



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

January 10, 2014

Mr. John Ventosa
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING STATION UNIT 3 –
NOTIFICATION OF CONDUCT OF A TRIENNIAL FIRE PROTECTION
BASELINE INSPECTION

Dear Mr. Ventosa:

The purpose of this letter is to notify you that the U.S. Nuclear Regulatory Commission (NRC) staff will conduct a triennial fire protection baseline inspection at the Indian Point Nuclear Generating Unit 3 in May, 2014. The inspection team will be led by Mr. John Richmond from the NRC Region 1 Office, and composed of Region 1 personnel. The inspection will be conducted in accordance with IP 71111.05T, the NRC's baseline fire protection inspection procedure.

The schedule for the inspection is as follows:

- Information Gathering Visit: Week of April 21, 2014
- On-site Inspection: Weeks of May 5 and May 19, 2014

The purpose of the information gathering visits are to obtain information and documentation needed to support the inspection, to become familiar with the station fire protection programs, fire protection features, post-fire safe shutdown capabilities, and plant layout, and to obtain plant specific site access training and badging for unescorted site access.

An initial list of the documents the team will review during the conduct of the inspection are listed in the Enclosure. The team leader will contact you with any additional specific document requests prior to the information gathering visit.

Your cooperation and support during this inspection will be appreciated. If you have questions concerning this inspection, or the inspection team's information request or logistical needs, please contact Mr. John Richmond, Team Leader at (610) 337-5220, or via e-mail at john.richmond@nrc.gov.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, under control number 3150-0011. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

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Sincerely,

/RA/

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

Docket No.: 50-286
License No.: DPR-64

Enclosure:
Fire Protection Program Supporting Documentation

cc: Distribution via ListServ

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Distribution w/encl: (via E-mail)

W. Dean, RA
D. Lew, DRA
M. Scott, DRP
E. Benner, DRP
R. Lorson, DRS
J. Trapp, DRS
A. Burritt, DRP

T. Setzer, DRP
L. McKown, DRP
J. Petch, DRP
S. Stewart, DRP, SRI
A. Patel, DRP, RI
T. Lamb, DRP, RI (Actg)
D. Hochmuth, DRP, AA

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DOCUMENT NAME: IP-3 Fire 90-day Letter.docx

Non-Public Designation Category: MD 3.4 Non-Public B.1

ADAMS ACCESSION NUMBER: ML14013A014

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available		
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OFFICIAL RECORD COPY

Fire Protection Program Supporting Documentation

If you have any questions regarding this information request, please contact Mr. John Richmond as soon as possible, at (610) 337-5220 or via e-mail at john.richmond@nrc.gov.

Electronic format on compact disc (CD) or digital versatile disc (DVD) is the preferred media, except where specifically noted. If electronic media is made available via an internet based remote document management system, then the remote document access must allow inspectors to download, save, and print the documents in the NRC's regional office. Paper records (hard copy) are of course always acceptable. At the end of the inspection, the documents in the team's possession will not be retained.

This document request is based on *typical documents* that a generic plant might have. As such, this generic document request is not meant to imply that any specific plant is required to have all of the listed documents. It is recognized that some documents listed below may not be available for your plant. In addition, the document titles listed below are based on typical industry document names; your plant specific document titles may vary.

1. Information Requested Prior to the Information Gathering Visit

Preferably no later than three weeks prior to the Information Gathering Visit, provide these documents to the inspection team leader in the Region 1 Office

A. DESIGN AND LICENSING BASIS DOCUMENTS

- A.1 Post-fire Safe Shutdown or Alternative Shutdown Analysis
- A.2 Fire Hazards Analysis
- A.3 Individual Plant Examination for External Events (IPEEE) (Fire Chapter ONLY)
- A.4 Fire Probabilistic Risk Assessment (Fire PRA) Summary Document (if available)

Based on review of the above documents, the team leader should identify a preliminary list of fire areas being considered for inspection prior to the on-site information gathering visit. During the information gathering visit, or shortly thereafter, the fire areas selected for inspection will be determined.

I. Information Requested during the Information Gathering Visit

On the first day of the Information Gathering Visit, provide these documents to the inspection team:

A. DESIGN AND LICENSING BASIS DOCUMENTS

- A.5 Fire Protection Program and/or Fire Protection Plan
- A.6 Fire Protection System Design Basis Document

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- A.7 Post-fire Safe Shutdown or Alternative Shutdown Design Basis Document
- A.8 LIST of applicable NFPA codes and standards (i.e., codes of record)
- A.9 LIST of deviations from NFPA codes of record
- A.10 NFPA Compliance Review Report (if available)
- A.11 Report or evaluation that compares the fire protection program to the NRC Branch Technical Position (BTP) 9.5-1 Appendix A
- A.12 COPY of exemption requests submitted but not yet approved for plant fire protection and post-fire safe shutdown or alternative shutdown features
- A.13 Facility Operating License
- A.14 Technical Requirements Manual (electronic format only)
- A.15 Updated Final Safety Analysis Report (electronic format only)

B. GENERAL PLANT DESIGN DOCUMENTS

- B.1 P&IDs and legend list for fire protection systems, including fire water supply, water suppression sprinklers & deluge, and CO₂ & Halon systems. (C-size paper drawings)
- B.2 Yard layout drawings for underground fire protection buried piping. (C-size paper drawings)

C. CLASSIC FIRE PROTECTION

- C.1 Pre-fire plans for all fire areas. (electronic copies)
- C.2 Impairment Log for fire protection features that are out of service
- C.3 COPY of fire protection program implementing procedures (e.g., administrative controls, surveillance testing, fire brigade)
- C.4 LIST of calculations and engineering analyses, studies, or evaluations for the fire protection system, including the fire water system
- C.5 Hydraulic calculation or analysis for fire protection water system
- C.6 LIST of routine tests, surveillances, and preventive maintenance on fire pumps, including pump controllers and batteries

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- C.7 Last two completed 24 month fire pump pressure and flow tests
- C.8 Last two completed monthly fire pump tests
- C.9 Last two completed fire loop flow tests and loop flushes
- C.10 COPY of the complete test, surveillance, or maintenance procedure (current document control copy), including any associated data forms, for the completed surveillances requested above in C.7, C.8, and C.9
- C.11 LIST of penetration seal work, re-work, or installation activities, in the last three years
- C.12 LIST of fire wrap work, re-work, or installation activities, in the last three years
- C.13 Last five hot work permits (at power)
- C.14 Last five transient combustible permits (at power)
- C.15 For Fire Brigade Drills, provide the following:
- Last five fire brigade drill critiques;
 - Last drill critique for a drill with off-site fire department support
 - Last unannounced drill critique by a qualified individual independent of the licensee's staff
 - Last unannounced drill critique
 - Last back-shift drill critique
 - Dates, shifts, and locations of unannounced drills for last three years; and
 - Summary of any unsatisfactory drill performance items for last three years
- C.16 For Fire Brigade Equipment, provide the following:
- Procedure for inventory and inspection; and
 - Most recent inspection and inventory results
- C.17 Fire Brigade Qualifications, including self-contained breathing apparatus (SCBA) training lesson plans
- C.18 For credited radio communications, provide the analysis or evaluation which demonstrates the adequacy and availability of the radio communications for a post-fire safe shutdown scenario, for all fire areas (e.g., power supply availability, radio coverage tests, etc.)

C.19 For Emergency Lighting Units (ELU), provide the following:

- LIST of Preventive Maintenance tasks and frequencies
- Most recently performed monthly or quarterly functional test
- Most recently performed battery discharge performance test
- ELU battery loading analysis, for ELUs that supply more than two light heads
- Vendor manual(s) for on-site inspector use
- Results of black-out testing (if performed); and
- Compensatory measures taken when ELUs are out of service

C.20 Fire protection system health reports for the two most recent quarters

C.21 Fire protection program health report for the two most recent quarters

C.22 Emergency lighting system health reports for the two most recent quarters

C.23 Three Fire Protection screening reviews for recent design changes, modifications, or temporary modifications (e.g., a Generic Letter 86-10 review that screened out)

C.24 LIST of fire protection system design changes completed in the last three years (including their associated 10 CFR 50.59 and Generic Letter 86-10 evaluations)

C.25 Licensee evaluation of industry operating experience:

- NRC IN 2009-02, Bio-Diesel Fuel Oil Usage, for diesel fire pump; and
- NRC IN 2009-29, Fire Pumps Fail to Start due to a Fire

D. ELECTRICAL

D.1 Identify whether the cables in the plant are predominantly Thermoset or Thermoplastic

D.2 Maintenance procedures that verify breaker over-current trip settings to ensure coordination remains functional, for post-fire safe shutdown or alternative shutdown equipment

D.3 Electrical system health reports for the two most recent quarters

D.4 Last surveillance demonstrating operability of those components operated from the safe shutdown or alternative shutdown panel

D.5 LIST of post-fire safe shutdown or alternative shutdown design changes completed, in the last three years

E. SPURIOUS FIRE INDUCED CIRCUIT FAULT

- E.1 Multiple Spurious Operation (MSO) Expert Panel Report
- E.2 LIST of corrective actions planned or taken as a result of the MSO report

F. OPERATIONS

- F.1 LIST of calculations and engineering analyses, studies, or evaluations for the safety shutdown or alternative shutdown methodology
- F.2 Thermal hydraulic calculation or analysis that determines the time requirements for time-critical manual operator actions
- F.3 Calculation or analysis that demonstrates pressurizer level will remain within the indicating range of the safe shutdown or alternative shutdown panel instruments, in accordance with the requirements of 10 CFR 50, Appendix R, III.L performance goals
- F.4 Operating procedures for post-fire safe shutdown from the main control room (e.g., with a postulated fire in a 10 CFR 50 Appendix R III.G.2 fire area)
- F.5 Operating procedures for post-fire safe shutdown from outside the control room (e.g., with a postulated fire in a 10 CFR 50 Appendix R III.G.3 fire area)
- F.6 For operator manual actions (OMAs), provide the following:
 - Manual Action Feasibility Study
 - Operator Time Critical Action Program
 - Time lines for time-critical OMAs; and
 - Time line validations
- F.7 Environmental and habitability evaluations for post-fire operator manual actions (temperature, smoke, humidity, SCBAs, etc.)
- F.8 LIST of licensed operator Job Performance Measures (JPMs) for operator manual actions required by post-fire safe shutdown or alternative shutdown
- F.9 LIST of non-licensed operator training associated with post-fire safe shutdown or alternative shutdown manual actions which would be performed by a non-licensed operator (including JPMs, in-field training walkdowns, simulations, or initial qualification)
- F.10 Lesson plans for post-fire safe shutdown or alternative shutdown training for licensed and non-licensed operators

F.11 For safe shutdown equipment and tools, provide the following:

- Procedure for inventory and inspection; and,
- Most recent inspection and inventory results

F.12 LIST of procedures that implement Cold Shutdown Repairs

F.13 For Cold Shutdown Repairs, provide the following:

- Procedure for inventory and inspection (i.e., needed tools, material, etc.); and,
- Most recent inspection and inventory results

F.14 COPY of NRC approved exemption requests for operator manual actions for 10 CFR 50 Appendix R III.G.2 fire areas

F.15 COPY of exemption requests submitted but not yet approved, for operator manual actions for 10 CFR 50 Appendix R III.G.2 fire areas

G. ADMINISTRATIVE CONTROL, OVERSIGHT, AND CORRECTIVE ACTION PROGRAMS

G.1 Corrective actions for fire-induced circuit failures (including but not limited to NRC IN 92-18), both single and multiple spurious actuations

G.2 Corrective actions associated with post-fire safe shutdown or alternative shutdown operator manual actions

G.3 Self-assessments, peer assessments, and audits of fire protection activities and post-fire safe shutdown or alternative shutdown capabilities for the last three years

G.4 LIST of open and closed condition reports for the fire protection system for the last three years

G.5 LIST of open and closed condition reports for emergency lighting units for the last three years

G.6 LIST of open and closed condition reports for post-fire safe shutdown (SSD) or alternative shutdown (ASD) issues for the last three years. This includes issues affecting the SSD or ASD analysis, fire hazards analysis, SSD or ASD operating and/or training, timeline evaluations for operator actions, and supporting engineering evaluations, analysis, or calculations

G.7 LIST of all Generic Letter 86-10 evaluations

G.8 COPY of all Generic Letter 86-10 evaluations performed in the last three years

III. **Information Requested to be Available On-site on the First Day of the Inspection**

On the first day of the on-site inspection, provide these documents to the inspection team:

C. **CLASSIC FIRE PROTECTION**

- C.26 For the specific Penetration Seals selected during the Information Gathering Visit, provide:
- Qualification Records
 - Design specifications
 - Installation details; and
 - Inspection record which verified proper installation
- C.27 For the specific Fire Wraps selected during the Information Gathering Visit, provide:
- Qualification Records
 - Design specifications
 - Installation details; and
 - Inspection record which verified proper installation
- C.28 For the specific fire areas selected for inspection during the Information Gathering Visit, provide the Flooding Analysis which demonstrates:
- a fire water pipe break in the selected fire areas, won't affect safe shutdown (SSD) capability for equipment in the selected fire areas
 - a fire water pipe break in an adjacent fire area, won't effect SSD capability for equipment in the selected fire areas; and
 - hydrostatic rating of any floor penetration seals installed within the fire areas that are credited with keeping water from leaking into the fire areas below
- C.29 For the specific fire areas selected for inspection during the Information Gathering Visit, provide:
- Last two completed surveillance's of fire protection features (e.g., detection, suppression)
 - Damper inspections, damper tests, penetration inspections, barrier inspections, etc.
- C.30 COPY of the complete test, surveillance, or maintenance procedure (current document control copy), including any associated data forms, for the completed surveillances requested above in C.29

C.31 For the specific fire areas selected for inspection during the Information Gathering Visit, if any of the selected fire areas use CO2 or Halon, then provide:

- The initial discharge testing or calculation that determined appropriate concentrations and,
- Soak or hold times can be achieved

D. ELECTRICAL

D.6 For the specific fire areas selected for inspection during the Information Gathering Visit:

- Specifically identify any Thermoplastic cable in the selected areas

D.7 Schematic or elementary diagrams for circuits to be reviewed, as requested during the Information Gathering Visit. (C-size paper drawings)

D.8 For the specific fire areas selected for inspection during the Information Gathering Visit, provide:

- Breaker and fuse coordination calculations for post-fire safe shutdown or alternative shutdown equipment in the selected areas

D.9 Cable routing information, as requested during the Information Gathering Visit