



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

January 15, 2010

Mr. Barry Allen  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2, Mail Stop A-DB-3080  
Oak Harbor, OH 43449-9760

**SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION - NOTIFICATION TO  
PERFORM A TRIENNIAL FIRE PROTECTION BASELINE INSPECTION  
WHILE TRANSITION TO 10 CFR PART 50.48(C) IS IN PROGRESS;  
INSPECTION REPORT 05000346/2010006(DRS)**

Dear Mr. Allen:

On April 14, 2010, the U.S. Nuclear Regulatory Commission (NRC) will begin a triennial fire protection baseline inspection at the Davis-Besse Nuclear Power Station. This inspection will be performed in accordance with Inspection Procedure (IP) 71111.05TTP, the NRC's baseline fire protection inspection procedure for plants in the process of implementing the National Fire Protection Association (NFPA) Standard 805 (10 CFR Part 50.48(c)). The inspection guidance is different from the regular triennial inspections in that the inspectors will concentrate on the fire protection program infrastructure and the adequacy of compensatory measures implemented for identified departures from code requirements. The inspectors will not routinely inspect for or evaluate circuit related issues.

Based on the latest revision to IP 71111.05TTP dated December 24, 2009, changes were made to the IP which now requires the fire protection inspection to review your actions to mitigate postulated events that could potentially cause loss of large areas of power reactor facilities due to explosions or fires. This requirement was implemented by the issuance of the Interim Compensatory Measures Order EA-02-026, Section B.5.b and the subsequent requirements of 10 CFR 50.54(hh)(2), which are collectively referred to as B.5.b requirements. During this inspection, the B.5.b requirements review will begin following the information gathering visit.

The schedule for the on-site inspection activity is as follows:

- Information Gathering Visit: April 12–14, 2010;
- B.5.b Requirements: April 14–16, 2010; and
- Fire Protection Inspection: April 26–30, 2010, and May 10–14, 2010.

The purpose of the information gathering visit is: (1) to obtain information and documentation needed to support the inspection; (2) to become familiar with the Davis-Besse Nuclear Power Station's fire protection programs, fire protection features, post-fire safe shutdown capabilities, and plant layout; and (3) to arrange administrative details, such as office space, availability of knowledgeable office personnel and to ensure unescorted site access privileges.

Experience has shown that the baseline fire protection inspections are extremely resource intensive both for the NRC inspectors and the licensee staff. In order to minimize the inspection impact on the site and to ensure a productive inspection for both organizations, we have enclosed a request for documents needed for the inspection. These documents have been divided into four groups. The first group lists information necessary to aid the inspection team in choosing specific focus areas for the inspection. It is requested that this information be provided to the lead inspector via mail or electronically no later than March 18, 2010. The second group also lists information and areas for discussion necessary to aid the inspection team in choosing specific fire protection focus areas for the inspection and to ensure that the inspection team is adequately prepared for the inspection. It is requested this information be available during the information gathering visit (April 12–14, 2010). The third group of requested documents consists of those items that the team will review, or need access to, during the inspection. Please have this information available by the first day of the second on-site inspection week (April 26, 2010). The fourth group lists the information necessary to aid the inspection team in tracking issues identified as a result of the inspection. It is requested that this information be provided to the lead inspector as the information is generated during the inspection. It is important that all of these documents are up to date and complete in order to minimize the number of additional documents requested during the preparation and/or the on-site portions of the inspection.

The lead inspector for this inspection is Mr. George M. Hausman. We understand that our regulatory contact for this inspection is Mr. Gerry Wolf of your organization. If there are any questions about the inspection or the material requested, please contact the lead inspector at (630) 829-9743 or via e-mail at [George.Hausman@nrc.gov](mailto:George.Hausman@nrc.gov).

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).

B. Allen

-3-

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.

Sincerely,

/RA by R. A. Langstaff Acting For/

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

Docket No. 50-346  
License No. NPF-3

Enclosure: Fire Protection Inspection Document Request

cc w/encl: Distribution via ListServ

## FIRE PROTECTION INSPECTION DOCUMENT REQUEST

**Inspection Report:** 05000346/2010006(DRS)

**On-site Inspection Dates:** April 12–14, 2010 (Information Gathering Visit)  
April 14–16, 2010 (B.5.b Requirements)  
April 26–30, 2010 (Fire Protection Inspection)  
May 10–14, 2010 (Fire Protection Inspection)

**Inspection Procedures:** IP 71111.05TTP, "Fire Protection-NFPA 805 Transition Period (Triennial)"  
IP 71152, "Identification and Resolution of Problems"

**Inspectors:** George M. Hausman, Lead Inspector  
(630) 829-9743  
[George.Hausman@nrc.gov](mailto:George.Hausman@nrc.gov)

Benny Jose  
(630) 829-9756

[Benny.Jose@nrc.gov](mailto:Benny.Jose@nrc.gov)

Dariusz Szwarc  
(630) 829-9803

[Dariusz.Szwarc@nrc.gov](mailto:Dariusz.Szwarc@nrc.gov)

### ***I. Information Requested Prior To the Information Gathering Visit***

The following information is requested by March 18, 2010. If you have any questions regarding this request, please call the lead inspector as soon as possible. All information should be sent to Mr. George M. Hausman (e-mail address [George.Hausman@nrc.gov](mailto:George.Hausman@nrc.gov)). Electronic media is preferred. The preferred file format is a searchable "pdf" file on a compact disk (CD). The CD should be indexed and hyper-linked to facilitate ease of use, if possible. Please provide four copies of each CD submitted (one for each inspector and for a senior reactor analysis).

1. The reactor plant's Individual Plant Examination for External Events (IPEEE) for fire, results of any post-IPEEE reviews for fire, and listings of actions taken and/or plant modifications conducted in response to IPEEE information for fire. Alternatively, probabilistic risk analyses for fire and associated information, if it exists and is more recent than the IPEEE.
2. A copy of the current version of the fire protection program (FPP), fire hazards analysis (FHA), safe shutdown analysis (SSA), updated safety analysis report (USAR), technical specifications and license.
3. A list of fire areas requiring alternative shutdown capability, (i.e., those areas for which 10 CFR Part 50, Appendix R, Section III G requirements are satisfied under Section III.G.3), or where both safe shutdown trains can be affected.
4. Plant operating procedures which would be used and describe shutdown for a postulated fire (for both areas requiring alternative shutdown and areas which do not require alternative shutdown). Only those procedures with actions specific to shutdown in the event of a fire need be included.

## **FIRE PROTECTION INSPECTION DOCUMENT REQUEST**

5. A copy of the current fire protection system "Health Report," if available.
6. A copy of the current plant drawings referred to as "Horse Notes," if available.
7. Status of NFPA 805 (10 CFR Part 50.48(c)) implementation.
8. Copy of the B.5.b mitigating strategies.
9. Copy of the procedures for the storage, maintenance, and testing of B.5.b related equipment.
10. A list of the mitigating strategies for which you have modified the regulatory commitment since the last performance of this inspection (or the performance of TI 2515/171), if any.
11. Copy of the lesson plans for B.5.b operator training.

### ***II. Information Requested During the Information Gathering Visit (April 12 - 14, 2010)***

The following information is requested to be provided to the inspection team during the on-site information gathering visit. Except for Item 1, it is requested that the following information be provided on four sets of CDs (searchable, if possible). In addition, two sets of hard copy drawings are requested for Items 4.a. through 4.f.

1. One set of hard-copy documents for facility layout drawings which identify plant fire area delineation; areas protected by automatic fire suppression and detection; and locations of fire protection equipment.
2. Licensing Information:
  - a. The facility's license, including the fire protection license condition;
  - b. All Nuclear Regulatory Commission (NRC) Safety Evaluation Reports (SERs) applicable to fire protection (specifically including those SERs referenced by the plant fire protection license condition) and all licensing correspondence referenced by the SERs;
  - c. All licensing correspondence associated with the comparison to Standard Review Plan (NUREG-0800), Section 9.5.1 or equivalent for licensing purposes;
  - d. Exemptions from 10 CFR Part 50.48 and 10 CFR Part 50, Appendix R, and associated licensing correspondence;
  - e. The FPP and applicable portions of the USAR, as referenced by the fire protection license condition;
  - f. For pre-1979 plants (i.e., "Appendix R" plants), a listing of all 10 CFR Part 50, Appendix R sections and paragraphs that are applicable to the plant under 10 CFR Part 50.48(b)(1);
  - g. For pre-1979 plants, all licensing correspondence associated with those sections of 10 CFR Part 50, Appendix R, that are not applicable to the plant under 10 CFR

## FIRE PROTECTION INSPECTION DOCUMENT REQUEST

Part 50.48(b)(1). Specifically, the licensing correspondence associated with those fire protection features proposed or implemented by the licensee that have been accepted by the NRC staff as satisfying the provisions of Appendix A to Branch Technical Position (BTP) APCS 9.5-1 reflected in the NRC fire protection SERs issued before February 19, 1981, (10 CFR Part 50.48(b)(1)(i)); or those fire protection features, which were accepted by the NRC staff in comprehensive fire protection SERs issued before Appendix A to BTP APCS 9.5-1 was published in August 1976 (10 CFR Part 50.48(b)(1)(ii));

- h. For post-1979 plants, all licensing correspondence associated with the comparison to Standard Review Plan (NUREG-0800), Section 9.5.1 or equivalent for licensing purposes; and
  - i. For NFPA 805 transition plants provide: (1) all correspondence to and responses from the NRC; (2) a list of all areas showing assessment review status; (3) assessments for all areas that have been completed; and (4) a list of all identified non-conformances, and their respective compensatory measure(s).
3. Fire Protection Program:
- a. If not already provided under request II.(2)(e) above, FPP documents including FHA and post-fire SSA;
  - b. A listing of changes made to the FPP (including associated adverse to SSA) since the last triennial fire protection inspection;
  - c. For pre-1979 plants, a listing of the protection methodologies identified under 10 CFR Part 50, Appendix R, Section III.G used to achieve compliance for selected fire zones/areas (**to be determined during information gathering visit**). That is, please specify whether 3-hour rated fire barriers; (Section III.G.2.a), 20 foot separation along with detection and suppression; (Section III.G.2.b), 1 hour rated fire barriers with detection and suppression; (Section III.G.2.c), or alternative shutdown capability; (Section III.G.3) is used as a strategy for each selected fire zone/area;
  - d. A list of Generic Letter 86-10 evaluations (i.e., a list of adverse to safe shutdown evaluations);
  - e. A list of applicable codes and standards related to the design of plant fire protection features. The list should include National Fire Protection Association (NFPA) code versions committed to (i.e., the NFPA Codes of Record);
  - f. List of plant deviations from code commitments and associated evaluations; and
  - g. Plant layout drawings which identify plant fire area delineation, areas protected by automatic fire suppression and detection, and the locations of fire protection equipment.

## FIRE PROTECTION INSPECTION DOCUMENT REQUEST

### 4. Facility Information:

- a. Piping and instrumentation (flow) diagrams showing the components used to achieve and maintain hot standby and cold shutdown for fires outside the control room and those components used for those areas requiring alternative shutdown capability;
- b. Plant layout and equipment drawings which identify the physical plant locations of hot standby and cold shutdown equipment for selected fire zones/areas (**to be determined during information gathering visit**);
- c. Plant layout drawings which identify the general location of the post-fire emergency lighting units;
- d. One-line schematic drawings of the electrical distribution system for 4160 Volts alternating current (Vac) down to 480Vac;
- e. One-line schematic drawings of the electrical distribution system for 250 Volts direct current (Vdc) and 125Vdc systems as applicable;
- f. Logic diagrams showing the components used to achieve and maintain hot standby and cold shutdown; and
- g. Safe shutdown cable routing database (requested electronically such as on compact disc, if available).

### 5. Operations Response for Fire Protection:

- a. Pre-fire plans for selected fire zones/areas (**to be determined during information gathering visit**); and
- b. Plant operating procedures which would be used and describe shutdown for a postulated fire in selected fire zones/areas (**to be determined during information gathering visit**).

### 6. Corrective Actions:

- a. Listing of open and closed fire protection condition reports (i.e., problem identification forms and their resolution reports) since the date of the last triennial fire protection inspection; and
- b. Listing of fire impairments since the date of the last triennial fire protection inspection.

### 7. General Information:

- a. A listing of abbreviations and/or designators for plant systems;
- b. Organization charts of site personnel down to the level of fire protection staff personnel; and

## FIRE PROTECTION INSPECTION DOCUMENT REQUEST

- c. A phone list for on-site licensee personnel.
8. On-site Discussions.
- In addition, during the information gathering visit, it is requested that licensee staff be available for the following:
- a. Informal discussion on plant procedures operators would use in the event of fire and under what conditions would the plant be shutdown using alternative shutdown methodology;
  - b. Informal discussion on the plant's safe shutdown cable routing database and the plant-wide cable routing database, as applicable; and
  - c. A tour of alternative shutdown and risk significant fire areas.

### ***III. Information Requested to be Available on First Day of the Second On-site Inspection Week (April 26, 2010)***

The following information is requested to be provided on the first day of inspection. It is requested that this information be provided on four sets of CDs (searchable, if possible).

- 1. Program Procedures:
  - a. List of the FPP implementing procedures (e.g., administrative controls, surveillance testing, fire brigade);
  - b. List of maintenance and surveillance testing procedures for alternative shutdown capability and fire barriers, detectors, pumps, and suppression systems;
  - c. List of maintenance procedures which routinely verify fuse breaker coordination in accordance with the post-fire safe shutdown coordination analysis;
  - d. List of procedures and/or instructions that control the configuration of the reactor plant's FPP, features, and post-fire safe shutdown methodology and system design; and
  - e. List of procedures and/or instructions that govern the implementation of plant modifications, maintenance, and special operations, and their impact on fire protection.
- 2. Design and Equipment Information:
  - a. Coordination calculations and/or justifications that verify fuse/breaker coordination for selected fire zones/areas (***to be determined during information gathering visit***) that are fed off of the same electrical buses as components in the protected safe shutdown train;



## **FIRE PROTECTION INSPECTION DOCUMENT REQUEST**

- b. Copies of significant fire protection and post-fire safe shutdown related design change package descriptions (including their associated 10 CFR Part 50.59 evaluations) and Generic Letter (GL) 86-10 (or adverse to safe shutdown) evaluations;
  - c. Gaseous suppression system pre-operational testing, if applicable, for selected fire zones/areas (**to be determined during information gathering visit**);
  - d. Hydraulic calculations and supporting test data which demonstrate operability for water suppression systems, if applicable, for selected fire zones/areas (**to be determined during information gathering visit**);
  - e. Alternating current (ac) coordination calculations for 4160Vac down to 480Vac electrical systems;
  - f. Vendor manuals and information for fire protection equipment (such as detection, suppression systems, fire pumps), applicable to selected fire zones/areas (**to be determined during information gathering visit**). It is acceptable to make vendor manuals available to the inspectors in lieu of providing a copy; and
  - g. List of all fire protection or Appendix R calculations.
3. Assessment and Corrective Actions:
    - a. The three most recent fire protection Quality Assurance (QA) audits and/or fire protection self-assessments; and
    - b. Corrective action documents (e.g., condition reports, including status of corrective actions) generated as a result of the three most recent fire protection Quality Assurance (QA) audits and/or fire protection self-assessments.
  4. Any updates to information previously provided.

### **IV. Information Requested to Be Provided Throughout the Inspection**

1. Copies of any corrective action documents generated as a result of the inspection team's questions or queries during this inspection.
2. Copies of the list of questions submitted by the inspection team members and the status/resolution of the information requested (provided daily during the inspection to each inspection team member).

If you have questions regarding the information requested, please contact the lead inspector.

B. Allen

-3-

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.

Sincerely,

/RA by R. A. Langstaff Acting For/

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

Docket No. 50-346  
License No. NPF-3

Enclosure: Fire Protection Inspection Document Request

cc w/encl: Distribution via ListServ

DISTRIBUTION:

RidsNrrDorlLp3-2 Resource  
Susan Bagley  
RidsNrrPMDavisBesse Resource  
RidsNrrDirslrib Resource  
Cynthia Pederson  
Steven Orth  
Jared Heck  
Allan Barker  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
[ROPreports Resource](#)

DOCUMENT NAME: G:\DRS\Work in Progress\Ltr 011510 Davis-Besse RFI GMH.doc

Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive

To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl; "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	E	RIII				
NAME	RLangstaff for GHausman:ls		RLangstaff for RDaley				
DATE	01/15/09		01/15/09				

**OFFICIAL RECORD COPY**