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

May 8, 2013

Mr. Rafael Flores
Senior Vice President and
Chief Nuclear Officer
Attention: Regulatory Affairs
Luminant Generation Company LLC
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 – REQUEST FOR RELIEF V-1 FROM AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER PLANTS FOR THE THIRD INTERVAL OF INSERVICE TESTING PLAN (TAC NOS. ME9503 AND ME9504)

Dear Mr. Flores:

By letter dated September 6, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12263A351), Luminant Generation Company LLC (the licensee) submitted Relief Request No. V-1 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, Inservice Testing (IST) Plan for Pumps and Valves. The licensee requested relief from certain testing requirements for motor-operated valves (MOVs) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), paragraph 50.55a(a)(3)(i) for the third 10-year IST interval, which begins on August 3, 2013, and ends on August 2, 2023.

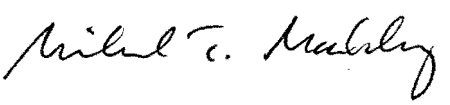
The licensee requested authorization to use an alternative test instead of the requirements of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for all MOV assemblies included in the MOV Program at the CPNPP, Units 1 and 2. Specifically, the licensee requested to use ASME OM Code Case OMN-1, Revision 1 (OMN-1-1), from the ASME OM Code 2009 Edition in lieu of meeting the testing requirements of the ASME OM Code.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and concluded that the proposed alternative to implement ASME Code Case OMN 1-1, with the conditions specified in NRC Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," June 2003 (ADAMS Accession No. ML030730430), for all MOV assemblies included in the CPNPP MOV Program provides an acceptable level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(i), and is in compliance with the ASME OM Code's requirements. Therefore, the NRC authorizes the use of proposed alternative at CPNPP, Units 1 and 2, for the third 10-year IST interval.

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

The NRC staff's safety evaluation is enclosed. If you have any questions, please contact Balwant K. Singal at 301-415-3016 or by e-mail at Balwant.Singal@nrc.gov.

Sincerely,



Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure:
As stated

cc w/encl: Distribution via Listserv

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF NO. V-1

THIRD 10-YEAR INSERVICE TESTING INTERVAL PLAN

LUMINANT GENERATION COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

## 1.0 INTRODUCTION

By letter dated September 6, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12263A351), Luminant Generation Company LLC (the licensee) submitted Relief Request No. V-1 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, Inservice Testing (IST) Plan for Pumps and Valves. The licensee requested relief from certain testing requirements for the motor-operated valves (MOVs) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), paragraph 50.55a(a)(3)(i) for the third 10-year IST interval, which begins on August 3, 2013, and ends on August 2, 2023.

The licensee requested authorization to use an alternative test instead of the requirements of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for all MOV assemblies included in the MOV Program at the CPNPP, Units 1 and 2. Specifically, the licensee requested to use ASME OM Code Case OMN-1 Revision 1 (OMN-1-1) from the ASME OM Code 2009 Edition in lieu of meeting the test requirements of the ASME OM Code.

## 2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.55a(f), "Inservice testing requirements," requires, in part, that IST of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to paragraphs 10 CFR 50.55a(a)(3)(i) or 10 CFR 50.55a(a)(3)(ii).

The regulations in 10 CFR 50.55a(a)(3) state that alternatives to the requirements of paragraph (f) of 10 CFR 50.55a or portions thereof, may be used when authorized by the Director, Office of Nuclear Reactor Regulation, if the licensee demonstrates (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The CPNPP, Units 1 and 2, third 10-year IST interval is currently scheduled to begin on August 3, 2013, and end on August 2, 2023. The applicable ASME OM Code edition and addenda for CPNPP, Units 1 and 2, is the 2004 Edition through the 2006 Addenda.

## 3.0 TECHNICAL EVALUATION

### 3.1 Licensee's Request for Alternative

#### 3.1.1 Components Affected

The MOVs covered by this relief request are identified in the Attachment to the licensee's letter dated September 6, 2012 (reproduced in the Attachment to this safety evaluation).

ASME Code Class: Code Classes 1, 2, and 3

#### 3.1.2 Applicable Code Requirements

ISTA-3130, "Application of Code Cases," (b), states that, "Code Cases shall be applicable to the edition and addenda specified in the test plan."

ISTC-3100, "Preservice Testing," (a), states that, "Any valve that has undergone maintenance that could affect its performance after the preservice test shall be tested in accordance with ISTC-3310."

ISTC-3310, "Effects of Valve Repair, Replacement, or Maintenance on Reference Values," states, in part, "When a valve or its control system has been replaced, repaired, or has undergone maintenance that could affect the valve's performance, a new reference value shall be determined or the previous value reconfirmed by an inservice test run before the time it is returned to service or immediately if not removed from service."

ISTC-3510, "Exercising Test Frequency," states, in part, "Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months."

ISTC-3521, "Category A and Category B Valves," notes that active Category A and B valves shall be exercised during cold shutdowns, if it is not practicable to exercise the valves at power or that active Category A and B valves shall be exercised during refueling outages, if it not practicable to exercise the valves during cold shutdowns.

ISTC-5120, "Motor-Operated Valves," (a), states that, "Active valves shall have their stroke times measured when exercised in accordance with ISTC-3500."

ISTC-3700, "Position Verification Testing," states, in part, "Valves with remote position indicators shall be observed locally at least once every 2 years to verify valve operation is accurately indicated."

ASME OM Code Case OMN-1-1, "Alternative Rules for Preservice and Inservice Testing of Active Electric Motor-Operated Valve Assemblies in Light-Water Reactor Power Plants" (2009 Edition),

establishes the requirements for pre-service and inservice testing to assess the operational readiness of active MOVs in light-water reactor power plants.

3.1.3 Reason for Request

Luminant proposes to adopt the requirements of Code Case OMN-1-1 (as delineated in the 2009 Edition of the ASME OM Code) in lieu of the performance of MOV testing as described by the ASME OM Code Case, OMN-1 Revision 0 (OMN-1), or the requirements of the ASME OM Code, Subsection ISTC, 2004 Edition through the 2006 Addenda. OMN-1 Revision 0, was previously approved for use at CPNPP, Units 1 and 2, by the NRC by letter dated August 14, 1998 (ADAMS Accession No. 9808210138).

3.1.4 Proposed Alternative

In its letter dated September 6, 2012, the licensee stated, in part, that

> Pursuant to the guidelines provided in NUREG-1482, Rev. 1[1], Section 4.2.5, and the conditions stated in RG [Regulatory Guide] 1.192[2], CPNPP proposes to implement Code Case OMN-1 Revision 1, in lieu of the stroke-time provisions specified in ISTC-5120 for MOVs as well as the position verification testing in ISTC-3700.

In NUREG-1482, Revision 1, the NRC staff has recommended that licensees implement Code Case OMN-1 as an alternative to the MOV stroke-time and position verification testing provisions in the ASME Code. There are no significant differences between the versions of Code Case OMN-1 that is in the 2000 Addenda of the OM Code currently approved for use in RG 1.192, Revision 0 and the Revision 1 of the Code Case (OMN-1-1) in 2009 Edition of the OM Code.

In its letter dated September 6, 2012, the licensee stated, in part, that:

> The proposed alternative is considered to be acceptable because Code Case OMN-1 Revision 1 provides a superior method [of testing] than the stroke-timing method required by the [ASME] OM code for assessing the operational readiness of MOVs.
>
> Using the provisions of this request as an alternative to the MOV stroke time testing requirements of ISTC-5120 and position indication verification of ISTC-3700 provide an acceptable level of quality for determination of valve operational readiness. Code Case OMN-1 Revision 1 should be considered acceptable for use with ASME Code 2004 Edition through 2006 Addenda as the Code of Record.

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1 U.S. Nuclear Regulatory Commission, NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants," January 2005 (ADAMS Accession No. ML050550290).

2 U.S. Nuclear Regulatory Commission, Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," June 2003 (ADAMS Accession No. ML030730430),

> There are recognized weaknesses in the stroke-time testing requirements for MOVs in the [ASME] OM Code and the use of Code Case OMN-1 Revision 1 by a licensee resolves these weaknesses. Code Case OMN-1 Revision 1 permits licensees to replace stroke time and position verification testing of MOVs with a program of exercising MOVs every refueling cycle and diagnostically testing on longer intervals.

The licensee intends to maintain the following exceptions which were addressed in the original submission of the relief request for OMN-1 Revision 0 to the requirements in ASME Code Case OMN-1 as described below:

1) The initial inservice test frequency for each MOV shall be determined based upon the MOV's risk significance category (i.e. High or Low) and magnitude of margin.... The inservice test frequency may change when sufficient test data has been collected and analyzed to determine a more appropriate test frequency. No test frequency shall exceed 10 years.

2) In order to maintain consistency and compatibility with the Joint Owners Group (JOG) MOV Periodic Verification Program, "Functional Margin" will be redefined to agree with the definition of "Margin" as detailed in Topical Report MPR-1807[3]. The terms "Functional Margin" and "Margin" shall be synonymous within the CPNPP MOV periodic verification program.

In its letter dated September 6, 2012, the licensee stated:

> "Margin," as defined in Reference 2 [Topical Report MPR-1807, Revision 2, July 1997], is dependent upon "Required Thrust". At CPNPP, "Required Thrust" for rising stem MOVs has been determined from stem thrust measurements taken during extensive baseline testing performed in response to GL 89-10 [4] under both static and dynamic test conditions. Valve factors have been determined by statistical means for each group of rising stem MOVs; these factors will be reviewed/verified as new data is obtained from CPNPP testing and results received from the JOG Periodic Verification Program.

3.2 NRC Staff Evaluation

The NRC staff considered Section 4.2.5, "Alternatives to Stroke-Testing," of NUREG-1482, Revision 1, in its review of the licensee's proposed alternative. Section 4.2.5 notes that as an alternative to MOV stroke-time testing, ASME developed Code Case OMN-1, which provides periodic exercising and diagnostic testing for use in assessing the operational readiness of MOVs, may be used. Section 4.2.5 recommends that licensees implement ASME Code Case OMN-1 as an alternative to the MOV stroke-time testing. The periodic exercising and diagnostic

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[3] MPR Associates, Inc., "Joint BWR, Westinghouse and Combustion Engineering Owners' Group Program on Motor-Operated Valve (MOV) Periodic Verification," MRP-1807, Revision 2, July 1997.

[4] U.S. Nuclear Regulatory Commission, "Safety-Related Motor-Operated Valve Testing and Surveillance (Generic Letter 89-10) – 10 CFR 50.54(f)," dated June 28, 1989 (ADAMS Accession No. ML031150300).

testing requirements in OMN-1 provide a superior method than the stroke-timing method required by the ASME OM Code for assessing the operational readiness of MOVs.

Application of code cases is addressed in 10 CFR 50.55a(b)(6) through references to RG 1.192, which lists acceptable and conditionally acceptable code cases for implementation in IST programs. RG 1.192, Table 2, conditionally approves the use of Code Case OMN-1 and states that the code is applicable to the 2000 Addenda and earlier editions and addenda of the Code. The NRC staff has reviewed Code Case OMN-1-1 in the 2009 Edition of the ASME OM Code and determined that there are no significant technical differences between the 2000 Addenda of the ASME OM Code version that is currently approved in RG 1.192. There is no technical reason for prohibiting the use of Code Case OMN-1-1. This is consistent with the NRC staff position in NUREG-1482, Revision 1 and RG 1.192.

There are recognized weaknesses in the stroke-time testing requirements for MOVs in the ASME OM Code, and the use of Code Case OMN-1-1 (2009 Edition) by a licensee resolves these weaknesses. Code Case OMN-1-1 (2009 Edition) permits licensees to replace stroke-time and position verification testing of MOVs with a program of exercising MOVs every refueling outage (not to exceed 2 years) and diagnostically testing on longer intervals. The NRC staff has recommended that licensees implement Code Case OMN-1 as an alternative to the MOV stroke-time and position verification testing provisions in the ASME OM Code.

Since there are no significant differences between the version of Code Case OMN-1 that is currently approved for use in RG 1.192 and the version of Code Case OMN-1-1, in the 2009 Edition of the ASME OM Code, the NRC staff concludes that Code Case OMN-1-1 (2009 Edition), with the conditions specified in RG 1.192, provides an acceptable level of quality and safety for testing of MOVs and is an acceptable alternative for use at CPNPP, Unit 1 and Unit 2, IST Programs.

## 4.0 CONCLUSION

Based on the above, the NRC staff concludes that the proposed alternative by relief request V-1 to implement ASME OM Code OMN-1-1, with the conditions specified in RG 1.192, for all MOV assemblies included in the CPNPP MOV Program, provides an acceptable level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(i), and is in compliance with the ASME OM Code's requirements. All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

Therefore, the NRC staff authorizes the alternative in relief request V-1 for the third IST interval for CPNPP, Units 1 and 2, which is currently scheduled to start on August 3, 2013, and end on August 2, 2023.

Principal Contributor: Michael Farnan, NRR/DE/EPNB

Date: May 8, 2013

Attachment:
As stated

ATTACHMENT

MOTOR-OPERATED VALVES COVERED BY RELIEF REQUEST V-1

COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| **Auxiliary Feedwater** | HV-2480 | B | 3 | Aux feedwater Pump Emergency Supply Flowpath |
| | HV-2481 | B | 3 | Aux feedwater Pump Emergency Supply Flowpath |
| | HV-2482 | B | 3 | Aux feedwater Pump Emergency Supply Flowpath |
| | HV-2484 | B | 3 | Condensate System to Condensate Storage Tank Isolation to Preclude Tank Overpressurization |
| | HV-2485 | B | 3 | Condensate System to Condensate Storage Tank Isolation to Preclude Tank Overpressurization |
| | HV-2491A | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2491B | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2492A | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2492B | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2493A | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2493B | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2494A | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| | HV-2494B | B | 2 | Containment Isolation & AFW to Faulted SG Flow Isolation |
| **Component Cooling Water** | HV-4512 | B | 3 | Train A to Train B Crosstie Isolation |
| | HV-4513 | B | 3 | Train A to Train B Crosstie Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| | HV-4514 | B | 3 | Train A to Train B Crosstie Isolation |
| | HV-4515 | B | 3 | Train A to Train B Crosstie Isolation |
| | HV-4524 | B | 3 | Non-Safety Loop Flowpath Isolation |
| | HV-4525 | B | 3 | Non-Safety Loop Flowpath Isolation |
| | HV-4526 | B | 3 | Non-Safety Loop Flowpath Isolation |
| | HV-4527 | B | 3 | Non-Safety Loop Flowpath Isolation |
| | HV-4572 | B | 3 | RHR Heat Exchanger Cooling Flowpath |
| | HV-4573 | B | 3 | RHR Heat Exchanger Cooling Flowpath |
| | HV-4574 | B | 3 | Containment Spray Heat Exchanger Cooling Flowpath |
| | HV-4575 | B | 3 | Containment Spray Heat Exchanger Cooling Flowpath |
| | HV-4696 | A | 2 | Containment Isolation & RCP Thermal Barrier Rupture Isolation |
| | HV-4699 | B | 2 | Passive Pipe Break Isolation (Inside Containment) |
| | HV-4700 | A | 2 | Containment Isolation & Passive Pipe Break Isolation (Inside Containment) |
| | HV-4701 | A | 2 | Containment Isolation |
| | HV-4708 | A | 2 | Containment Isolation |
| | HV-4709 | A | 2 | Containment Isolation & RCP Thermal Barrier Rupture Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| **Chemical & Volume Control** | LCV-0112B | B | 2 | ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT level) & Boron Dilution Flowpath Isolation |
| | LCV-0112C | B | 2 | ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT level) & Boron Dilution Flowpath Isolation |
| | LCV-0112D | B | 2 | ECCS Injection Flowpath & Boration Flowpath/ECCS Recirculation Flowpath Boundary |
| | LCV-0112E | B | 2 | ECCS Injection Flowpath & Boration Flowpath/ECCS Recirculation Flowpath Boundary |
| | 8100 | A | 2 | Containment Isolation |
| | 8104 | B | 2 | Boration Flowpath |
| | 8105 | A | 2 | Boration Flowpath/ECCS Flowpath Boundary & Containment Isolation |
| | 8106 | B | 2 | Boration Flowpath/ECCS Flowpath Boundary |
| | 8109 | B | 2 | ECCS Flowpath Boundary |
| | 8110 | B | 2 | ECCS Flowpath Boundary |
| | 8111 | B | 2 | ECCS Flowpath Boundary |
| | 8112 | A | 2 | Containment Isolation |
| | 8351A | B | 2 | Containment Isolation |
| | 8351B | B | 2 | Containment Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| | 8351C | B | 2 | Containment Isolation |
| | 8351D | B | 2 | Containment Isolation |
| | 8511A | B | 2 | High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary |
| | 8511B | B | 2 | High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary |
| | 8512A | B | 2 | ECCS Recirculation Flowpath Boundary |
| | 8512B | B | 2 | ECCS Recirculation Flowpath Boundary |
| Containment Spray | LV-4754 | B | 3 | Chemical Additive Flowpath/Chemical Additive Tank Isolation |
| | LV-4755 | B | 3 | Chemical Additive Flowpath/Chemical Additive Tank Isolation |
| | HV-4758 | B | 2 | Sump Recirculation Flowpath Boundary |
| | HV-4759 | B | 2 | Sump Recirculation Flowpath Boundary |
| | FV-4772-1 | B | 2 | Pump Miniflow Flowpath/Containment Spray Flowpath Boundary |
| | FV-4772-2 | B | 2 | Pump Miniflow Flowpath/Containment Spray Flowpath Boundary |
| | FV-4773-1 | B | 2 | Pump Miniflow Flowpath/Containment Spray Flowpath Boundary |
| | FV-4773-2 | B | 2 | Pump Miniflow Flowpath/Containment Spray Flowpath Boundary |
| | HV-4776 | A | 2 | Containment Spray Flowpath/Containment Isolation |
| | HV-4777 | A | 2 | Containment Spray Flowpath/Containment Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| | HV-4782 | B | 2 | Sump Recirculation Flowpath/Containment Isolation |
| | HV-4783 | B | 2 | Sump Recirculation Flowpath/Containment Isolation |
| **Reactor Coolant** | 8000A | B | 1 | Post Accident Vent Path/Vent Path Isolation & Reactor Coolant Pressure Boundary |
| | 8000B | B | 1 | Post Accident Vent Path/Vent Path Isolation & Reactor Coolant Pressure Boundary |
| **Residual Heat Removal** | FCV-0610 | B | 2 | Pump Miniflow Path/ECCS & RHR Flowpath Boundary |
| | FCV-0611 | B | 2 | Pump Miniflow Path/ECCS & RHR Flowpath Boundary |
| | 8701A | A | 1 | RHR Flowpath/Containment Isolation & Reactor Coolant Pressure Boundary |
| | 8701B | A | 1 | RHR Flowpath/Containment Isolation & Reactor Coolant Pressure Boundary |
| | 8702A | A | 1 | RHR Flowpath/Reactor Coolant Pressure Boundary |
| | 8702B | A | 1 | RHR Flowpath/Reactor Coolant Pressure Boundary |
| | 8716A | B | 2 | ECCS Injection Flowpath/ECCS Recirculation Flowpath Boundary |
| | 8716B | B | 2 | ECCS Injection Flowpath/ECCS Recirculation Flowpath Boundary |
| **Safety Injection** | 8801A | B | 2 | ECCS to Cold Legs Flowpath & Boration Flowpath/ Containment Isolation & Passive Pipe Break Isolation |
| | 8801B | B | 2 | ECCS to Cold Legs Flowpath & Boration Flowpath/ Containment Isolation & Passive Pipe Break Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| | 8802A | B | 2 | ECCS to Hot Legs Flowpath/ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation |
| | 8802B | B | 2 | ECCS to Hot Legs Flowpath/ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation |
| | 8804A | B | 2 | ECCS Recirculation Flowpath/Passive Pipe Break Isolation |
| | 8804B | B | 2 | ECCS Recirculation Flowpath/Passive Pipe Break Isolation |
| | 8806 | B | 2 | ECCS Flowpath Boundary (during Recirculation) |
| | 8807A | B | 2 | ECCS Recirculation Flowpath/Passive Pipe Break Isolation |
| | 8807B | B | 2 | ECCS Recirculation Flowpath/Passive Pipe Break Isolation |
| | 8808A | B | 2 | ECCS from Accumulators to Cold Legs Flowpath |
| | 8808B | B | 2 | ECCS from Accumulators to Cold Legs Flowpath |
| | 8808C | B | 2 | ECCS from Accumulators to Cold Legs Flowpath |
| | 8808D | B | 2 | ECCS from Accumulators to Cold Legs Flowpath |
| | 8809A | A | 2 | ECCS to Cold Legs Flowpath/ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation & Containment Isolation |
| | 8809B | A | 2 | ECCS to Cold Legs Flowpath/ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation & Containment Isolation |
| | 8811A | B | 2 | ECCS Recirculation Flowpath/Containment Isolation & Passive Pipe Break Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| | 8811B | B | 2 | ECCS Recirculation Flowpath/Containment Isolation & Passive Pipe Break Isolation |
| | 8812A | B | 2 | ECCS Recirculation Flowpath Boundary & Shutdown Cooling Flowpath Boundary (during Safety Grade Cold Shutdown) |
| | 8812B | B | 2 | ECCS Recirculation Flowpath Boundary & Shutdown Cooling Flowpath Boundary (during Safety Grade Cold Shutdown) |
| | 8813 | B | 2 | ECCS Recirculation Flowpath Boundary |
| | 8814A | B | 2 | ECCS Recirculation Flowpath Boundary |
| | 8814B | B | 2 | ECCS Recirculation Flowpath Boundary |
| | 8821A | B | 2 | ECCS to Cold Legs Flowpath/ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation |
| | 8821B | B | 2 | ECCS to Cold Legs Flowpath/ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation |
| Safety Injection | 8835 | B | 2 | ECCS to Cold Legs Flowpath/ECCS to Hot Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation |
| | 8840 | A | 2 | ECCS to Hot Legs Flowpath/ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation |
| | 8923A | B | 2 | Passive Pipe Break Isolation |
| | 8923B | B | 2 | Passive Pipe Break Isolation |
| | 8924 | B | 2 | Passive Pipe Break Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

| System | Valve Number | Category | Code Class | Description |
|---|---|---|---|---|
| Service Water | HV-4286 | B | 3 | Service Water Flowpath/Throttling during Pump Start |
| | HV-4287 | B | 3 | Service Water Flowpath/Throttling during Pump Start |
| | HV-4393 | B | 3 | Service Water Flowpath |
| | HV-4394 | B | 3 | Service Water Flowpath |
| | HV-4395 | B | 3 | AFW Pump Emergency Supply Flowpath |
| | HV-4396 | B | 3 | AFW Pump Emergency Supply Flowpath |
| Containment Isolation | HV-6082 | A | 2 | Containment Isolation |
| | HV-6083 | A | 2 | Containment Isolation |
| | HV-6084 | A | 2 | Containment Isolation |
| | HV-4075B | A | 2 | Containment Isolation |
| | HV-4075C | A | 2 | Containment Isolation |
| | HV-5540 | A | 2 | Containment Isolation |
| | HV-5541 | A | 2 | Containment Isolation |
| | HV-5542 | A | 2 | Containment Isolation |
| Containment Isolation | HV-5543 | A | 2 | Containment Isolation |
| | HV-5562 | A | 2 | Containment Isolation |
| | HV-5563 | A | 2 | Containment Isolation |

COMANCHE PEAK NUCLEAR POWER PLANT UNITS 1 AND 2
ASME OM CODE INSERVICE TESTING PROGRAM
RELIEF REQUEST V-1 (THIRD INTERVAL START DATE: AUGUST 3, 2013)

LEGEND: Category A = Valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their required safety function(s).

Category B = Valves for which seat leakage in the closed position is inconsequential for fulfillment of their required safety function(s).

Class = Code Class

**Figure 1**
**Inservice Test Frequency**

| R | | MARGIN | | |
|---|---|---|---|---|
| I | | Low | Medium | High |
| S | High | 1 cycle | 2 cycles | 3 cycles |
| K | Low | 2 cycles | 4 cycles | 6 cycles* |

*Not to exceed 10 years

Notes:

1. Criteria for MOV Margin Categories
   Low Margin: <10%
   Medium Margin: ≥10% and <15%
   High Margin: ≥15%

2. Criteria for Risk Categories
   High Risk: Risk-Informed IST Program
   Low Risk: Risk-Informed IST Program

The NRC staff's safety evaluation is enclosed. If you have any questions, please contact Balwant K. Singal at 301-415-3016 or by e-mail at Balwant.Singal@nrc.gov.

Sincerely,

*/RA/*

Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure:
As stated

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|---|---|---|---|---|
| NAME | BSingal | JBurkhardt | AMcMurtray* | MMarkley |
| DATE | 4/29/13 | 4/29/13 | 4/16/13 | 5/8/13 |

**OFFICIAL AGENCY RECORD**