

January 18, 2008

Mr. Charles G. Pardee
Chief Nuclear Officer and
Senior Vice President
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BYRON STATION, UNITS 1 AND 2
FIRE PROTECTION TRIENNIAL BASELINE INSPECTION
NRC INSPECTION REPORT 05000454/2007008(DRS);
05000455/2007008(DRS)

Dear Mr. Pardee:

On December 7, 2007, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Byron Station, Units 1 and 2. The enclosed report documents the inspection results, which were discussed on December 7, 2007, with Mr. Mike Prospero and other members of your staff.

The fire protection triennial baseline inspection was conducted in accordance with NRC Inspection Procedure 71111.05T, "Fire Protection (Triennial)," dated April 21, 2006. The fire protection inspection team examined activities conducted under your license related to safety and to compliance with the Commission's rules and regulations, and the conditions of your license related to fire protection and post-fire safe shutdown. The inspection consisted of a selected examination of procedures and records, observations of activities and installed plant systems, and interviews with personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide

Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Julio F. Lara, Chief
Engineering Branch 3
Division of Reactor Safety

Docket Nos. 50-454; 50-455
License Nos. NPF-37; NPF-66

Enclosure: Inspection Report 05000454/2007008(DRS); 05000455/2007008(DRS)
w/Attachment: Supplemental Information

cc w/encl: Site Vice President - Byron Station
Plant Manager - Byron Station
Regulatory Assurance Manager - Byron Station
Chief Operating Officer and Senior Vice President
Senior Vice President - Midwest Operations
Senior Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director - Licensing and Regulatory Affairs
Manager Licensing - Braidwood, Byron, and LaSalle
Associate General Counsel
Document Control Desk - Licensing
Assistant Attorney General
Illinois Emergency Management Agency
State Liaison Officer, State of Illinois
State Liaison Officer, State of Wisconsin
Chairman, Illinois Commerce Commission
B. Quigley, Byron Station

C. Pardee

-2-

Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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Director - Licensing and Regulatory Affairs
Manager Licensing - Braidwood, Byron, and LaSalle
Associate General Counsel
Document Control Desk - Licensing
Assistant Attorney General
Illinois Emergency Management Agency
State Liaison Officer, State of Illinois
State Liaison Officer, State of Wisconsin
Chairman, Illinois Commerce Commission
B. Quigley, Byron Station

DOCUMENT: G:\DRS\Work in Progress\Byron 01__08 2007-008 GMH.doc

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DATE	01/18/2008		01/08/2008			

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Letter to Mr. Charles G. Pardee from Mr. Julio F. Lara dated January 18, 2008

SUBJECT: BYRON STATION, UNITS 1 AND 2
FIRE PROTECTION TRIENNIAL BASELINE INSPECTION
NRC INSPECTION REPORT 05000454/2007008(DRS);
05000455/2007008(DRS)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-454; 50-455
License Nos: NPF-37; NPF-66

Report Nos: 05000454/2007008(DRS); 05000455/2007008(DRS)

Licensee: Exelon Generation Company, LLC

Facility: Byron Station, Units 1 and 2

Location: Byron, IL 61010-9750

Dates: November 13 - 16, 2007, and November 26 - 30, 2007

Inspectors: George M. Hausman, Senior Reactor Inspector (Lead)
Benny Jose, Reactor Inspector
Darrell L. Schrum, Reactor Inspector

Observer(s): Jasmine A. Gilliam, Reactor Inspector
Robert A. Winter, Reactor Inspector

Approved by: Julio F. Lara, Chief
Engineering Branch 3
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000454/2007008(DRS); 05000455/2007008(DRS); 11/13/2007 - 11/30/2007; Byron Station, Units 1 and 2; Fire Protection Triennial Baseline Inspection.

This report covers an announced fire protection triennial baseline inspection. The inspection was conducted by Region III inspectors in accordance with the U. S. Nuclear Regulatory Commission's (NRC's) Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," dated April 21, 2006. Based on the results of this inspection, no findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC describes its program for overseeing the safe operation of commercial nuclear power reactors in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Initiating Events

No findings of significance were identified.

Cornerstone: Mitigating Systems

No findings of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events and Mitigating Systems

1R05 Fire Protection (71111.05T)

The purpose of the fire protection triennial baseline inspection was to conduct a design-based, plant specific, risk-informed, onsite inspection of the licensee's fire protection program's defense-in-depth elements used to mitigate the consequences of a fire. The fire protection program shall extend the concept of defense-in-depth to fire protection in plant areas important to safety by:

- preventing fires from starting;
- rapidly detecting, controlling and extinguishing fires that do occur; and
- providing protection for structures, systems, and components important to safety so that a fire that is not promptly extinguished by fire suppression activities will not prevent the safe shutdown of the reactor plant.

The inspectors' evaluation focused on the design, operational status, and material condition of the reactor plant's fire protection program and post-fire safe shutdown systems. The objectives of the inspection were to assess whether the licensee had implemented a fire protection program that: (1) provided adequate controls for combustibles and ignition sources inside the plant; (2) provided adequate fire detection and suppression capability; (3) maintained passive fire protection features in good material condition; (4) established adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems or features; (5) ensured that procedures, equipment, fire barriers and systems exist so that the post-fire capability to safely shut down the plant was ensured; (6) included feasible and reliable operator manual actions when appropriate to achieve safe shutdown; and (7) identified fire protection issues at an appropriate threshold and ensured these issues were entered into the licensee's problem identification and resolution program.

In addition, the inspectors' review and assessment focused on the licensee's post-fire safe shutdown systems for selected risk-significant fire areas. Inspector emphasis was placed on determining that the post-fire safe shutdown capability and the fire protection features were maintained free of fire damage to ensure that at least one post-fire safe shutdown success path was available. The inspection was performed in accordance with U. S. Nuclear Regulatory Commission (NRC) Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," dated April 21, 2006. The NRC regulatory oversight process IP used a risk-informed approach for selecting the fire areas and/or fire zones and attributes to be inspected. The inspectors with assistance from a senior reactor analyst used the licensee's Individual Plant Examination for External Events (IPEEE) to select several risk-significant areas for detailed inspection and review. The fire areas and/or fire zones selected for review during this inspection are listed below and constitute four inspection samples.

<u>Fire</u>	<u>Fire Zone</u>	<u>Description</u>
3	3.3 B-2	Unit 2 Upper Cable Spreading Room
5	5.2-2	Unit 2 Division 21 ESF Switchgear Room
11	11.2-0	Unit 1 Auxiliary Building General Area Elevationation 346 ft-0 in.
11	11.6-0	Unit 2 Auxiliary Building General Area Elevationation 426 ft-0 in.

.1 Shutdown from Outside Main Control Room

a. Inspection Scope

The inspectors reviewed the functional requirements identified by the licensee as necessary for achieving and maintaining hot shutdown conditions to ensure that at least one post-fire safe shutdown success path was available in the event of fire in each of the selected fire areas and for alternative shutdown in the case of control room evacuation. The inspectors reviewed the plant systems required to achieve and maintain post-fire safe shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe shutdown conditions for each fire area selected for review. Specifically, the review was performed to determine the adequacy of the systems selected for reactivity control, reactor coolant inventory makeup, reactor heat removal, process monitoring, and support system functions. The review also included the fire safe shutdown analysis to ensure that all required components in the selected systems were included in the licensee's safe shutdown analysis.

The inspectors reviewed the licensee's post-fire safe shutdown analysis, normal and abnormal operating procedures, piping and instrumentation drawings, electrical drawings, their updated final safety analysis report, and other supporting documents to verify that hot and cold shutdown could be achieved and maintained from outside the control room for fires that rely on shutdown from outside the control room. This review included verification that shutdown from outside the control room could be performed both with and without the availability of offsite power.

The inspectors also examined the operators' ability to perform the necessary manual actions for achieving safe shutdown by reviewing post-fire shutdown procedures, the accessibility of safe shutdown equipment, and the available time for performing the actions.

The inspectors reviewed the updated final safety analysis report and the licensee's engineering and/or licensing justifications (e.g., NRC guidance documents, license amendments, technical specifications, safety evaluation reports, exemptions, and deviations) to determine the licensing basis

b. Findings

No findings of significance were identified.

.2 Protection of Safe Shutdown Capabilities

a. Inspection Scope

For each of the selected fire areas, the inspectors reviewed the fire hazards analysis, safe shutdown analysis, and supporting drawings and documentation to verify that safe shutdown capabilities were properly protected.

The inspectors reviewed the licensee procedures and programs for the control of ignition sources and transient combustibles to assess their effectiveness in preventing fires and in controlling combustible loading within limits established in the fire hazards analysis. The inspectors performed plant walkdowns to verify that protective features were being properly maintained and administrative controls were being implemented.

The inspectors also reviewed the licensee's design control procedures to ensure that the process included appropriate reviews and controls to assess plant changes for any potential adverse impact on the fire protection program and/or post-fire safe shutdown analysis and procedures.

b. Findings

No findings of significance were identified.

.3 Passive Fire Protection

a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire area barriers, penetration seals, fire doors, electrical raceway fire barriers, and fire rated electrical cables. The inspectors observed the material condition and configuration of the installed barriers, seals, doors, and cables. The inspectors reviewed approved construction details and supporting fire tests. In addition, the inspectors reviewed license documentation, such as NRC safety evaluation reports, and deviations from NRC regulations and the National Fire Protection Association codes to verify that fire protection features met license commitments.

The inspectors walked down accessible portions of the selected fire areas to observe material condition and the adequacy of design of fire area boundaries (including walls, fire doors, and fire dampers) to ensure they were appropriate for the fire hazards in the area.

The inspectors reviewed the installation, repair, and qualification records for a sample of penetration seals to ensure the fill material was of the appropriate fire rating and that the installation met the engineering design.

b. Findings

No findings of significance were identified.

.4 Active Fire Protection

a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire suppression and detection systems. The inspectors observed the material condition and configuration of the installed fire detection and suppression systems. The inspectors reviewed design documents and supporting calculations. In addition, the inspectors reviewed license basis documentation, such as, NRC safety evaluation reports, deviations from NRC regulations, and the National Fire Protection Association codes to verify that fire suppression and detection systems met license commitments.

b. Findings

No findings of significance were identified.

.5 Protection from Damage from Fire Suppression Activities

a. Inspection Scope

For the selected fire areas, the inspectors verified that redundant trains of systems required for hot shutdown would not be subject to damage from fire suppression activities or from the rupture or inadvertent operation of fire suppression systems including the effects of flooding. The inspectors conducted walkdowns of each of the selected fire areas to assess conditions, such as, the adequacy and condition of floor drains, equipment Elevations, and spray protection.

b. Findings

No findings of significance were identified.

.6 Alternative Shutdown Capability

a. Inspection Scope

The inspectors reviewed the licensee's systems required to achieve alternative safe shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe shutdown conditions. The inspectors also focused on the adequacy of the systems to perform reactor pressure control, reactivity control, reactor coolant makeup, decay heat removal, process monitoring, and support system functions.

The team conducted selected area walkdowns to determine if operators could reasonably be expected to perform the alternate safe shutdown procedure actions and that equipment labeling was consistent with the alternate safe shutdown procedure. The

review also looked at operator training as well as consistency between the operations shutdown procedures and any associated administrative controls.

b. Findings

No findings of significance were identified

.7 Circuit Analyses

a. Inspection Scope

The inspectors reviewed the licensee's post-fire safe shutdown analysis to verify that the licensee had identified both required and associated circuits that may impact safe shutdown. On a sample basis, the inspectors verified that the cables of equipment required achieving and maintaining hot shutdown conditions, in the event of fire in the selected fire zones, had been properly identified. In addition, the inspectors verified that these cables had either been adequately protected from the potentially adverse effects of fire damage, mitigated with approved manual operator actions, or analyzed to show that fire-induced faults (e.g., hot shorts, open circuits, and shorts to ground) would not prevent safe shutdown. In order to accomplish this, the inspectors reviewed electrical schematics and cable routing data for power and control cables associated with each of the selected components.

In addition, on a sample basis, the adequacy of circuit protective coordination for the safe shutdown systems' electrical power and instrumentation busses were evaluated. Also, on a sample basis, a cable tray that contain both safe shutdown and non-safe shutdown cables was evaluated for proper circuit protection to ensure that cables are protected by a proper protective device in order to preclude common enclosure concerns.

b. Findings

No findings of significance were identified.

.8 Communications

a. Inspection Scope

The inspectors reviewed, on a sample bases, the adequacy of the communication system to support plant personnel in the performance of alternative safe shutdown functions and fire brigade duties. The inspectors verified that plant telephones, page systems, sound powered phones, and radios were available for use and maintained in working order. The inspectors reviewed the electrical power supplies and cable routing for these systems to verify that either the telephones or the radios would remain functional following a fire.

b. Findings

No findings of significance were identified.

.9 Emergency Lighting

a. Inspection Scope

The inspectors performed a plant walkdown of selected areas in which a sample of operator actions would be performed in the performance of alternative safe shutdown functions. As part of the walkdowns, the inspectors focused on the existence of sufficient emergency lighting for access and egress to areas and for performing necessary equipment operations. The locations and positioning of the emergency lights were observed during the walkdown and during review of manual actions implemented for the selected fire areas.

b. Findings

No findings of significance were identified.

.10 Cold Shutdown Repairs

a. Inspection Scope

The inspectors reviewed the licensee's procedures to determine whether repairs were required to achieve cold shutdown and to verify that dedicated repair procedures, equipment, and material to accomplish those repairs were available onsite. The inspectors also evaluated whether cold shutdown could be achieved within the required time using the licensee's procedures and repair methods. The inspectors also verified that equipment necessary to perform cold shutdown repairs was available onsite and properly staged.

b. Findings

No findings of significance were identified.

.11 Compensatory Measures

a. Inspection Scope

The inspectors conducted a review to verify that compensatory measures were in place for out-of-service, degraded or inoperable fire protection and post-fire safe shutdown equipment, systems, or features (e.g., detection and suppression systems, and equipment, passive fire barriers, pumps, valves or electrical devices providing safe shutdown functions or capabilities). The inspectors also conducted a review on the adequacy of short term compensatory measures to compensate for a degraded function or feature until appropriate corrective actions were taken.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program procedures and samples of corrective action documents to verify that the licensee was identifying issues related to the fire protection program at an appropriate threshold and entering them in the corrective action program. The inspectors reviewed selected samples of condition reports, work orders, design packages, and fire protection system non-conformance documents.

Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On December 7, 2007, at the conclusion of the inspection, the inspectors presented the inspection results to Mr. Mike Prospero and other members of licensee management. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

No interim exits were conducted.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

F. Beutler, Design Engineering
S. Chingo, Contractor
J. Connelly, Design Engineering
M. Denniston, Fire Marshall
H. Goi, Design Engineering
B. Grundmann, Regulatory Assurance Manager
T. Hulbert, Regulatory Assurance
H. Kats, System Engineering
R. Lawlor, Senior Reactor Operator - OPS
H. Madronero, Senior Manager Plant Engineering
V. Naschansky, Electrical/landC Design Manager
G. O'Donnell, System Engineering
B. Perchiazzi, Design Engineering
C. Pragman, Corporate Fire Protection Engineer
M. Prospero, Operations Manager
N. Rhoe, System Engineering
S. Rhoe, Design Engineering
D. Robinson, Contractor
M. Shah, Design Engineering
P. Shier, Design Engineering
M. Taylor, Corporate Fire Protection Engineer

Nuclear Regulatory Commission

B. Bartlett, Senior Resident Inspector
R. Ng, Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened, Closed and Discussed

None

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
-----	Hydraulic FP Analysis – M and MPC	June 25, 1985
-----	Hose Station Calculated Flow for Compensatory Action	November 15, 2007
19-AN-3	Protective Relay Settings for 4.16kV ESF Switchgear	16
19-AU-4	480V Unit Substation Breaker and Relay Settings	16
6G-01-0018	TRM Surveillance – Fire Suppression Water Supply System Revised	May 21, 2001
BYR97-099	Hydraulic Calculations for Byron Station	November 18, 1993
DO-083184	Emergency Vent Disposition for Tank 1/20O10T	September 24, 1984

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00689737	Incorrect Reference Found In FPR	November 13, 2007
00700397	NRC Identified FPR Discrepancies	November 16, 2007
00703660	Typo Identified In FPR During NRC FP Inspection	November 26, 2007
00704630	Evaluate the Need For 0HY028 Periodic Testing Requirement	November 28, 2007

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED PRIOR TO INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00148118	NRC Identified Paint Question On Sherwin Williams Paint	March 6, 2003
00430063	Fire Engine Air Brakes	December 2, 2005

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00458146	Complete CDE For IR 00458146	April 14, 2006
00461320	Fire Truck Could Not Be Started	March 2, 2006
00478456	Fire Dampers Not Installed In Fire Rated Barriers	April 13, 2006
00589328	NOS Identified Incomplete Surveillance Datasheet Documentation	February 8, 2007
00603159	Truck Trailer Damaged Guy Wire Causing Transformers To Fail	March 13, 2007
00657030	Aggregate Review Of FP Issues Is Warranted	August 3, 2007

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
-----	Pre-Fire Plans Aux Bldg	January 31, 2007
6E-0-3651	Cable Pans Routing Aux Bldg Plan Elevation 346'-0"	P
6E-0-3653	Cable Pans Routing Aux Bldg Plan Elevation 346'-0" Cols Q-Y, 10-18	V
6E-0-3667	Byron – Units 1 and 2, Cable Pans Routing Aux Bldg Plan Elevation. 426'-0"	BC
6E-0-3779B	Station Emergency Lighting Batt Operated Light Units	F
6E-0-3902	Fire Detection Floor Plan at Elevation 346'-0"	S
6E-0-3906	Fire Detection Mezzanine Floor at Elevation 426'-0"	P
6E-0-4030SX09	S/D ESW Make-Up Pump 0A	O
6E-0-4030SX15	S/D ESW Cooling Tower 0A and 0B Hot Water Bypass to Basin Valves – 0SX162A and B	G
6E-0-4030SX16	S/D ESW Cooling Tower 0A and 0B Hot Water Bypass to Basin Valves – 0SX162C and D	G
6E-0-4030VC20	S/D Control Room Return Air Dampers 0VC01YA and B and 0VC03Y	P

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
6E-1-4001A	Station One Line Diagram	N
6E-1-4030CV14	S/D RHR Exchanger 1A to Charging Pumps Isolation Valve 1CV8804A	N
6E-1-4030AP25	S/D Reserve Feed From 4.16kV ESF SWGR Bus 241 to 4.16kV ESF SWGR Bus 141 and ACB 1414	AD
6E-1-4030RC16	S/D RCS Pressure Control	G
6E-1-4030RH04	S/D RC Loop 1A to RHR Pump Isolation Valves 1RH8701A and B	M
6E-1-4030RH05	S/D RC Loop 1C to RHR Pump Isolation Valves 1RH8702A and B	M
6E-1-4030SI09	S/D Safety Injection Pumps Suction from RWST Isolation Valve 1SI8806; RHR Exchanger 1B to Safety Injection Pumps Isolation Valve 1SI88048	T
6E-1-4030SI14	S/D Containment Sumps 1A and 1B Isolation Valves 1SI8811A and B	P
6E-1-4030SI15	S/D RWST to RHR Pumps 1A and 1B Isolation Valves 1SI8812 A and B	K
6E-2-4030AF05	S/D AFW Regulating Valves 2A, 2B, 2C and 2D	G
Figure 2.3-7	FPR – Upper Cable Spreading Area	Amendment 18
Figure 2.3-10	FPR – Mezzanine Floor Plan Elevation. 426'-0"	Amendment 17
Figure 2.3-15	FPR – Floor Plan at Elevation. 346'-0"	Amendment 18
M-52, Sheet 3	Diagram of FP	AK
M-58	Diagram of FP Portable Fire Extinguisher	G

FIRE IMPAIRMENTS/REMOVAL PERMITS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
-----	FP Impairment Log	November 15, 2007

FIRE IMPAIRMENTS/REMOVAL PERMITS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Clearance 54985	Hose Stations OOS for FP Pipe Replacement Project	November 28, 2007
FSAR Table 3-2	NFPA Code Deviations	Amendment 13

MODIFICATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
SE 6G-00-0120	Combustible Loading Changes in FPR	June 30, 2000
SE 6G-98-0230	Fire Pump Discharge Recirculation Orifices, Elbow, and Piping Replacement (DCP No. 9700233)	February 11, 1999

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
0BMSR 3.10.g.4	Fire Door Semi-Annual Inspection	7
0BMSR 3.10.f.5	TRM Common Fire Hose Station Surveillance	6
0BOA PRI-5	Control Room Inaccessibility Unit 0	101
0BOSR 10.c.2-1	Quarterly FP Sprinkler System Inspectors Test	13
0BOSR 10.g.2-1	Fire Rated Assemblies Locked Fire Door Monthly Surveillance	10
1BOA PRI-5	Control Room Inaccessibility Unit 1	105
BAP 1100-3A3	Pre-Evaluated Plant Barrier Matrix	22
BOP-FP-27	Smoke Removal Plan and MCR/AEER Supplemental Cooling Plan	4
BRP-6210-16	Set-Up And Operation Of Portable Air Filtration/Ventilation Equipment	11
CC-AA-211	Fire Protection Program	2
CC-AA-211-1001	Generic Letter (GL) 86-10 Evaluations	0
LS-AA-128	Regulatory Review Of Proposed Changes To The	0

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Approved Fire Protection Program	
MA-AA-723-350	Emergency Lighting Batt Pack Quarterly Inspection	7
OP-AA-201-002	Attachment 1 – Fire Event Report	February 24, 2006
OP-AA-201-003	Attachment 1 – Fire Drill Record	November 15, 2006

REFERENCES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
-----	Hourly Fire/Flood Watch Inspection Log	October 17, 2007
BYR - 02	GL 86-10 Evaluation For Fire Zones 11.6-0 And 11.6-2 Boundary	0
BYR - 14	GL 86-10 Evaluation For Fire Zones 11.6-0 And 11.6C-0 Boundary	0
BYR - 27	GL 86-10 Evaluation For Fire Zones 11.2-0 And 11.3-0 Boundary	0
BYR - 29	GL 86-10 Evaluation For Fire Zones 11.5-0 And 11.6-0 Boundary	0
BYR - 33	GL 86-10 Evaluation For Fire Zones 11.2-0 To Demonstrate Separation Equivalent For Redundant Unit 1 ESW Pumps	0
BYR - 34	GL 86-10 Evaluation For Fire Zones 11.2-0 To Demonstrate Separation Equivalent For Redundant Unit 2 ESW Pumps	0
Byron 86-0437	CO ₂ Concentration Tests	May 12, 1986
EC 341981	Byron/Braidwood Suppression Effects Analysis	0
EC 367775	Installation Of Temporary HELB/Ventilation Barrier To Support Repair Of Door 445	0
EC-EVAL 339805	Fire Door Acceptance Criteria	0
EC-EVAL 350993	Evaluation Of LaSalle Floor Paint	September 1, 2004

REFERENCES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
FDRP 19-046	UFSAR/FPR Change Request Form – Outdoor Fuel Oil Storage Tanks – Abandon Foam Water Suppression System	November 26, 2002
FPR APP 5.7	Comparison of Byron/Braidwood Conformance To 10 CFR Part 50, Appendix R	20
FPR APP 5.8	Deviations From Section C.5.b of BTP CMEB 9.5-1	20
FSAR Table 2.4-1	Systems Required To Perform SSD Functions	Amendment 21
FSAR Appendix 5.7	Appendix R – Protection Program For Nuclear Power Facilities Operating Prior To January 1, 1979	Amendment 13
Memo	QA Vault And UCSR Halon Test Results	December 11, 1984
Memo	Hydraulic FP Analysis Byron Nuclear Station	April 11, 1986
Memo	NFPA Code Deviations For Byron Unit 2	January 21, 1987
Memo	Project Number 689: NEI Epoxy Floor Coating	June 28, 2004
Memo	NRC Response To Project Number 689	August 8, 2005
NEI 02-03	Guidance For Performing A Regulatory Review Of Proposed Changes To The Approved FPP	1
NUREG-0800, CMEB 9.5.1	Fire Protection Program	July 3, 1981
UFSAR 7.4	Systems Required For Safe Shutdown	9

VENDOR DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
1411182-3	Teledyne Big Beam Batt Model No. L6100S Catalog	0
B-CIM-1059	Vendor Drawing For Bulk Hydrogen Storage System Excess Flow Shut Off Valve	September 1, 1978

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 00804230 01	LCSR Area 1Z4 Low Pressure CO ₂ Surv	October 13, 2006
WO 00806875 01	Perform Sensitivity Testing Or Replacement Of POC	August 24, 2007
WO 00817651 01	UCSR Area 2EE2 Halon Sys Supp and Det 2S-34 D-43	March 29, 2007
WO 00848828 01	Tech Spec Fire Damper 18-Month Visual Inspection	May 10, 2007
WO 00913101 01	Fire Extinguisher Annual Maint and Inspection - Service	February 1, 2007
WO 00983118	Fire Door D445 Gaps Exceed Acceptable Values	October 30, 2007
WO 01001029 01	Motor Driven Fire Pump Monthly Surveillance	March 19, 2007
WO 01009762	Steal Beam 5AB76N Missing FP Board Unit 2 Area 7	April 5, 2007
WO 01028753	EM Teledyne Light Unit Inspection	June 28, 2007
WO 01044126	8-Hour Battery Operated Emergency Light Units	October 28, 2007
WO 01050681 01	24Vdc Diesel FP Pump Batt Bank 1 and 2 Monthly Surv	August 27, 2007
WR 00251197	Fire Door D445 Gaps Exceed Acceptable Values	October 4, 2007

LIST OF ACRONYMS USED

ADAMS	Agency Wide Document Access and Management System
AEER	Auxiliary Electrical Equipment Room
AFW	Auxiliary Feedwater
BTP	Branch Technical Position
CDE	Cause Determination Evaluation
CFR	Code of Federal Regulations
CMEB	Chemical Engineering Branch
DCP	Design Change Package
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EM	Electrical Maintenance
ESF	Engineered Safety Features
ESW	Essential Service Water
FP	Fire Protection
FPP	Fire Protection Program
FPR	Fire Protection Report
FSAR	Final Safety Analysis Report
GL	Generic Letter
HELB	High Energy Line Break
landC	Instrumentation and Control
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEEE	Individual Plant Examination for External Events
IR	Issue Report
LCSR	Lower Cable Spreading Room
LLC	Limited Liability Company
MandMPC	Marsh and McLennan Protection Consultants
MCR	Main Control Room
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NOS	Nuclear Oversight
NRC	U. S. Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NUREG	NRC Technical Report Designation
OA	Other Activities
OOS	Out-of-Service
OPS	Operations
PARS	Publicly Available Records System
POC	Products-of-Combustion
RC	Reactor Coolant

LIST OF ACRONYMS USED

RCS	Reactor Coolant System
RHR	Residual Heat Removal
RWST	Refuel Water Storage Tank
S/D	Schematic Diagram
SDP	Significance Determination Process
SSD	Safe Shutdown
SWGR	Switchgear
TRM	Technical Requirements Manual
UCSR	Upper Cable Spreading Room
UFSAR	Updated Final Safety Analysis Report
V	Volt
Vac	Volt Alternating Current
Vdc	Volt Direct Current
WO	Work Order