 2A, 3A, 5A, and 312 (d)	-	-	-	-	-	Not a separate OMA
Locally operate FCV-405B, FCV-405D, or FCV-406B to control AFW flow to Steam Generators	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 12.5 m; 37%	I: Area ETN-4{1}, Zone 7AN, 7AS, 60AS P: Area AFW-6, Zone 23	Target: FCV-406A-D, FCV-405A-D control cables

(c) Buses 3A and 312 were inadvertently omitted in previous submittals

(d) This was a separate OMA in previous submittals but is herein correctly included in the OMA to "Align Appendix R Diesel Generator..."

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">TABLE RAI-08.1-2 FIRE AREA ETN-4{1} CREDITED III.G.2 OPERATOR MANUAL ACTIONS</p>						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally open valve 227 to establish Charging [previously "CVCS"] makeup flowpath to RCS)	75 m	30 m	9 m	TTC: 39 m Margin: 36 m; 48%	I: Area ETN-4{1}, Zone 60AS P: Area PAB-2{5}, Zone 62A	Targets: Cables associated with HCV-142 Travel time conservatively taken to be 10 minutes, from CCR to PAB. Travel time is non-critical, since no attempt is made to perform the OMA for the initial 60 minutes of the scenario.
Locally close valve LCV-112C; open valve 288 to align Charging pump suction to the RWST	75 m	30 m	11 m	TTC: 41 m Margin: 34 m; 45%	I: Area ETN-4{1}, Zone 60AS P: Area PAB-2{3}, Zone 6 and Area PAB-2{5}, Zone 30A	Targets: cables associated with valves LCV-112B, LCV-112C Travel time conservatively taken to be 10 minutes, from CCR to PAB. Travel time is non-critical, since no attempt is made to perform the OMA for the initial 60 minutes of the scenario.
Locally control SGADVs PCV-1135, PCV-1136	-	-	-	-	-	WITHDRAWN See response to RAI-02.1

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">TABLE RAI-08.1-2 FIRE AREA ETN-4{1} CREDITED III.G.2 OPERATOR MANUAL ACTIONS</p>						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally operate PCV-1139 to ensure steam supply to 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{1}, Zone 60AS P: Area AFW-6, Zone 23	Target: PCV-1139 control cables
Locally operate PCV-1310A, 1310B to ensure steam supply to 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{1}, Zones 60AS and 60AN P: Area TBL-5, Zones 52A and 57A	Target: PCV-1310A, B control cables
Locally manually perform Service Water (SW) pump strainer backwash as required	> 1 hour	> 1 hour	15 m	TTC: See Comments Margin: See Comments	I: Area ETN-4{1}, Zone 60AN P: Area YARD-7, Zone 222	The need for periodic manual backwash of the selected SW strainer is variable, depending on ultimate heat sink conditions and other factors. The Time to Diagnose shown is a nominal figure, and therefore TTC and Margin are not considered critical parameters for this occasional (as-needed) OMA.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-3 FIRE AREA ETN-4{3} CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Operate HCV-1118 manually to control 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{3}, Zone 73A P: Area AFW-6, Zone 23	Target: HCV-1118 control cables
Locally operate PCV-1139 to ensure steam supply to 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{3}, Zone 73A P: Area AFW-6, Zone 23	Target PCV-1139 control cables
Locally operate PCV-1310A, PCV-1310B to ensure steam supply to 32 AFW Pump	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{3}, Zone 73A P: Area TBL-5, Zones 52A and 57A	Target: PCV-1310A, B control cables
Locally operate FCV-405C, 405D to control AFW flow to SG	30 m	4.5 m	17 m	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area ETN-4{3}, Zone 73A P: Area AFW-6, Zone 23	Target: FCV-405 control cables

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-4 FIRE AREA ETN-4{4} CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally operate SGADV PCV-1134, PCV-1135, PCV-1136, or PCV-1137 to support cooldown to RHR entry conditions	-	-	-	-	-	WITHDRAWN See response to RAI-02.1

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-5 FIRE AREA PAB-2{3} CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally close valve LCV-112C and open valve 288 to align Charging pump suction path to Refueling Water Storage Tank (RWST)	75 m	30 m	11 m	TTC: 41 m Margin: 34 m; 45%	I: Area PAB-2{3}, Zone 6 P: Area PAB-2{3}, Zone 6 and Area PAB-2{5}, Zone 30A	Targets: cables associated with valves LCV-112B, LCV-112C Travel time conservatively taken to be 10 minutes, from CCR to PAB. Travel time is non-critical, since no attempt is made to perform the OMA for the initial 60 minutes of the scenario.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-6 FIRE AREA PAB-2{5} CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally close supply breaker for 32 Charging [previously "CVCS"] Pump	75 m	30 m	7 m	TTC: 37 m Margin: 38 m; 51%	I: Area PAB-2{5}, Zone 4A, 18-17A , 19A, 58A P: Area CTL-3, Zone 11	Target: 32 Charging Pump control cables
Locally control 32 Charging [previously "CVCS"] Pump using scoop tube positioner	75 m	30 m	9 m	TTC: 39 m Margin: 36 m; 48%	I: Area PAB-2{5}, Zone 4A, 18-17A , 19A, 58A P: Area PAB-2{3}, Zone 6	Target: 32 Charging Pump control cables
Open valve 227 to establish Charging flowpath to RCS around potentially failed closed HCV-142	75 m	30 m	9 m	TTC: 39 m Margin: 36 m; 48%	I: Area PAB-2{5}, Zone 27A, 30A , 59A, 6260A P: Area PAB-2{5}, Zone 62A	Targets: Cables associated with valve HCV-142 Travel time conservatively taken to be 10 minutes, from CCR to PAB. Travel time is non-critical, since no attempt is made to perform the OMA for the initial 60 minutes of the scenario.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">TABLE RAI-08.1-6 FIRE AREA PAB-2{5} CREDITED III.G.2 OPERATOR MANUAL ACTIONS</p>						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally close valve LCV-112C and open valve 288 to establish flowpath from RWST to Charging pump suction	75 m	30 m	11 m	TTC: 41 m Margin: 34 m; 45%	I: Area PAB-2{5}, Zone <u>6</u> , <u>17A</u> , <u>2420A</u> , 27A, 30A, <u>60A</u> P: Area PAB-2{3}, Zone 6 and Area PAB-2{5}, Zone 30A	Targets: cables associated with valves LCV-112B, LCV-112C Travel time conservatively taken to be 10 minutes, from CCR to PAB. Travel time is non-critical, since no attempt is made to perform the OMA for the initial 60 minutes of the scenario.

Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally operate [bypass valve for] FCV-1121 AFW Pump recirculation valve during pump startup (e)	30 m	4.5 m	8 m	TTC: 12.5 m Margin: 17.5 m; 58%	I: Area TBL-5, Zone 52A P: Area AFW-6, Zone 23	Target: FCV-1121 control cables
Locally operate FCV-406A, 406B to control AFW flow to SGs	30 m	4.5 m	17 m (d)	TTC: 21.5 m Margin: 8.5 m; 28%	I: Area TBL-5, Zone 52A, 54A P: Area AFW-6, Zone 23	Target: FCV-406 control cables
Locally operate SGADV PCV-1134, PCV-1135, PCV-1136, or PCV-1137 to control secondary system cooldown						WITHDRAWN See response to RAI-02.1

(d) The Total Time to Complete is revised to 17 minutes, whereas the referenced submittals showed a value of 8 minutes for the Actual Time to Complete

(e) Clarified that the bypass valve for FCV-1121 is the component that is manually operated

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

TABLE RAI-08.1-7 FIRE AREA TBL-5 CREDITED III.G.2 OPERATOR MANUAL ACTIONS						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally/manually backwash SW pump strainer as required if power to strainer associated with selected SW pump is lost (use one of STR PMP-31 through STR PMP-36)	> 1 hour	> 1 hour	15 m	TTC: See Comments Margin: See Comments	I: Area TBL-5, Zone 37A, 38A, 43A, 44A P: Area YARD-7, Zone 222	The need for periodic manual backwash of the selected SW strainer is variable, depending on ultimate heat sink conditions and other factors. The Time to Diagnose shown is a nominal figure, and therefore TTC and Margin are not considered critical parameters for this occasional (as-needed) OMA.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-10-043 DATED MAY 4, 2010

<p align="center">TABLE RAI-08.1-8 FIRE AREA YARD-7 CREDITED III.G.2 OPERATOR MANUAL ACTIONS</p>						
Required OMA	Required Time to Complete	Actual Time to Diagnose Need for OMA	Actual Time to Complete OMA	Total Time to Complete and Resultant Margin	OMA Initiator (I) Fire Area/Zone	Comments
					OMA Performance (P) Fire Area/Zone	
Locally start ARDG to supply MCC 312A in support of the use of SW Pump 38	> 1 hour	<1 m	25 m	TTC: <26 m Margin: >34 m; >56%	I: Area YARD-7, Zone 22, YARD P: Area YARD-7, Zones 131, 131A, Area TBL-5, Zone 37A	Nonmechanistic Loss of Offsite Power can be postulated at outset of scenario, effectively eliminating diagnosis time
Locally/manually backwash SW pump strainer as required if power to strainer associated with selected SW pump is lost	> 1 hour	> 1 hour	15 m	TTC: See Comments Margin: See Comments	I: Area YARD-7 TBL-5 , Zone 22, 222 37A, 38A, 43A, 44A P: Area YARD-7, Zone 222	The need for periodic manual backwash of the selected SW strainer is variable, depending on ultimate heat sink conditions and other factors. The Time to Diagnose shown is a nominal figure, and therefore TTC and Margin are not considered critical parameters for this occasional (as-needed) OMA.

ATTACHMENT 3

TO

NL-11-013

**Revised Table RAI-01.1-1 from
Entergy Letter NL-11-007 dated January 19, 2011**

**ENTERGY NUCLEAR OPERATIONS, INC.
Indian Point Nuclear Generating Unit No. 3
Docket No. 50-286
License No. DPR-64**

Summary of Required Changes to Table RAI-01.1-1 from Entergy Letter NL-11-007 dated January 19, 2011	
Change	Reason for Change
DELETE Area/Zone PAB-2{5}/17A from the Required OMA "Swap 31 or 32 Charging Pump to alternate power supply"	This zone was inadvertently included on the table
ADD cables "DK7-NV3/1" and "DK7-VN3/2" to the Cables of Concern column for Areas/Zones PAB-2{3}/6 and PAB-2{5}/17A for the Required OMA "Locally close valve LCV-112C; open valve 288 to align Charging pump suction to the RWST"	These cables were inadvertently omitted from the table
DELETE "STR PMP-33," "STR PMP-36," "STR PMP-37," and "STR PMP-38" from the Component of Concern column for Area/Zone ETN-4{1}/60A for the Required OMA "Locally manually perform Service Water (SW) pump strainer backwash as required"	These components were inadvertently included on the table
For the Required OMA "Locally manually perform Service Water (SW) pump strainer backwash as required," ASSOCIATE Zone 222 for Area YARD-7 with Component of Concern "STR PMP-38," and ADD "Area" before "YARD-7"	Clarification of layout
For the Required OMAs "Locally close supply breaker for 32 Charging Pump" and "Locally control 32 Charging Pump using scoop tube positioner," RELOCATE cable "K1B-W1B" to Area/Zone PAB-2{5}/58A	This cable was inadvertently included in the wrong zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
Locally start 33 AFW Pump from breaker on Bus 6A	Area AFW-6 Zone 23	33AFP	AK3-PT2 JB1-PT2/2 JB1-X32/2 LL7-X32 LQ7-X32 X32-Y2J	Exemption granted for App R III.G.2 SER dated January 7, 1987 Area wide smoke detection Area wide wet pipe sprinklers Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Swap 32 CCW Pump to alternate power supply or align city water to Charging pumps	Area ETN-4{1} Zone 7A	32CCP	AS9-W1D	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Operate 480V Bus 3A breaker locally to start 31 AFW Pump	Area ETN-4{1} Zone 7A	31AFP	AI5-PT2 JB1-PT2/1 JB1-X32/1	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading

¹ References: Entergy letter NL-10-043 dated May, 4, 2010, Tables RAI-08.1-1 through RAI-08.1-8; Entergy letter NL-10-101 dated September 29, 2010, Tables RAI-08.1-6 and RAI-08.1-7

² Reference: Entergy letter NL-10-101 dated September 29, 2010, RAI-02.1 response

³ References: Entergy letter NL-10-043 dated May, 4, 2010, Tables RAI-GEN-1 through GEN-23; Entergy letter NL-10-101 dated September 29, 2010, Tables RAI-GEN-8, RAI-GEN-10, RAI-GEN-15, RAI-GEN-16, and RAI-GEN-19

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense In Depth ³
				Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Locally operate FCV-1121 in support of use of 31 AFW Pump	Area ETN-4{1} Zone 7A	FCV-1121	JB1-X32/1	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
	Area TBL-5 Zone 52A		JB1-X32/1	Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone
Operate HCV-1118 manually to control 32 AFW Pump	Area ETN-4{1} Zone 60A	HCV-1118	JB1-TA5	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense In Depth ³
	Area ETN-4{3} Zone 73A		JB1-TA5	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in trays Dry pipe/pre-action sprinklers in trays Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Align Appendix R Diesel Generator (ARDG) to 480V Buses 2A and 5A, through 6.9kV Buses 2 and 5	Area ETN-4{1} Zones 7A and 60A	480V Bus 2A 480V Bus 5A	Cables of concern are not explicitly identified by the IP3 Safe-Shutdown Analysis	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zones
Locally start Appendix R Diesel Generator (ARDG) to supply Bus 312, to support use of 38SWP	Area YARD-7 Zone 22	SWS PMP-31 SWS PMP-32 SWS PMP-33 SWS PMP-34 SWS PMP-35 SWS PMP-36	AQ8-M59 AT6-M61 AJ8-M62 AQ7-M63 AH2-M64 AJ7-M65	Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hydrants in adjacent yard

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
Swap 31 or 32 Charging Pump to alternate power supply	Area ETN-4{1} Zone 7A	32 Charging Pump	AH9-K1B AH9-PL2 JA4-PL2/2	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
	Area PAB-2{5} Zone 17A		AH9-PL2 JA4-PL2/2	Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
	Area ETN-4{1} Zone 60A	31 Charging Pump	AQ3-K1C AQ3-PL2 JA2-PL2/1	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense In Depth ³
Locally operate FCV-405B, FCV-405D, or FCV-406B to control AFW flow to Steam Generators	Area ETN-4{1} Zone 7A	FCV-406B	JB1-SX1/1 JF5-KV4 JF5-LL8 K45-YM3 K47-YM3	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
	Area ETN-4{1} Zone 60A	FCV-405B	JB1-KV6	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
		FCV-405D	JB1-KV8	
	Area ETN-4{3} Zone 73A	FCV-405C FCV-405D	JB1-KV8 JB1-KV7	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in trays Dry pipe/pre-action sprinklers in trays Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
Locally open valve 227 to establish charging makeup flow to RCS	Area ETN-4{1} Zone 60A	HCV-142	JB5-X1J	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
	Area PAB-2{5} Zone 59A		JB5-X1J VK4-X1J	Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
Locally close valve LCV-112C; open valve 288 to align Charging pump suction to the RWST	Area ETN-4{1} Zone 60A	LCV-112B LCV-112C	DD4-JB5 DK7-JB5	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAT-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
				Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
	Area PAB-2{3} Zone 6		DD4-VN3 <u>DD7-VN3/1</u> <u>DD7-VN3/2</u>	Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in adjacent zone
	Area PAB-2{5} Zone 17A		DD4-VN3 <u>DD7-VN3/1</u> <u>DD7-VN3/2</u>	Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
	Area PAB-2{5} Zone 17A		DD4-VN5/1 DD4-VN5/2 DK7-VN5	Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
	Area PAB-2{5} Zone 20A		DK7-VN5	Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone
	Area PAB-2{5} Zone 27A		DK7-VN5	Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
	Area PAB-2{5} Zone 30A			Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01-1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
Locally operate PCV-1139 to ensure steam supply to 32 AFW Pump	Area ETN-4{1} Zone 60A	PCV-1139	JB1-PT2/3	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
	Area ETN-4{3} Zone 73A		JB1-PT2/3	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in trays Dry pipe/pre-action sprinklers in trays Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Locally operate PCV-1310A, 1310B to ensure steam supply to 32 AFW Pump	Area ETN-4{1} Zone 60A	PCV-1310A PCV-1310B	JB1-SZ6 JB1-S99 JB1-X02 JB1-X02/1	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
	Area ETN-4{3} Zone 73A		JB1-X02 JB1-S99 JB1-X02/1 JBI-SZ6	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in trays Dry pipe/pre-action sprinklers in trays Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Locally manually perform Service Water (SW) pump strainer backwash as required	Area ETN-4{1} Zone 60A	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34 STR PMP-35 STR PMP-36 STR PMP-37 STR PMP-38	CW8-XV2 DE1-XV2	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in cable trays Dry pipe/pre-action sprinklers in trays Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense In Depth ³
	Area YARD-7 Zone 222 Zone 22	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34 STR PMP-35 STR PMP-36 STR PMP-38	AH2-WF6/2 AJ7-WF6 AQ7-WF6 AT6-WF6/2 MW6-P2K MW7-P2L MW8-P2M MW9-P2N MX7-P2P MX8-P2Q MY1-PY1 P2K-P2M/1 P2K-WQ9 P2K-XL1 P2K-Z99 P2K-P2M/1 P2L-P2N/1 P2L-W14P2L-XL1 P2L-Z99 P2L-P2N/1 P2M-P2P/1 P2M-XL2 P2M-Z99 P2N-P2Q/1 P2N-XL2 P2N-Z99 P2P-XL3 P2P-Z99 P2Q-XL3 P2Q-Z99	Zone 222: Outside Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hydrants in adjacent yard Zone 22: Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hydrants in adjacent yard

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
			PY1-XV2/1 WF6-Z99 WK9-W14 WK9-XV8 WQ9-XV2 XL1-YW2 XL1-YW3 XL2-YW5 XL3-YW6 XL3-YW7 XV2-XV8	
	<u>Area YARD-7 Zone 222</u>	<u>STR PMP-38</u>		<u>Outside</u> <u>Transient Combustible Controls</u> <u>Minimal Ignition Sources</u> <u>Hot Work & Ignition Source Controls</u> <u>Portable Extinguishers in the zone</u> <u>Hydrants in adjacent yard</u>

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
	Area TBL-5 Zone 37A	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34 STR PMP-35 STR PMP-36	AH2-WF6/2 AJ7-WF6 AQ7-WF6 AT6-WF6/2 WF6-Z99 WK9-XV8 WQ9-XV2 XV2-XV8	Smoke detection over MCC 34 and 6.9KV Swgr Thermal detection in battery and charger room Area wide wet pipe sprinkler Wet pipe sprinkler in battery and charger room Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hose station in zone
	Area TBL-5 Zone 38A			Smoke detection over MCC 32 Area wide wet pipe sprinkler Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hose station in zone
	Area TBL-5 Zone 43A			Area wide wet pipe sprinkler Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hose station in zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
	Area TBL-5 Zone 44A			Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone Hose station in adjacent zone
Locally operate FCV-405C, FCV-405D to control AFW flow to steam generators	Area ETN-4{3} Zone 73A	FCV-405C FCV-405D	JB1-KV8 JB1-KV7	Exemption granted for App R III.G.2 - SERs dated February 2, 1984, January 7, 1987, and September 28, 2007 Area wide smoke detection Thermal detection in trays Dry pipe/pre-action sprinklers in trays Moderate Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone
Locally operate FCV-406A, 406B to control AFW flow to Steam Generators	Area TBL-5 Zone 52A	FCV-406A FCV-406B	JB1-SX1/1 JF5-KV3 JF5- KV4 JF5-LL8 K45-YM3	Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in zone
Locally close supply breaker for 32 Charging Pump	Area PAB-2{5} Zone 19A	32 Charging Pump	AH9-PL2 JA4-PL2/2 K1B-W1B	Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense In Depth ³
	Area PAB-2{5} Zone 17A			Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone
	Area PAB-2{5} Zone 58A		K1B-W1B	Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone
Locally control 32 Charging Pump using scoop tube positioner	Area PAB-2{5} Zone 19A	32 Charging Pump	AH9-PL2 JA4-PL2/2 K1B-W1B	Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone
	Area PAB-2{5} Zone 17A			Exemption granted for App R III.G.2 - SER dated January 7, 1987 Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in the zone Hose station in the zone

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

UNIT 3 TABLE RAI-01.1-1 OMA Initiator Cables of Concern and Mitigating Features Minimizing the Potential to Require Use of Credited OMAs				
Required OMA ¹	OMA Initiator Fire Area Fire Zone ¹	Component of Concern ¹	Cables of Concern ²	Fire Protection Defense in Depth ³
	Area PAB-2{5} Zone 58A		<u>K1B-W1B</u>	Area wide smoke detection Low Fixed Combustible Loading Transient Combustible Controls Minimal Ignition Sources Hot Work & Ignition Source Controls Portable Extinguishers in adjacent zone Hose station in adjacent zone

ATTACHMENT 4

TO

NL-11-013

**Revised Table RAI-01.1-2 from
Entergy Letter NL-11-007 dated January 19, 2011**

**ENTERGY NUCLEAR OPERATIONS, INC.
Indian Point Nuclear Generating Unit No. 3
Docket No. 50-286
License No. DPR-64**

Summary of Required Changes to Table RAI-01.1-2 from Entergy Letter NL-11-007 dated January 19, 2011	
Change	Reason for Change
For Fire Area/Fire Zone ETN-4{1}/60A , DELETE "STR PMP-33", "STR PMP-36", and "STR PMP-38"	These components were inadvertently included on the table
For Fire Area PAB-2{5} , ADD cables "DK7-NV3/1" and "DK7-VN3/2" to the Associated Cables column for the OMA "Locally close valve LCV-112C and open valve 288 to establish flowpath from RWST to charging pump suction"	These cables were inadvertently omitted from the table

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

<p>Table RAI-01.1-2 IP3 Fire Area AFW-6 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally start 33 AFW Pump from breaker on Bus 6A	33 AFW Pump	AK3-PT2 JB1-PT2/2 JB1-X32/2 LL7-X32 LQ7-X32 X32-Y2J	Intra-cable fault, ground fault, open circuit	Remote control capability for the 33AFP circuit breaker may be lost. Pump may not autostart or respond to CCR controls.	The exemption granted for this area (see Table RAI-01.1-1) acknowledges the minimal fire hazards of the area, and the effectiveness of the fire detection system and automatic sprinkler system, to minimize fire damage in this area. The occurrence of a fire of sufficient severity and scope to damage redundant AFW pump control cables and require implementation of this OMA is a low-likelihood event.

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

<p align="center">Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Swap 32 CCW Pump to alternate power supply or align city water to Charging pumps	32 CCW Pump	AS9-W1D	Intra-cable fault, ground fault, open circuit	Presumes failures of cables serving redundant CCW pumps 31 and 33 due to fire damage to power cables in this area.	This area is equipped with fire detection and automatic sprinkler systems as discussed in Table 01.1-1. The occurrence of a fire of sufficient severity and scope to damage all redundant CCW pump power cables, and thereby require implementation of this OMA, is a low likelihood event.
Operate 480V Bus 3A breaker locally to start 31 AFW Pump	31 AFW Pump	AI5-PT2 JB1-PT2/1 JB1-X32/1	Intra-cable fault, ground fault, open circuit	Presumes concurrent failures of cables serving redundant AFW pumps 32 and 33 due to fire damage to cables in this area.	This area is equipped with fire detection and automatic sprinkler systems as discussed in Table 01.1-1. The occurrence of a fire of sufficient severity and scope to damage all redundant AFW pump power cables, and thereby require implementation of this OMA, is a low likelihood event.
Locally operate FCV-1121 in support of use of 31 AFW Pump	FCV-1121	JB1-X32/1	Intra-cable fault, ground fault, open circuit, inter-cable fault	Miniflow recirculation flow may be insufficient to prevent pump overheating	This OMA is required only if a concurrent failure is sustained to all AFW flow control valves FCV-406A through FCV-406D, resulting in 31AFW pump potentially being operated under minimum flow

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

<p align="center">Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					conditions. The multiple concurrent failures necessary to render all AFW flow control valves failed closed is considered a low likelihood event, given the active fire protection features of the area, as described on Table RAI-01.1-1.
Operate HCV-1118 manually to control 32 AFW Pump	HCV-1118	JB1-TA5	Intra-cable fault, ground fault, open circuit, inter-cable fault	HCV-1118 loss of control from CCR controls	This OMA is only required if 32 AFW pump is selected as the credited pump. If the above listed OMAs associated with 31 AFW pump are implemented, this OMA is unnecessary. Conversely, the use of this OMA would obviate the need for the above listed OMAs for 31 AFW pump.
Align Appendix R Diesel Generator to 480V Buses 2A and 5A	480V Bus 2A 480V Bus 5A	Cables of concern are not explicitly identified by the IP3 Safe-Shutdown Analysis	Intra-cable fault, ground fault, open circuit, inter-cable fault	Potential inability to control offsite power supply breakers to emergency 480V switchgear and tie breakers between	The use of the ARDG is credited for supplying power to the 480V buses in the event of a fire in Fire Area ETN-4{1}. The need for implementation of this OMA would require loss of function of 31 through 33 EDGs and a concurrent loss of offsite power. This area is equipped with fire detection and automatic sprinkler systems as discussed in Table RAI-

ORIGINALLY PROVIDED IN ENTERGY LETTER NL-11-007 DATED JANUARY 19, 2011

<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
				emergency switchgear	01.1-1. The occurrence of a fire of sufficient severity and scope to impair all redundant onsite power sources (other than the ARDG) and thereby require implementation of this OMA, is a low likelihood event.
Swap 31 or 32 Charging Pump to alternate power supply	31 Charging Pump 32 Charging Pump	AQ3-K1C AQ3-PL2 JA2-PL2/1 AH9-K1B AH9-PL2 JA4-PL2/2	Intra-cable fault, ground fault, open circuit	Damage to control and/or power cables for both charging pumps may render both charging pumps 31 and 32 inoperable	In accordance with the IP3 fire response procedure (3-ONOP-FP-1), 31 and 32 Charging Pumps are placed in OFF/pullout upon detection of a fire in Fire Area ETN-4. This action can be expected to preclude spurious pump starting, pending suppression of the fire and alignment of the selected pump to an alternate power supply. Given the active fire protection features of the area (smoke detection and automatic sprinkler protection for all cable trays) and absence of combustibles other than cables in cable trays, the occurrence of a fire of sufficient severity and scope to cause the described cable damage is considered to be of low likelihood. It is therefore expected that this OMA is unlikely to be required, for any

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					credible fire scenario in Fire Area ETN-4{1}.
Locally operate FCV-405B, FCV-405D, or FCV-406B to control AFW flow to steam generators	FCV-405B FCV-405D FCV-406B	JB1-KV6 JB1-KV8 JB1-SX1/1 JF5-KV4 JF5-LL8 K45-YM3 K47-YM3	Intra-cable fault, ground fault, open circuit, inter-cable fault	FCVs fail open, fail closed, or exhibit erratic operation.	This OMA is only required if fire damage occurs to cables serving ALL AFW FCVs routed through this area. This area contains cables for FCV-405A through D and FCV-406A through D. The multiple concurrent failures necessary to render all AFW flow control valves inoperable is considered a low likelihood event, given the active fire protection features of the area, as described on Table RAI-01.1-1.
Locally open valve 227 to establish charging makeup flow to RCS	HCV-142	JB5-X1J	Intra-cable fault, ground fault, open circuit, inter-cable fault	HCV-142 may spuriously close / fail closed, isolating the normal charging makeup path to the RCS	<p>If normally-open/throttled flow control valve HCV-142 is failed closed, the normal makeup path to the RCS is restored by locally opening manual valve 227.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of this cable – and the need to implement this OMA --is considered a low-likelihood event.</p>

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally close valve LCV-112C; open valve 288 to align charging pump suction to the RWST	LCV-112B LCV-112C	DK7-JB5 DD4-JB5	Intra-cable fault, ground fault, open circuit, inter-cable fault	Valves may spuriously open or close, or fail open or closed	<p>In the event of damage to one of these cables, it can be reasonably be expected that the redundant (VCT outlet or RWST outlet) valve would remain operable, to provide a continued suction supply to the charging pumps. If both cables are damaged, causing maloperation of both valves, the OMA would require implementation.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of this cable -- and the need to implement this OMA -- is considered a low-likelihood event.</p>
Locally operate PCV-1139 to ensure steam supply to 32 AFW pump	PCV-1139	JB1-PT2/3	Intra-cable fault, ground fault, open circuit, inter-cable fault	PCV-1139 loss of control from CCR controls	<p>This OMA is only required if 32 AFW pump is selected as the credited pump. If the above listed OMAs associated with 31 AFW pump are implemented, this OMA is unnecessary. Conversely, the use of this OMA would obviate the need for the above listed OMAs for 31 AFW pump.</p>

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally operate PCV-1310A, 1310B to ensure steam supply to 32 AFW pump	PCV-1310A PCV-1310B	JB1-S99 JB1-X02 JB1-SZ6 JB1-X02/1	Intra-cable fault, ground fault, open circuit	Valves spuriously close or fail closed	This OMA is only required if 32 AFW pump is selected as the credited pump. If the above listed OMAs associated with 31 AFW pump are implemented, this OMA is unnecessary. Conversely, the use of this OMA would obviate the need for the above listed OMAs for 31 AFW pump.
Locally manually perform SW pump strainer backwash as required	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34 STR PMP-35 STR PMP-36 STR PMP-38	CW8-XV2 DE1-XV2	Intra-cable fault, ground fault, open circuit	Loss of normal power supply to all SW strainer control panels	<p>This OMA, if required, is limited to the manual operation of only the single SW strainer associated with the selected/operating SW pump.</p> <p>The listed cables each provide power to three SW pump strainer control panels, and provide redundant feeds, via a throwover switch, for the backup SW control panel. Consequently, both cables must fail as the result of fire damage to render all SW pump strainers inoperable, and requiring the use of the OMA.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-</p>

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Table RAI-01.1-2 IP3 Fire Area ETN-4{1} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					induced failure of both cables – and the need to implement this OMA --is considered a low-likelihood event.

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{3} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Operate HCV-1118 manually to control 32 AFW pump	HCV-1118	JB1-TA5	Intra-cable fault, ground fault, open circuit, inter-cable fault	HCV-1118 loss of control from CCR controls	<p>This OMA is only required if 32 AFW pump is selected as the credited pump. The IP3 Safe-Shutdown Analysis reports no cables associated with the 31 AFW pump, its flow control valves (FCV-406A, FCV-406B), or power source (BUS3A) routed through this fire area. However, the protected instrumentation credited in this fire area for monitoring SG level is that for 33 and 34 SG, rendering 31 AFW pump an unsuitable choice if all level instrumentation for 31 and 32 SG has been rendered inoperable by fire damage.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of the listed cable – and the resultant need to implement this OMA --is considered a low-likelihood event.</p>
Locally operate PCV-1139 to ensure steam supply to 32	PCV-1139	JB1-PT2/3	Intra-cable fault, ground fault, open circuit, inter-cable fault	PCV-1139 spuriously closes or fails closed	This OMA is only required if 32 AFW pump is selected as the credited pump. The IP3 Safe-Shutdown Analysis reports no cables associated

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{3} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
AFW pump					<p>with the 31 AFW pump, its flow control valves (FCV-406A, FCV-406B), or power source (BUS3A) routed through this fire area. However, the protected instrumentation credited in this fire area for monitoring SG level is that for 33 and 34 SG, rendering 31 AFW pump an unsuitable choice if all level instrumentation for 31 and 32 SG has been rendered inoperable by fire damage.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of the listed cable – and the resultant need to implement this OMA --is considered a low-likelihood event.</p>
Locally operate PCV-1310A, PCV-1310B to ensure steam supply to 32 AFW pump	PCV-1310A PCV-1310B	JB1-S99 JB1-X02 JB1-SZ6 JB1-X02/1	Intra-cable fault, ground fault, open circuit	PCV-1310A and/or PCV-1310B (series valves) spuriously close or fail closed	This OMA is only required if 32 AFW pump is selected as the credited pump. The IP3 Safe-Shutdown Analysis reports no cables associated with the 31 AFW pump, its flow control valves (FCV-406A, FCV-406B), or power source (BUS3A) routed through this fire area. However, the protected instrumentation credited in this fire

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<p>Table RAI-01.1-2 IP3 Fire Area ETN-4{3} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					<p>area for monitoring SG level is that for 33 and 34 SG, rendering 31 AFW pump an unsuitable choice if all level instrumentation for 31 and 32 SG has been rendered inoperable by fire damage.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of the listed cable – and the resultant need to implement this OMA --is considered a low-likelihood event.</p>
Locally operate FCV-405C, FCV-405D to control AFW flow to steam generators	FCV-405C FCV-405D	JB1-KV7 JB1-KV8	Intra-cable fault, ground fault, open circuit, inter-cable fault	FCV-405C, FCV-405D spuriously close or open	This OMA is only required if 32 AFW pump is selected as the credited pump. The IP3 Safe-Shutdown Analysis reports no cables associated with the 31 AFW pump, its flow control valves (FCV-406A, FCV-406B), or power source (BUS3A) routed through this fire area. However, the protected instrumentation credited in this fire area for monitoring SG level is that for 33 and 34 SG, rendering 31 AFW pump an unsuitable choice if all level instrumentation for 31 and 32 SG has been rendered inoperable by fire

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Table RAI-01.1-2 IP3 Fire Area ETN-4{3} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					damage. In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of the listed cable – and the resultant need to implement this OMA --is considered a low-likelihood event.

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<p>Table RAI-01.1-2 IP3 Fire Area PAB-2{3} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally close valve LCV-112C and open valve 288 to align charging pump suction path to Refueling Water Storage Tank (RWST)	LCV-112C LCV-112B	DK7-VN3/1 DK7-VN3/2 DD4-VN3	Intra-cable fault, ground fault, open circuit, inter-cable fault	Valves may spuriously close or open	<p>Selective cable failure modes may result in a sustained functional charging pump suction path, or may result in isolation of all charging pump suction. Control room operator action taken in accordance with fire response procedure 3-ONOP-FP-1 will secure 31 and 32 Charging Pumps in pullout, upon detection of a fire in this area, precluding spurious pump starts, and ensuring pumps remain free of fire damage until a reliable suction path can be aligned.</p> <p>In light of the above described minimal hazards of the area and the active fire protection features, fire-induced failure of the listed cable – and the resultant need to implement this OMA --is considered a low-likelihood event.</p>

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<p align="center">Table RAI-01.1-2 IP3 Fire Area PAB-2{5} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally close supply breaker for 32 charging pump	32 Charging Pump	AH9-PL2 JA4-PL2/2 K1B-W1B	Intra-cable fault, ground fault, open circuit	32 Charging Pump is rendered inoperable from remote electrical controls	This OMA is required if a fire in this area causes damage to cables serving both 31 and 32 Charging Pumps, which are both equipped with alternate power source capabilities via transfer switches. The defense in depth fire protection features of this area, in concert with the
Locally control 32 charging pump using scoop tube positioner	32 Charging Pump	AH9-PL2 JA4-PL2/2 K1B-W1B	Intra-cable fault, ground fault, open circuit, inter-cable fault	32 Charging Pump electro-pneumatic speed controller fails to maintain required pump speed	This OMA is required only if a fire in this area causes damage to cables serving both 31 and 32 Charging Pumps, which are both equipped with alternate power source capabilities via transfer switches.
Open valve 227 to establish charging flowpath to RCS around potentially failed closed HCV-142	HCV-142	JB5-X1J VK4-X1J	Intra-cable fault, ground fault, open circuit, inter-cable fault	HCV-142 may spuriously close / fail closed, isolating the normal charging makeup path	If normally-open/throttled flow control valve HCV-142 is failed closed, the normal makeup path to the RCS is restored by locally opening manual valve 227. Despite the potential spurious closure of HCV-142, isolating the normal

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Table RAI-01.1-2 IP3 Fire Area PAB-2{5} Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
				to the RCS	charging makeup path to the RCS, it can be expected that limited makeup to the RCS would continue, via the RCP seal injection flowpath, which is not impacted by the closure of HCV-142.
Locally close LCV-112C and open valve 288 to establish flowpath from RWST to charging pump suction	LCV-112C LCV-112B	DK7-VN5 DD4-VN5/1 DD4-VN5/2 <u>DK7-VN3/1</u> <u>DK7-VN3/2</u>	Intra-cable fault, ground fault, open circuit, inter-cable fault	Valves may spuriously close or open	Selective cable failure modes may result in a sustained functional charging pump suction path, or may result in isolation of all charging pump suction. Control room operator action taken in accordance with fire response procedure 3-ONOP-FP-1 will secure 31 and 32 Charging Pumps in pullout, upon detection of a fire in this area, precluding spurious pump starts, and ensuring pumps remain free of fire damage until a reliable suction path can be aligned.

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<p align="center">Table RAI-01.1-2 IP3 Fire Area TBL-5 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally operate (bypass valve for) FCV-1121 AFW pump recirculation valve during pump startup	FCV-1121	JB1-X32/1	Intra-cable fault, ground fault, open circuit, inter-cable fault	Valve spuriously closes or fails closed	This OMA is required only if FCV-1121 fails closed and all AFW flow control valves FCV-406A through 406D fail closed, as the result of fire damage to cables in this fire area. This combination of failures would result in an inadequate recirculation flowpath to preclude AFW pump overheating, thereby requiring the OMA to be performed. The multiple concurrent failures necessary, and the minimal hazards and ignition sources of the zones traversed by these cables renders the need to implement this OMA a low-likelihood event.
Locally operate FCV-406A, 406B to control AFW flow to Steam Generators	FCV-406A FCV-406B	JB1-SX1/1 JF5-KV3 JF5-KV4 JF5-LL8 K45-YM3	Intra-cable fault, ground fault, open circuit, inter-cable fault	Valves spuriously open or fail closed	This OMA is required only if all steam generator level channels associated with SG 33 and 34 are rendered inoperable by fire damage, and/or both 33 AFW pump, its flow control valves (FCV-406C and D), and 32 AFW pump, its steam supply, control valve (PCV-1310A, PCV-1310B, PCV-1139, HCV-1118) and flow control valves (FCV-405A through D) are also rendered inoperable by fire damage in

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<p>Table RAI-01.1-2 IP3 Fire Area TBL-5 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
					<p>this area.</p> <p>Given the minimal fixed combustibles and ignition sources in the impact fire zones of Fire Area TBL-5, as described on Table RAI-01.1-1, a fire of sufficient severity and scope to cause the necessary extent of damage in this zone is considered a low-likelihood event.</p>
Locally /manually backwash SW pump strainer as required if power to strainer associated with selected SW pump is lost (use one of STR PMP-31 through STR PMP 36).	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34 STR PMP-35 STR PMP-36	AH2-WF6/2 AJ7-WF6 AQ7-WF6 AT6-WF6/2 WF6-Z99 WK9-XV8 WQ9-XV2 XV2-XV8	Intra-cable fault, ground fault, open circuit	Loss of normal power supply to all SW strainer control panels	<p>This OMA, if required, is limited to the manual operation of only the single SW strainer associated with the selected/operating SW pump.</p> <p>The multiple fire-induced cable failures necessary to disable all SW strainers, in consideration of the characteristics of the fire zones through which the cables are routed (reference Table RAI-01.1-1) renders the need to implement this OMA a low-likelihood event.</p>

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<p align="center">Table RAI-01.1-2 IP3 Fire Area YARD-7 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
Locally start ARDG to supply MCC312A in support of the use of SW Pump 38	SWS PMP-31 SWS PMP-32 SWS PMP-33 SWS PMP-34 SWS PMP-35 SWS PMP-36	AQ8-M59 AT6-M61 AJ8-M62 AQ7-M63 AH2-M64 AJ7-M65	Intra-cable fault, ground fault, open circuit	Pump may be rendered inoperable	<p>The use of the 38 Service Water Pump is credited in the unlikely event that a fire in this area causes sufficient damage to cables and/or components to render all normal service water pumps (31 through 36) inoperable. As a concurrent loss of offsite power is postulated, the ARDG (which has self-contained cooling) is credited to power 38 SWP, as this pump by design does not provide sufficient capacity for cooling of one of the safety-related diesel generators, 31, 32, or 33EDG.</p> <p>As this OMA is necessary only in the event of a large fire event that could disable all normal (31 through 36 Service Water Pumps, concurrent with a loss of offsite power, the need to implement this OMA is considered to be a low-likelihood event.</p>
Locally/manually backwash SW pump strainer if power to	STR PMP-31 STR PMP-32 STR PMP-33 STR PMP-34	AH2-WF6/2 AJ7-WF6 AQ7-WF6 AT6-WF6/2	Intra-cable fault, ground fault, open circuit	Loss of normal power supply to all SW strainer	This OMA, if required, is limited to the manual operation of only the single SW strainer associated with the selected/operating SW pump.

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<p>Table RAI-01.1-2 IP3 Fire Area YARD-7 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs</p>					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
strainer associated with selected SW pump is lost	STR PMP-35 STR PMP-36 STR PMP-38	MW6-P2K MW7-P2L MW8-P2M MW9-P2N MX7-P2P MX8-P2Q MY1-PY1 P2K-P2M/1 P2K-WQ9 P2K-XL1 P2K-Z99 P2K-P2M/1 P2L-P2N/1 P2L-W14 P2L-XL1 P2L-Z99 P2L-P2N/1 P2M-P2P/1 P2M-XL2 P2M-Z99 P2N-P2Q/1 P2N-XL2 P2N-Z99 P2P-XL3 P2P-Z99 P2Q-XL3 P2Q-Z99		control panels	The multiple fire-induced cable failures necessary to disable all SW strainers, in consideration of the characteristics of the fire zones through which the cables are routed (reference Table RAI-01.1-1) renders the need to implement this OMA a low-likelihood event.

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Table RAI-01.1-2 IP3 Fire Area YARD-7 Credited OMAs And Cable/Component Failures That May Require the Use of the Credited OMAs					
OMA	Affected Component(s)	Associated Cables	Type of cable failure(s) that may cause need for OMA	Effect of cable failure that leads to need for OMA	Comments / Conclusion
		PY1-XV2/1 WF6-Z99 WK9-W14 WK9-XV8 WQ9-XV2 XL1-YW2 XL1-YW3 XL2-YW5 XL3-YW6 XL3-YW7 XV2-XV8			