



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 11, 2010

Kevin Walsh, Vice President, Operations
Entergy Operations, Inc.
Arkansas Nuclear One
1448 S.R. 333
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 – NOTIFICATION OF AN NRC
TRIENNIAL FIRE PROTECTION BASELINE INSPECTION (NRC INSPECTION
REPORT 05000313/2010006; 05000368/2010006) AND REQUEST FOR
INFORMATION

Dear Mr. Walsh:

The purpose of this letter is to notify you that the U.S. Nuclear Regulatory Commission (NRC), Region IV staff will conduct a triennial fire protection baseline inspection at your Arkansas Nuclear One, Units 1 and 2 in August, 2010. The inspection team will be comprised of reactor inspectors from the NRC Region IV office. The team will conduct the inspection in accordance with the baseline Inspection Procedure 71111.05TTP, "Fire Protection-NFPA 805 Transition Period (Triennial)."

The schedule for the inspection is as follows:

- Information gathering visit: July 27–29, 2010
- Onsite inspection: August 9–13, 2010
August 23–27, 2010

The purposes of the information gathering visit are to obtain information and documentation needed to support the inspection, to become familiar with the fire protection programs, fire protection features, post-fire safe shutdown capabilities and plant layout, mitigating strategies to address Section B.5.b of the Interim Compensatory Measures Order, EA-02-026, of February 25, 2002/10 CFR 50.54(hh)(2). Four inspectors will participate in the information gathering visit to select the fire areas for evaluation, identify additional documents needed to support the inspection, obtain unescorted access, and meet with the key personnel who will support the inspection. The fire area selection will require a walkdown of candidate fire areas in company with key personnel from your staff. The enclosure to this letter provides an initial list of the documents the team will need for their review. We request that your staff transmit copies of the documents listed in the enclosure to the NRC Region IV office for team use in preparation for the inspection. Please send this information so that it will arrive in our office in Arlington, Texas, by the dates listed in the enclosure.

During the information gathering visit, the team will also discuss the following inspection support administrative details: office space size and location; specific documents requested to be made available to the team in their office spaces; arrangements for reactor site access; and the availability of knowledgeable plant engineering and licensing organization personnel to serve as points of contact during the inspection.

We request that during the onsite inspection weeks, you ensure that copies of analyses, evaluations, or documentation regarding the implementation and maintenance of the fire protection program, including post-fire safe shutdown capability, be readily accessible to the team for their review. Of specific interest for the fire protection portion of the inspection are those documents that establish that your fire protection program satisfies the NRC regulatory requirements and conforms to applicable NRC and industry fire protection guidance. For the B.5.b portion of the inspection, those documents implementing your mitigating strategies and demonstrating the management of your commitments for the strategies are of specific interest. Also, please ensure the availability of appropriate personnel knowledgeable of: (1) plant systems required to achieve and maintain safe shutdown conditions from inside and outside the control room, (2) the electrical aspects of the post-fire safe shutdown analyses, (3) reactor plant fire protection systems, and (4) the fire protection program and its implementation.

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, 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.”

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 (PARS) component of NRC’s document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Your cooperation and support during this inspection will be appreciated. If you have questions concerning this inspection or the inspection team’s information or logistical needs, please contact Sam Graves, the team lead inspector, in the Region IV office at (817) 860-8102, or by email, samuel.graves@nrc.gov.

Sincerely,

/RA/

N. O’Keefe, Chief
Engineering Branch 2
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Docket: 50-313
50-368

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- 3 -

License: DPR-51
NPF-6

Enclosure: Triennial Fire Protection
Inspection Documentation Request List

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- 4 -

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File located: R:\REACTORS\ANO2010006 RFI - STG

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SUNSI Rev Compl.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ADAMS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reviewer Initials	STG
Publicly Avail	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sens. Type Initials	STG
RIV:DRS/EB2	C:DRS/ EB 2				
SGraves	NOkeefe/GAP for				
/RA/	/RA/				
05/10/2010	05/11/2010				

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ENCLOSURE

Triennial Fire Protection Inspection Documentation Request

Please provide the following documentation (items 1 – 4) prior to the onsite information-gathering visit, preferably no later than July 19, 2010. Where practical, please provide copies electronically.

1. The current version of your fire protection program and fire hazards analysis.
2. Post-fire safe shutdown analysis and the supporting calculations that demonstrate acceptable plant response.
3. Copies of the licensing basis documents for fire protection (safety evaluation reports, pertinent sections of the final safety analysis report, exemptions, deviations, letters to/from the NRC regarding fire protection/fire safe shutdown, etc.).
4. The fire probabilistic risk assessment or portions of the plant's individual plant examination for external events report addressing fire events.

Please provide the following documentation (items 5 – 46) during the information-gathering visit or by July 29, 2010, in order to support inspection preparation. Whenever practical, please provide copies electronically. However, drawings should be provided as paper copies of sufficient size that all details are legible.

5. Plant layout and equipment drawings for the selected fire areas (these areas will be selected during the information gathering trip) that identify: (a) the physical plant locations of major hot standby and cold shutdown equipment; (b) plant fire area and/or fire zone delineation; and (c) the locations of fire protection equipment, such as detection, suppression, and post-fire emergency lighting units; and (d) fire area boundaries.
6. Fire protection program implementing procedures (e.g., administrative controls, operator response procedures for fires, fire fighting procedures, etc.).
7. Operating procedures used for achieving and maintaining hot and cold shutdown conditions from the control room in the event of a fire outside the control room (III.G.2 areas).
8. Operating procedure(s) used to implement an alternative shutdown (III.G.3 areas) capability with or without control room evacuation.
9. Pre-fire plans for the selected fire areas (areas to be selected by the team during the information-gathering trip).

10. A list of equipment used to achieve and maintain hot standby and cold shutdowns in the event of a fire (safe shutdown equipment lists).
11. Piping and instrumentation (flow) diagrams showing the components used to achieve and maintain hot standby and cold shutdown for normal and alternate shutdown. Please provide one copy of the piping and instrumentation (flow) diagrams for these systems of a size sufficient to read all details. These should include the systems used for reactor coolant system (RCS) makeup, RCS pressure control, decay heat removal, and reactivity control, including the essential support systems.
12. A listing, with descriptions, of design change packages which were determined to impact fire protection and post-fire safe shutdowns, performed in the last 3 years.
13. Copies of Generic Letter 86-10 evaluations performed in the last 3 years.
14. A listing of open and closed Condition Reports initiated in the last 3 years, which relate to the fire protection program or equipment. Include Corrective Action Process document number, date, and subject.
15. A listing of the applicable codes and standards (with the versions) related to the design of plant fire protection features and evaluations of any code deviations. Copies of these codes should be available for review.
16. Drawings of the portions of the emergency lighting system which support fire response.
17. Procedures used to remove smoke from safety-related areas and the engineering studies or calculations which support the design basis.
18. Drawings of communication systems credited in the license basis for firefighting and plant operations during fires where control room is occupied and/or evacuated.
19. Piping and instrumentation (flow) diagrams for the fire water and sprinkler systems.
20. A listing of maintenance and surveillance testing procedures for alternative shutdown capability and fire barriers, detectors, pumps and suppression systems.
21. Maintenance rule performance criteria and a summary of the last 3 years' performance history for fire protection program systems or functions monitored within the maintenance rule program.
22. A copy of fire protection program requirements (e.g., limiting conditions for operation, surveillance test requirements) covered by technical specifications, technical requirements manual, updated final safety analysis report, or similar documents.
23. Copies of internal and external self-assessments, audits, peer-assessments or similar reviews related to post-fire safe shutdown capability or the fire protection program completed since December 3, 2007.

24. A list of manual actions taken outside the control room which are credited to mitigate the consequences of fires in III.G.2 areas (non-alternative shutdown areas). The list should group actions by the initiating fire area or zone and indicate where the action must take place.
25. Electronic copies of operator study guides (i.e., lesson plan text and graphics) or design basis documents that describe the purpose/function/operating characteristics of the safe shutdown systems (RCS makeup, RCS pressure control, decay heat removal, and reactivity control, including the essential support systems).
26. Two copies of one-line diagrams of the electrical distribution system. These should depict how power gets from the switchyard to the engineered safety feature loads (480V and 4160V). Also, include the vital DC distribution system one-line diagrams.
27. A list of automatic and manually initiated gaseous fire suppression systems in the plant, giving location and the key equipment being protected.
28. A list of repairs (and the procedure that controls the actions) needed to: a) reach and/or maintain hot shutdown and b) reach and/or maintain cold shutdown.
29. A list of high to low pressure interface valves.
30. A copy of procedures governing the training and operation of the fire brigade.
31. Organization charts of site personnel down to the level of fire protection staff personnel.
32. A contact list of key site personnel who will be supporting this inspection, giving location of their office and phone number onsite.
33. The team would like to observe an unannounced fire brigade drill in the plant, if possible, during the week of August 23, 2010. Please put us in contact, during the onsite information gathering trip, with the appropriate personnel for planning drills.
34. The team would like to perform a walkthrough of the procedure for control room evacuation due to fire with qualified operators in the plant during the week of August 9, 2010. Please put us in contact, during the onsite information gathering trip, with the appropriate personnel for planning the walkthrough.

The following documents involve B.5.b mitigating strategies.

35. A copy of the license condition that incorporated the requirements issued to address the requirements of Section B.5.b of the ICM Order, EA-02-026, dated February 25, 2002, and 10 CFR 50.54(hh)(2).
36. A list of all modifications to regulatory commitments made to meet the requirements of Section B.5.b of the ICM Order, EA-02-026, dated February 25, 2002, the subsequently imposed license conditions, and 10 CFR 50.54(hh)(2).

37. A list of procedures/guidelines which were revised or generated to implement the mitigation strategies. These could be extensive damage mitigation guidelines (EDMGs), severe accident management guidelines (SAMGs), emergency operating procedures (EOPs), abnormal operating procedures (AOPs), etc.
38. A matrix that shows the correlation between the mitigation strategies identified in Nuclear Energy Institute 06-12 and the site-specific procedures or guidelines that are used to implement each strategy.
39. A list of engineering evaluations/calculations that were used to verify engineering bases for the mitigation strategies.
40. Copies of piping and instrumentation diagram (P&ID) or simplified flow diagrams for systems relied upon in the mitigation strategies. These could be the type used for training.
41. A list of modification packages and simplified drawings/descriptions of modifications that were made to plant systems to implement the mitigation strategies.
42. Copies of procedure(s) used to inventory equipment (hoses, fittings, pumps, etc.) required to be used to implement the mitigation strategies.
43. A list of B.5.b strategies, if any, which have implementing details that differ from that documented in the submittals to the NRC and the safety evaluation report.
44. A copy of site general arrangement drawing(s) that show the majority of buildings/areas referenced in B.5.b documents.
45. Training records/ training matrix/ lesson plans related to B.5.b.
46. Copies of Memoranda of Understanding (MOUs) (e.g., with local fire departments) required to implement any mitigating strategies.