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2CAN010505

January 31, 2005

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

SUBJECT: License Amendment Request
Proposed Technical Specification Change to Relocate Containment Overcurrent Protection Devices from the ANO-2 Technical Specifications
Arkansas Nuclear One, Unit 2
Docket No. 50-368
License No. NPF-6

Dear Sir or Madam:

Attached for your review and approval are proposed Technical Specification (TS) changes revising the requirements associated with Arkansas Nuclear One, Unit 2 (ANO-2) containment overcurrent protection devices. Pursuant to 10 CFR 50.90, Entergy hereby proposes to amend Operating License NPF-6 to eliminate Technical Specifications 3.8.2.5, *ELECTRICAL POWER SYSTEMS - Containment Penetration Conductor Overcurrent Protective Devices.* The proposed change will relocate the requirements for containment penetration conductor overcurrent protective devices to the Technical Requirements Manual. Attachment 1 provides the Analysis of Proposed Technical Specification Change. Attachment 2 provides the marked-up version of the appropriate pages of the current Technical Specifications.

Entergy will modify the Table of Contents and the Bases for these Technical Specifications under the ANO-2 Bases Control Program. Attachment 3 provides the marked-up version of the appropriate pages of the Table of Contents and the Technical Specifications Bases for information.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c) and it has been determined that this change involves no significant hazards considerations. A new commitment is being made as discussed in Attachment 4.

The proposed change is neither exigent nor emergency; however, your prompt review is requested. Once approved, the amendment shall be implemented within 60 days. If you have any questions or require additional information, please contact Steve A Bennett at 479-858-4626.

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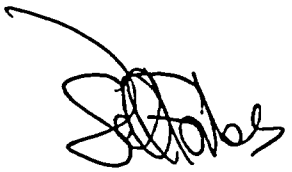
I declare under penalty of perjury that the foregoing is true and correct. Executed on January 31, 2005.

Sincerely,



JSF/sab

Attachments:
1. Analysis of Proposed Technical Specification Change
2. Proposed Technical Specification Changes (mark-up)
3. Proposed Technical Specification Bases Changes (mark-up). For Information Only
4. List of Regulatory Commitments

cc: Dr. Bruce S. Mallett
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Attachment 1

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Analysis of Proposed Technical Specification Change

Analysis of Proposed Technical Specification Change

1.0 DESCRIPTION OF PROPOSED CHANGES

Entergy proposes to amend Operating License NPF-6 by relocating Specification 3.8.2.5, *ELECTRICAL POWER SYSTEMS - Containment Penetration Conductor Overcurrent Protective Devices* from the Technical Specifications (TSs) of Arkansas Nuclear One, Unit 2 (ANO-2) to the Technical Requirements Manual (TRM).

2.0 PROPOSED CHANGE

The proposed changes will relocate the requirements for containment penetration conductor overcurrent protective devices from the ANO-2 TSs to the ANO-2 TRM, a licensee controlled document. The information contained in the associated Bases will also be relocated to the TRM. The proposed changes will not adversely affect the operation of this equipment and the functions it performs. Changes to the TRM are controlled in accordance with 10 CFR 50.59. Revisions to the Bases and Table of Contents for these Technical Specifications are being provided for information only.

3.0 BACKGROUND

The ANO-2 Technical Specifications are formatted to the Standard Technical Specification for Combustion Engineering designed plants. TS 3.8.2.5 was contained in the TSs issued by the NRC during the initial operating license. Even though modified, Entergy has retained the control of the containment overcurrent protection devices in the TSs from initial issuance to the present. NUREG-1432, *Revised Standard Technical Specifications Combustion Engineering Plants* does not contain a Limiting Condition for Operation for containment overcurrent protection. Therefore, Entergy is proposing to remove these protective devices from the TSs consistent with that allowed by the revised standard technical specifications.

4.0 TECHNICAL ANALYSIS

10 CFR 50.36c(2)(ii) contains the requirements for items that must be in Technical Specifications. This regulation provides four (4) criteria that can be used to determine the requirements that must be included in the Technical Specifications. Items not meeting any of the four criteria can be relocated from Technical Specifications to a licensee controlled document. The Licensee can then change the relocated requirements, if necessary, in accordance with 10 CFR 50.59. This should result in significant reductions in time and expense to modify requirements that have been relocated while not adversely affecting plant safety. The criteria and an evaluation of ANO-2 Technical Specification 3.8.2.5 proposed for relocation are provided below.

The containment penetration conductor overcurrent protective devices are installed to minimize the damage from a fault in a component inside containment or in cabling which penetrates containment. This prevents an electrical penetration from being damaged in such a way that the containment structure could be breached.

Criterion I - Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

This criterion addresses instrumentation installed to detect excessive Reactor Coolant System (RCS) leakage. Technical Specification 3.8.2.5, which addresses the containment penetration conductor overcurrent protective devices, does not cover installed instrumentation that is used to detect, and indicate in the control room, a significant degradation of the reactor coolant pressure boundary. This requirement does not satisfy Criterion 1.

Criterion 2 - A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture those process variables that have initial values assumed in the design basis accident and transient analyses, and which are monitored and controlled during power operation. This criterion also includes active design features (e.g., high pressure/low pressure system valves and interlocks) and operating restrictions (pressure/temperature limits) needed to preclude unanalyzed accidents and transients.

The containment penetration conductor overcurrent protective devices do help preserve the assumptions of the accident analysis by enhancing proper equipment operation. However, they are not a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The containment penetration conductor overcurrent protective devices do not satisfy Criterion 2.

Criterion 3 - A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture only those structures, systems, and components that are part of the primary success path of the safety analysis (an examination of the actions required to mitigate the consequences of the design basis accidents and transients). The primary success path of a safety analysis consists of the combinations and sequences of equipment needed to operate, so that the plant response to the design basis accidents and transients limits the consequences of these events to within the appropriate acceptance criteria. Also captured by this criterion are those support and actuation systems that are necessary for items in the primary success path to successfully function, but it does not include backup and diverse equipment.

The containment penetration conductor overcurrent protective devices are installed to minimize the damage from a fault in a component inside containment, or in conductors which penetrate containment. However, the containment penetration conductor overcurrent protective devices are not a structure, system,

or component that is part of the primary success path and which functions or actuates to mitigate a design bases accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The containment penetration conductor overcurrent protective devices do not satisfy Criterion 3.

Criterion 4 - A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The purpose of this criterion is to capture only those structures, systems, and components that operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Requirements proposed for relocation do not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are commonly found to dominate risk.

The containment penetration conductor overcurrent protective devices are not a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to the public health and safety. The Maintenance Rule (10 CFR 50.65) does not require these protective devices to be monitored for unavailability. In addition, a review of industry operating experience did not produce any examples where containment penetration breakers have had a significant adverse effect on public health and safety. The containment penetration conductor overcurrent protective devices do not meet Criterion 4.

The requirements contained in this specification for the containment penetration conductor overcurrent protective devices do not meet any of the 10 CFR 50.36c(2)(ii) criteria for items that must be in Technical Specifications. Therefore, the Technical Specification requirements can be relocated.

The Bases for Technical Specifications 3.8 associated with containment penetration overcurrent protection will be relocated to the TRM to reflect the proposed changes to the respective specifications. The proposed changes will not result in any changes to the design basis of the protection devices.

5.0 REGULATORY ANALYSIS

5.1 ANO-2 Final Safety Analysis Report (FSAR)

Section 8.3.1.2.4 of the ANO-2 FSAR discusses the level of compliance with Regulatory Guide (RG) 1.63, *Electrical Penetration Assemblies in Containment Structures for Nuclear Power Plants.* As discussed the ANO-2 penetrations meet the requirements of IEEE 317-1971 and were not originally required to meet RG 1.63. The primary and backup protective devices protect the penetration conductors against maximum short circuit conditions as defined by IEEE 317-1971. This FSAR section goes on to state that the Technical Specifications require that the trip setpoints of the primary and backup breakers be checked periodically.

The removal of these protection devices from the ANO-2 Technical Specifications will in no way change the design and licensing basis of ANO-2 and its compliance to the discussion provided in the FSAR. However, the sentence in the FSAR referencing the TSs will be removed upon NRC approval of this amendment.

5.2 Determination of No Significant Hazards Consideration

Entergy Operations, Inc. is proposing that the Arkansas Nuclear One Unit 2 (ANO-2) Operating License be amended to revise the requirements for ensuring containment structural integrity. The proposed change will relocate the requirements for containment penetration conductor overcurrent protective devices from Technical Specification 3.8.2.5 to the Technical Requirements Manual (TRM).

An evaluation of the proposed change has been performed in accordance with 10 CFR 50.91(a)(1) regarding no significant hazards considerations using the standards in 10 CFR 50.92(c). A discussion of these standards as they relate to this amendment request follows:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed changes to relocate the requirements for containment penetration conductor overcurrent protective devices from Technical Specifications to the TRM will have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to the design basis accidents will not change. Operation of the containment penetration conductor overcurrent protective devices is not an accident initiator and can not cause an accident. Whether the requirements for the containment penetration conductor overcurrent protective devices are located in Technical Specifications or the TRM will have no effect on the probability or consequences of any accident previously evaluated.

   Therefore, the removal of overcurrent protection devices from the TS does not involve a significant increase in the probability or consequences of any accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed changes to relocate the requirements from Technical Specifications to the TRM will not alter the plant configuration (no new or different type of equipment will be installed) or require any new or unusual operator actions. The proposed changes will not introduce any new failure modes that could result in a new accident. Also, the response of the plant and the operators following the design basis accidents is unaffected by the changes.

   Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

The proposed changes will relocate the requirements for containment penetration conductor overcurrent protective devices from Technical Specifications to the TRM. Any future changes to the relocated requirements will be in accordance with 10 CFR 50.59 and approved station procedures. The proposed changes will have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to the design basis accidents will not change. In addition, the relocated requirements do not meet any of the 10 CFR 50.36c(2)(ii) criteria on items for which Technical Specifications must be established.

Therefore, this change does not involve a significant reduction in the margin of safety.

Based upon the reasoning presented above and the previous discussion of the amendment request, Entergy Operations has determined that the requested change does not involve a significant hazards consideration.

5.3 Environmental Considerations

The proposed amendment is confined to (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to record keeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 PRECEDENCE

The proposed change is similar to that submitted by Dominion Generation (formerly Northeast Nuclear Entergy) on April 19, 2000 for the Millstone Nuclear Power Station, Unit 3. The NRC approved the proposed amendment on January 16, 2001.

Attachment 2

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Proposed Technical Specification Changes (mark-up)

ELECTRICAL POWER SYSTEMS

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.2.5 Primary and backup containment penetration conductor overcurrent protective devices associated with each containment electrical penetration circuit shall be OPERABLE. The scope of these protective devices excludes those circuits for which credible fault currents would not exceed the electrical penetration design rating.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of the containment penetration conductor overcurrent protective devices inoperable:

a. De-energize the circuit(s) by tripping the associated backup circuit breaker within 72 hours and verifying the backup circuit breaker to be tripped at least once per 7 days thereafter, or

b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.5 All containment penetration conductor overcurrent protective devices shall be demonstrated OPERABLE in accordance with the manufacturers' recommendations:

a. At least once per 18 months:

1. For at least one 6.9 kv reactor coolant pump circuit, such that all reactor coolant pump circuits and their associated backup circuits are demonstrated OPERABLE at least each 72 months, by performance of:

(a) A CHANNEL CALIBRATION of the associated protective relays, and

(b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and control circuits function as designed.

2. For each type of 480 volt air frame protective device, such that all 480 volt air frame protective devices are demonstrated OPERABLE at least once each N x 18 months, where N is the number of devices of each type, by performance of:

(a) A calibration of the protective relays for devices that are actuated by protective relays which includes verification of the range, accuracy, and alarm/trip capability, and

SURVEILLANCE REQUIREMENTS (Continued)

(b) A functional test of protective devices that are actuated by protective relays which verifies that the protective device trips when its associated protective relays actuate, and

(c) A functional test which consists of injecting primary current in each overcurrent element mounted on the protective device at the specified setpoint and verifying that the protective device trips when each overcurrent element actuates. If any protective device fails to function as designed, all other protective devices of the same type shall be tested.

3. For molded case protective devices, such that all protective devices of each type are demonstrated OPERABLE at least once each N x 18 months, where N is the number of devices of each type, by performance of:

(a) A functional test of at least one protective device of each type which consists of injection of primary current at the specified setpoint to the protective device and verifying that the protective device trips when the overcurrent elements are actuated. If any protective device fails to function as designed, all other protective devices of the same type shall be tested.

b. At least once per 60 months, by performing inspections and preventive maintenance on each protective device in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

Attachment 3

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Proposed Technical Specification Table of Contents and Bases Changes (mark-up)

For Information Only

TS 3.8.1.1 Action "c.4" is entered when one of the inoperable A.C. Sources is restored to an OPERABLE status as required by Action "c.3" and requires restoration of the remaining inoperable A.C. Source to an OPERABLE status. The allowable restoration time in Action "c.4" for the remaining inoperable A.C. source began when the component initially became inoperable. If not restored within the AOT, then a plant shutdown is required. The requirement associated with the AACDG (reference Action "b.3" Note 1) is applicable to the EDG AOT.

TS 3.8.1.1 Action "e.3" requires restoration of the remaining inoperable EDG to an OPERABLE status. The time allowed for restoration is based on the time at which the remaining inoperable EDG was initially declared inoperable. If not restored within the AOT, then a plant shutdown is required. The requirement associated with the AACDG (reference Action "b.3," Note 1) is applicable to the EDG AOT.

TS 4.8.1.2.c.3 demonstrates the EDG load response characteristics and capability to reject the largest single load without exceeding predetermined voltage and frequency while maintaining a specified margin to the overspeed trip. For ANO-2, the single load for each EDG is the Service Water pump, rated at 800 HP (636.9 KW).

~~Containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance. The 480 volt air frame protective devices utilize electro-mechanical overcurrent elements which are mounted on the protective device and, in some instances, protective relays to trip the protective device. Actuation of the overcurrent element or relay will trip the protective device. The molded case protective devices utilize magnetic or thermal-magnetic overcurrent elements which are contained in the protective device. Actuation of each overcurrent element will trip the protective device.~~

TS 3.8.2.3 Action "b" requires the performance of SR 4.8.2.3.a.1 within one hour and at least once per 8 hours thereafter for a loss of one of the required full capacity chargers. If any Category A limit in Table 4.8-2 is not met while a charger is inoperable, the associated battery bank shall be declared inoperable and ACTION "a" entered. The Category A limits in Table 4.8-2 specify the normal limits for electrolyte level, float voltage and specific gravity for each designated pilot cell. When TS 3.8.2.3 ACTION "b" is entered without the associated battery bank being on float (i.e. charger not connected to the bus), pilot cell float voltage is determined by measuring pilot cell voltage. The term "full capacity charger" as used in TS 3.8.2.3 is defined as a charger that is capable of supplying an output of ≥ 300 amperes.

The fuel oil day tank volume limit is a nominal value. Instrument uncertainty need not be applied (reference CR-ANO-2-2003-0821, CA 007).

TS 3.8.1.3 ensures sufficient quantity and quality of stored fuel oil is available to support OPERABILITY of the EDGs. Regulatory Guide 1.137 addresses recommended fuel oil practices as supplemented by ANSI N195-1976. The fuel oil properties assessed by these documents are water and sediment content, specific gravity, kinematic viscosity, and impurity level. SAR Section 9.5.4.1 discusses the mission time of the EDGs based on required stored fuel oil capacity. The stored fuel oil supports operation of the EDGs (TSs 3.8.1.1 and 3.8.1.2) and, therefore, satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii). The stored fuel oil is required to be within limits when the associated EDG is required to be OPERABLE.

Attachment 4

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List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	ONE-TIME ACTION	CONT COMPL	
Upon NRC approval of the proposed license amendment, Entergy will revise FSAR Section 8.3.1.2.4 to remove the statement that the Technical Specifications require trip setpoints of the primary and backup breakers be checked periodically.	X		The next ANO-2 SAR amendment after NRC approval of the license amendment.