



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

August 4, 2014

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

**SUBJECT: ARKANSAS NUCLEAR ONE, UNIT NO. 2 - REQUEST FOR ADDITIONAL
INFORMATION REGARDING LICENSE AMENDMENT REQUEST
PROPOSING ADOPTION OF TECHNICAL SPECIFICATION TASK FORCE
TRAVELER TSTF-500 (TAC NO. MF0595)**

Dear Sir or Madam:

By letter dated January 28, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13029A770), as supplemented by letters dated September 16, 2013, and May 12, 2014 (ADAMS Accession Nos. ML13261A353 and ML14132A343, respectively), Entergy Operations, Inc., submitted a license amendment request for Arkansas Nuclear One, Unit 2 to adopt the U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specifications Task Force (TSTF) Traveler, TSTF-500, Revision 2, "DC [Direct Current] Electrical Rewrite – Update to TSTF-360."

The NRC staff has been reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information. The questions were sent via electronic transmission on July 28, 2014, to Mr. David Bice, of your staff. Mr. Bice indicated that a clarification teleconference was not necessary for the questions, and it was agreed that a response would be submitted within 30 days of the date of this letter.

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If you have any questions, please contact me at (301) 415-2833 or by e-mail at Peter.Bamford@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Peter Bamford". The signature is written in a cursive style with a large, looping "P" and a trailing flourish at the end.

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

Docket No. 50-368

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST FOR ADOPTION OF TECHNICAL
SPECIFICATIONS TASK FORCE TRAVELER TSTF-500, REVISION 2,
"DC ELECTRICAL REWRITE – UPDATE TO TSTF-360"

ENTERGY OPERATIONS, INC.
ARKANSAS NUCLEAR ONE, UNIT 2
DOCKET NO. 50-368

By letter dated January 28, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13029A770), as supplemented by letters dated September 16, 2013, and May 12, 2014 (ADAMS Accession No. ML13261A353 and ML14132A343, respectively), Entergy Operations, Inc. (Entergy, the licensee), submitted a license amendment request (LAR) for Arkansas Nuclear One, Unit 2 (ANO-2) to adopt the U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specifications Task Force (TSTF) Traveler TSTF-500, Revision 2, "DC [Direct Current] Electrical Rewrite – Update to TSTF-360." The proposed amendment would revise Technical Specification (TS) 3.8.2.3, "D.C. Distribution – Operating," TS 3.8.2.4, "D.C. Distribution – Shutdown," create a new TS 3.8.3, "Battery Parameters," add a new program, "Battery Monitoring and Maintenance Program," to TS Section 6.5, and relocate certain battery Surveillance Requirements (SRs) to the new program. In order for the NRC staff to complete its review of the LAR, a response to the following request for additional information is requested.

1. In the supplement dated September 16, 2013, in response to NRC questions E3.a and E9.b, the licensee proposed to adopt TSTF-500, Limiting Condition for Operation (LCO) 3.8.5, Required Action A.2, which verifies float current is returned to ≤ 2 amps within 12 hours. The 12-hour completion time (CT) is bracketed in TSTF-500. The TS Bases pages submitted with the application provide a general discussion of the rationale for the proposed CT, but do not have sufficient detail for the NRC staff to complete its review of this plant-specific value.

Please provide a more detailed basis for the proposed 12-hour CT for ANO-2. This response should include a calculation, or calculation summary, specific to the ANO-2 batteries.

2. In the supplement dated September 16, 2013, in response to NRC question E4, the licensee stated that it is inappropriate to combine Actions "a" and "b" since the response to an inoperable battery charger differs from that of an inoperable battery. However, the NRC staff's question E4 related to the justification for not combining Actions "b" and "c" (inoperable battery bank and inoperable DC electrical power subsystem, respectively). In the licensee's proposed TSs, the CTs for an inoperable battery bank and an inoperable DC subsystem have the same value of 2 hours. In TSTF-500, Action "b" is deleted and only Action "c" is used if these two Actions have the same CT.

Enclosure

Please provide a justification for the deviation from TSTF-500 or, alternatively, provide an updated TS page which is consistent with TSTF-500.

3. In Attachment 1 to the submittal dated January 28, 2013, Section 2.2, the licensee proposed to relocate the battery connection resistance limit to the Battery Monitoring and Maintenance Program,
 - a) Please clarify whether the specified value of 50 micro-ohms is the resistance limit per connection (i.e., inter-cell connection, each inter-rack connection, each inter-tier connection, and terminal connection).
 - b) Please provide the basis for the specified connection resistance value.
4. In Attachment 4 to the submittal dated January 28, 2013, the licensee proposed a battery cell float voltage limit of greater than or equal to 2.07 volts (V), which is reflected in new TS 3.8.3 Action a.ii, SR 4.8.3.2, and SR 4.8.3.5. This 2.07 V is bracketed in TSTF-500.

In Attachment 1 to the submittal dated January 28, 2013, the licensee stated that the requirements of the new adopted SRs 4.8.3.2 through 4.8.3.5 are similar to requirements currently contained in existing TS Table 4.8-2, "Battery Cell Surveillance Requirements." The Category B float voltage allowable value for each connected cell in Table 4.8-2 is > 2.07 V. Please explain the change from > 2.07 V to ≥ 2.07 V, as well as the basis for the 2.07 V cell float voltage limit.

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If you have any questions, please contact me at (301) 415-2833 or by 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. 50-368

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

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NAME	PBamford	JBurkhardt	JZimmerman*	EOesterle	PBamford
DATE	7/30/14	7/30/14	6/27/14	8/1/14	8/4/14

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