NRC INSPECTION MANUAL

SPRA

INSPECTION PROCEDURE 64705

PART 52, FIRE PROTECTION OPERATIONAL PROGRAM

Effective Date: 06/04/2019

PROGRAM APPLICABILITY: IMC 2504 B

64705-01 INSPECTION OBJECTIVES

This inspection is performed on the as built plant, prior to fuel on site, and again prior to fuel load, to verify the operational readiness of the Fire Protection Program (FPP) as specified in the updated final safety analysis report (UFSAR), and as required to transition to power operations. This inspection procedure addresses FPP features that are not examined by the Inspections, Tests, Analysis and Acceptance Criteria (ITAAC) procedures.

The inspection team will evaluate the design, operational status, and material condition of the licensee's FPP, including assumptions made in plant and area specific fire protection (FP) analyses, by verifying that the licensee's program includes:

- a. adequate controls for combustibles and ignition sources inside the plant;
- b. surveillances and adequate controls to implement compensatory measures for out-of-service, degraded or inoperable FP equipment, systems, or features;
- c. adequate protection to ensure the post-fire capability to safely shut down the plant, including implementation of NRC/industry fire-induced circuit failure analysis guidance;
- d. alternative shutdown capability
- e. feasible and reliable manual actions when appropriate to achieve safe shutdown (SSD);
- f. adequate program to review and document FPP changes;
- g. adequate staffing of the licensee's FP organization,
- h. adequate controls to maintain current the documented FPP;
- i. an adequate plant fire brigade program;

- j. an adequate Quality Assurance (QA) program to provide assurance that the FP systems are designed, fabricated, erected, tested, maintained, and operated so that they will function as intended;
- an adequate pre-operational and startup testing program for FP systems and components provide assurance that the equipment is ready for plant commercial operation;
- I. adequate protection from damage from fire suppression activities.

64705-02 INSPECTION REQUIREMENTS

02.01 <u>FPP Review</u>. This inspection procedure is designed to verify that the programmatic and administrative controls of the site's FPP are adequate to ensure compliance with the applicable licensing and regulatory requirements. The inspection procedure is also designed to verify that the systems required to achieve and maintain post-fire SSD are capable of controlling reactivity, reactor coolant makeup, reactor heat removal, process monitoring, and to support associated system functions, and that the licensee's engineering and licensing documents (e.g., NRC guidance documents, license amendments, safety evaluation reports (SERs), exemptions, deviations) support the selection of the designated systems and equipment.

a. Control of Combustible and Ignition Sources

- 1. For a sample of 3 to 5 Fire Areas (FAs), verify that the Fire Hazards Analysis (FHA) properly identifies the fire hazards, quantifies combustibles, and identifies ignition sources. The FHA should quantify both in situ and allowable transient combustible and ignition sources.
- 2. Verify that the licensee's administrative procedures control in situ and transient combustible materials, and that the procedures define the use, handling, and storage of flammable and combustible liquids and gases.
- 3. Verify that the licensee's administrative procedures control potential ignition sources, especially when the licensee is performing hot work, such as welding, heat treating, grinding, brazing, flame of plasma arc cutting, arc gouging, etc.

b. Surveillances and Compensatory Measures

1. Verify that the site's FPP contains requirements to perform periodic surveillances on FP and post-fire SSD equipment, systems, or features (e.g. detection and suppression systems and equipment, passive fire barriers, ventilation fire dampers, structural steel fireproofing materials, penetration seals, or pumps, valves or electrical devices providing SSD functions or capabilities). Verify that the surveillances contain adequate requirements to verify functionality of FP structures, systems, and components (SSCs.)

- 2. Verify that the site's FPP requires the implementation of compensatory measures for FP SSCs that are considered nonfunctional.
- 3. If there are any FP SSCs that are nonfunctional during the time of inspection, verify that compensatory measures are in place, and that they are adequate.
- 4. Verify that a change evaluation is required to be performed to implement any compensatory measure that differs from what is documented in the licensee's FPP.
- 5. Review the licensee's corrective action program to ensure that the program provides for returning the nonfunctional equipment to service in a reasonable period of time (typically days or weeks).

c. Post-Fire SSD and Circuit Analysis

- 1. Verify that the licensee has identified SSCs important to SSD of the reactor and their demonstrated compliance with Title 10 of the Code of Federal Regulations (10 CFR) Part 50.48.
- 2. For a sample of 2-3 FAs, verify that the licensee has performed a post-fire SSD analysis, and that the analysis demonstrates that the SSCs important to safety can accomplish their respective post-fire SSD functions.
- Verify that the FP features in place to protect SSD capability, including power, control, and instrumentation cables, satisfy the license specific separation requirements.
- 4. Verify that circuit breaker coordination and fuse protection have been properly analyzed, and are capable of protecting the power source of the designated redundant or alternative SSD system/equipment.
- 5. Verify that adequate operational procedures for SSD of the plant due to fire are in place.
- 6. Verify that redundant trains of systems required for hot shutdown, which are located in the same FA, are not subject to damage from fire suppression activities or from the rupture or inadvertent operation of fire suppression systems, and that the licensee has addressed each of the following:
 - (a) A fire in a single location that may, indirectly, through the production of smoke, heat, or hot gases, cause activation of automatic fire suppression that could potentially damage all redundant trains.
 - (b) A fire in a single location (or inadvertent manual or automatic actuation, or rupture of a fire suppression system) that may indirectly cause damage to all redundant trains (e.g., sprinkler-caused flooding of other than the locally affected train).
 - (c) Adequate drainage is provided in areas protected by water suppression systems.

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d. Alternative Shutdown Capability

1. Methodology.

For FAs that credit alternative shutdown capability, verify that the licensee's alternative shutdown methodology has properly identified the systems and components necessary to achieve and maintain SSD conditions for each FA, room or zone selected for review. Specifically, determine the adequacy of the systems selected for reactivity control, reactor coolant makeup, reactor heat removal, process monitoring and support system functions.

- (a) Verify that hot and cold shutdown from outside the control room can be achieved and maintained with or without the availability of off-site power for fires in areas where post-fire SSD relies on manipulating shutdown equipment from outside the control room.
- (b) Verify that the transfer of specified plant control functions from the control room to the alternative location(s) has been demonstrated such that the function would be unaffected by fire-induced circuit faults (e.g., by the use of separate fuses and power supplies for alternative shutdown control circuits).

2. Operational Implementation.

- (a) Verify that personnel required to place and maintain the plant in hot shutdown following a fire using the alternative dedicated shutdown system are properly trained and are available at all times among the onsite shift staff, exclusive of the fire brigade.
- (b) Verify that adequate procedures for use of the alternative shutdown system are in place.
- (c) Verify that the licensee conducts periodic operational tests of the alternative shutdown transfer capability and instrumentation and control functions. Also verify that the tests are adequate to prove the functionality of the alternative shutdown capability.
- e. <u>Review and Documentation of FPP Changes.</u> Verify that the site's FPP requires all changes to the program to be reviewed and documented to determine that the change does not adversely affect the ability to achieve and maintain SSD in the event of a fire.

f. Staffing of the FP Organization

- 1. Verify that the FPP identifies the various positions within the licensee's organization that are responsible for the program.
- 2. Verify that the staffing levels and qualifications are appropriate and in accordance with the approved FPP.

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- 3. Verify that the FPP states the authorities that are delegated to each of these positions to implement those responsibilities.
- 4. Verify that general employee fire training includes employee knowledge of combustible and ignition source control procedures, classes of fire (by fuel type), extinguishing agent selection based on fire classification, and site-specific fire reporting procedures.

g. Maintenance of FPP Documents

- 1. Verify that the licensee has procedures stating that the licensee will retain the FPP and each change to the FPP as a record until the Commission terminates the reactor license and that the licensee shall retain each superseded revision of the FPP for 3 years from the date it was superseded.
- Verify that the licensee's FPP and change process are adequate to ensure that all necessary program documents, calculations, etc. are updated as a result to any change to the FPP.

h. Fire Brigade

- 1. Verify that the fire brigade includes the required number of trained firefighting personnel whose expected responsibilities during a fire event do not conflict with their fire brigade duties.
- Verify that the fire brigade is appropriately equipped (i.e., protective clothing and selfcontained breathing apparatus.) Verify that the program is adequate to ensure that the fire brigade equipment is adequately tested and maintained.
- 3. Verify that communications equipment used by the fire brigade is functional.
 - (a) Assess the capability of the communication systems used for fire event notification and fire brigade firefighting activities and to support the operators in the conduct and coordination of their required actions (e.g., consider ambient noise levels, clarity of reception, reliability, and coverage patterns). If specific issues arise relating to alternative or dedicated shutdown communications adequacy, then, observe a licensee-conducted communications test in the subject plant area or areas.
 - (b) Verify that a fire would not affect communications equipment such as repeaters, transmitters, etc.
- 4. Verify that manual suppression equipment to be used by the fire brigade is available and functional (i.e., standpipe connections, hose stations, fire extinguishers, hose and nozzles, hand tools, etc.).

- 5. Verify that there is a fire brigade training program, and that the program provides for periodic fire drills that verify adequate performance of the fire brigade.
- 6. Verify that fire drill procedures include requirements for the number and identity of participants; effective/challenging scenarios; qualification of participants; procedures on documentation; and drill reports with critiques.
- 7. Verify that firefighting pre-plans identify the plant areas containing SSCs important to safety and the locations and layout of equipment, including power and communication (information and control) cables, important to safety within those areas. Verify that the pre-fire planning identifies hazards (i.e., energized equipment, radiation/contaminated areas, etc.) as necessary.
- 8. Verify that firefighting pre-plans prepares the fire brigade members to overcome potential security related access problems (such as locked or electrically failed-shut doors) and health physics related issues affecting access for fires in radiologically controlled/high radiation areas.
- 9. If the licensee has a memorandum of understanding with an offsite firefighting organization that provides support for the plant fire brigade, verify that procedures are in place for coordinating firefighting activities, including drills, and that the offsite organization will receive appropriate training for dealing with nuclear plant fires and plant-specific conditions.
- i. <u>Quality Assurance Program.</u> Verify that the licensee has effectively implemented a QA program that provides assurance that the FP systems are designed, fabricated, erected, tested, maintained, and operated so that they will function as intended.

j. Pre-Operational and Startup Program

- 1. Verify that the pre-operational and startup testing program for FP systems and components provide assurance that the equipment is ready for plant commercial operation.
- Observe testing, or review test data and results to evaluate the performance and integrity of the as-built FP systems and components. This includes test acceptance criteria and test procedures. Written test procedures for startup tests should incorporate the requirements and acceptance limits contained in applicable design documents.
- 02.02 <u>Problem Identification and Resolution</u>. Verify that the licensee's FPP has a mechanism for the identification and resolution of problems associated with the adequate implementation of the program. Verify that issues that are identified are captured and addressed in accordance with the quality assurance program that is credited for the site's FPP. The inspection team should verify that the licensee is identifying issues related to FP at an appropriate threshold and entering the issues in the corrective action program. For a sample of selected issues documented in the corrective action program, the team should verify that the corrective actions are appropriate.

64705-03 INSPECTION GUIDANCE

- 03.01.a.1 No specific guidance.
- 03.01.a.2 The licensee should prohibit storage of combustibles in plant areas important to safety, establish designated storage areas with appropriate FP, and control use of specific combustibles (e.g., wood) in plant areas important to safety. Additional guidance can be found in Regulatory Guide 1.189, Section 2.1, "Control of Combustibles," and Section 2.2, "Control of Ignition Sources."
- 03.01.a.3 Electrical equipment (permanent and temporary), hot work activities (e.g., open flame, welding, cutting, and grinding), high-temperature equipment and surfaces, heating equipment (permanent and temporary installation), reactive chemicals, static electricity, and smoking are all potential ignition sources. Additional guidance can be found in Regulatory Guide 1.189, Section 2.1, "Control of Combustibles," and Section 2.2, "Control of Ignition Sources."
- 03.01.b.1 The licensee should establish a program for independent inspection of activities affecting FP that allows the organization performing the activity to verify conformance to the design bases. The licensee should develop and document the schedules and methods for periodic testing. Periodic testing of FP equipment, emergency lighting, and communications equipment will ensure that the equipment will function properly and continue to meet the design criteria.
- 03.01.b.2 These compensatory measures should compensate for the degraded function or feature by enhancing one or more defense-in-depth elements until appropriate corrective action can be taken. Additional guidance can be found in:
 - Regulatory Guide 1.189, Section 1.5, "Compensatory Measures," and Section 1.7.4, "Inspection," Section 1.7.5, "Test and Test Control," Section 1.7.8, "Corrective Action," and Section 2.4 "Fire Prevention System Maintenance and Impairments."
 - RIS 2005-07, "Compensatory Measures to Satisfy the Fire Protection Program Requirements."
 - IN 97-48, "Inadequate or Inappropriate Interim Fire Protection Compensatory Measures," July 9, 1997.
 - NFPA 25, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."
- 03.01.b.3 Fire watch is often the compensatory measure of choice for a large variety of FP malfunctions and deficiencies. If fire watches are to be used as compensatory measures, verify that employee and contract personnel assigned to fire watches are given instructions on the following:
 - (a) appropriate instruction on fire watch duties, responsibilities, and required actions for the different types of fire watches such as continuous hot work, hourly fire watches, etc.

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- (b) appropriate instruction with the extinguishing equipment to be used while on fire watch.
- (c) appropriate instruction on record keeping requirements, such as maintaining a fire watch log.

03.01.b.4 No specific guidance.

03.01.b.5 In its evaluation of the impact of a degraded or nonconforming condition on plant and individual SSC operation, a licensee may decide to implement a compensatory measure as an interim step to restore operability or to otherwise enhance the capability of SSCs important to safety until the final corrective action is complete. Reliance on a compensatory measure for operability should be an important consideration in establishing the timeframe for completing the corrective action. The NRC would normally expect conditions that require interim compensatory measures to demonstrate operability to be resolved more promptly than conditions that are not dependent on compensatory measures to show operability; such reliance suggests a greater degree of degradation. Similarly, if an operability determination is based on operator action, the NRC staff would expect the licensee to resolve the nonconforming condition expeditiously.

03.01.c.1 The functions required for post-fire SSD generally include, but are not limited to the following:

- Reactivity control
- Pressure control systems
- Inventory control systems
- Decay heat removal systems
- Process monitoring (as defined in NRC Information Notice 84-09)
- Support systems
 - Electrical power and control systems
 - Component Cooling systems
 - Component Lubrication systems

SSD systems are selected so that the capability to perform these required functions is a part of each SSD path.

03.01.c.2 The FPP should include a SSD analysis to demonstrate that the SSCs important to safety can accomplish their respective post-fire SSD functions. The SSD analysis should demonstrate that the success path SSCs, including electrical circuits, remain free of fire damage in the event of postulated fires. Review specific process and instrumentation diagrams (P&IDs) for flow diversions, loss of coolant, or other scenarios which could adversely affect the nuclear power plants capability to achieve and maintain hot shutdown. Verify that the licensee's analysis identified and considered such processes and circuits, and that the analysis has shown that hot shorts, and/or shorts to ground will not prevent SSD.

03.01.c.3 New reactor designs are such that SSD can be achieved by assuming that all equipment in any one FA will be rendered inoperable by fire, due to FAs being separated by

3-hour rated fire barriers. If there are any rooms that contain cables or equipment for the credited success path, this equipment must be protected by one of the following:

- A one-hour fire rated barrier, with fire detectors and an automatic fire suppression system in the FA.
- 20 feet of separation with no intervening combustibles or fire hazards with fire detectors and an automatic fire suppression system in the FA.

Because of its physical configuration, the control room is excluded from this approach, provided that the design includes an independent alternative shutdown capability that is physically and electrically independent of the control room.

03.01.c.4 No specific guidance.

03.01.c.5 For post-fire SSD SSCs, review the post-fire SSD procedure for the selected FAs/fire zones (reference section 03.02.a) to verify that steps taken by operators are adequate to ensure the operability/functionality of the SSC to support SSD. If the licensee's SSA for the selected areas credits operator manual actions (OMAs) or recovery actions (RAs), consider conducting a walk down of the applicable steps of the procedure to verify the feasibility and reliability of the credited OMAs/RAs. The intent of this inspection requirement is to support verification of engineering inputs and assumptions. Resources permitting, the team may verify other aspects of the OMAs/RAs such as whether any special equipment is required to perform these procedures and if the equipment is available, accessible, properly staged, and in good working order. Additionally, the team may choose to verify that the knowledge level of the operators is adequate concerning equipment location and operation. Reference NUREG-1852 for additional guidance on feasibility and reliability of operator actions.

03.01.c.6 Floor drains sized to remove expected firefighting water without flooding equipment important to safety should be provided in areas where fixed water fire suppression systems are installed. Floor drains should also be provided in other areas where hand hose lines may be used if such firefighting water could cause unacceptable damage to equipment important to safety in the area. Facility design should ensure that fire-water discharge in one area does not impact equipment important to safety in adjacent areas.

03.01.d.1 For the main control room or any other area that does not meet the plant-specific separation requirements, verify that the licensee has provided alternative shutdown capability that provides physical and electrical independence from the area of concern. This is usually accomplished with isolation/transfer switches, specific cable routing and protection, and remote/auxiliary shutdown panel(s). The alternative/dedicated SSD system(s) must be able to be powered from the onsite power supplies, which must be physically and electrically independent from the area under consideration. The availability or loss of offsite power and loss of automatic initiation logic signals must be accounted for in the equipment and systems selected or specified.

03.01.d.2 Reference section 03.01.c.5 for guidance on review of SSD procedures.

03.01.e A licensee that references a 10 CFR Part 52 certified design should use the change process delineated in the appropriate Appendix of 10 CFR Part 52. For example, a licensee that references the AP1000 design certification should use the change process that is described in 10 CFR Part 52 Appendix D, VIII, "Process for Changes and Departures." If the licensee has

adopted the standard FP license condition, then the licensee may make changes to the approved FPP without prior approval by the Commission only if those changes would not adversely affect the ability to achieve and maintain SSD in the event of a fire. Within the context of the standard FP license condition, the phrase "not adversely affect the ability to achieve and maintain SSD in the event of a fire," means to maintain sufficient safety margins. Reference Regulatory Guide 1.189 for more information on changes to the FPP.

- 03.01.f.1 The licensee should describe the organizational structure of the FPP and responsibilities for its establishment and implementation. These responsibilities include FPP policy; program management (including program development, maintenance, updating, and compliance verification); FP staffing and qualifications; engineering and modification; inspection, testing, and maintenance of FP systems, features, and equipment; fire prevention; emergency response (e.g., fire brigades and offsite mutual aid); and general employee, operator, and fire brigade training. Additional guidance can be found in: Regulatory Guide 1.189, Section 1.1, "Organization, Staffing, and Responsibilities," and Section 1.6, "Fire Protection Training and Qualifications."
- 03.01.f.2 The licensee should assign direction of the FPP to an individual who has been delegated authority commensurate with the responsibilities of the position and who has available staff personnel knowledgeable in both FP and nuclear safety. The licensee should assign overall responsibility for the FPP to a person who has management control over all organizations involved in FP activities.
- 03.01.f.3 No specific guidance.
- 03.01.f.4 No specific guidance.
- 03.01.g.1 No specific guidance.
- 03.01.g.2 No specific guidance.
- 03.01.h.1 The fire brigade should include at least five members on each shift. The shift supervisor should not be a member of the fire brigade.
- 03.01.h.2 The equipment provided for the brigade should consist of personal protective equipment, such as turnout coats, bunker pants, boots, gloves, hard hats, emergency communications equipment, portable lights, portable ventilation equipment, and portable extinguishers. Self-contained breathing apparatuses using full-face positive-pressure masks approved by the National Institute for Occupational Safety and Health should be provided for fire brigade personnel.
- 03.01.h.3 No specific guidance.
- 03.01.h.4 No specific guidance.
- 03.01.h.5 The guidelines of NFPA 600, "Standard of Facility Fire Brigades," are considered appropriate criteria for organizing, training, and operating a plant fire brigade. Additional guidance can be found in Regulatory Guide 1.189, Section 3.5, "Manual Firefighting Capabilities."
- 03.01.h.6 No specific guidance.

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- 03.01.h.7 No specific guidance.
- 03.01.h.8 No specific guidance.
- 03.01.h.9 If the license has a memorandum of understanding with an offsite fire service the FPP should describe the capabilities of the offsite responders. This may include equipment compatibility, training, drills, and command control. The plant fire brigade drill schedule should provide for periodic local fire department participation (at least annually).
- 03.01.i To implement the FP QA program in this regulatory position, licensees have the option of either (1) including the FP QA program as part of the plant's overall QA program under Appendix B to 10 CFR Part 50, or (2) creating a separate QA program specific to the FPP. The licensee should maintain a QA program that provides assurance that the FP systems are designed, fabricated, erected, tested, maintained, and operated so that they will function as intended. The FP QA program should satisfy the specific criteria that apply to items within the scope of the FPP, such as FP systems and features, emergency lighting, communications equipment, self-contained breathing apparatus, and the FP requirements of applicable equipment important to safety. Additional guidance can be found in Regulatory Guide 1.189, Section 1.7, "Quality Assurance."
- 03.01.j.1 No specific guidance.
- 03.01.j.2 No specific guidance.
- 03.02 No specific guidance.
- 03.03 General Guidance

<u>Regulatory Requirements and Licensing Basis.</u> The regulatory requirements and licensing bases against which post-fire SSD capability is assessed are as follows:

- 1. 10 CFR Part 50. 10 CFR Part 50.48(a), "Fire Protection," requires each operating nuclear power plant to have a FP plan that satisfies the requirements of Criterion 3, "Fire Protection" of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The NRC has identified an acceptable plan as one that meets the requirements of Appendix R to 10 CFR Part 50, or a plan that satisfies the guidance of standard review plan (SRP) Section 9.5-1.
- 2. Plants licensed after January 1, 1979 are subject to requirements as specified in their current licensing basis, which includes conditions of their facility operating license, UFSAR, commitments made to the NRC, or deviations exemptions or licensee amendments granted by the NRC.

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<u>Inspection Preparation.</u> The following information should be requested from the licensee as appropriate to support the scope and focus of the planned inspection:

- 1. Description of the licensee's FP and engineering organization, detailing the responsibilities and authorities of each position.
- 2. Description of the FPP plant change evaluation process, including methodologies and acceptance criteria.
- Specific and/or unique licensee commitments and NRC approvals related to programmatic aspects of the FPP, e.g., deviations from regulatory and/or code requirements, to include any design changes since licensing or previous inspection.
- 4. Procedures describing required fire brigade and operator actions in the event of a fire in a given FA.
- 5. Description of pre-operational and startup testing for FPP SSCs.
- 6. Description of fire brigade qualification and training program, including drills and drill critiques (including drills with off-site responders).
- 7. The most current SER, UFSAR, FHA, post-fire SSD analysis, FP administrative procedures (i.e., general employee training, pre-fire plans, documents pertaining to fire watch training, control of ignition sources and combustibles, etc.), design certifications for FP systems, the combined license, and a current approved controlled copy of the fire protection plan.

64705-04 RESOURCE ESTIMATE

Approximately 180 hours of direct inspection effort should be required to implement this inspection procedure. In accordance with the scope and focus of the inspection, the members of the team should have experience in FP; plant operations; abnormal and emergency operating procedures; fire response procedures; quality assurance (QA); electrical; and configuration control. The inspection of the licensee's operational readiness of the FPP will require three individuals with the knowledge base outlined above. The actual hours required to complete this inspection may vary from the estimate. The 180 inspection hours are an estimate for planning, budgeting and scheduling purposes.

64705-05 PROCEDURE COMPLETION

The goal of this inspection is to verify the adequacy of the design, operational status, and material condition of the licensee's FPP. This procedure is complete when the programmatic portions of each section of the IP have been inspected and verified to meet the intent of that described in the FSAR, and the inspectors can make a determination that the program has been adequately implemented.

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64705-06 REFERENCES

Code of Federal Regulations, Title 10, "Energy," Section 50.48, "Fire Protection."

Code of Federal Regulations, Title 10, "Energy," Part 50, Appendix A, "General Design Criterion 3 - Fire Protection."

Code of Federal Regulations, Title 10, "Energy," Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants."

Code of Federal Regulations, Title 10, "Energy," Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants."

Information Notice 97-48, "Inadequate or Inappropriate Interim Fire Protection Compensatory Measures," July 9, 1997.

Regulatory Guide 1.189, "Fire Protection for Nuclear Power Plants."

Regulatory Issue Summary 2005-07, "Compensatory Measures to Satisfy the Fire Protection Program Requirements."

National Fire Protection Association (NFPA) 25, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."

NFPA 600, "Standard of Facility Fire Brigades."

END

Attachment 1: Revision History for IP 64705

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Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
	10/03/07 CN 07-030	Initial Issue to support inspections of operational programs described in IMC 2504, NON-ITAAC INSPECTIONS. Completed 4 year historical CN search. Completed incorporation of comments from all 4 regions.	N/A	ML070570153
N/A	ML19039A064 06/04/19 CN 19-018	Complete rewrite to reflect revisions and refinements to the inspection program, including extensive feedback from regional inspectors. Also reformatted to be consistent with revised IMC 0040 requirements since initial issuance of the IP.	N/A	ML19039A062