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

May 30, 2014

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

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 – NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805 LICENSE AMENDMENT APPLICATION ONLINE REFERENCE PORTAL (TAC NO. MF3419)

Dear Sir or Madam:

By letter dated January 29, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14029A438), Entergy Operations, Inc. (Entergy, the licensee), submitted a license amendment request (LAR) to adopt National Fire Protection Association (NFPA) 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition," at Arkansas Nuclear One, Unit 1 (ANO-1).

To improve the efficiency of the U.S. Nuclear Regulatory Commission (NRC) reviews, the licensee's representatives and the NRC staff have discussed the use of an online reference portal that would allow the NRC staff, and its contractors, limited read-only access to the basis documents and other reference materials cited in the application. By letter dated December 20, 2011 (ADAMS Accession No. ML113340218), the NRC staff described the requested portal process. By letter dated April 26, 2012 (ADAMS Accession No. ML121020516), a similar process was requested for ANO-2. The online reference portal would allow the NRC staff to audit basis documents to determine whether the information included in the documents support the application. Documents identified as necessary for analysis of the 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 for ANO-1 be populated 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 review prior to the audit. By letter dated May 20, 2014 (ADAMS Accession No. ML14139A270), the NRC staff accepted the ANO-1 NFPA 805 application for review.

Therefore, the NRC also requests that Entergy provide access to the ANO-1 portal for NRC staff use and send the necessary information to access the portal, such as username and password, to the contact listed below, as soon as possible.

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

If you have any questions, please contact me at (301) 415-2833 or via e-mail at peter.bamford@nrc.gov.

Sincerely,

Peter J. Bamford, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosure:
Generic List of Requested Documents

cc w/encl: 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*, paragraph 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

Enclosure

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)

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)

Therefore, the NRC also requests that Entergy provide access to the ANO-1 portal for NRC staff use and send the necessary information to access the portal, such as username and password, to the contact listed below, as soon as possible.

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

If you have any questions, please contact me at (301) 415-2833 or via e-mail at peter.bamford@nrc.gov.

Sincerely,

***/RA/***

Peter J. Bamford, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosure:
Generic List of Requested Documents

cc w/encl: Distribution via Listserv

DISTRIBUTION:
LPL4-1 Reading
PUBLIC
RidsAcrsAcnw_MailCTR Resource
RidsNrrDorlLpl4-1 Resource
RidsNrrDraAfpb Resource
RidsNrrDraApla Resource
RidsNrrLAJBurkhardt Resource
RidsNrrPmANO Resource
RidsRgn4MailCenter Resource
JRobinson, NRR/DRA/AFPB
LFields, NRR/DRA/AFPB
SWall, DORL

**ADAMS Accession No.: ML14139A275** *via email

| OFFICE | NRR/DORL/LPL4-1/PM | NRR/DORL/LPL4-1/LA | NRR/DORL/LPL4-1/BC | NRR/DORL/LPL4-1/PM |
|---|---|---|---|---|
| NAME | PBamford | JBurkhardt | MMarkley | PBamford |
| DATE | 5/19/14 | 5/29/14 | 5/30/14 | 5/30/14 |

**OFFICIAL RECORD COPY**