



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 8, 2013

Mr. Joseph W. Shea  
Corporate Manager- Nuclear Licensing  
Tennessee Valley Authority  
3R Lookout Place  
1101 Market Street LP 3D-C  
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3 - NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805 LICENSE AMENDMENT APPLICATION ONLINE REFERENCE PORTAL (TAC NOS. MF1185, MF1186, AND MF1187)

Dear Mr. Shea:

By letter dated March 27, 2013, Tennessee Valley Authority (the licensee, TVA) submitted a license amendment request (LAR) for Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3 to transition to National Fire Protection Association Standard (NFPA) 805.

To improve the efficiency of the Nuclear Regulatory Commission (NRC) reviews, the licensees' representatives and the NRC staff have discussed the use of an online reference portal that would allow the NRC staff and contractors limited read-only access to the basis documents and other reference materials cited in the LARs. The online reference portal would allow the NRC staff to audit the licensees' on-site documents that support the information in the LAR. Documents that are necessary to support the NRC staff safety evaluation of the submitted application will be identified by the NRC staff. The licensee will be formally requested to submit those documents on the NRC docket. Use of the online reference portal is acceptable as long as the following conditions are met:

- The online reference portal will be password-protected and passwords will be assigned to those directly involved in the review on a need-to-know basis;
- The online reference portal will be sufficiently secure to prevent staff from printing, saving, or downloading any documents; and
- Conditions of use of the online reference portal will be displayed on the log-in screen and will require concurrence by each user.

The NRC staff requests that the portal be populated, at a minimum, with the documents listed in the enclosure to this letter. This will help with the preparation for the site audits and increase effectiveness of the NRC staff's review prior to the audit. The NRC requests that once the LAR is accepted for detail review, the portal would be ready for immediate access to the NRC staff. Please provide me with the information that is needed to access the portal, such as username and password, immediately after the LAR has been accepted by the NRC.

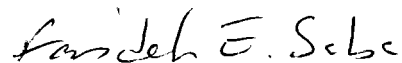
J. Shea

- 2 -

The conditions associated with the online reference portal must be maintained throughout the duration of the review process. Please provide written confirmation to the NRC stating that you agree to the terms and conditions set forth in this letter.

Please send the information requested in this letter to me. Should you have any questions regarding NFPA 805 online reference portal, please contact Ms. Leslie Fields, Senior Project Engineer, at 301-415-1186, or via email at [leslie.fields@nrc.gov](mailto:leslie.fields@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "Farideh E. Saba". The signature is written in a cursive style with a clear, legible font.

Farideh E. Saba, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

Enclosure:  
As stated

cc: Distribution via Listserv

## GENERIC LIST OF SHAREPOINT PORTAL REQUESTED DOCUMENTS FOR NFPA 805

1. National Fire Protection Association (NFPA) Code Deviations and Justifications
2. All applicable Probabilistic Risk Assessment (PRA) Peer Review Reports
3. All site calculations reference in the License Amendment Request (LAR)
4. Credited Fire Protection (FP) System and Feature Drawings
  - a. Layout Drawings: fire barriers, installed fire detection and suppression systems, fire areas, fire zones, stairwells, fire doors, fire dampers, etc.
  - b. Piping and Instrumentation Diagrams (P&IDs): FP Water System
  - c. System Descriptions for Fire Suppression, Water Supply, and Detection (including incipient or very early warning fire detection (VEWFD))
  - d. Hydraulic Calculations for Fire Service and Fire Suppression System Water Demand (if used to support non-fire water use in Title 10 of the *Code of Federal Regulations*, Section 50.48(c)(2)(vii))
5. Drawings related to systems credited in the Nuclear Safety Capability Assessment (NSCA) as well as those required to fully understand plant response:
  - a. P&IDs: Reactor Coolant System, Main Steam, Main Feedwater, Circulating Water, Service Water, etc.
  - b. Safe Shutdown/NSCA Logic Diagrams (if used)
  - c. Electrical Distribution System One-Lines (alternating current (AC) and direct current (DC))
6. Those documents that fulfill the NFPA 805 requirement for "Design Basis Document (DBD)"
  - a. Fire Area Calculations (e.g. Fire Safety Analyses, Fire Risk Analyses, Plant Change Evaluations, Fire Risk Evaluations, etc.)
  - b. NSCA Calculation (Safe Shutdown/Circuit Analysis)
  - c. Multiple Spurious Operation (MSO) Expert Panel Report
  - d. Thermo-Hydraulic Analysis serving as the basis for Variance from Deterministic Requirements (VFDR) and recovery action (RA) timing
  - e. Evaluation of Recovery Actions for feasibility
  - f. Fire Hazards Analysis (FHA) (if separate from the fire area calculations)
  - g. Non-Power Operation (NPO) Calculation(s)
  - h. Radioactive Release Calculation(s)
  - i. Pre-Fire Plans
7. Fire PRA Calculations
  - a. Plant Boundary/Partitioning Methods and Results (TASK 1)
  - b. Component Selection Calculation (TASK 2)
  - c. Cable Selection and Circuit Analysis (TASKS 3, 9, and 10)
  - d. Ignition Frequency Calculation (TASK 6)

Enclosure

- e. Fire PRA Quantification Calculations (TASK 5) including:
    - i. Seismic Fire Interactions (TASK 13) Methodologies and results (including assumptions)
    - ii. Screening Methodologies and Results (TASKS 4 and 7) (including assumptions)
    - iii. Fire Risk Quantifications (TASK 14) Methodologies and Results (including assumptions)
    - iv. Multi-Compartment Screening and Analysis
    - v. Post-Fire Human Reliability Analysis (HRA) Methodologies and Results (including assumptions) (TASK 12)
    - vi. Detailed proposed modification descriptions (Engineering Change Requests/Records) sufficient to comprehend potential impact/improvement to Fire PRA
  - f. NFPA 805 Application Calculation (provides all the delta risk calculations for VFDRs)
  - g. Control Room Risk Calculation
  - h. Uncertainty and Sensitivity Calculations (TASK 15)
    - i. Fire Modeling Calculations used to support the Fire PRA (zone of influence (ZOI), hot gas layer, bounding, detailed fire modeling, etc.)
    - ii. Plant Specific Verification and Validation (V&V) Analysis
    - iii. Non-Public V&V References (e.g.; Electric Power Research Institute (EPRI) Fire Modeling, Generic Treatment)
    - iv. Fire Modeling Assumptions and Calculations performed to support target selection (e.g.; ZOI, secondary fires, transient combustible/ignition sources) including those that deviate from NUREG/CR-6850. (TASKS 8 and 11)
8. Fire Modeling used in the Fire Modeling Performance-Based Approach
- a. Plant Specific V&V Analysis performed
  - b. Non-Public V&V References (e.g.; EPRI Fire Modeling, Generic Treatments...)
  - c. Fire Modeling Assumptions and Calculations performed to support Performance-Based Evaluations (e.g.; ZOI, secondary fires, transient combustible/ignition sources...) considered outside NUREG/CR 6850 Assumptions and Parameters (TASKS 8 and 11)
  - d. Hot Gas Layer (HGL) Determination Calculations (including Assumptions)
9. Fire Protection Program Manual
10. Fire Protection Quality Assurance (QA) Program (including FP Structure System Components (SSCs) and FP Features)
11. NFPA 805 Monitoring Program Calculations and Procedures
12. Technical Requirements Manual (TRM)
13. Updated Final Safety Analysis Report (UFSAR) Changes (including current UFSAR 9.5.1 Fire Protection and Section 7.4 Alternate Shutdown/Instrumentation)

J. Shea

- 2 -

The conditions associated with the online reference portal must be maintained throughout the duration of the review process. Please provide written confirmation to the NRC stating that you agree to the terms and conditions set forth in this letter.

Please send the information requested in this letter to me. Should you have any questions regarding NFPA 805 online reference portal, please contact Ms. Leslie Fields, Senior Project Engineer, at 301-415-1186, or via email at leslie.fields@nrc.gov.

Sincerely,

/RA/

Farideh E. Saba, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

Enclosure:  
As stated

cc: Distribution via Listserv

DISTRIBUTION:

|                      |                       |                       |
|----------------------|-----------------------|-----------------------|
| PUBLIC               | LPL2-2 r/f            | RidsNrrLABClayton     |
| RidsNrrDorlLpl2-2    | RidsDraAfpb           | RidsDraApla           |
| RidsAcrrAcnw_MailCTR | RidsRegion2MailCenter | RidsNrrPMBrowns Ferry |
| RidsOgcMailCenter    | J. Robinson, AFPB     | P. Lain, AFPB         |
| H.Barrett, AFPB      | L. Fields, AFPB       |                       |

**ADAMS Accession No.: ML13087A418**

| OFFICE | LPL2-2/PM | LPL2-2/LA | AFPB/BC                  | LPL2-2/BC  | LPL2-2/PM |
|--------|-----------|-----------|--------------------------|------------|-----------|
| NAME   | FSaba     | BClayton  | AKlein<br>(DFrumkin for) | JQuichocho | FSaba     |
| DATE   | 04/04/13  | 04/04/13  | 04/04/13                 | 04/08/13   | 04/08/13  |

OFFICIAL RECORD COPY