



Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72802
Tel 479-858-3110

Jeremy G. Browning
Vice President - Operations
Arkansas Nuclear One

2CAN121404

December 9, 2014

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: License Amendment Request Supplemental
Adoption of National Fire Protection Association Standard NFPA-805
Arkansas Nuclear One, Unit 2
Docket No. 50-368
License No. NPF-6

Dear Sir or Madam:

By letter dated December 17, 2012 (Reference 1), Entergy Operations, Inc. (Entergy) submitted a request to amend the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TS) and licensing bases to comply with the requirements in 10 CFR 50.48(a), 10 CFR 50.48(c), and the guidance in Regulatory Guide (RG) 1.205, "Risk-Informed Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants." The amendment request followed Nuclear Energy Institute (NEI) 04-02, "Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program under 10 CFR 50.48(c)." The submittal (Reference 1) described the methodology used to demonstrate compliance with, and transition to, National Fire Protection Association (NFPA)-805, and included regulatory evaluations, probabilistic risk assessment (PRA), change evaluations, proposed modifications for non-compliances, and supporting attachments.

By email dated December 5, 2014, the NRC notified Entergy of a need to revise the Operating License (OL) condition previously submitted in Enclosure 2 (markup) and Enclosure 3 (revised or clean pages) of the Reference 1 letter. Because the NFPA 805 process continues to develop over time, the wording of the standard OL condition has been updated accordingly. The NRC also requested that the date of this supplemental letter also be included in the revised OL condition. The requested changes do not affect Attachment M, "License Conditions Changes," of the Reference 1 letter.

The aforementioned Reference 1 enclosures also contain a markup and revised copy of the affected TS page. These were last updated in Entergy letter dated May 22, 2014 (Reference 5) and require no additional changes at this time.

The enclosed updated markup and revised OL pages have also been updated to include changes made to OL Condition 2.D, "Physical Protection," related to Cyber Security, which are projected to be approved via Amendment No. 298 prior to the approval of the ANO-2 NFPA 804 amendment. Entergy will submit an updated markup and revised OL page containing OL Condition 2.D should the aforementioned Cyber Security amendment not be approved in the near future.

Attached to this letter are new markup and revised OL pages from the aforementioned Reference 1 enclosures which supersede the previous OL pages submitted in their entirety.

The majority of the changes are editorial in nature. The addition of an OL condition to complete Reference 1, Table S-2, implementation items was previously committed to in the Reference 1 letter. Therefore, Entergy has determined that the OL changes detailed in this letter with respect to the original Entergy request (Reference 1) do not invalidate the no significant hazards consideration included in the Reference 1 letter.

In accordance with 10 CFR 50.91(b)(1), a copy of this application and the reasoned analysis about no significant hazards consideration is being provided to the designated Arkansas state official.

If you have any questions or require additional information, please contact Stephenie Pyle at 479-858-4704.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on December 9, 2014.

Sincerely,

ORIGINAL SIGNED BY PATRICK J. WILLIAMS FOR JEREMY G. BROWNING

JGB/dbb

Attachments:

1. Updated Proposed Operating License (markup)
2. Updated Proposed Operating License (clean)

- REFERENCES:
1. Entergy letter dated December 17, 2012, *License Amendment Request to Adopt NFPA-805 Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants (2001 Edition)* (2CAN121202) (ML12353A041)
 2. NRC letter dated September 11, 2013, *Arkansas Nuclear One, Unit 2 – Request for Additional Information Regarding Adoption of National Fire Protection Association Standard NFPA-805* (TAC No. MF0404) (2CNA091301) (ML13235A005)

(REFERENCES continued)

3. Entergy letter dated November 7, 2013, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN111301) (ML13312A877)
4. Entergy letter dated December 4, 2013, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN121302) (ML13338A432)
5. Entergy letter dated January 6, 2014, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN011401) (ML14006A315)
6. NRC letter dated March 28, 2014, *Arkansas Nuclear One, Unit 2 – Request for Additional Information Regarding Adoption of National Fire Protection Association Standard NFPA-805* (2CNA031401) (ML14085A225)
7. Entergy letter dated May 22, 2014, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN051404) (ML14142A410)
8. NRC letter dated June 9, 2014, *Arkansas Nuclear One, Unit 2 – Request for Additional Information Regarding Adoption of National Fire Protection Association Standard NFPA-805* (2CNA061402) (ML14155A133)
9. Entergy letter dated June 30, 2014, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN061406) (ML14181B318)
10. Entergy letter dated August 7, 2014, *Response to Request for Additional Information – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN081401) (ML14219A635)
11. Entergy letter dated September 24, 2014, *License Amendment Request Supplemental – Adoption of National Fire Protection Association Standard NFPA-805* (2CAN091402) (ML14268A369)
12. NRC email dated December 5, 2014, *Request to Revise Operating License Condition Associated with Adoption of National Fire Protection Association Standard NFPA-805*

cc: Mr. Marc L. Dapas
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Boulevard
Arlington, TX 76011-4511

NRC Senior Resident Inspector
Arkansas Nuclear One
P. O. Box 310
London, AR 72847

U. S. Nuclear Regulatory Commission
Attn: Ms. Andrea E. George
MS O-8B1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Mr. Bernard R. Bevill
Arkansas Department of Health
Radiation Control Section
4815 West Markham Street
Slot #30
Little Rock, AR 72205

Attachment 1 to

2CAN121404

Updated Proposed Operating License (markup)

(b) Fire Protection

Entergy Operations, Inc. ~~EOI~~ shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated December 17, 2012, and supplements dated November 7, 2013, December 4, 2013, January 6, 2014, May 22, 2014, June 30, 2014, August 7, 2014, September 24, 2014, and December 8, 2014, as approved in the SE dated xxxxxx xx, xxxx. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, ~~as described in Amendment 9A to the Safety Analysis Report and as approved in the Safety Evaluation dated March 31, 1992, subject to the following provision:~~

~~The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.~~

Risk-Informed Changes that may be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at ANO-2. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

- a) Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.
- b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} /year (yr) for CDF and less than 1×10^{-8} /yr for LERF. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

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Page 6

(c) Less Than Four Reactor Coolant Pump Operation

EOI shall not operate the reactor in operational Modes 1 and 2 with fewer than four reactor coolant pumps in operation, except as allowed by Special Test Exception 3.10.3 of the facility Technical Specifications.

2.C.(3)(d) Deleted per Amendment 24, 6/19/81.

2.C.(3)(e) ~~Arkansas Power & Light (AP&L)¹ shall complete the following modifications by the indicated dates in accordance with the staff's findings as set forth in the fire protection evaluation report, NUREG-0223 "Fire Protection Safety Evaluation Report." Deleted per Amendment [TBD], [date].~~

Implementation Dates for Proposed Modifications

<u>Applicable Section of NUREG-0223</u>		<u>Date</u>
3.1	Portable Radio Communication Equipment	March 31, 1979
3.2	Separation of Power Cables in Manholes	*
3.3	Protection from Water Spray	*
3.4	Protection of Redundant Cables in the MCC Room (2096-M)	December 30, 1978
3.5	Protection of Redundant Cables in the Hallway - Elevation 372 (2109-U)	*,**
3.6	Protection of Redundant Cables in the Cable Spreading Room (2098-L)	*
3.7	Protection of Redundant Cables in the Switchgear Room (2100-Z)	*

¹~~AP&L is the predecessor to Entergy Arkansas, Inc.~~

1. Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

Prior NRC review and approval are not required for changes to the NFPA 805, Chapter 3, fundamental fire protection program elements and design requirements for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is functionally equivalent or adequate for the hazard. The licensee may use an engineering evaluation to demonstrate that a change to NFPA 805, Chapter 3, element is functionally equivalent to the corresponding technical requirement. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.

The licensee may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3, elements are acceptable because the alternative is “adequate for the hazard.” Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3, for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard. The four specific sections of NFPA 805, Chapter 3, are as follows:

- “Fire Alarm and Detection Systems” (Section 3.8);
- “Automatic and Manual Water-Based Fire Suppression Systems” (Section 3.9);
- “Gaseous Fire Suppression Systems” (Section 3.10); and
- “Passive Fire Protection Features” (Section 3.11).

This License Condition does not apply to any demonstration of equivalency under Section 1.7 of NFPA 805.

2. Fire Protection Program Changes that have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee’s fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process as approved in the NRC SE dated xxxxxx xx, xxxx, to determine that certain fire protection program changes meet the minimal criterion. The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) below, risk-informed changes to Entergy Operations, Inc. fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications," Attachment 5, of Entergy Operations, Inc. letter 2CAN081401, dated August 7, 2014, prior to startup from the second refueling outage following issuance of the Safety Evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of the modifications.
3. The licensee shall complete the implementation items as listed in Table S-2, "Implementation Items," Attachment, of Entergy Operations, Inc. letter 2CAN091402, dated September 24, 2014, within six months after issuance of the Safety Evaluation.

(c) Less Than Four Reactor Coolant Pump Operation

EOI shall not operate the reactor in operational Modes 1 and 2 with fewer than four reactor coolant pumps in operation, except as allowed by Special Test Exception 3.10.3 of the facility Technical Specifications.

2.C.(3)(d) Deleted per Amendment 24, 6/19/81.

2.C.(3)(e) ~~Arkansas Power & Light (AP&L)⁴ shall complete the following modifications by the indicated dates in accordance with the staff's findings as set forth in the fire protection evaluation report, NUREG-0223 "Fire Protection Safety Evaluation Report."~~ Deleted per Amendment [TBD], [date].

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2.C.(3)(g) Deleted per Amendment 93, 4/25/89.

2.C.(3)(h) Deleted per Amendment 29, (3/4/82) and its correction letter, (3/15/82).

(i) Containment Radiation Monitor

AP&L shall, prior to July 31, 1980 submit for Commission review and approval documentation which establishes the adequacy of the qualifications of the containment radiation monitors located inside the containment and shall complete the installation and testing of these instruments to demonstrate that they meet the operability requirements of Technical Specification No. 3.3.3.6.

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Page 4

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Move to
Page 7

(8) Antitrust Conditions

EOI shall not market or broker power or energy from Arkansas Nuclear One, Unit 2. Entergy Arkansas, Inc. is responsible and accountable for the actions of its agents to the extent said agent's actions affect the marketing or brokering of power or energy from ANO, Unit 2.

(9) Rod Average Fuel Burnup

Entergy Operations is authorized to operate the facility with an individual rod average fuel burnup (burnup averaged over the length of a fuel rod) not to exceed 60 megawatt-days/kilogram of uranium.

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Page 6

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(9) Rod Average Fuel Burnup

Entergy Operations is authorized to operate the facility with an individual rod average fuel burnup (burnup averaged over the length of a fuel rod) not to exceed 60 megawatt-days/kilogram of uranium.

(10) Mitigation Strategies

The licensee shall develop and maintain strategies for addressing large fires and explosions that include the following key areas:

(i) Fire fighting response strategy with the following elements:

1. Pre-defined coordinated fire response strategy and guidance
2. Assessment of mutual aid fire fighting assets
3. Designated staging areas for equipment and materials
4. Command and control
5. Training of response personnel

(ii) Operations to mitigate fuel damage considering the following:

1. Protection and use of personnel assets
2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy
7. Spent fuel pool mitigation measures

(iii) Actions to minimize release to include consideration of:

1. Water spray scrubbing
2. Dose to onsite responders

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Page 8

- (11) Upon implementation of Amendment 288 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by SR 4.7.6.1.2.d, in accordance with Specifications 6.5.12.c.(i), 6.5.12.c.(ii), and 6.5.12.d, shall be considered met. Following implementation:
- (i) The first performance of SR 4.7.6.1.2.d, in accordance with Specification 6.5.12.c.(i), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
 - (ii) The first performance of the periodic assessment of CRE habitability, Specification 6.5.12.c.(ii), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
 - (iii) The first performance of the periodic measurement of CRE pressure, Specification 6.5.12.d, shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.

From
Page 7

- (11) Upon implementation of Amendment 288 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by SR 4.7.6.1.2.d, in accordance with Specifications 6.5.12.c.(i), 6.5.12.c.(ii), and 6.5.12.d, shall be considered met. Following implementation:
- (i) The first performance of SR 4.7.6.1.2.d, in accordance with Specification 6.5.12.c.(i), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
 - (ii) The first performance of the periodic assessment of CRE habitability, Specification 6.5.12.c.(ii), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
 - (iii) The first performance of the periodic measurement of CRE pressure, Specification 6.5.12.d, shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.

D. Physical Protection

EOI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Arkansas Nuclear One Physical Security, Safeguards Contingency and Training & Qualification Plan," as submitted on May 4, 2006.

EOI shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The EOI CSP was approved by License Amendment No. 294 as supplemented by changes approved by License Amendment Nos. 295 and 298.

E. This renewed license is subject to the following additional condition for the protection of the environment:

Before engaging in additional construction or operational activities which may result in an environmental impact that was not evaluated by the Commission, EOI will prepare and record an environmental evaluation for such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated, in the Final Environmental Statement (NUREG-0254) or any addendum thereto, and other NRC environmental impact assessments, EOI shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation.

F. Updated Final Safety Analysis Report Supplement

Move to
Page 9

The Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, ANO-2 may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ANO-2 evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements of that section.

The ANO-2 Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. ANO-2 shall complete these activities no later than July 17, 2018, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

From
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F. Updated Final Safety Analysis Report Supplement

The Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, ANO-2 may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ANO-2 evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements of that section.

The ANO-2 Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. ANO-2 shall complete these activities no later than July 17, 2018, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

G. Reactor Vessel Material Surveillance Capsules

All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion.

4. This renewed license is effective as of the date of issuance and shall expire at midnight, July 17, 2038.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by J. E. Dyer

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A - Technical Specifications
2. Preoperational Tests, Startup Tests and other items which must be completed by the indicated Operational Mode

Date of Issuance: June 30, 2005

Attachment 2 to

2CAN121404

Updated Proposed Operating License (clean)

(b) Fire Protection

Entergy Operations, Inc. shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated December 17, 2012, and supplements dated November 7, 2013, December 4, 2013, January 6, 2014, May 22, 2014, June 30, 2014, August 7, 2014, September 24, 2014, and December 8, 2014, as approved in the SE dated xxxxxxxx xx, xxxx. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

Risk-Informed Changes that may be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at ANO-2. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

- a) Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.
- b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} /year (yr) for CDF and less than 1×10^{-8} /yr for LERF. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

Other Changes that may be Made Without Prior NRC Approval

1. Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

Prior NRC review and approval are not required for changes to the NFPA 805, Chapter 3, fundamental fire protection program elements and design requirements for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is functionally equivalent or adequate for the hazard. The licensee may use an engineering evaluation to demonstrate that a change to NFPA 805, Chapter 3, element is functionally equivalent to the corresponding technical requirement. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.

The licensee may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3, elements are acceptable because the alternative is "adequate for the hazard." Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3, for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard. The four specific sections of NFPA 805, Chapter 3, are as follows:

- "Fire Alarm and Detection Systems" (Section 3.8);
- "Automatic and Manual Water-Based Fire Suppression Systems" (Section 3.9);
- "Gaseous Fire Suppression Systems" (Section 3.10); and
- "Passive Fire Protection Features" (Section 3.11).

This License Condition does not apply to any demonstration of equivalency under Section 1.7 of NFPA 805.

2. Fire Protection Program Changes that have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee's fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process as approved in the NRC SE dated xxxxxxxx xx, xxxx, to determine that certain fire protection program changes meet the minimal criterion. The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

Transition License Conditions

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3. The licensee shall complete the implementation items as listed in Table S-2, "Implementation Items," Attachment, of Entergy Operations, Inc. letter 2CAN091402, dated September 24, 2014, within six months after issuance of the Safety Evaluation.

(c) Less Than Four Reactor Coolant Pump Operation

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(i) Containment Radiation Monitor

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(9) Rod Average Fuel Burnup

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(10) Mitigation Strategies

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- (i) Fire fighting response strategy with the following elements:
 1. Pre-defined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel
- (ii) Operations to mitigate fuel damage considering the following:
 1. Protection and use of personnel assets
 2. Communications
 3. Minimizing fire spread
 4. Procedures for implementing integrated fire response strategy
 5. Identification of readily-available pre-staged equipment
 6. Training on integrated fire response strategy
 7. Spent fuel pool mitigation measures
- (iii) Actions to minimize release to include consideration of:
 1. Water spray scrubbing
 2. Dose to onsite responders

(11) Upon implementation of Amendment 288 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by SR 4.7.6.1.2.d, in accordance with Specifications 6.5.12.c.(i), 6.5.12.c.(ii), and 6.5.12.d, shall be considered met. Following implementation:

- (i) The first performance of SR 4.7.6.1.2.d, in accordance with Specification 6.5.12.c.(i), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
- (ii) The first performance of the periodic assessment of CRE habitability, Specification 6.5.12.c.(ii), shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.
- (iii) The first performance of the periodic measurement of CRE pressure, Specification 6.5.12.d, shall be within 15 months of the approval of TSTF-448. SR 4.0.2 will not be applicable to this first performance.

D. Physical Protection

EOI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Arkansas Nuclear One Physical Security, Safeguards Contingency and Training & Qualification Plan," as submitted on May 4, 2006.

EOI shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The EOI CSP was approved by License Amendment No. 294 as supplemented by changes approved by License Amendment Nos. 295 and 298.

E. This renewed license is subject to the following additional condition for the protection of the environment:

Before engaging in additional construction or operational activities which may result in an environmental impact that was not evaluated by the Commission, EOI will prepare and record an environmental evaluation for such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated, in the Final Environmental Statement (NUREG-0254) or any addendum thereto, and other NRC environmental impact assessments, EOI shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation.

F. Updated Final Safety Analysis Report Supplement

The Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, ANO-2 may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ANO-2 evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements of that section.

The ANO-2 Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. ANO-2 shall complete these activities no later than July 17, 2018, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

G. Reactor Vessel Material Surveillance Capsules

All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion.

4. This renewed license is effective as of the date of issuance and shall expire at midnight, July 17, 2038.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by J. E. Dyer

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A - Technical Specifications
2. Preoperational Tests, Startup Tests and other items which must be completed by the indicated Operational Mode

Date of Issuance: June 30, 2005