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Duane Arnold Energy Center

March 1, 2006

NG-06-0250
10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Duane Arnold Energy Center
Docket 50-331
License No. DPR-49

Technical Specification Change Request (TSCR-078): Adoption of TSTF-484, Rev. 0, "Use of TS 3.10.1 for Scram Time Testing Activities"
Affected Technical Specifications: Section 3.10.1

Pursuant to 10 CFR 50.90, FPL Energy Duane Arnold, LLC ("FPL Energy Duane Arnold") hereby requests revision to the Technical Specifications (TS) for the Duane Arnold Energy Center (DAEC). The proposed Amendment revises the Limiting Condition for Operation (LCO) 3.10.1, to allow ancillary testing to occur during the evolutions associated with performing the American Society of Mechanical Engineers (ASME) Code Class I leak test of the reactor pressure vessel. The proposed changes are consistent with those previously docketed by the Technical Specification Task Force (TSTF) as a generic traveler, TSTF-484, Rev. 0.

The proposed Amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c). Associated TS Bases changes will be completed per the TS Bases Control Program (TS 5.5.10).

FPL Energy Duane Arnold requests approval of the proposed amendment by February 28, 2007. This schedule will permit the use of this testing allowance during the next scheduled refuel outage, tentatively scheduled to begin in February 2007.

This application has been reviewed by the DAEC Plant Operations Review Committee. A copy of this submittal, along with the 10CFR50.92 evaluation of "No Significant Hazards Consideration," is being forwarded to our appointed state official pursuant to 10 CFR Section 50.91.

This letter makes no new commitments or changes to any existing commitments.

If you have any questions or require additional information, please contact Mr. Tony Browning at (319) 851-7750.

A047

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 1, 2006.

Gary Van Middlesworth

Gary Van Middlesworth
Vice President, Duane Arnold Energy Center
FPL Energy Duane Arnold, LLC

Exhibits: A) EVALUATION OF PROPOSED CHANGE
B) PROPOSED TECHNICAL SPECIFICATION AND BASES CHANGES (MARK-UP)
C) PROPOSED TECHNICAL SPECIFICATION PAGES (RE-TYPED)

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC
D. McGhee (State of Iowa)

EXHIBIT A

EVALUATION OF PROPOSED CHANGE

Subject: TSCR-078: Adoption of TSTF-484, Rev. 0, "Use of TS 3.10.1 for Scram Time Testing Activities"

1. DESCRIPTION

This letter is a request to amend Operating License DPR-49 for the Duane Arnold Energy Center (DAEC). The proposed Amendment would modify the Special Operations Limiting Condition for Operation (LCO) 3.10.1, "System Leakage and Hydrostatic Testing Operation," to include operations where temperature exceeds 212°F as a consequence of maintaining reactor pressure for system leakage and hydrostatic test, or as a consequence of maintaining reactor pressure for scram time testing initiated in conjunction with a system leakage or hydrostatic test, when initial test conditions were below 212°F. This will allow more efficient testing during a refueling outage.

The proposed changes are consistent with those previously docketed by the Technical Specification Task Force (TSTF) as a generic traveler, TSTF-484, Rev. 0, transmitted by TSTF letter TSTF-05-06, dated May 5, 2005. There is one notable difference, which has been made to reflect the DAEC current licensing basis and for consistency within the DAEC Technical Specifications (TS). In the DAEC TS, MODE 4 is defined in Table 1.1-1 as being ≤ 212°F. Consequently, the enclosed TS change, and supporting Bases changes, reflects that definition, versus the 200°F referenced in the Standard TS (NUREG-1433), upon which TSTF-484 was based. Other minor changes were made from the TSTF in the markups to reflect DAEC-specific TS cross-references and nomenclature.

2. PROPOSED CHANGE

The holders of license DPR-49 for the Duane Arnold Energy Center propose to amend the Technical Specifications by deleting the referenced pages and replacing them with the enclosed new pages.

SUMMARY OF CHANGES:

TS Pages	BASES Pages
3.10 – 1	B 3.10 – 1 B 3.10 – 2 B 3.10 – 3

Currently LCO 3.10.1, "System Leakage and Hydrostatic Testing Operation," allows for operation with the average reactor coolant system temperature > 212°F while considering operational conditions to remain MODE 4 (i.e., ≤ 212°F) solely to allow performance of a system leakage or hydrostatic test provided certain secondary containment operability requirements are imposed consistent with operation in MODE 3 (i.e., > 212°F). The Bases relate that the intent of this allowance is solely when minimum temperature limitations, imposed for the hydrostatic pressure test, are required to be above 212°F.

The proposed revision to LCO 3.10.1, and the associated Bases, will expand the scope to include provisions for temperature excursions > 212°F as a consequence of system leakage or hydrostatic testing, and as a consequence of scram time testing initiated in conjunction with a system leakage or hydrostatic test, while considering operational conditions to be MODE 4.

In summary, the Special Operation LCO 3.10.1, "System Leakage and Hydrostatic Testing Operation," allowance for operation with the average reactor coolant system temperature > 212°F while considering operational conditions to be MODE 4 (i.e., cold shutdown), is extended to include operations where temperature exceeds 212°F as a consequence of maintaining reactor pressure for system leakage and hydrostatic test, or as a consequence of maintaining reactor pressure for scram time testing initiated in conjunction with a system leakage or hydrostatic test, when initial test conditions were ≤ 212°F.

Technical Specification Bases are also modified to reflect the above changes (see Exhibit B). The Bases changes are included for information only. Bases changes will be completed per the TS Bases Control Program (TS 5.5.10).

3. BACKGROUND

Hydrostatic and leakage tests of the reactor coolant system are required by Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code ("ASME Code"). Hydrostatic tests are required to be performed once every 10 years and leakage tests are required to be performed each refueling outage. The only significant differences between the hydrostatic and leakage tests are the higher pressure and hold time for a hydrostatic test prior to performing examinations. ASME Code Cases N-416 and N-498 allow hydrostatic tests to be performed at the same pressure as leakage tests, which is the nominal operating pressure.

Appendix G to 10 CFR Part 50 states that "pressure tests and leak tests of the reactor vessel that are required by Section XI of the ASME Code must be completed before the core is critical." These reactor vessel hydrostatic and leakage tests are performed with the reactor pressure vessel in an essentially water-solid condition using reactor recirculation and control rod drive (CRD) pump operation to achieve the required test temperatures and pressures. Due to the elevated pressures, the normal residual heat removal shutdown cooling mode (RHR-SDC), is not in service. The minimum allowed temperatures for these tests are conservatively based on the fracture toughness of the reactor vessel, taking into account anticipated neutron fluence. With increased reactor vessel fluence over time, the minimum allowable vessel temperature increases at a given pressure. Periodic updates to the Pressure/Temperature (P/T) limit curves are performed as necessary, based upon the results of analyses of irradiated surveillance specimens. Hydrostatic and leak testing may eventually be required with minimum reactor coolant temperatures > 212°F.

With the required reactor coolant temperature above 212°F, the TS normally require that primary containment integrity be maintained. Establishing primary containment integrity requires that all openings be secured including installation of the drywell head. Installation of the drywell head and carousel (flashing type insulation) restricts access to the reactor vessel head area for required reactor vessel hydrostatic and leakage test inspections. The restricted access to the reactor vessel head combined with the elevated test temperature makes performance of the required inspections a personnel safety concern.

Control rod scram time testing is also performed after each refueling outage with reactor pressure at or above 800 psig in accordance with TS Surveillance Requirement (SR) 3.1.4.1. Often, scram time performance testing is partially or completely performed in conjunction with the system leakage or hydrostatic testing, even though SR 3.1.4.1 allows for completion of the required scram time performance verification to be deferred through startup operations prior to reaching 40% RTP. Performance of scram time testing during the outage can represent a significant critical path reduction in returning to full power operations and can avoid the undesired extended operation in the 25% to 40% power range. Furthermore, completing scram time testing prior to reactor criticality and power operations allows for implementing a more conservative operating philosophy with attendant potential safety benefits.

While scram time testing is allowed and is typically scheduled in parallel with the system leakage or hydrostatic testing, scram time testing may not be completed prior to completion of the system leakage or hydrostatic testing activities. Two situations that can arise are addressed with this proposed change:

(1) If hydrostatic testing was being performed at > 212°F, in accordance with LCO 3.10.1, upon completion of the system leakage and hydrostatic testing, scram time testing would have to be suspended since the provisions of the LCO have been found to no longer apply (Reference 4). Typical practice would be to resume scram time testing during power operations prior to exceeding 40% power.

(2) When plant-specific minimum temperature for hydrostatic pressure testing does not require reactor coolant temperature > 212°F, system leakage and hydrostatic testing (including scram time testing) can commence without utilizing the allowance of LCO 3.10.1. However, temperature control limitations (e.g., RHR-SDC is isolated at elevated pressures) may result in temperatures drifting upward towards 212°F (reference Susquehanna Unit 1 Licensee Event Report (LER) 2002-008, dated February 2, 2004). Since the plant-specific temperature limitations do not require exceeding 212°F, the allowance of LCO 3.10.1 is interpreted to not apply; necessitating suspension of testing, reduction of pressure and temperature, and reestablishing test conditions after sufficient heat removal/temperature reduction is completed. In the case of incomplete scram time testing, typical practice is to defer completion of testing during power operations prior to exceeding 40% power.

The proposed change will extend the provisions of LCO 3.10.1 to the above situations to allow completion of outage testing activities in an efficient, expeditious, and safe manner, without resulting in any adverse impact to public health and safety.

4. TECHNICAL ANALYSIS

The existing provisions of LCO 3.10.1 provide the allowance to consider plant operation to be in MODE 4 with reactor coolant temperature > 212°F, while imposing MODE 3 secondary containment requirements. This allowance is provided only when hydrostatic and leak testing requires minimum reactor coolant temperatures > 212°F, but also does not preclude concurrent control rod scram time testing.

Since the tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, the stored energy in the reactor core will be very low. Small system leaks would be detected by leakage inspections before significant inventory loss occurred. In the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low-pressure core cooling systems to operate. The capability of the low pressure coolant injection and core spray subsystems, as required in MODE 4 by LCO 3.5.2, "ECCS - Shutdown," would be more than adequate to keep the core flooded under this low decay heat load condition (References 1, 2, and 3). As such, the probability of core damage is considered to be below the level considered credible (Reference 2). Releases to the environment will therefore be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment, without credit for secondary containment or filtration.

Additionally, the existing allowance of LCO 3.10.1 also conservatively requires the secondary containment and standby gas treatment system to be OPERABLE, and capable of handling any airborne radioactivity or steam leaks that could occur during the performance of hydrostatic or leak testing. Therefore, these requirements will conservatively limit radiation releases to the environment. The proposed change will extend the allowance to include operations where temperature exceeds 212°F as a consequence of maintaining adequate pressure for system leakage and hydrostatic testing, when initial test conditions commenced below 212°F. As such, no new operational conditions beyond those currently allowed by LCO 3.10.1 are introduced. The extended allowances would result from operations that commence at reduced temperatures, but approach the normal MODE 4 limit of 212°F prior to completion of the inspections or testing. The flexibility will allow continued inspection and testing activities without imposing the potential for interruption to steady state test pressure while reactor coolant temperatures are reduced to maintain ≤ 212°F conditions. Additionally, the proposed change will extend the allowance to include operations where temperature exceeds 212°F as a consequence of maintaining pressure for continued scram time testing that was initiated in conjunction with a system leakage or hydrostatic test. Currently, if scram time testing is not completed during the normal system leakage or hydrostatic test conditions, and temperatures approach 212°F, completion of scram time testing is suspended and resumed during reactor startup - typically between 25% and 40% power (i.e., above low power operations, but prior to the power limit imposed by SR 3.1.4.1). By extending the provisions of LCO 3.10.1 to scram time testing, more efficient test scheduling can be realized. Furthermore, allowing for efficient scheduling to complete scram time testing prior to reactor criticality and power operations allows for implementing a more conservative operating philosophy with attendant potential safety benefits.

For the purposes of these tests, the protection provided by the normally required MODE 4 applicable LCOs, in addition to the secondary containment requirements required by this Special Operations LCO, ensures acceptable consequences in the event of any postulated abnormal event. Furthermore, extending the allowances to these additional conditions does not create any new modes of operation or operating conditions that are not currently allowed by LCO 3.10.1.

5. REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

FPL Energy Duane Arnold has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

Technical Specifications currently allow for operation at > 212°F while imposing MODE 4 requirements in addition to the secondary containment requirements required to be met. Extending the activities that can apply this allowance will not adversely impact the probability or consequences of an accident previously evaluated.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

Technical Specifications currently allow for operation at > 212°F while imposing MODE 4 requirements in addition to the secondary containment requirements required to be met. No new operational conditions beyond those currently allowed by LCO 3.10.1 are introduced. The extended allowances would result from operations that commence at reduced temperatures, but approach the normal MODE 4 limit of 212°F prior to completion of the inspections or testing. The changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. In addition, the changes do not impose any new or different requirements or eliminate any existing requirements. The changes do not alter assumptions made in the safety analysis. The proposed changes are consistent with the safety analysis assumptions and current plant operating practice.

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

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

Response: No.

Technical Specifications currently allow for operation at > 212°F while imposing MODE 4 requirements in addition to the secondary containment requirements required to be met. Extending the activities that can apply this allowance will not adversely impact any margin of safety. Allowing completion of inspections and testing and supporting completion of scram time testing initiated in conjunction with a system leakage or hydrostatic test prior to power operation, results in enhanced safe operations by eliminating unnecessary maneuvers to control reactor temperature and pressure.

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

CONCLUSION

Based on the preceding 10 CFR 50.92 evaluation FPL Energy Duane Arnold concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

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5.2 Applicable Regulatory Requirements/Criteria

By letter dated March 1, 2006, FPL Energy Duane Arnold submitted a request for revision of the Technical Specifications for the DAEC. The proposed amendment would modify the Special Operations Limiting Condition for Operation (LCO) 3.10.1, "System Leakage and Hydrostatic Testing Operation," to include operations where temperature exceeds 212°F as a consequence of maintaining reactor pressure for system leakage and hydrostatic test, or as a consequence of maintaining reactor pressure for scram time testing initiated in conjunction with a system leakage or hydrostatic test, when initial test conditions were ≤ 212°F.

Evaluation:

The proposed change is consistent with the current regulations and thus, an exemption pursuant to 10 CFR 50.12 is not required. The current regulations (e.g., §50.36) do not specifically require such "Special Operations" LCOs be included in the TS. Therefore, the proposed changes are consistent with the requirements of §50.36. In addition, the proposed revisions are in accordance with ASME Code (including approved Code Cases), and thus, consistent with existing regulations (e.g., §50.55a, Appendix G to 10 CFR Part 50).

The proposed change does not change the design requirements or the assumptions in the safety analysis for the DAEC.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. Therefore, FPL Energy Duane Arnold has concluded that the proposed revision to the DAEC Technical Specifications is acceptable.

6. ENVIRONMENTAL CONSIDERATION

10 CFR Section 51.22(c)(9) identifies certain licensing and regulatory actions which are eligible for categorical exclusion from the requirement to perform an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; and (3) result in a significant increase in individual or cumulative occupational radiation exposure. FPL Energy Duane Arnold has reviewed this request and determined that the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). The basis for this determination follows.

Basis

1. As demonstrated in the 10 CFR 50.92 evaluation included in this exhibit, the proposed amendment does not involve a significant hazards consideration.

2. The proposed changes do not result in an increase in power level, do not increase the production, nor alter the flow path or method of disposal of radioactive waste or byproducts. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

3. The proposed changes do not result in changes in the level of control or methodology used for processing of radioactive effluents or handling of solid radioactive waste nor will the proposal result in any change in the normal radiation levels within the plant. There is no significant increase in individual or cumulative occupational radiation exposure.

Pursuant to 10 CFR Section 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the amendment.

7. REFERENCES

1. Susquehanna, Unit 1, Licensee Event Report 2002-008-00, dated February 2, 2004.
2. Nine Mile Point - Unit 1, Amendment 170, February 20, 2001.
3. Monticello, Amendment 107, November 24, 1999.
4. NRC Inspection Report 5000331/2005011, dated July 1, 2005.

EXHIBIT B

PROPOSED TECHNICAL SPECIFICATION

AND

BASES CHANGES

(MARK-UP)

5 Pages to Follow

3.10 SPECIAL OPERATIONS

3.10.1 System Leakage and Hydrostatic Testing Operation

LCO 3.10.1 The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System — Cold Shutdown," may be suspended, to allow reactor coolant temperature > 212°F:

- For performance of a system leakage or hydrostatic test,
- As a consequence of maintaining adequate pressure for a system leakage or hydrostatic test, or
- As a consequence of maintaining adequate pressure for control rod scram time testing initiated in conjunction with a system leakage or hydrostatic test,

provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, and 4 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves/Dampers (SCIV/Ds)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SBGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 212°F.

B 3.10 SPECIAL OPERATIONS

B 3.10.1 System Leakage and Hydrostatic Testing Operation

BASES

BACKGROUND

The purpose of this Special Operations LCO is to allow certain reactor coolant pressure tests to be performed in MODE 4 when the metallurgical characteristics of the Reactor Pressure Vessel (RPV) require the pressure testing at temperatures > 212°F (normally corresponding to MODE 3).

Bases Insert A

Inservice hydrostatic testing and system leakage pressure tests required by Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Ref. 1) are performed prior to the reactor going critical after a refueling outage. Recirculation pump operation and a water solid RPV (except for an air bubble for pressure control) are used to achieve the necessary temperatures and pressures required for these tests. In addition, a hydrostatic test pump or a control rod drive pump may be used to achieve required test pressure. The minimum temperatures (at the required pressures) allowed for these tests are determined from the RPV pressure and temperature (P/T) limits required by LCO 3.4.9, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits." These limits are conservatively based on the fracture toughness of the reactor vessel, taking into account anticipated vessel neutron fluence.

With increased reactor vessel fluence over time, the minimum allowable vessel temperature increases at a given pressure. Periodic updates to the RPV P/T limit curves are performed as necessary, based upon the results of analyses of irradiated surveillance specimens removed from the vessel. Hydrostatic and leak testing ~~will~~ may eventually be required with minimum reactor coolant temperatures > 212°F.

Bases Insert B

At the DAEC, the hydrostatic testing required by Reference 1 is implemented using the allowances provided by Code Case N-498 (Ref. 2). This Code Case allows testing to be performed at the nominal operating pressure of 1025 psig. The system leakage testing is also performed at the nominal operating pressure as allowed by Reference 1. Scram time testing required by SR 3.1.4.1 and 3.1.4.2 requires reactor pressure ≥ 800 psig.

Other testing may be performed in conjunction with the allowances for system leakage or hydrostatic tests and control rod scram time tests.

(continued)

BASES *(continued)*

APPLICABLE SAFETY ANALYSES

Allowing the reactor to be considered in MODE 4 ~~during hydrostatic or leak testing,~~ when the reactor coolant temperature is > 212°F, during, or as a consequence of, hydrostatic or leak testing, or as a consequence of control rod scram time testing initiated in conjunction with a system leakage or hydrostatic test, effectively provides an exception to MODE 3 requirements, including OPERABILITY of primary containment and the full complement of redundant Emergency Core Cooling Systems. Since the ~~hydrostatic or leak~~ tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above the LCO 3.4.6, "RCS Specific Activity," limits are minimized. In addition, the secondary containment will be OPERABLE, in accordance with this Special Operations LCO, and will be capable of handling any airborne radioactivity or steam leaks that could occur during the performance of hydrostatic or leak testing. The required pressure testing conditions provide adequate assurance that the consequences of a steam leak will be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment described in Reference 3. Therefore, these requirements will conservatively limit radiation releases to the environment.

Hydrostatic and leak testing, in and of themselves, are not considered to be Operations with the Potential for Draining the Reactor Vessel (OPDRVs). However, in the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low pressure core cooling systems to operate. The capability of the low pressure coolant injection and core spray subsystems, as required in MODE 4 by LCO 3.5.2, "ECCS — Shutdown," would be more than adequate to keep the core flooded under this low decay heat load condition. Small system leaks would be detected by leakage inspections before significant inventory loss occurred.

For the purposes of this test, the protection provided by normally required MODE 4 applicable LCOs, in addition to the secondary containment requirements required to be met by this Special Operations LCO, will ensure acceptable consequences during normal hydrostatic test conditions and during postulated accident conditions.

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of 10 CFR 50.36(c)(2)(ii) apply. Special Operations LCOs provide flexibility

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)	to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.
LCO	As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. Operation at reactor coolant temperatures > 212°F can be in accordance with Table 1.1-1 for MODE 3 operation without meeting this Special Operations LCO or its ACTIONS. This option may be required due to P/T limits, however, which require testing at temperatures > 212°F, while some system leakage or hydrostatic testing may require the safety/relief valves to be gagged, preventing their OPERABILITY.
Bases Insert C	If it is desired to perform these tests while complying with this Special Operations LCO, then the MODE 4 applicable LCOs and specified MODE 3 LCOs must be met. This Special Operations LCO allows changing Table 1.1-1 temperature limits for MODE 4 to "NA" and suspending the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System — Cold Shutdown." The additional requirements for secondary containment LCOs to be met will provide sufficient protection for operations at reactor coolant temperatures > 212°F for the purpose of performing ~~either~~ a system leakage or hydrostatic test, and for control rod scram time testing initiated in conjunction with a system leakage or hydrostatic test.
	This LCO allows primary containment to be open for frequent unobstructed access to perform inspections, and for outage activities on various systems to continue consistent with the MODE 4 applicable requirements ~~that are in effect immediately prior to and immediately after this operation~~.
APPLICABILITY	The MODE 4 requirements may only be modified for the performance of, or as a consequence of, system leakage or hydrostatic tests, or as a consequence of control rod scram time testing initiated in conjunction with a system leakage or hydrostatic test, so that these operations can be considered as in MODE 4, even though the reactor coolant temperature is > 212°F. The additional requirement for secondary containment OPERABILITY according to the imposed MODE 3 requirements provides conservatism in the response of the unit to any event that may occur. Operations in all other MODES are unaffected by this LCO.

(continued)

Bases Insert A

or to allow completing these reactor pressure tests when the initial conditions do not require temperatures > 212°F. Furthermore, the purpose is to allow continued performance of control rod scram time testing required by SR 3.1.4.1 or SR 3.1.4.2 if reactor coolant temperatures exceed 212°F when the control rod scram time testing is initiated in conjunction with a system leakage or hydrostatic test. These control rod scram time tests would be performed in accordance with LCO 3.10.4, "Single Control Rod Withdrawal – Cold Shutdown," during MODE 4 operation

Bases Insert B

However, even with required minimum reactor coolant temperatures ≤ 212°F, maintaining RCS temperatures within a small band during the test can be impractical. Removal of heat addition from recirculation pump operation and reactor core decay heat is coarsely controlled by control rod drive hydraulic system flow and reactor water cleanup system non-regenerative heat exchanger operation. Test conditions are focused on maintaining a steady state pressure, and tightly limited temperature control poses an unnecessary burden on the operator and may not be achievable in certain instances.

Bases Insert C

Additionally, even with required minimum reactor coolant temperatures ≤ 212°F, RCS temperatures may drift above 212°F during the performance of system leakage and hydrostatic testing or during subsequent control rod scram time testing, which is typically performed in conjunction with system leakage and hydrostatic testing. While this Special Operations LCO is provided for system leakage and hydrostatic testing, and for scram time testing initiated in conjunction with a system leakage or hydrostatic test, parallel performance of other tests and inspections is not precluded.

EXHIBIT C

PROPOSED TECHNICAL SPECIFICATION PAGES

(RE-TYPED)

1 Page to Follow

3.10 SPECIAL OPERATIONS

3.10.1 System Leakage and Hydrostatic Testing Operation

LCO 3.10.1

The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System — Cold Shutdown," may be suspended, to allow reactor coolant temperature > 212°F:

- For performance of a system leakage or hydrostatic test,
- As a consequence of maintaining adequate pressure for a system leakage or hydrostatic test, or
- As a consequence of maintaining adequate pressure for control rod scram time testing initiated in conjunction with a system leakage or hydrostatic test,

provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, and 4 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves/Dampers (SCIV/Ds)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SBGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 212°F.