DUKE POWER COMPANY

Catawba Nuclear Station

ASME Inservice Testing Program

Revision 23

June 1996

Prepared by: Derrick D. Mills Date: 12-20-95

Reviewed by: W. M. Carle Date: 12/28/95

Approved by: T. E. Crawford Date: 12/28/95

Duke Power Company
Catawba Nuclear Station
Units 1 and 2

Pump and Valve Inservice Testing Program

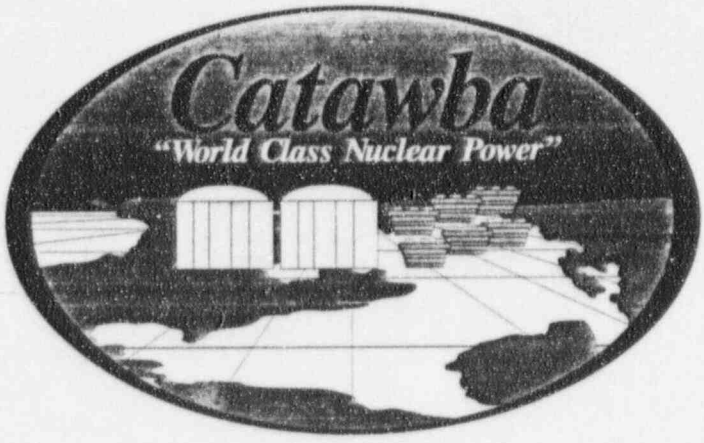


Table of Contents

Table of Contents

Table of Contents

CATAWBA NUCLEAR STATION
ASME Section XI
In-Service Testing Program Document

December 1995

Prepared by: Andrew R. Anderson Date: 12/19/95

Reviewed by: Dennis D. Miller Date: 12/20/95

Approved by: T E Crawford Date: 12/28/95

TABLE OF CONTENTS

TABLE OF CONTENTS

1.0 SCOPE OF DOCUMENT

Technical Specification 4.0.5 requires performance of pump and valve testing in accordance with ASME Section XI. Failure to meet the requirements of this program is a violation of Technical Specifications and 10CFR 50.55a.

The purpose of this program document is to specify the Catawba Nuclear Station (or hereafter referred to as "licensee" or "CNS") In-Service Testing program for performing valve and pump testing. This document will also outline the process for additions, changes, and deletions of pumps and valves from the CNS IST program.

1.1 Program Period:

Second Ten-Year Interval (120 month period beginning August 19, 1995);
Unit(s) 1 and 2 Concurrently

1.2 Applicable ASME Code(s) and Addenda:

ASME/ANSI OM-1987 Edition; PART 6 including OMb-1989
ANSI/ASME OM-1-1987
ASME/ANSI OM-1987 Edition; PART 10 including OMa-1988

1.3 Program Changes:

The NRC will be notified of IST program changes. However, component additions and deletions will be submitted and testing implemented or deleted without prior NRC approval. In the instance where a component has been added to the IST program, testing and the appropriate program changes will take place **within 90 days** of revising the program source documents unless determined to be impractical. If a hardship is identified, notification will be submitted to the NRC and an interim extension from testing implementation obtained.

The content of this program document is for non-mandatory compliance to recommendations stated in NUREG-1482 and is intended for the purpose of maintaining program continuity and documenting additional discussions and positions relative to code interpretations. Therefore, changes to this program document will not require prior NRC review and/or approval unless the licensee determines a need to do so.

2.0 REFERENCES

The following documents were used as references in the development of this document:

Generic Letter 89-04

Generic Letter 89-10

10 CFR 50, Appendix B

10 CFR 50.55a

ASME OM-6 (OMb-1989), OM-10 (OMa-1988), and OM-1 (1987)

Technical Specifications

Final Safety Analysis Report (FSAR)

Nuclear System Directive: 408. Post-Maintenance Testing

Non-Mandatory References:

NUREG/CP-0123, Proceedings of the NRC/ASME Symposiums on Pump and Valve Testing

NUREG-1482, Guidelines for In-service Testing at Nuclear Power Plants, April 1995

ANSI OM-1, 1981 Req. for In-service Testing of Nuclear Power Plant Pressure Relief Devices.

OM-13, "Standard for Assessing the Operational Readiness for Power Operated Relief Valves."

OM-22, "Standard for Assessing the Operational Readiness for Check Valves."

ASME OMc CODE-1994

3.0 DEFINITIONS and TERMS

Generic Letter 89-10 - the NRC letter providing additional requirements in testing MOVs to design basis conditions.

Generic Letter 89-04 - the NRC letter providing supplemental guidance on developing and enhancing plant IST programs.

ASME Section XI - the section of ASME Codes and Standards Manual that determines how to perform in-service testing of light water reactor nuclear plant components.

ASME OM-10 Code - the part of Section XI codes dealing with the in-service testing of valves.

ASME OM-6 Code - the part of Section XI codes dealing with the in-service testing of pumps.

Frequencies - the interval of time between in-service testing of the components. These intervals are defined in CNS Technical Specifications 4.0:

1) Quarterly (3 months) - 115 days maximum

2) Cold Shutdown (CSD) - Average Coolant Temperature (T_{avg}) $\leq$ 200°F

3) Refueling (RF) - Unit at shutdown for the purpose of replacing or rearranging all or a portion of the fuel assemblies or control rods.

IST Component - components (valves and pumps) that are required to be tested per ASME Section XI. Sections 4.1 and 5.1 of this document define the criteria to be included in the IST program.

"App. B Component" - components (valves and pumps) tested under of 10CFR50, Appendix B.

"App. J Component" - components leak tested for containment integrity under 10CFR50, Appendix J.

Active Component - a component that must perform a mechanical motion during the course of accomplishing a system safety function.

Passive Component - a component that does not perform a mechanical motion during the course of accomplishing a system safety function.

System Resistance- the hydraulic resistance to flow in a system

Trending- a comparison of current data to previous data obtained under similar conditions for the same equipment.

Set Point - the value for which relief valves are set to relieve pressure.

Leak Test - testing of valves to verify seat leakage is limited to a specified maximum.

3.0 DEFINITIONS and TERMS (continued)

Stroke-Time - the time interval from valve actuation to the limit switch indication light at the end of the actuating cycle.

Limiting Stroke-Time - the maximum time allowed for a valve to stroke before becoming immediately inoperable.

Relief Requests - A request submitted to the NRC requesting relief from the requirements of the Code for testing a particular component or a generic group of components.

Justif. for Deferrals - A documented explanation of why a valve can only be tested at a cold shutdown or refueling outage frequency as opposed to quarterly.

4.0 VALVE PROGRAM

4.1 In-Service Testing (IST) Program

As required by 10CFR50.55a, valves that are classified in accordance of NRC Regulatory Guide 1.26 as ISI Class A, B, or C, which corresponds to ASME Class 1, 2, or 3 respectively, are included in the CNS IST Program. The following defines the criteria for inclusion of equipment in the IST Program:

a) All Category A valves that fall within the Duke ISI Class A, B, or C boundaries.

b) All Category B and C valves that fall within the Duke ISI Class A, B, or C boundaries and are active in the mitigation of the Design Basis Accidents (Design Basis Accidents are defined as those described in Chapter 15 of the FSAR).

c) Valves in systems specifically required by Technical Specifications to be tested per ASME Section XI.

CNS has some valves that are active in certain non-Design Basis Events, are cold shutdown valves not associated with an FSAR Chapter 15 event, are significant to plant safety, or are of economic importance that are beyond the scope of 10CFR50.55a. Such valves will be tested in the supplemental, 10CFR50 Appendix B Program. See Appendix B of this document for a discussion of this program.

The scope of the OM Standards and Code has not been expanded to include all safety-related pumps and valves in the IST program. Until the scope of 10CFR50.55a is changed, the scope of the IST program will continue to include only those components within the Code classes unless otherwise determined by the licensee (reference NUREG-1482).

4.2 Valve Testing Program Exemptions and Position Statements

Valves tested under jurisdiction of this program will be tested per requirements of OM-10 (OMa-1988), at the specified frequencies unless it has been determined to be impractical. This section of the program document provides CNS positions on interpretations, guidance and other options regarding testing alternatives.

4.2.1 Category A and A/C valves (containment and pressure isolation valves) will be leak tested in accordance with OM-10 (OMa-1988) section 4.2.2.3 and 10CFR50 Appendix J.

4.2.2 Valve stroke times will be recorded to at least the nearest second, except for valves which have stroke times of less than one second. For these valves, a time of one second will be recorded. Valves that stroke in less than 2 seconds may be exempted from reference ranges and the maximum limiting stroke time shall be 2 seconds as specified by OM-10 section 4.2.1.8 (e). Additionally, documented stroke times will be to the nearest full second.

4.2.3 Stopwatches used to measure stroke times will be calibrated annually.

4.2.4 OM-10, section 6.3 (h) requires the signature of the person or persons responsible for conducting and analyzing the test. The dated initials of the person or persons responsible for conducting and analyzing the test may be used in place of a signature in the record of the tests. Initials can be used as signatures to meet the intent of the OM-10 as long as somewhere in the test procedure the initials are identified by a full signature.

4.2 **Valve Testing Program Exemptions and Position Statements (continued)**

4.2.5 It is the licensee's position that valve testing will be deferred if the normal code required test frequency or plant conditions would result in increased personnel risk or damage to plant equipment. Practicality of such deferral shall be determined by the licensee and documented in the "Justification for Deferral" section of the IST Program manual. In such cases, the licensee will not perform any type of destructive testing to determine the period of time at which damage to the equipment or risk to personnel would occur. Exercising valves on a cold shutdown or refueling outage frequency is not a deviation from the code (reference NUREG-1482, Section 2.4.5).

4.2.6 Manual valves that meet the scope requirements of OM-10 or are taken credit for in the safety analysis as capable of being repositioned to shut down the plant, to maintain the plant in a safe shutdown condition, or to mitigate the consequences of an accident will be included in the IST program. However, testing of such valves will be solely based on exercising requirements established by the licensee.

4.2.7 Valves that are not categorized as ISI Class A, B, or C need not be included in the IST Program. However, according to GL 89-04, Position 11, "The intent of 10 CFR 50 Appendix A, GDC-1, and Appendix B, Criterion XI, is that all components, such as pumps and valves, necessary for safe operation are to be tested to demonstrate that they will perform satisfactorily in service." The licensee reserves the right to include valves which do not meet these criteria in the IST Program. These valves are typically tested In the Supplemental Program. In such cases, the licensee will specify how the component is tested or if a deviation from the Code guidelines is allowable. CNS will not submit Relief Requests or Justification for Deferrals for "Non-Code"- Class valves.

4.2.8 After valve maintenance, baseline stroke-times will be reset per OM-10, section 3.4.

4.2.9 **Thermal Relief Valves** that meet the scope requirements of OM-10 or are taken credit for in the safety analysis for being capable of relieving pressure in code class 1, 2 and 3 piping systems by maintaining the plant in a safe shutdown condition, or in mitigating the consequences of an accident will be included in the IST program. However, testing of such valves will be based on exercising frequencies established by the guidance given in OM PART 1, 1987 sections 1.3.3 and 1.3.4. In the specific cases where check valves have been installed to provide thermal overpressurization protection, these check valves will be pressure tested to verify opening capability and **NOT** tested to verify set point or lift pressure or will be replaced.

4.2.10 **Containment Purge Valves** (VPs), which are passive in the closed direction, will be leak tested per 10 CFR 50, Appendix J but not stroke-timed for IST purposes. Containment Purge valves are "passive" in Modes 1-4. During a postulated fuel handling accident inside the containment, no credit for containment isolation or mixing in the containment is taken. System design assures a safe release path from the containment with the VP system in operation. The radiological consequences of a postulated fuel handling accident are within the exposure guideline values of 10CFR 100.

4.2.11 **Containment Hydrogen Purge Valves** (VY), which are passive in the closed direction, will be leak tested per 10 CFR 50, Appendix J but not stroke-timed for IST purposes. These valves are "passive" in Modes 1-4. CNS Technical Specifications requires exercising these valves to the requirements of 4.0.5. However, power is removed and these valves are placed under administrative control as to not permit re-positioning after they have been leak-tested per Appendix J.

4.3 Check Valve Testing

Check valves tested under the jurisdiction of this program will be tested per Code requirements at the specified frequencies unless it has been determined to be impractical. This section of the program document is to provide the CNS positions concerning interpretations, guidance and other options and testing alternatives for check valves.

4.3.1 For check valves in series where one of two valves is credited in the safety analysis, the verification that the pair of valves is capable of closing will be done on the basis of testing one of the check valves.

4.3.2 Category A and A/C valves (containment and pressure isolation check valves) will be leak tested in accordance with OM-10 (OMa-1988) section 4.2.2.3, and 10CFR50 Appendix J.

4.3.3 Full stroke testing of check valves will not necessarily constitute the obturator contacting the back-stop. Where possible, sufficient flow will be passed through the valve to verify design basis accident flow. If full flow is not possible, then the licensee will perform correlation testing, partial stroking, or other alternatives as provided by OM-10 section 4.3.3.3. Additionally, the code allows use of indirect evidence (such as system pressure, flow, temperature or level) or other positive means to verify flow or pressure requirements. These indirect methods will not be subject to the range and accuracy requirements of the code. (ref. NUREG-1482, section 4.1.2).

Check valve exercising to verify the closed position will not require demonstration that the valve was open prior to closure.

4.3.4 Seismic boundary check valves will be included in the program.

4.3.5 Check valves included in the Sample Disassembly portion of the IST program will be disassembled and inspected under the provisions and guidelines given in GL 89-04 and per OM-10 (OMa-1988), section 4.3.2.4 (c).

4.3.6 Where applicable to the CNS IST program, back flow testing of check valves will be performed in accordance with GL 89-04 guidance. Examples of methods that may be used to verify valve closure are as follows:

Pump discharge check valves - verified closed by meeting a parallel pump's acceptance criteria while cross-connected;

Appendix J testing;

Measure back flow through the valve using an open vent on the backside of the valve or ultrasonic flow measurement techniques;

Pressure drop across a pump or or pump wind-milling.;

Observation of external indication on valve stem;

4.3 **Check Valve Testing (continued)**

4.3.7 As per recommendations stated in NUREG-1482, the licensee recognizes the NRC's acceptance of non-intrusive techniques (N.I.T.) for testing check valves. The licensee has purchased N.I.T. equipment and is investigating incorporation into the testing program. However, this N.I.T. equipment has only recently been introduced to the industry and was not supplied from the vendor under the elements of the Q.A. program as with other equipment utilized for testing safety related components. This places the burden on the licensee to validate the technology (e.g. software qualifications, calculation validity, engineering correlation, etc.). Therefore, it is the licensee's position that (N.I.T.) is a **voluntary** option and will be evaluated on a specific application basis if full stroke exercising or sample disassembly cannot be performed.

4.4 **Relief Valve Testing**

Relief valves tested under the jurisdiction of this program will be tested per code requirements of OM-1, 1987, unless it has been determined to be impractical. This section of the program document is to provide the site's positions concerning interpretations, guidance, and testing alternatives for relief valves. Relief valves shall be considered for inclusion in the program if they provide overpressure protection for portions of systems that perform a specific function in shutting down a reactor or in mitigating the consequences of an accident.

4.4.1 Relief valves that are not credited for assisting in mitigating the consequences of an accident and are only installed for over-pressure protection are considered passive.

4.5 **Leak Rate Testing**

All category A valves will be tested per OM-10, section 4.2.2.2, except those valves which function in the course of plant operation in a manner that demonstrates adequate seat leak-tightness need not be leakage tested. In such cases (e.g., Containment Purge Isolation Valves) proper administrative controls will be implemented and the valves leak tested during refueling outages.

4.5.1 Category A containment isolation valves shall be tested per 10CFR50, Appendix J and shall be included in the program per GL 89-04, Position 10. Where a valve is identified as a containment isolation valve in the Technical Specification or FSAR and if it is determined to be an "active" valve with respect to this function, it will be exercised to the closed position when there is an associated requirement for leak testing.

4.6 **Testing from Remote Location**

Section 4.1 of OM-10 requires valves with remote position indication to be tested at least once every 2 years to verify that the valve operation is accurately indicated. Valves that have remote operating switches and/or power supplies shall also be tested and verified for proper indication from the remote location. Other valve operating parameters, such as timing will not be performed from the remote location during this testing.

4.7 **Post Maintenance and Modification Testing (Retest)**

(Reference Nuclear System Directive 408. Post-Maintenance Testing Sections 408.9 and 408.10)

4.8 Fail-Safe Testing of Valves

All Fail-Safe valves shall be tested in accordance with OM-10, section 4.2.1.6. Control valves are typically excluded from testing in the IST program. However, if a control valve must change position to support a safety-related function and it has a fail-safe position, then it must be included in the program and tested to verify the ability to perform that function with power and/or air removed (or simulated power and/or air removal).

4.9 Skid-Mounted Valves

Until the scope of components for 10CFR50.55a is expanded to include all safety-related pumps and valves, and until the OM codes and standards specifically address skid-mounted components, the testing of the 'major' components supported by skid mounted equipment will be an acceptable means for verifying the operational readiness of the skid-mounted equipment sub-components and assemblies. The licensee however, may opt to include certain components contained on these skids in the IST program for testing and trending purposes. In such cases, the licensee will **not be obligated** to submit Relief Request or Justification for Deferrals on testing alternatives nor will it be obligated to trend the performance of such components as required with components that meet the scope of OM-10.

4.10 Valve Test Acceptance Criteria

All valve test acceptance criteria (IST-TAC) will be developed in accordance with the provisions specified in OM-10. The applicable acceptance criteria will be developed when the valve is known to be performing in a satisfactory manner. Where IST-TAC other than that required by code is established for a given valve (e.g., additional N.I.T. diagnostics), the documentation of that criteria will be at the discretion of the licensee and not required to be part of the test record. Trending of valve IST-TAC will be performed by the licensee on a periodic basis. Leakage criteria for valves (other than those tested in accordance to 10CFR50, Appendix J) will be determined based on leakage rates specified by the licensee or using the guidance specified in 4.2.2.3. Relief valve IST-TAC will be established per OM-1, 1987.

Such IST-TAC should not be confused with the acceptance criteria specified in DBDs, DBD associated TAC Sheets, Technical Specifications, or any FSAR. Such acceptance criteria are the most limiting values and can not be exceeded. IST-TAC are set to verify operational readiness of the valves and to identify valve degradation before the 'most limiting' acceptance criteria is exceeded. IST-TAC are based upon stroke times measured when the valve is know to be in good working order and are controlled within the test procedures. Alternately, DBD-TAC are specific criteria associated with a valve's design basis.

4.10.1 Valve Stroke-Time Acceptance Criteria:

The following cases present the options available for determining valve operability based on stroke time:

CASE 1 : The valve strokes within its acceptable stroke time. The valve is considered operable.

CASE 2 : The valve does not move at all on the first try or exceeds the LIMITING VALUE. OM-10 immediately refers to this valve as being inoperable. An engineering evaluation needs to be done to determine the cause of the valve failure and system operability.

4.10 **Valve Test Acceptance Criteria (continued)**

4.10.1 Valve Stroke-Time Acceptance Criteria:

CASE 3 : The valve fails to meet the acceptance stroke time, but strokes in less than the LIMITING-VALUE. Per OM-10, the valve shall be immediately retested to achieve an acceptable stroke time. Per the Catawba valve testing program:

a. If the valve successfully strokes on the Retest, the valve is considered operable. The cause of the initial deviation shall be analyzed and the results documented in the test procedure. A third valve stroke may be performed to demonstrate consistent valve operation.

b. If the valve does not fall within the acceptable range on the Retest, then the valve is declared inoperable. An evaluation must be performed to determine the root cause of the failed test. The evaluation may determine that either corrective maintenance must be performed on the valve or the new stroke data is acceptable and new baselines must be established. Such results must be documented in the test procedure.

c. In the event the initial stroke and the Retest results are inconsistent, but the engineering evaluation shows the new stoke-time is acceptable, a third test may be performed to verify consistent behavior. Documentation of the third test will be optional if it shows no deviation from the "Retest".

4.10.2 Valve Stroke-Time Measurements and Methods:

Valve stroke-times are measured with a stopwatch to the nearest second. The stopwatch is started when the valve is actuated and it is stopped when an indication light is received indicating that the valve has completed its full stroke.

4.10.3 Limiting-Value Stroke-Time Acceptance Criteria:

Limiting-Values for stroke-times will be established in accordance with guidance given in Generic Letter 89-04, Position 5. It is the position of the licensee that these values will be determined as follows (with the limitations of Tech. Specs. and Safety Analysis limits being the most limiting):

Valve Type	Limiting Value Calculation
EMO (> 10secs.)	1.3R (to the nearest 0 or 5sec.)
EMO (≤ 10secs.)	1.5R (to the nearest 0 or 5sec.)
POV (> 10secs.)	2.0R (to the nearest 0 or 5sec.)
POV (≤ 10secs.)	2.25R (to the nearest 0 or 5sec.)

Note: Where 'R' represents the valve reference value at acceptable operation.

4.10.4 Engineering Evaluations: (Discussion to be completed for CNS next revision)

5.0 PUMP PROGRAM

5.1 In-Service Testing (IST) Program

As required by 10CFR50.55a certain pumps that are classified in accordance of NRC Regulatory Guide 1.26 as ISI Class A, B, or C, which corresponds to ASME Class 1, 2, or 3 respectively are included in the IST Program. The following defines the criteria for inclusion of equipment in the IST Program:

a) Pumps in systems specifically required by Technical Specifications to be tested per ASME Section XI.

b) All pumps that fall within the Duke ISI Class A, B, or C boundaries that are provided with an emergency power source and are also active in mitigating the consequences of the Design Basis Accidents (Design Basis Accidents are defined as those described in FSAR Chapter 15).

Currently Catawba Nuclear Station is under the requirements of the ASME Code and Standards, OM PART 6, 1987 Edition, including OMb-1989 (which is OMa-1988 plus Errata Addenda to correct Table 3). This was the Code in effect 12 months prior to the anniversary date of the CNS 120-month update.

5.2 Pump Testing Program Exemptions and Position Statements

Pumps tested under the jurisdiction of this program will be tested per code requirements of OM-6 at the specified frequencies unless it has been determined to be impractical. The purpose of this section of the program document is to provide CNS positions on interpretations, guidance and other options regarding testing alternatives.

5.2.1 Section 7.3 requires the signature of the person or persons responsible for conducting and analyzing the test. The dated initials of the person or persons responsible for conducting and analyzing the test may be used in place of a signature in the record of the tests. Initials shall be used as signatures to meet the intent of the OM-6 as long as somewhere in the test procedure the initials are identified by a full signature.

5.2.2 Developed head acceptance should be rounded to the nearest 0.5 psi, if possible. In most cases the suction gauges used will allow this type of accuracy.

5.2.3 Vibration acceptance should be truncated to 2 decimal places for operability determinations. The full four digit display number should still be recorded.

5.2.5 Pumps whose only safety function is predicated on plant shutdown and recovery from a fire per commitments made as a result of 10CFR50, Appendix R are not included in the IST Program. The licensee will test these in accordance with Appendix R requirements.

5.2.6 Pumps that are not provided with an emergency source of power will not be required to meet IST requirements. The licensee however, may elect to include these pumps in the IST program for testing purpose only.

5.2 **Pump Testing Program Exemptions and Position Statements (continued)**

5.2.7 Pumps which can only be tested during plant operation will be tested within 1 week following plant startup to comply with section 5.4 guidance. If the testing schedule is not maintained during plant shutdowns, the affected pump(s) must be tested before entering an operational mode which requires the pump(s) to be operable. The licensee however, may elect to delay repairs and/or retest of pumps not required to be operable for plant startup or other operational modes.

5.3 **Mini-flow and Full Flow Pump Testing** (Discussion to be completed at a later date.)

5.4 **Vibration Monitoring**

Pump vibrations monitored under the jurisdiction of this program will be performed per code requirements at the specified frequencies unless it has been determined to be impractical or a specific deviation from code is needed . This purpose of this section of the program document is to provide the site's positions concerning interpretations, guidance and other options of vibration monitoring and analysis. Specific positions to certain sections to follow are currently being developed by the In Service Testing Working Group Team (ISTWG) and will be submitted in future revisions.

5.4.1 Pump drivers. (Discussion to be completed at a later date.)

5.4.2 Smooth Running Pumps. (Discussion to be completed at a later date.)

5.4.6 Vibration points for pumps. (Discussion to be completed at a later date.)

5.5 **Testing required from Remote Locations** (Not Applicable to Catawba Nuclear Station)

5.6 **Post Maintenance and Modification Testing (Retest)**
(Reference Nuclear System Directive: 408 Post-Maintenance Testing sections 408.9 and 408.10)

5.7 **Skid-Mounted Pumps**

Until the scope of components for 10CFR50.55a, is expanded to include all safety-related pumps and valves, and until the OM codes and standards specifically address skid-mounted components, the testing of the 'major' component supported by skid-mounted equipment will be an acceptable means for verifying the operational readiness of the skid-mounted equipment sub-components and assemblies. The licensee however, may opt to include certain components contained on these skids in the IST program for testing purposes. In such cases, the licensee will not be obligated to submit Relief Requests or Justification for Deferrals nor will it be **obligated** to trend the performance of such components as is required for components that meet the scope of OM-6.

5.8 **Pump Test Acceptance Criteria**

All pump test acceptance criteria (IST-TAC) will be developed in accordance with the provisions specified in OM-6. The applicable acceptance criteria will be developed when the pump is known to be performing in a satisfactory manner. Where IST-TAC other than that required by code is established for a given pump (i.e., pump curves), the documentation of that criteria will be at the discretion of the licensee and not required to be part of the test record. Trending of pump IST-TAC will be performed by the licensee on a periodic basis.

5.8 **Pump Test Acceptance Criteria (continued)**

Such 'IST-TAC' should not be confused with the acceptance criteria specified in DBDs, DBD associated TAC Sheets, Technical Specifications, or any FSAR. Such acceptance criteria are the most limiting values and can not be exceeded. IST-TAC are set to verify operational readiness of the pumps and to identify pump degradation before the 'most limiting' acceptance criteria are exceeded. IST-TAC are based upon performance data measured when the pump is know to be in good working order and are controlled within the test procedures. Alternatively, DBD-TAC are specific criteria associated with a pump's design basis.

5.8.1 Pump Hydraulic Acceptance Criteria: (Discussion to be included in next revision)

6.0 **Relief Requests**

The purpose of a Relief Request is to exclude components from testing requirements of the Code that cannot be followed. Therefore, if the testing on the component can not be performed due to plant configuration, plant safety, equipment limitations, type, or hazards to personnel, relief from the code will be requested. Submitted relief requests will: (1) give an alternative method that ensures an acceptable level of quality and safety, (2) explain the a hardship with meeting the code requirement, (3) provide a schedule or alternative test frequency (or duration for interim Relief Request). Relief Request for components that are in the IST Program will be sent to the NRC for approval. Each Ten Year Interval, when the site testing program is being upgraded to the new testing requirements, all relief requests will be reviewed and re-submitted to insure that their reasons for issuance are still valid. In cases where a "Specific Relief" was previously submitted to the NRC and approval granted, but the conditions and provisions do not change (i.e. no code change or modification to equipment or system) to eliminate the relief, the relief will not require re-evaluation for the next Ten Year Interval. Relief Requests will not be written for any non-Code Class components that are included in the IST Program.

6.1 Implementing Relief Requests:

When a Relief Requests is submitted for those requirements which have been determined to be clearly impractical, the licensee reserves the right to implement the proposed alternative testing while the NRC is reviewing the Relief Request, providing the licensee has assured the alternative does not compromise the level of safety provided by the code testing requirement. This position is referenced from NUREG-1482, section 2.5.

6.2 Interim Relief Requests:

When a Relief Request is required on an interim basis, the licensee will submit the relief for review, but as with section 6.1, may implement the relief while the NRC is reviewing the request. Updates to schedules or impacts to modification implementation of the component with interim relief will be communicated to the NRC as the program is updated. Interim Relief Requests shall be withdrawn when the licensee no longer requires them.

7.0 **Justifications for Deferrals:**

Justification for Deferrals (JFDs) will be written when a component can not be tested at the specified frequency. This could be due to an impracticality of testing the component at power or due to plant safety concerns introduced by the testing configuration. The basis for determining the impracticality of testing at power and expanding the component's testing frequency to a Cold Shutdown or Refueling Outage frequency is documented in the Justification for Deferral.

In-Service Testing to be performed at Cold Shutdown shall:

a) be performed during each cold shutdown when the planned length is of sufficient duration to establish the necessary test conditions and to perform the test, and

b) be performed as to not impact the timely completion of the shutdown related activities and subsequent return to operation. For outages when the planned length is not of sufficient duration to complete all tests, testing will start within 48 hours of reaching cold shutdown conditions. This is supported by the position stated in OM-10, section 4.3.2.2, OMa-1988 Addenda.

c) be performed at the next available cold shutdown consistent with the above criteria if an opportunity to test the valve is not available (Completion of the IST is not a prerequisite to return to operation).

Any testing required to be performed during a refueling outage shall be completed prior to plant operation. Components tested during start-up will not delay start-up if the site Technical Specifications allow start-up with the component out of service or inoperable. Retest and corrective actions shall be performed at the first available opportunity.

7.1 Testing Deferral Justifications:

7.1.1 Purpose: The purpose of the testing Justification for Deferral form is to document the reason that a pump or valve can only be tested at cold shutdown or at refueling outage.

Valid reasons could be plant configuration for testing which would jeopardize the safety of plant operation, access to the component which would be against ALARA, access to the component due to the environmental conditions endangering personnel safety, or that plant configuration for testing would require the plant to be in a mode not suitable for power production. Removing one train for testing or entering a Limiting Condition of Operation (LCO) is not sufficient basis for not performing the required tests, unless the testing renders systems inoperable for extended periods of time. It is not the intent of IST to cause unwarranted plant shutdowns or to unnecessarily challenge other safety systems. Other factors such as the effect on plant safety and the difficulty of the test should be considered. As stated earlier, testing should not interfere with power production.

Note: The Justification of Deferral Form is found in Enclosure 9.6.

8.0 APPENDICES

Appendix A: IST PROGRAM Responsibilities

1.0 Site IST Engineer:

The IST Engineer position will be filled by a qualified individual knowledgeable of plant system operation. He/she ensures the site is in compliance by its performance testing and trending methods. The IST Engineer will accomplish this by maintaining consistency among the System Engineers and overall program management.

The IST Engineer may publish an overall summary (as an annual summary), on the current status of the site performance monitoring of the valves and pumps tested under the requirements of the IST or 10CFR50, Appendix B program.

The IST Engineer will be responsible for notifying Regulatory Compliance of any changes to the Valve and Pump Testing Program described in this document, including changes to the data sheet information.

The IST Engineer will be responsible for updating and maintaining the IST Database.

The IST Engineer will be responsible for coordinating and implementing the program update and renewal per 10CFR50 every 10 years.

2.0 GO IST Coordinator:

The General Office (GO) IST Coordinator will be an individual responsible for overall corporate IST program management. He/she ensures Duke Power's corporate strategies for the IST Program align with industry and regulatory standards. This individual is knowledgeable of each site's IST programs including program administration and will be responsible for ensuring each site is in compliance with the applicable ASME Codes and IST guidelines (OM-6, OM-10, GL 89-04, NUREG-1482 etc.).

The GO IST Coordinator will be the technical consultant on any Code-related issues that require interpretation or involve Operability determinations (at the discretion of the IST Engineer and site management). The GO IST Coordinator will provide support for internal and external IST program audits.

The GO IST Coordinator will be the Single Point of Contact on any issues that involve site-site interaction. The GO IST Coordinator will be responsible for ensuring consistency where practical.

The GO IST Coordinator will represent Duke Power's interest for Code development.

The GO IST Coordinator will be responsible for assisting with review and updating the IST program per 10CFR50 each 10 year interval. He/she will also assist the sites in preparing, submitting, and reviewing interim revisions to the IST program. Also, the IST Coordinator will assist the site IST Engineer in developing position statements, Relief Requests, and Justification for Deferrals. He/she will also perform periodic reviews of site Relief Requests and/or Justification for Deferrals for consistency and compliance.

2.0 GO IST Coordinator (continued):

The GO IST Coordinator will see that progress addressing technical issues will be made by the IST Working Group (ISTWG). This includes defining appropriate tasks, tracking action items, conducting periodic meetings, interface with the appropriate BEST contacts, and maintaining overall group focus.

3.0 Mechanical Systems Engineering (MSE)

MSE (site) is responsible for the following:

- ensuring the accuracy of IST dataset information,
- defining test acceptance criteria (TAC),
- ensuring code testing requirements are met,
- documenting reasons for scope or code deviation,
- providing tech. assistance for developing test procedures,
- complete valve and pump data sheets for program revisions

Each Mechanical System Engineer is responsible for the components within their systems which are in the program. If the status of a component changes, the MSE is responsible for initiating the required changes to the program (see Appendix C).

4.0 Civil/Electrical/Rotating Equipment and Nuclear Engineering (CERN)

CERN is responsible for the following:

- notifying the IST Engineer of maintenance that could affect the baseline data for any IST component,
- overall administration of the relief valve testing program (OM-10).
- administrating the check valve sample disassembly program,
- provide input when evaluating specific compenent issues (why failed test, baseline changed, etc.,)

5.0 Operations Performance Test Group (OTG)

This group is responsible for the following:

- data in procedure and IST database,
- performing tests,
- accurately recording and notifying MSE of any testing problems,
- initiating a PIP when a test is failed or a problem is encountered,
- documenting test discrepancies on the procedure.

6.0 Operations Procedure Group

This group is responsible for the following:

- updating and maintaining all IST procedures,
- verifying all technical changes with the IST Engineer.

Appendix B: 10CFR50, Appendix B Program (Supplemental Testing Program)

The scope of the Catawba pump and valve testing program includes:

(1) all components that are active in mitigating the consequences of Design and non-Design Basis Events, are required for cold shutdown,

(2) provide a containment isolation function,

(3) or are designated by station Technical Specifications to be included in testing programs.

This scope is further divided into IST testing and 10CFR50, Appendix B testing. (Reference Duke Power Company's Oconee Nuclear Station's 11/1/90 Generic Letter 89-04 response - M. S. Tuckman to NRC)

Selected components tested under guidelines of 10CFR50, Appendix B portion of the Catawba Pump and Valve testing program provide a function important to the safety of nuclear power plant operation, but are not explicitly under the scope of ASME OM Codes and Standards or considered beyond the scope of 10CFR50.55a. Specifically, the 10CFR50, Appendix B program includes:

(1) pumps and valves not included in the IST program which are active in certain non-Design Basis Events,

(2) are cold shutdown valves not associated with a FSAR Chapter 15 event,

(3) are significant to plant safety,

(4) or are of economic importance.

The CNS 10CFR50, Appendix B Program will be administered using the ASME IST Code as guidance for testing and trending. The acceptance criteria and testing intervals used to test Appendix B components should be specified by the IST Engineer. Relief Requests and Justification for Deferrals will not be submitted for Appendix B components. If the requirements of the ASME Code cannot be followed for components in the Appendix B program, deviations from Code 'guidelines' will be documented in the section "SUPPLEMENTAL PROGRAM POSITIONS".

The 10CFR50, Appendix B components will be tested using approved Duke Power "A" procedures and requirements of 10CFR50, Appendix B. Deviations from standard test procedures will be allowed only if substantiated in writing per the methods outlined in the Attachments to this document.

APPENDIX B: SUPPLEMENTAL PROGRAM POSITIONS:

B.1 Per Catawba's GL 89-04 response, 10 CFR 50, Appendix B manual valves are only stroked at a refueling frequency.

Appendix C: Notification of Program changes

The System Engineer shall initiate program changes as changes are made to the respective system, DBDs, or active/passive valve calculations. Notification of external customers (e.g. Regulatory Compliance Group) of such changes to the program will occur by issuing the appropriate administrative mechanism (i.e. PIP, Minor Modification Request, etc.).

9.0 **ENCLOSURES**:

Enclosure 9.1
(RESERVED FOR NEXT PROGRAM DOCUMENT REVISION)

Enclosure 9.2

To ensure Code compliance for the CNS Pump and Valve Testing Program, the IST Engineer should be notified of any of the following changes:

- changing the active/passive status of a component,
- changing the leakage requirements of the component,
- changing the piping classification of the component (Duke Class and ISI Class),
- something changes with how the component may be tested,
- a commitment is made or changed for testing or operation of a component,
- taking credit for a new function, flow path, etc.,

Enclosure 9.3

Valve Data Sheet

Revision **Addition** **Deletion**

Reason for change _____

Valve Number _____ **Description** _____ _____

Valve Type BA BF CK DI EX GB GT

PG PR RV SC ST SV VB

Valve Size _____ **Actuator Type** AO HO MA ML MO MR PA SA SO

Flow Diagram _____ **Coordinate** _____

System Engineer PROFS ID _____

Containment Isolation Valve	Yes	No	**Generic Letter 89-10 Valve**	Yes No
Active Valve	Yes	No	**ESF Valve**	Yes No
Auxiliary Safe Guard Valve	Yes	No	**Skid Mounted Valve**	Yes No
Vent/Drain	Yes	No		

Valve Category	A	B	C	D	(See OM-10 section 1.4)
ASME Class	A	B	C	N (non code class)	

Required Accident Position	Open	Closed	Throttled
Cold Shutdown Position	Open	Closed	Throttled
Alternate Feedwater Path	Yes	No	

DBD Time OPEN _____ **DBD Time CLOSED** _____

TS Time OPEN _____ **TS Time CLOSED** _____

FSAR Time OPEN _____ **FSAR Time CLOSED** _____

Valve Test Type	FS	PS	ST	LJ	LT
Test Direction	OC	CO	BOTH		
Test Frequency	Q	CSD	RF		

Test Procedure _____

Enclosure 9.4

Pump Data Sheet

Pump(s): - _____

Revision Addition Deletion

Reason for Change_____

Pump Information

ISI Class A B C

Duke Class A B C D F G

Pump Manufacturer - _____

Pump Type - _____

Pump BEP (Design Pt.) - _____ gpm _____ psi

Driver Manufacturer - _____

Driver Size - _____

OFD - _____Coor. _____

ES Actuation Channels 1 2 3 4 5 6

Procedure No(s).: - _____

Accident Pump Flow - _____

Delta P Required - _____

Full Flow Requirement - _____

TAC Sheets - _____

Procedure No(s).: - _____

Test frequency Q CSD RF

Generic Relief Request

Item Number:

Component Number (s):

Flow Diagram (s):

Function (s):

ISI Class/Duke Class:

Code Category:

Test Requirement (s):

Basis for Relief:

Code Alternative:

Justification for Deferral

Item Number:

Component Number (s):

Flow Diagram (s):

Code Category:

ASME Class:

Function (s):

Test Requirement:

Basis for Deferral:

Test Alternative & Frequency:

Specific Relief Request

Item Number:

Component Number (s):

Flow Diagram (s):

Function:

ASME Class:

Code Category:

Test Requirement:

Basis for Relief:

Alternate Testing:

Enclosure 9.8

System Piping Classification Correlation

Duke System Piping Classification	(1) Safety Related	NRC Quality Group	Duke QA Condition	ANSI Safety Class	Code Des. Criteria (6)	Seismic Pressure Boundary Integrity	Seismic Category	Normally Contains Radioactive Material
A	YES	A	1	1	Class 1, ASME Sect. III	YES	SC-1	YES
B	YES	B	1	2	Class 2, ASME Sect. III	YES	SC-1	YES
C	YES	C	1	3	Class 3, ASME Sect. III	YES	SC-1	YES
D	NO	-	4	NNS(2)	Class 2, ASME Sect. III	YES	SC-II(7)	NO
E	NO	D(3)	2(4)	NNS(2)	ANSI B31.1.0	NO	N/A	YES
F	YES	B,C	1	2,3	ANSI B31.1.0	YES	SC-1	NO
G	NO	-	-(4)	-	ANSI B31.1.0	NO	N/A	NO
H	NO	-	-(4)	-	Duke Power Spec.	NO	N/A	NO
H (HVAC)	YES	-	-(6)	-	Duke Power Spec.	YES	SC-1	NO

NOTES:

(1) Safety Related as used herein is in accordance with 10CFR50 Appendix A General Design Criteria for Nuclear Power Plants and is applicable to function only; i.e., structures, systems, and components required to function such that the facility can be operated without undue risk to the health and safety of the public are safety related.

(2) NNS = Non-Nuclear Safety

(3) Class E piping is equivalent to NRC Quality Group D; i.e., the system is designed to normally carry a radioactive fluid; however, is considered NNS as a component failure would not result in a calculated potential exposure in excess of the limits established by 10 CFR PART 20.

(4) Class E, G, and H piping systems may also be assigned QA Condition 3 and/or 4 to denote additional requirements for fire protection of safety related components and/ or seismic structural integrity (except pressure boundary) to preclude adverse interactions with safety related structures, systems and components, respectively; refer to Duke Nuclear Guide 1.29.

(5) Code and Standards Applicability: Duke Power Company establishes an "effective code date" in accordance with 10CFR50, par. 50.55a for Catawba Nuclear Station. Due to the numerous code and standards references applicable to each station, no attempt is made to specifically identify these references as they are amended, superseded, or substituted. Duke reviews and complies with all or portions of the latest versions of the above Codes and Standards unless materials and/ or design commitments have progressed to a stage that it is not practical to make a change. When only portions of addenda to Codes and Standards are utilized, the appropriate engineering review of the entire agenda assures that the overall intent of the Code Standard is still maintained.

(6) HVAC Duct Systems may be constructed of either sheet metal or piping materials depending upon the design function and requirements. Non-Safety Related HVAC may be assigned QA Condition 4, SC-11 Support Restraints to preclude adverse interactions with safety related structures, systems, and components. Refer to Duke Nuclear Guide 1.29.

(7) Class D for piping systems is used when pressure boundary protection is required. Seismic Category II hangers may be use on Class E, G, or H piping systems when pressure boundary integrity is not required. See Duke Guide 1.29.

Enclosure 9.9

Summary of IST Program 10 yr. Submittal Changes

1. Reviewed all components from the 1st interval Program Submittal to verify inclusion into the 2nd 10 year interval Program Submittal based on scope of OM-6 (pumps), OM-10 (valves), and OM-1(relief valves).

2. Updated valve data-sheets utilizing new DUKE format (as agreed to by the ISTWG) and incorporating the abbreviations from NUREG-1482.

3. Created a PROGRAM DOCUMENT for the CNS IST program which does the following:

   ⇒ defines key terms and definitions used in the IST program.
   ⇒ defines the valve testing program including exemptions and position statements.
   ⇒ defines the pump testing program including exemptions and position statements.
   ⇒ defines implementation and interim use of relief requests.
   ⇒ defines use of justifications for deferrals.
   ⇒ defines IST program controls and revisions processes.
   ⇒ provides discussion for key IST position statements:

      - Thermal Relief Check Valves
      - VP Valve stroke time testing exemption
      - VY Valve stroke time testing exemption.

4. Deleted all valve Relief Requests.

5. Added Pump Relief Request CN-SRP-CA-01.

   ⇒ CA Pump flow gauge instrumentation greater than three (3) times the reference range of expected flow measurement.

6. Converted previously approved Cold Shutdown Relief Requests to Cold Shutdown Justifications for Deferrals.

7. Changed several valves from "active" to "passive" based on code interpretation reference changes to VP and VY systems. This will allow deletion of test requirement to stroke time test VP and VY Containment Isolation valves.

8. Added valves 1(2) KC-280 from the KC SITA audit. Design basis for valves meet the scope of OM-10.

9. Incorporated CNDS-0113 check and relief valves into the IST program as recommended by the responsible System Engineer. The following valves were added to the program

CHECK VALVES RECOMMENDED FOR ADDITION TO IWV PROGRAM

1CF-31	STEAM GENERATOR 1A CONT ISOL INLET CHECK
1CF-40	STEAM GENERATOR 1B CONT ISOL INLET CHECK
1CF-49	STEAM GENERATOR 1C CONT ISOL INLET CHECK
1CF-58	STEAM GENERATOR 1D CONT ISOL INLET CHECK
1CF-169	STEAM GENERATOR 1D FEEDWATER TO AUX. FEEDWATER NOZZLE CHECK
1FD-29	DIESEL GENERATOR ENGINE DRIVEN FUEL OIL PUMP 1A DISCHARGE CHECK
1FD-69	DIESEL GENERATOR ENGINE DRIVEN FUEL OIL PUMP 1B DISCHARGE CHECK
1KC-344	REACTOR COOLANT PUMP 1C THERMAL BARRIER INLET CHECK
1KC-363	REACTOR COOLANT PUMP 1B THERMAL BARRIER INLET CHECK
1KC-393	REACTOR COOLANT PUMP 1A THERMAL BARRIER INLET CHECK
1KC-412	REACTOR COOLANT PUMP 1D THERMAL BARRIER INLET CHECK
1LD-17	LUBE OIL STRAINER 1A1 CHECK
1LD-18	LUBE OIL STRAINER 1A2 CHECK
1LD-47	LUBE OIL STRAINER 1B1 CHECK
1LD-48	LUBE OIL STRAINER 1B2 CHECK
1LD-71	LUBE OIL STRAINER 1A1 CHECK
1LD-72	LUBE OIL STRAINER 1A2 CHECK
1LD-78	LUBE OIL STRAINER 1B1 CHECK
1LD-79	LUBE OIL STRAINER 1B2 CHECK
1VG-133	DIESEL GENERATOR STARTING AIR TANK 2B1 SUPPLY to ENGINE CNTRL PANEL 2B
1VG-134	DIESEL GENERATOR STARTING AIR TANK 2B2 SUPPLY to ENGINE CNTRL PANEL 2B
1VG-135	DIESEL GENERATOR STARTING AIR TANK 2A1 SUPPLY to ENGINE CNTRL PANEL 2A
1VG-136	DIESEL GENERATOR STARTING AIR TANK 2A2 SUPPLY to ENGINE CNTRL PANEL 2A
1WL-830	TURBINE DRIVEN CA PUMP 1 SUMP 2A DISCHARGE CHECK
1WL-832	TURBINE DRIVEN CA SUMP PUMP CHECK VALVE
2CF-31	STEAM GENERATOR 2A CONT ISOL INLET CHECK
2CF-40	STEAM GENERATOR 2B CONT ISOL INLET CHECK
2CF-49	STEAM GENERATOR 2C CONT ISOL INLET CHECK
2CF-58	STEAM GENERATOR 2D CONT ISOL INLET CHECK
2CF-169	STEAM GENERATOR 2D FEEDWATER TO AUX. FEEDWATER NOZZLE CHECK
2FD-29	DIESEL GENERATOR ENGINE DRIVEN FUEL OIL PUMP 2A DISCHARGE CHECK
2FD-69	DIESEL GENERATOR ENGINE DRIVEN FUEL OIL PUMP 2B DISCHARGE CHECK
2KC-344	REACTOR COOLANT PUMP 2C THERMAL BARRIER INLET CHECK
2KC-363	REACTOR COOLANT PUMP 2B THERMAL BARRIER INLET CHECK
2KC-393	REACTOR COOLANT PUMP 2A THERMAL BARRIER INLET CHECK
2KC-412	REACTOR COOLANT PUMP 2D THERMAL BARRIER INLET CHECK
2LD-17	LUBE OIL STRAINER 2A1 CHECK
2LD-18	LUBE OIL STRAINER 2A2 CHECK
2LD-47	LUBE OIL STRAINER 2B1 CHECK
2LD-48	LUBE OIL STRAINER 2B2 CHECK
2LD-71	LUBE OIL STRAINER 2A1 CHECK
2LD-72	LUBE OIL STRAINER 2A2 CHECK
2LD-78	LUBE OIL STRAINER 2B1 CHECK
2LD-79	LUBE OIL STRAINER 2B2 CHECK
2VG-133	DIESEL GENERATOR STARTING AIR TANK 2B1 SUPPLY to ENGINE CNTRL PANEL 2B
2VG-134	DIESEL GENERATOR STARTING AIR TANK 2B2 SUPPLY to ENGINE CNTRL PANEL 2B
2VG-135	DIESEL GENERATOR STARTING AIR TANK 2A1 SUPPLY to ENGINE CNTRL PANEL 2A
2VG-136	DIESEL GENERATOR STARTING AIR TANK 2A2 SUPPLY to ENGINE CNTRL PANEL 2A
2WL-830	TURBINE DRIVEN CA PUMP 1 SUMP 2A DISCHARGE CHECK
2WL-832	TURBINE DRIVEN CA SUMP PUMP CHECK VALVE

RELIEF VALVES RECOMMENDED FOR ADDITION TO IWV PROGRAM

1FD-34	D/G ENG 1A FUEL OIL R/V
1FD-74	D/G ENG 1B FUEL OIL R/V
1LD-2	1A ENGINE DRIVEN LUBE OIL PUMP SUCT RELIEF
1LD-32	1B ENGINE DRIVEN LUBE OIL PUMP SUCT RELIEF
1ND-3	ND PUMP 1A SUCT FROM NC LOOP B HDR RELIEF
1ND-31	ND TRAIN 1A COLD LEG INJECTION RETURN SAFETY RELIEF
1ND-35	ND HOT LEG INJECTION RETURN SAFETY RELIEF
1ND-38	ND PUMP 1B SUCT FROM NC LOOP C HDR RELIEF
1ND-64	ND TRAIN 1B COLD LEG INJECTION RETURN SAFETY RELIEF
1NI-102	NI PUMPS SUCT HDR RELIEF
1NI-119	NI PUMP 1A DISCH HDR RELIEF
1NI-151	NI PUMP 1B DISCH HDR RELIEF
1NI-161	NI TO C-LEGS RELIEF
1NM-69	NI ACCUM SAMPLE RELIEF
1NV-14	LETDN ORIFICE HDR RELIEF
1NV-87	NC PUMPS SEAL RETURN HDR INSIDE RELIEF
1NV-205	SEAL WATER RETURN RELIEF
1NV-222	SEAL WATER RTN R/V
1NV-223	VCT RELIEF TO RHT
1NV-273	NV PUMPS A&B SUCT HDR RELIEF
1NW-247	RELIEF VALVE
1NW-248	RELIEF VALVE
1NW-249	RELIEF VALVE
1RN-854	RN PUMP 1A DISCH. VACUUM BREAKER
1RN-855	RN PUMP 1B DISCH. VACUUM BREAKER
2FD-34	D/G ENG 1A FUEL OIL R/V
2FD-74	D/G ENG 1B FUEL OIL R/V
2LD-2	2A ENGINE DRIVEN LUBE OIL PUMP SUCT RELIEF
2LD-31	2B ENGINE DRIVEN LUBE OIL PUMP SUCT RELIEF
2ND-3	ND PUMP 2A SUCT FROM NC LOOP B HDR RELIEF
2ND-~~32~~ 31	ND TRAIN 2A COLD LEG INJECTION RETURN SAFETY RELIEF
2ND-35	ND HOT LEG INJECTION RETURN SAFETY RELIEF
2ND-38	ND PUMP 2B SUCT FROM NC LOOP C HDR RELIEF
2ND-64	ND TRAIN 2B COLD LEG INJECTION RETURN SAFETY RELIEF
2NI-102	NI PUMPS SUCT HDR RELIEF
2NI-129	NI PUMP 2A DISCH HDR RELIEF
2NI-151	NI PUMP 2B DISCH HDR RELIEF
2NI-161	NI TO C-LEGS RELIEF
2NM-69	NI ACCUM SAMPLE RELIEF
2NV-14	LETDN ORIFICE HDR RELIEF
2NV-87	NC PUMPS SEAL RETURN HDR INSIDE RELIEF
2NV-205	SEAL WATER RETURN RELIEF
2NV-222	SEAL WATER RTN R/V
2NV-223	VCT RELIEF TO RHT
2NV-273	NV PUMPS A&B SUCT HDR RELIEF
2NW-247	RELIEF VALVE
2NW-248	RELIEF VALVE
2NW-249	RELIEF VALVE
2RN-854	RN PUMP 2A DISCH. VACUUM BREAKER
2RN-855	RN PUMP 2B DISCH. VACUUM BREAKER

10. Added valves 1,2IASV5400 and 1,2IASV5410 to the IST (IWV) program. Design basis for valves meet the scope of OM-10.

11. Removed valves 1,2NI-125 and 1,2NI-129 from the IST (IWV) program. Design basis for valves do not meet the scope of OM-10.

12. Added/modified the following JFDs:

    ⇒ CN-NV-11 - defers stroke timing NV-10A, 11A, 13A to cold shutdown.
    ⇒ CN-CA-03 - states reverse flow test for CA-8, 10, 12 will be complied with via sample disassembly.
    ⇒ CN-NI-11 - added valves 1,2NI134 to deferral justification.

13. Deleted JFD CN-IA-02: justification for not performing remote indication testing was not valid.

14. Deleted JFD CN-RN-01: justification for not performing stroke time tests on quarterly interval is no longer valid due to modification to RN System.

    ⇒ Affects valves RN-49A, RN-50B, RN-51A, RN-52B.

15. Removed valves RN36A, 37B, 67A, 69B, 287A, 347B, 429A and 432B from program. Valves do not meet the scope of OM-10 after modifications.

16. Added valves KCC37A and KCC40B to program after KC SITA. Valves meet the scope of OM-10.

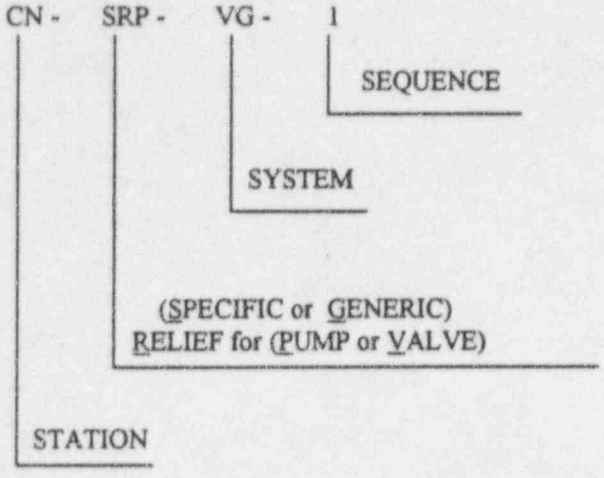
Table of Abbreviations

Parameter	Abbreviation	Description
Actuator Type	MO	Motor operated
	SO	Solenoid operated
	AO	Air operated
	HO	Hydraulic operated
	SA	Self actuated
	MA	Manual
	PA	Pilot Actuated
Safety Position(s)	O	Open
	C	Closed
	O/C	Both open and closed
	T	Throttled
Test Performed	FS	Full-stroke exercise to safety position(s)
	PS	Partial-stroke exercise
	LT	Leak-rate test to Section XI requirements
	LJ	Leak-rate test to Appendix J requirements
	ST	Measure the full stroke time of the valve
	FT	Observe the fail-safe operation of the valve
	PI	Verify the valve's remote position indication
	RV	Safety and relief valve test
	EX	Explosive valve test
Test Frequency	Q	Test performed once quarterly
	CS	Test performed at cold shutdown
	RF	Test performed each reactor refueling outage
	2Y	Test performed every two years
	RV	Test relief valve at OM-1 schedule
	ILRT	Test containment isolation valve at ILRT schedule
	SD	Disassemble, inspect, and manually exercise one valve from specified group each reactor refueling outage
Test Alternatives	RF	Perform during refueling (Mode 6)
	Z	Exercise valve (partial stroke) for operability every 3 months during power operation and exercise valve (full stroke) for operability during cold shutdown (mode 5).

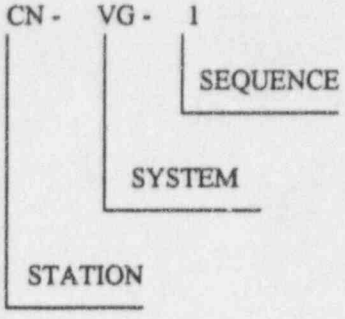
Numbering Sequence for Relief Request and Justification For Deferral

Examples:

RELIEF REQUEST



JUSTIFICATION FOR DEFERRAL



CATAWBA NUCLEAR STATION

Unit 1

ASME
Inservice Testing Program

UNIT 1 - CATAWBA NUCLEAR STATION
Pump Inservice Testing Program

Pump ID. Number	Description	Code Class	Pump Type	Flow Diagram	Speed	Inlet Pressure	Differential Pressure	Vibration	Flow Rate	Relief Request	Remarks	Rev
1CAPU0001	Motor Driven Auxiliary Feedwater Pump 1A	3	Centrifugal	CN-1592-1.0	NR	Q	Q	Q	Q	CN-SRP-CA-01	NONE	23
1CAPU0002	Motor Driven Auxiliary Feedwater Pump 1B	3	Centrifugal	CN-1592-1.0	NR	Q	Q	Q	Q	CN-SRP-CA-01	NONE	23
1CAPU0003	Turbine Driven Auxiliary Feedwater Pump #1	3	Centrifugal	CN-1592-1.0	Q	Q	Q	Q	Q		NONE	23
1KCPU0001	Component Cooling Water Pump 1A1	3	Centrifugal	CN-1573-1.0	NR	Q	Q	Q	Q		NONE	23
1KCPU0002	Component Cooling Water Pump 1A2	3	Centrifugal	CN-1573-1.0	NR	Q	Q	Q	Q		NONE	23
1KCPU0003	Component Cooling Water Pump 1B1	3	Centrifugal	CN-1573-1.0	NR	Q	Q	Q	Q		NONE	23
1KCPU0004	Component Cooling Water Pump 1B2	3	Centrifugal	CN-1573-1.0	NR	Q	Q	Q	Q		NONE	23
1NDPU0001	Residual Heat Removal Pump 1A	2	Vertical Line Shaft Centrifugal	CN-1561-1.0	NR	Q	Q	Q	Q		NONE	23
1NDPU0002	Residual Heat Removal Pump 1B	2	Vertical Line Shaft Centrifugal	CN-1561-1.1	NR	Q	Q	Q	Q		NONE	23

UNIT 1 - CATAWBA NUCLEAR STATION
Pump Inservice Testing Program

Pump ID. Number	Description	Code Class	Pump Type	Flow Diagram	Speed	Inlet Pressure	Differential Pressure	Vibration	Flow Rate	Relief Request	Remarks	Rev
1NIPU0009	Safety Injection Pump 1A	2	Centrifugal	CN-1562-1.2	NR	Q	Q	Q	Q		NONE	23
1NIPU0010	Safety Injection Pump 1B	2	Centrifugal	CN-1562-1.2	NR	Q	Q	Q	Q		NONE	23
1NSPU0001	Containment Spray Pump 1A	2	Vertical Line Shaft Centrifugal	CN-1563-1.0	NR	Q	Q	Q	Q		NONE	23
1NSPU0002	Containment Spray Pump 1B	2	Vertical Line Shaft Centrifugal	CN-1563-1.0	NR	Q	Q	Q	Q		NONE	23
1NVPU0015	Centrifugal Charging Pump 1A	2	Centrifugal	CN-1564-1.7	NR	Q	Q	Q	Q		NONE	23
1NVPU0016	Centrifugal Charging Pump 1B	2	Centrifugal	CN-1564-1.7	NR	Q	Q	Q	Q		NONE	23
1RNPU0002	Nuclear Service Water Pump 1A	3	Vertical Line Shaft Centrifugal	CN-1574-1.0	NR	Q	Q	Q	Q		NONE	23
1RNPU0004	Nuclear Service Water Pump 1B	3	Vertical Line Shaft Centrifugal	CN-1574-1.2	NR	Q	Q	Q	Q		NONE	23
1YCPU0001	Control Area Chilled Water Pump Train A	3	Centrifugal	CN-1578-2.0	NR	Q	Q	Q	Q		NONE	23
1YCPU0002	Control Area Chilled Water Pump Train B	3	Centrifugal	CN-1578-2.0	NR	Q	Q	Q	Q		NONE	23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTROL AREA CHILLED WATER SYSTEM (YC)													
1YC065	CN-1578-2.0	C05	3	C	ACT	Check	SA	FSC-Q						23
1YC077A	CN-1578-2.0	D12	3	B	ACT	Gate	MO	ST-Q	PI					23
1YC108	CN-1578-2.2	C05	3	C	ACT	Check	SA	FSC-Q						23
1YC121B	CN-1578-2.2	D12	3	B	ACT	Gate	MO	ST-Q	PI					23
	NUCLEAR SERVICE WATER (RN)													
1RN001A	CN-1574-1.0	J07	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN002B	CN-1574-1.0	J07	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN003A	CN-1574-1.2	J11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN004B	CN-1574-1.2	J05	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN005A	CN-1574-1.0	K05	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN006B	CN-1574-1.0	K04	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN053B	CN-1574-1.1	D09	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN054A	CN-1574-1.1	D09	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN057A	CN-1574-1.1	D05	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN058B	CN-1574-1.1	D11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN063A	CN-1574-1.1	D08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN843B	CN-1574-1.1	D05	3	B	ACT	Butterfly	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
STEAM GENERATOR BLOWDOWN RECYCLE (BB)														
1BB008A	CN-1580-1.0	K05	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB010B	CN-1580-1.0	K07	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB019A	CN-1580-1.0	C05	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB021B	CN-1580-1.0	C07	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB056A	CN-1580-1.0	H05	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB057B	CN-1580-1.0	H07	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB060A	CN-1580-1.0	F05	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB061B	CN-1580-1.0	F07	2	B	ACT	Gate	MO	ST-Q	PI					23
1BB147B	CN-1580-1.0	K07	2	B	ACT	Globe	MO	ST-Q	PI					23
1BB148B	CN-1580-1.0	H07	2	B	ACT	Globe	MO	ST-Q	PI					23
1BB149B	CN-1580-1.0	F07	2	B	ACT	Globe	MO	ST-Q	PI					23
1BB150B	CN-1580-1.0	C07	2	B	ACT	Globe	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	AUXILIARY FEEDWATER SYSTEM (CA)													
1CA008	CN-1592-1.0	D09	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
1CA010	CN-1592-1.0	D05	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
1CA012	CN-1592-1.0	D01	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
1CA015A	CN-1592-1.0	D02	3	B	ACT	Gate	MO	ST-Q	PI					23
1CA018B	CN-1592-1.0	D06	3	B	ACT	Gate	MO	ST-Q	PI					23
1CA020	CN-1592-1.0	I11	3	C	ACT	3-Way	SA	FS						23
1CA023	CN-1592-1.0	J10	3	C	ACT	Check	SA	FSO/C-Q						23
1CA027	CN-1592-1.0	I04	3	C	ACT	3-Way	SA	FS						23
1CA028	CN-1592-1.0	J03	3	C	ACT	Check	SA	FSO/C-Q						23
1CA032	CN-1592-1.0	I08	3	C	ACT	3-Way	SA	FS						23
1CA033	CN-1592-1.0	J07	3	C	ACT	Check	SA	FSO/C-Q						23
1CA036	CN-1592-1.1	C12	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA037	CN-1592-1.1	G12	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA038A	CN-1592-1.1	H12	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA040	CN-1592-1.1	J12	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA041	CN-1592-1.1	I12	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA042B	CN-1592-1.1	I12	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA044	CN-1592-1.1	J09	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA045	CN-1592-1.1	J09	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA046B	CN-1592-1.1	I09	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA048	CN-1592-1.1	C09	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA049	CN-1592-1.1	G09	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA050A	CN-1592-1.1	H09	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA052	CN-1592-1.1	C06	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA053	CN-1592-1.1	G06	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA054B	CN-1592-1.1	H06	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA056	CN-1592-1.1	J06	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA057	CN-1592-1.1	J06	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
AUXILIARY FEEDWATER SYSTEM (CA)														
1CA058A	CN-1592-1.1	I06	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA060	CN-1592-1.1	J03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA061	CN-1592-1.1	I03	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA062A	CN-1592-1.1	I03	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA064	CN-1592-1.1	C03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1CA065	CN-1592-1.1	G03	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
1CA066B	CN-1592-1.1	H03	2	B	ACT	Gate	MO	ST-Q	PI					23
1CA085B	CN-1592-1.0	D07	3	B	ACT	Gate	MO	ST-Q	PI					23
1CA116A	CN-1592-1.0	D08	3	B	ACT	Gate	MO	ST-Q	PI					23
1CA149	CN-1592-1.1	I01	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA150	CN-1592-1.1	I05	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA151	CN-1592-1.1	I08	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA152	CN-1592-1.1	I11	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA171	CN-1592-1.0	C06	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-02			23
1CA172	CN-1592-1.0	C08	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-02			23
1CA173	CN-1592-1.0	E08	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-04			23
1CA185	CN-1592-1.1	E01	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA186	CN-1592-1.1	E05	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA187	CN-1592-1.1	E08	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CA188	CN-1592-1.1	E11	2	B	ACT	Gate	AO	ST/FT-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	FEEDWATER SYSTEM (CF)													
1CF031	CN-1591-1.1	G13	2	C	ACT	Check	SA	FSC-Q						23
1CF033	CN-1591-1.1	F13	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
1CF040	CN-1591-1.1	G09	2	C	ACT	Check	SA	FSC-Q						23
1CF042	CN-1591-1.1	F09	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
1CF049	CN-1591-1.1	G06	2	C	ACT	Check	SA	FSC-Q						23
1CF051	CN-1591-1.1	F06	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
1CF058	CN-1591-1.1	G03	2	C	ACT	Check	SA	FSC-Q						23
1CF060	CN-1591-1.1	F03	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
1CF087	CN-1591-1.1	F02	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CF088	CN-1591-1.1	F06	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CF089	CN-1591-1.1	F09	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1CF090	CN-1591-1.1	F13	2	B	ACT	Gate	AO	ST/FT-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE FUEL OIL SYSTEM (FD)													
1FD022	CN-1609-3.0	J13	3	B	ACT	Globe	SO	ST/FT-Q						23
1FD029	CN-1609-3.0	F05	3	C	ACT	Check	SA	FSO/C-Q						23
1FD034	CN-1609-3.0	H13	3	C	ACT	Relief	SA	RV				40 PSIG		23
1FD062	CN-1609-3.1	J12	3	B	ACT	Globe	SO	ST/FT-Q						23
1FD069	CN-1609-3.1	F05	3	C	ACT	Check	SA	FSO/C-Q						23
1FD074	CN-1609-3.1	H13	3	C	ACT	Relief	SA	RV				40 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	REFUELING WATER SYSTEM (FW)													
1FW001A	CN-1571-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
1FW004	CN-1571-1.0	L07	2	A	PAS	Gate	MA	LJ						23
1FW005	CN-1571-1.0	L05	2	A/C	PAS	Check	SA	LJ						23
1FW011	CN-1571-1.0	J04	2	A	ACT	Plug	MA	LJ						23
1FW013	CN-1571-1.0	J05	2	A	ACT	Plug	MA	LJ						23
1FW027A	CN-1571-1.0	F03	2	B	ACT	Gate	MO	ST-Q	PI					23
1FW028	CN-1571-1.0	F02	2	C	ACT	Check	SA	FSO/C-Q			CN-FW-01			23
1FW032B	CN-1571-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
1FW033A	CN-1571-1.0	B11	2	B	ACT	Globe	MO	ST-Q	PI					23
1FW049B	CN-1571-1.0	B07	2	B	ACT	Globe	MO	ST-Q	PI					23
1FW052	CN-1571-1.0	E10	-	C	ACT	Check	SA	FSO-Q						23
1FW055B	CN-1571-1.0	H03	2	B	ACT	Gate	MO	ST-Q	PI					23
1FW056	CN-1571-1.0	H02	2	C	ACT	Check	SA	FSO/C-Q			CN-FW-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	INSTRUMENT-AIR LOCK SYSTEM (IA)													
1IACV5340	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IACV5350	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IACV5360	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IACV5370	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IACV5380	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IACV5390	CN-1499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
1IASV5080	CN-1499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1IASV5160	CN-1499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1IASV5400	CN-1499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1IASV5410	CN-1499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	COMPONENT COOLING (KC)													
1KC001A	CN-1573-1.0	C06	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC002B	CN-1573-1.0	C09	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC003A	CN-1573-1.0	C06	3	B	ACT	Gate	MO	ST-Q	PI					23
1KC005	CN-1573-1.0	E04	3	C	ACT	Check	SA	FSO/C-Q						23
1KC008	CN-1573-1.0	E04	3	C	ACT	Check	SA	FSO/C-Q						23
1KC011	CN-1573-1.0	E10	3	C	ACT	Check	SA	FSO/C-Q						23
1KC014	CN-1573-1.0	E11	3	C	ACT	Check	SA	FSO/C-Q						23
1KC018B	CN-1573-1.0	C09	3	B	ACT	Gate	MO	ST-Q	PI					23
1KC047	CN-1573-1.5	H04	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1KC050A	CN-1573-1.0	K07	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC053B	CN-1573-1.0	K08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC056A	CN-1573-2.0	E03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC057A	CN-1573-2.0	I03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1KC081B	CN-1573-2.1	E03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1KC082B	CN-1573-2.1	J03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
1KC228B	CN-1573-1.0	L08	3	B	ACT	Gate	MO	ST-Q	PI					23
1KC230A	CN-1573-1.0	L07	3	B	ACT	Gate	MO	ST-Q	PI					23
1KC279	CN-1573-1.3	K05	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1KC280	CN-1573-1.3	E02	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-KC-03			23
1KC305B	CN-1573-1.3	D13	2	B	ACT	Gate	MO	ST-Q	PI					23
1KC315B	CN-1573-1.3	L12	2	B	ACT	Gate	MO	ST-Q	PI					23
1KC320A	CN-1573-1.3	B10	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
1KC332B	CN-1573-1.3	E02	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
1KC333A	CN-1573-1.3	G02	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
1KC338B	CN-1573-1.3	D12	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23
1KC340	CN-1573-1.3	E12	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-KC-03			23
1KC424B	CN-1573-1.3	L05	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23
1KC425A	CN-1573-1.3	L06	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	COMPONENT COOLING (KC)													
1KC429B	CN-1573-1.5	H02	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1KC430A	CN-1573-1.5	J03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1KCC37A	CN-1573-1.0	C03	3	B	ACT	Globe	MO	STO/C-Q	PI					23
1KCC40B	CN-1573-1.0	C10	3	B	ACT	Globe	MO	STO/C-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE COOLING WATER SYSTEM (KD)													
1KD006	CN-1609-1.0	J10	3	C	ACT	Check	SA	FSO/C-Q			CN-KD-01			23
1KD021	CN-1609-1.0	E10	3	C	ACT	Check	SA	FSO/C-Q			CN-KD-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SPENT FUEL COOLING (KF)													
1KF101B	CN-1570-1.0	H13	2	B	ACT	Gate	MO	ST-Q	PI					23
1KF103A	CN-1570-1.0	H12	2	B	ACT	Gate	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GEN. ENGINE LUBE OIL (LD)													
1LD002	CN-1609-2.0	F09	3	C	ACT	Relief	SA	RV				70 PSIG		23
1LD017	CN-1609-2.0	K09	3	C	ACT	Check	SA	FSO/C-Q						23
1LD018	CN-1609-2.0	J06	3	C	ACT	Check	SA	FSO/C-Q						23
1LD032	CN-1609-2.2	F09	3	C	ACT	Relief	SA	RV				70 PSIG		23
1LD047	CN-1609-2.2	K05	3	C	ACT	Check	SA	FSO/C-Q						23
1LD048	CN-1609-2.2	J06	3	C	ACT	Check	SA	FSO/C-Q						23
1LD071	CN-1609-2.0	K06	3	C	ACT	Check	SA	FSO/C-Q						23
1LD072	CN-1609-2.0	J06	3	C	ACT	Check	SA	FSO/C-Q						23
1LD078	CN-1609-2.2	K06	3	C	ACT	Check	SA	FSO/C-Q						23
1LD079	CN-1609-2.2	J06	3	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	RADIATION MONITORS (MI)													
1MIMV6470	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MIMV6471	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MIMV6480	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MIMV6481	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MIMV6490	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MIMV6491	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
1MISV5230	CN-1499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1MISV5231	CN-1499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1MISV5232	CN-1499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
1MISV5233	CN-1499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	BORON RECYCLE (NB)													
1NB260B	CN-1556-2.0	G04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NB262	CN-1556-2.0	G06	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-NB-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	REACTOR COOLANT SYSTEM (NC)													23
1NC001	CN-1553-1.1	K03	1	C	ACT	Relief	SA	RV				2485 PSIG		23
1NC002	CN-1553-1.1	K04	1	C	ACT	Relief	SA	RV				2485 PSIG		23
1NC003	CN-1553-1.1	K06	1	C	ACT	Relief	SA	RV				2485 PSIG		23
1NC031B	CN-1553-1.1	F04	1	B	ACT	Gate	MO	ST-Q	PI					23
1NC032B	CN-1553-1.1	G04	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
1NC033A	CN-1553-1.1	F03	1	B	ACT	Gate	MO	ST-Q	PI					23
1NC034A	CN-1553-1.1	G03	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
1NC035B	CN-1553-1.1	F02	1	B	ACT	Gate	MO	ST-Q	PI					23
1NC036B	CN-1553-1.1	G02	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
1NC053B	CN-1553-1.1	K11	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NC054A	CN-1553-1.1	K09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NC056B	CN-1553-1.1	I13	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1NC057	CN-1553-1.1	I12	2	A/C	PAS	Check	SA	FSO/C-Q	LJ		CN-NC-01			23
1NC141	CN-1553-1.3	J08	2	A	PAS	Gate	MA	LJ						23
1NC142	CN-1553-1.3	K08	2	A	PAS	Gate	MA	LJ						23
1NC195B	CN-1553-1.3	D07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1NC196A	CN-1553-1.3	D07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1NC250A	CN-1553-1.1	L07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
1NC251B	CN-1553-1.1	L06	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
1NC252B	CN-1553-1.1	K07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
1NC253A	CN-1553-1.1	K06	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	RESIDUAL HEAT REMOVAL (ND)													
1ND001B	CN-1561-1.0	L13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-01			23
1ND002A	CN-1561-1.0	J13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-01			23
1ND003	CN-1561-1.0	I13	2	C	PAS	Relief	SA	RV				450 PSIG		23
1ND010	CN-1561-1.0	G10	2	C	ACT	Check	SA	FSO/C-Q			CN-ND-03			23
1ND025A	CN-1561-1.0	E13	2	B	ACT	Globe	MO	ST-Q	PI					23
1ND026	CN-1561-1.0	G04	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
1ND027	CN-1561-1.0	J06	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
1ND028A	CN-1561-1.0	H04	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-05			23
1ND031	CN-1561-1.0	G02	2	C	PAS	Relief	SA	RV				600 PSIG		23
1ND032A	CN-1561-1.0	F03	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-04			23
1ND035	CN-1561-1.0	D02	2	C	PAS	Relief	SA	RV				600 PSIG		23
1ND036B	CN-1561-1.1	L13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-02			23
1ND037A	CN-1561-1.1	J13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-02			23
1ND038	CN-1561-1.1	I13	2	C	PAS	Relief	SA	RV				450 PSIG		23
1ND044	CN-1561-1.1	G10	2	C	ACT	Check	SA	FSO/C-Q			CN-ND-03			23
1ND059B	CN-1561-1.1	E13	2	B	ACT	Globe	MO	ST-Q	PI					23
1ND060	CN-1561-1.1	G04	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
1ND061	CN-1561-1.1	J06	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
1ND064	CN-1561-1.1	H02	2	C	PAS	Relief	SA	RV				600 PSIG		23
1ND065B	CN-1561-1.1	E03	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-04			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	ICE CONDENSER REFRIGERATION (NF)													
1NF228A	CN-1558-2.0	H14	2	A	ACT	Gate	AO	ST/FT-Q	LJ/PI					23
1NF229	CN-1558-2.0	F14	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-NF-01			23
1NF233B	CN-1558-2.0	L10	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1NF234A	CN-1558-2.0	L12	2	A	ACT	Gate	AO	ST/FT-Q	LJ/PI					23
1NF235	CN-1558-2.0	K10	2	A/C	ACT	Check	SA	FSO/C-Q	LJ					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
1NI009A	CN-1562-1.0	D09	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-01			23
1NI010B	CN-1562-1.0	D06	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-01			23
1NI012	CN-1562-1.0	F07	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-02			23
1NI015	CN-1562-1.0	J10	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI017	CN-1562-1.0	J09	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI019	CN-1562-1.0	J07	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI021	CN-1562-1.0	J05	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI047A	CN-1562-1.1	L09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NI048	CN-1562-1.1	L08	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-NI-05			23
1NI054A	CN-1562-1.1	G02	1	B	ACT	Gate	MO	PI						23
1NI059	CN-1562-1.1	D02	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
1NI060	CN-1562-1.1	C02	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
1NI065B	CN-1562-1.1	G04	1	B	ACT	Gate	MO	PI						23
1NI070	CN-1562-1.1	D05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
1NI071	CN-1562-1.1	C05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
1NI076A	CN-1562-1.1	G07	1	B	ACT	Gate	MO	PI						23
1NI081	CN-1562-1.1	D07	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
1NI082	CN-1562-1.1	C07	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
1NI088B	CN-1562-1.1	G10	1	B	ACT	Gate	MO	PI						23
1NI093	CN-1562-1.1	D10	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
1NI094	CN-1562-1.1	C10	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
1NI095A	CN-1562-1.1	F13	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1NI096B	CN-1562-1.1	H13	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NI100B	CN-1562-1.2	G13	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-08			23
1NI101	CN-1562-1.2	G13	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-07			23
1NI102	CN-1562-1.2	H14	2	C	PAS	Relief	SA	RV				220 PSIG		23
1NI103A	CN-1562-1.2	I13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NI114	CN-1562-1.2	I08	2	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
1NI115A	CN-1562-1.2	H08	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI116	CN-1562-1.2	J08	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-10			23
1NI118A	CN-1562-1.2	I06	2	B	ACT	Gate	MO	ST-Q	PI					23
1NI119	CN-1562-1.2	K06	2	C	PAS	Relief	SA	RV				1900 PSIG		23
1NI120B	CN-1562-1.2	I06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NI121A	CN-1562-1.2	J05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-21			23
1NI122B	CN-1562-1.2	K04	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI124	CN-1562-1.2	I04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI125	CN-1562-1.2	H04	1	A/C	PAS	Check	SA	FSO/C-Q	LT					23
1NI126	CN-1562-1.2	I01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI128	CN-1562-1.2	K04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI129	CN-1562-1.2	J03	1	A/C	PAS	Check	SA	FSO/C-Q	LT					23
1NI134	CN-1562-1.2	K01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI135B	CN-1562-1.2	E13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NI136B	CN-1562-1.2	D13	2	B	ACT	Gate	MO	ST-Q	PI		CN-Ni-19			23
1NI143	CN-1562-1.2	E08	2	C	ACT	Check	SA	FSO/C-Q						23
1NI144A	CN-1562-1.2	F08	2	B	ACT	Globe	MO	ST-Q	PI		CN-NI-22			23
1NI147B	CN-1562-1.2	G10	2	B	ACT	Globe	MO	ST-Q	PI		CN-NI-09			23
1NI148	CN-1562-1.2	D08	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-10			23
1NI150B	CN-1562-1.2	F06	2	B	ACT	Gate	MO	ST-Q	PI					23
1NI151	CN-1562-1.2	E06	2	C	PAS	Relief	SA	RV				1900 PSIG		23
1NI152B	CN-1562-1.2	D05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-21			23
1NI153A	CN-1562-1.2	D04	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI154B	CN-1562-1.2	H03	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI156	CN-1562-1.2	E03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI157	CN-1562-1.2	E01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI159	CN-1562-1.2	C03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
1NI160	CN-1562-1.2	C01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
1NI161	CN-1562-1.3	K07	2	C	PAS	Relief	SA	RV				1900 PISG		23
1NI162A	CN-1562-1.3	J08	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-12			23
1NI165	CN-1562-1.3	G03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
1NI167	CN-1562-1.3	G06	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
1NI169	CN-1562-1.3	G09	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
1NI171	CN-1562-1.3	G12	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
1NI173A	CN-1562-1.3	E10	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-15			23
1NI175	CN-1562-1.3	F11	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
1NI176	CN-1562-1.3	F09	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
1NI178B	CN-1562-1.3	E04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-15			23
1NI180	CN-1562-1.3	F05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
1NI181	CN-1562-1.3	F04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
1NI183B	CN-1562-1.2	G04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-16			23
1NI184B	CN-1562-1.3	C10	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-17			23
1NI185A	CN-1562-1.3	C05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-17			23
1NI332A	CN-1562-1.2	L12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-18			23
1NI333B	CN-1562-1.2	K12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-18			23
1NI334B	CN-1562-1.2	K11	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-23			23
1NI342	CN-1562-1.2	D13	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-20			23
1NI351	CN-1562-1.0	I10	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI352	CN-1562-1.0	I09	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI353	CN-1562-1.0	I07	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI354	CN-1562-1.0	I05	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
1NI391	CN-1562-1.1	C03	2	A	ACT	Globe	AO	LT						23
1NI392	CN-1562-1.1	C04	2	A	ACT	Globe	AO	LT						23
1NI393	CN-1562-1.1	C08	2	A	ACT	Globe	AO	LT						23
1NI394	CN-1562-1.1	C11	2	A	ACT	Globe	AO	LT						23
1NI395	CN-1562-1.2	E01	2	A	ACT	Globe	AO	LT						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
1NI396	CN-1562-1.2	K01	2	A	ACT	Globe	AO	LT						23
1NI397	CN-1562-1.2	I01	2	A	ACT	Globe	AO	LT						23
1NI398	CN-1562-1.2	C01	2	A	ACT	Globe	AO	LT						23
1NI438A	CN-1562-1.1	K02	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI439B	CN-1562-1.1	K05	2	B	ACT	Globe	MO	ST-Q	PI					23
1NI471	CN-1562-1.1	F13	2	A	ACT	Check	SA	LJ						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SAMPLING SYSTEM (NM)													
1NM003A	CN-1572-1.0	K03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM006A	CN-1572-1.0	J03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM007B	CN-1572-1.0	K06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM022A	CN-1572-1.0	J12	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM025A	CN-1572-1.0	K12	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM026B	CN-1572-1.0	K08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM069	CN-1572-1.1	G09	2	A	ACT	Relief	SA	LJ	RV			700 PSIG		23
1NM072B	CN-1572-1.1	I06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM075B	CN-1572-1.1	I08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM078B	CN-1572-1.1	I09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM081B	CN-1572-1.1	I11	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM082A	CN-1572-1.1	E09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NM187A	CN-1572-1.4	K02	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM190A	CN-1572-1.4	K02	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM191B	CN-1572-1.4	I02	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM197B	CN-1572-1.4	K05	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM200B	CN-1572-1.4	K06	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM201A	CN-1572-1.4	I06	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM207A	CN-1572-1.4	K08	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM210A	CN-1572-1.4	K09	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM211B	CN-1572-1.4	I09	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM217B	CN-1572-1.4	K11	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM220B	CN-1572-1.4	K12	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM221A	CN-1572-1.4	I12	2	B	ACT	Globe	MO	ST-Q	PI					23
1NM424	CN-1572-1.0	I03	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1NM425	CN-1572-1.0	K12	2	A/C	ACT	Check	SA	FSC-Q	LJ					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT SPRAY (NS)													
1NS001B	CN-1563-1.0	C13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS003B	CN-1563-1.0	E13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS004	CN-1563-1.0	D13	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
1NS012B	CN-1563-1.0	C05	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS013	CN-1563-1.0	C03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS015B	CN-1563-1.0	E05	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS016	CN-1563-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS018A	CN-1563-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS020A	CN-1563-1.0	I13	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS021	CN-1563-1.0	I13	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
1NS029A	CN-1563-1.0	I05	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS030	CN-1563-1.0	I02	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS032A	CN-1563-1.0	K05	2	B	ACT	Gate	MO	ST-Q	PI					23
1NS033	CN-1563-1.0	K03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS038B	CN-1563-1.0	F05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NS-03			23
1NS041	CN-1563-1.0	F03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS043A	CN-1563-1.0	H05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NS-03			23
1NS046	CN-1563-1.0	H03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
1NS098	CN-1563-1.0	J09	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
1NS099	CN-1563-1.0	D09	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CHEMICAL & VOLUME CONTROL (NV)													
1NV001A	CN-1554-1.0	H01	1	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-12			23
1NV002A	CN-1554-1.0	H02	1	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-12			23
1NV010A	CN-1554-1.0	H08	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
1NV011A	CN-1554-1.0	I09	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
1NV013A	CN-1554-1.0	G08	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
1NV014	CN-1554-1.0	F09	2	A	ACT	Relief	SA	LJ	RV			600 PSIG		23
1NV015B	CN-1554-1.0	H10	2	A	ACT	Globe	MO	ST-Q	LJ/PI		CN-NV-01			23
1NV087	CN-1554-1.0	C08	2	C	ACT	Relief	SA	RV				150 PSIG		23
1NV089A	CN-1554-1.0	B10	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-02			23
1NV090	CN-1554-1.0	D10	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1NV091B	CN-1554-1.0	B12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-02			23
1NV188A	CN-1554-1.1	C05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-03			23
1NV189B	CN-1554-1.1	C04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-03			23
1NV202B	CN-1554-1.6	D01	2	B	ACT	Globe	MO	ST-Q	PI		CN-NV-07			23
1NV203A	CN-1554-1.6	D02	2	B	ACT	Globe	MO	ST-Q	PI		CN-NV-07			23
1NV205	CN-1554-1.1	G04	2	C	ACT	Relief	SA	RV				150 PSIG		23
1NV206	CN-1554-1.6	D03	2	B	ACT	Plug	AO	PI						23
1NV218	CN-1554-1.6	D06	2	B	ACT	Plug	AO	PI						23
1NV220	CN-1554-1.1	G04	2	C	ACT	Check	SA	FSO-Q						23
1NV222	CN-1554-1.1	E06	2	C	ACT	Relief	SA	RV				220 PSIG		23
1NV223	CN-1554-1.1	H07	2	C	ACT	Relief	SA	RV				75 PSIG		23
1NV252A	CN-1554-1.7	K11	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-10			23
1NV253B	CN-1554-1.7	K12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-10			23
1NV254	CN-1554-1.7	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-05			23
1NV268	CN-1554-1.7	I05	2	C	ACT	Check	SA	FSO/C-Q						23
1NV270	CN-1554-1.7	I05	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-06			23
1NV273	CN-1554-1.7	E14	2	C	ACT	Relief	SA	RV				220 PSIG		23
1NV288	CN-1554-1.7	E05	2	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CHEMICAL & VOLUME CONTROL (NV)													
1NV290	CN-1554-1.7	D05	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-06			23
1NV312A	CN-1554-1.2	K05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-04			23
1NV314B	CN-1554-1.2	K06	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-04			23
1NV813	CN-1554.1.7	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-08			23
1NV865A	CN-1554-1.8	H01	2	B	ACT	Globe	MO	ST-Q	PI					23
1NV872A	CN-1554-1.8	F08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1NV874	CN-1554-1.8	F10	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-NV-09			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
1NW006	CN-1569-1.0	G11	2	C	ACT	Check	SA	FSO-Q			CN-NW-01			23
1NW008A	CN-1569-1.0	G13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW013A	CN-1569-1.0	E09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW017	CN-1569-1.0	E11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW020A	CN-1569-1.0	F09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW021	CN-1569-1.0	E12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW024	CN-1569-1.0	E13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW027	CN-1569-1.0	E14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW035A	CN-1569-1.0	H09	2	B	ACT	Globe	MO	ST-Q	PI					23
1NW037	CN-1569-1.0	I09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW040	CN-1569-1.0	J11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW043	CN-1569-1.0	J10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW046A	CN-1569-1.0	K09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW047	CN-1569-1.0	L10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW050	CN-1569-1.0	L11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW053	CN-1569-1.0	L11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW061B	CN-1569-1.0	G02	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW063	CN-1569-1.0	G04	2	C	ACT	Check	SA	FSO-Q			CN-NW-01			23
1NW068B	CN-1569-1.0	E05	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW069B	CN-1569-1.0	F06	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW070	CN-1569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW074	CN-1569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW077	CN-1569-1.0	E04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW080	CN-1569-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW083	CN-1569-1.0	E02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW086	CN-1569-1.0	E01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW089	CN-1569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW092	CN-1569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)													
1NW095	CN-1569-1.0	C04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW098	CN-1569-1.0	C02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW101	CN-1569-1.0	C01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW105B	CN-1569-1.0	H06	2	B	ACT	Globe	MO	ST-Q	PI					23
1NW107	CN-1569-1.0	I06	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW109	CN-1569-1.0	K05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW110B	CN-1569-1.0	K06	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW111	CN-1569-1.0	J05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW114	CN-1569-1.0	L05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW120	CN-1569-1.0	J05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW121	CN-1569-1.0	E01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW122	CN-1569-1.0	E02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW123	CN-1569-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW124	CN-1569-1.0	E04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW125	CN-1569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW126	CN-1569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW127	CN-1569-1.0	C01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW128	CN-1569-1.0	C02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW129	CN-1569-1.0	C04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW130	CN-1569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW131	CN-1569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW132	CN-1569-1.0	K10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW133	CN-1569-1.0	K11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW134	CN-1569-1.0	K11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW135	CN-1569-1.0	J10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW136	CN-1569-1.0	J11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW138	CN-1569-1.0	D11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW139	CN-1569-1.0	E12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
1NW140	CN-1569-1.0	E13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW141	CN-1569-1.0	E14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW145B	CN-1569-1.0	C05	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW146B	CN-1569-1.0	E02	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW147	CN-1569-1.0	J07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW148	CN-1569-1.0	J07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW159	CN-1569-1.0	J12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW160	CN-1569-1.0	J12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW163	CN-1569-1.0	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW164	CN-1569-1.0	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW168	CN-1569-1.0	K13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW169	CN-1569-1.0	K13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW171	CN-1569-1.0	J13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW172	CN-1569-1.0	J13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW175A	CN-1569-1.0	C12	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW178	CN-1569-1.0	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW179	CN-1569-1.0	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW180A	CN-1569-1.0	C13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW183	CN-1569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW184	CN-1569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW185A	CN-1569-1.0	C13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW188	CN-1569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW189	CN-1569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW190A	CN-1569-1.0	C14	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW193	CN-1569-1.0	C14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW194	CN-1569-1.0	C14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW195A	CN-1569-1.0	E08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW196	CN-1569-1.0	F08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)													
1NW197	CN-1569-1.0	F08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW200A	CN-1569-1.0	E08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW201	CN-1569-1.0	E08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW202	CN-1569-1.0	D08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW205	CN-1569-1.0	E07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW206	CN-1569-1.0	F07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW209	CN-1569-1.0	E07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW210	CN-1569-1.0	E07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW213	CN-1569-1.0	C07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW214	CN-1569-1.0	C07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW217B	CN-1569-1.0	C08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW218	CN-1569-1.0	C08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW219	CN-1569-1.0	C08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW222B	CN-1569-1.0	C09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW223	CN-1569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW224	CN-1569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW227B	CN-1569-1.0	C09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW230	CN-1569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW231	CN-1569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW232B	CN-1569-1.0	C10	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW235	CN-1569-1.0	C10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW236	CN-1569-1.0	C10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW237B	CN-1569-1.0	C11	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW240	CN-1569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW241	CN-1569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW242B	CN-1569-1.0	C11	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
1NW245	CN-1569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
1NW246	CN-1569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
1NW247	CN-1569-1.0	J11	2	C	PAS	Relief	SA	RV				150 PSIG		23
1NW248	CN-1569-1.0	D11	2	C	PAS	Relief	SA	RV				150 PSIG		23
1NW249	CN-1569-1.0	D06	2	C	PAS	Relief	SA	RV				150 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	FIRE PROTECTION SYSTEM (RF)													
1RF389B	CN-1599-2.2	D07	2	A	ACT	Gate	MO	ST-Q	PI					23
1RF392	CN-1599-2.2	F07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RF-01			23
1RF447B	CN-1599-2.2	C03	2	A	ACT	Gate	MO	ST-Q	PI					23
1RF448	CN-1599-2.2	E03	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RF-01			23
1RF457B	CN-1599-2.2	C02	2	B	ACT	Gate	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO 1	TEST REQ'MT NO 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SERVICE WATER SYSTEM (RN)													
1RN009	CN-1574-1.0	E03	3	C	ACT	Check	SA	FSO/C-Q						23
1RN011A	CN-1574-1.0	E06	3	B	ACT	Ball	MO	ST-Q	PI					23
1RN018	CN-1574-1.2	F02	3	C	ACT	Check	SA	FSO/C-Q						23
1RN020B	CN-1574-1.2	E05	3	B	ACT	Ball	MO	ST-Q	PI					23
1RN028A	CN-1574-1.0	E03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN038B	CN-1574-1.2	F02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN047A	CN-1574-1.1	I03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN048B	CN-1574-1.1	I05	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN049A	CN-1574-1.1	H04	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN050B	CN-1574-1.1	G04	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN051A	CN-1574-1.1	C08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN052B	CN-1574-1.1	C08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN144A	CN-1574-2.0	B08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN148A	CN-1574-2.0	L11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN225B	CN-1574-2.4	B08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN229B	CN-1574-2.4	L11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN232A	CN-1574-2.1	D02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN250A	CN-1574-2.1	C07	3	B	ACT	Gate	MO	ST-Q	PI					23
1RN291	CN-1574-2.1	K13	3	B	ACT	Ball	AO	ST/FT-Q	PI					23
1RN292B	CN-1574-2.5	D02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN310B	CN-1574-2.5	C07	3	B	ACT	Gate	MO	ST-Q	PI					23
1RN351	CN-1574-2.5	K13	3	B	ACT	Ball	AO	ST/FT-Q	PI					23
1RN404B	CN-1574-2.8	G05	2	B	ACT	Gate	MO	ST-Q	PI					23
1RN405	CN-1574-2.8	G03	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RN-01			23
1RN430	CN-1574-2.2	GO8	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1RN437B	CN-1574-2.8	G12	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-02			23
1RN438	CN-1574-2.8	D13	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RN-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO 1	TEST REQ'MT NO 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SERVICE WATER SYSTEM (RN)													
1RN484A	CN-1574-2.2	G08	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-03			23
1RN485	CN-1574-2.2	G09	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1RN487B	CN-1574-2.2	F08	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-03			23
1RN846A	CN-1574-2.1	J02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN847A	CN-1574-2.1	J01	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN848B	CN-1574-2.5	J02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN849B	CN-1574-2.5	J01	3	B	ACT	Butterfly	MO	ST-Q	PI					23
1RN854	CN-1574-1.0	F12	3	C	ACT	Relief	SA	RV				-0.2 PSIG		23
1RN855	CN-1574-1.0	F03	3	C	ACT	Relief	SA	RV				-0.2 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM TO AUX EQUIPMENT (SA)													
1SA002	CN-1593-1.1	G04	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1SA003	CN-1593-1.1	G05	2	C	ACT	Check	SA	FSO/C-Q			CN-SA-01			23
1SA005	CN-1593-1.1	H04	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
1SA006	CN-1593-1.1	H05	2	C	ACT	Check	SA	FSO/C-Q			CN-SA-01			23

Unit 1 - Catawba Nuclear Station
Inservice Testing Program

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM (SM)													
1SM001	CN-1593-1.0	K13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
1SM003	CN-1593-1.0	H13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
1SM005	CN-1593-1.0	F13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
1SM007	CN-1593-1.0	C13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
1SM009	CN-1593-1.0	J13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SM010	CN-1593-1.0	G13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SM011	CN-1593-1.0	E13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SM012	CN-1593-1.0	B13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM TO ATMOSPHERE (SV)													
1SV001	CN-1593-1.0	L12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SV002	CN-1593-1.0	K04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
1SV003	CN-1593-1.0	K06	2	C	ACT	Relief	SA	RV				1190 PSIG		23
1SV004	CN-1593-1.0	K07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
1SV005	CN-1593-1.0	K08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
1SV006	CN-1593-1.0	K10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
1SV007	CN-1593-1.0	I12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SV008	CN-1593-1.0	I04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
1SV009	CN-1593-1.0	I06	2	C	ACT	Relief	AO	RV				1190 PSIG		23
1SV010	CN-1593-1.0	I07	2	C	ACT	Relief	MO	RV				1205 PSIG		23
1SV011	CN-1593-1.0	I08	2	C	ACT	Relief	AO	RV				1220 PSIG		23
1SV012	CN-1593-1.0	I10	2	C	ACT	Relief	AO	RV				1230 PSIG		23
1SV013	CN-1593-1.0	F12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SV014	CN-1593-1.0	F04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
1SV015	CN-1593-1.0	F06	2	C	ACT	Relief	SA	RV				1190 PSIG		23
1SV016	CN-1593-1.0	F07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
1SV017	CN-1593-1.0	F08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
1SV018	CN-1593-1.0	F10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
1SV019	CN-1593-1.0	D12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
1SV020	CN-1593-1.0	C04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
1SV021	CN-1593-1.0	C06	2	C	ACT	Relief	SA	RV				1190 PSIG		23
1SV022	CN-1593-1.0	C07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
1SV023	CN-1593-1.0	C08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
1SV024	CN-1593-1.0	C10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
1SV025B	CN-1593-1.0	K11	2	B	ACT	Gate	MO	ST-Q	PI					23
1SV026B	CN-1593-1.0	I11	2	B	ACT	Gate	MO	ST-Q	PI					23
1SV027A	CN-1593-1.0	C11	2	B	ACT	Gate	MO	ST-Q	PI					23
1SV028A	CN-1593-1.0	F11	2	B	ACT	Gate	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	BREATHING AIR SYSTEM (VB)													
1VB083B	CN-1605-3.2	I07	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23
1VB085	CN-1605-3.2	H07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VB-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE STARTING AIR (VG)													
1VG005	CN-1609-4.0	I02	3	C	ACT	Check	SA	FSC-Q						23
1VG006	CN-1609-4.0	I13	3	C	ACT	Check	SA	FSC-Q						23
1VG007	CN-1609-4.0	J02	3	C	ACT	Check	SA	FSC-Q						23
1VG008	CN-1609-4.0	J13	3	C	ACT	Check	SA	FSC-Q						23
1VG015	CN-1609-4.0	G02	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG016	CN-1609-4.0	G13	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG025	CN-1609-4.0	D05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG026	CN-1609-4.0	D10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG027	CN-1609-4.0	C05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG028	CN-1609-4.0	C10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG029	CN-1609-4.0	D06	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG030	CN-1609-4.0	D10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG031	CN-1609-4.0	C05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG032	CN-1609-4.0	C10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG049	CN-1609-4.1	I02	3	C	ACT	Check	SA	FSC-Q						23
1VG050	CN-1609-4.1	I13	3	C	ACT	Check	SA	FSC-Q						23
1VG051	CN-1609-4.1	I02	3	C	ACT	Check	SA	FSC-Q						23
1VG052	CN-1609-4.1	I13	3	C	ACT	Check	SA	FSC-Q						23
1VG059	CN-1609-4.1	F02	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG060	CN-1609-4.1	F13	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG069	CN-1609-4.1	D05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG070	CN-1609-4.1	D10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG071	CN-1609-4.1	C05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG072	CN-1609-4.1	C10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
1VG073	CN-1609-4.1	D05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG074	CN-1609-4.1	D10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG075	CN-1609-4.1	C05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
1VG076	CN-1609-4.1	C10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE STARTING AIR (VG)													
1VG133	CN-1609-4.1	H02	3	C	ACT	Check	SA	FSO/C-Q						23
1VG134	CN-1609-4.1	H13	3	C	ACT	Check	SA	FSO/C-Q						23
1VG135	CN-1609-4.0	H02	3	C	ACT	Check	SA	FSO/C-Q						23
1VG136	CN-1609-4.0	H13	3	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	INSTRUMENT AIR SYSTEM (VI)													
1VI077B	CN-1605-1.4	K06	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI		CN-VI-02			23
1VI079	CN-1605-1.4	H09	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VI-01			23
1VI312A	CN-1605-1.4	H08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1VI367	CN-1605-1.14	E11	-	C	ACT	Check	SA	FSO/C-Q			CN-VI-03			23
1VI368	CN-1605-1.14	E12	-	C	ACT	Check	SA	FSO/C-Q			CN-VI-03			23
1VI369	CN-1605-1.14	F10	-	C	ACT	Check	SA	FSO-Q			CN-VI-04			23
1VI370	CN-1605-1.14	F13	-	C	ACT	Check	SA	FSO-Q			CN-VI-04			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT PURGE VENTILATION SYSTEM (VP)													
1VP001B	CN-1576-1.0	I05	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP002A	CN-1576-1.0	I06	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP003B	CN-1576-1.0	H05	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP004A	CN-1576-1.0	H06	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP006B	CN-1576-1.0	G05	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP007A	CN-1576-1.0	G06	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP008B	CN-1576-1.0	F05	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP009A	CN-1576-1.0	F06	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP010A	CN-1576-1.0	I09	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP011B	CN-1576-1.0	I10	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP012A	CN-1576-1.0	H09	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP013B	CN-1576-1.0	H10	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP015A	CN-1576-1.0	F09	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP016B	CN-1576-1.0	F10	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP017A	CN-1576-1.0	E09	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP018B	CN-1576-1.0	E10	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP019A	CN-1576-1.0	E06	2	A	PAS	Butterfly	AO	LJ/PI						23
1VP020B	CN-1576-1.0	E05	2	A	PAS	Butterfly	AO	LJ/PI						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT AIR RELEASE & ADDITION SYSTEM (VQ)													
1VQ002A	CN-1585-1.0	I02	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23
1VQ003B	CN-1585-1.0	G02	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1VQ015B	CN-1585-1.0	I12	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1VQ016A	CN-1585-1.0	J12	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
STAITON AIR SYSTEM (VS)														
1VS054B	CN-1605-2.1	G10	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1VS056	CN-1605-2.1	G12	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VS-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONT. AIR RET. & HYDROGEN SKIMMER SYSTEM (VX)													
1VX001A	CN-1557-1.0	G03	2	B	ACT	Butterfly	MO	ST-Q	PI					23
1VX002B	CN-1557-1.0	G14	2	B	ACT	Butterfly	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT HYDROGEN SAMPLE & PURGE SYSTEM (VY)													
1VY015B	CN-1559-1.0	F07	2	A	PAS	Gate	MO	LJ	PI					23
1VY016	CN-1559-1.0	D07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VY-01			23
1VY017A	CN-1559-1.0	D04	2	A	PAS	Gate	MO	LJ	PI					23
1VY018B	CN-1559-1.0	G04	2	A	PAS	Gate	MO	LJ	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
EQUIPMENT DECONTAINMENT SYSTEM (WE)														
1WE020	CN-1568-1.0	E11	2	A	PAS	Globe	MA	LJ						23
1WE022	CN-1568-1.0	E13	2	A	PAS	Globe	MA	LJ						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	LIQUID WASTE RECYCLE SYSTEM (WL)													
1WL321	CN-1565-2.4	H06	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1WL450A	CN-1565-2.0	I04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1WL451B	CN-1565-2.0	J04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1WL805A	CN-1565-2.0	H08	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WL806	CN-1565-2.0	I08	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1WL807B	CN-1565-2.0	J08	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WL825A	CN-1565-2.4	H07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WL827B	CN-1565-2.4	J07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WL830	CN-1565-2.2	H04	3	C	ACT	Check	SA	FSO/C-Q						23
1WL832	CN-1565-2.2	H05	3	C	ACT	Check	SA	FSO/C-Q						23
1WL867A	CN-1565-2.1	I07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WL868	CN-1565-2.1	I06	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
1WL869B	CN-1565-2.1	H07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
1WLA022	CN-1565-2.6	K10	2	A/C	ACT	Check	SA	FSC-Q	LJ					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
MAKEUP DEMINERALIZER WATER SYSTEM (YM)														
1YM119B	CN-1601-3.1	E06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
1YM121	CN-1601-3.1	E04	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-YM-01			23

CATAWBA NUCLEAR STATION

Unit 2

ASME
Inservice Testing Program

UNIT 2 - CATAWBA NUCLEAR STATION
Pump Inservice Testing Program

Pump ID. Number	Description	Code Class	Pump Type	Flow Diagram	Speed	Inlet Pressure	Differential Pressure	Vibration	Flow Rate	Relief Request	Remarks	Rev
2CAPU0001	Motor Driven Auxiliary Feedwater Pump 2A	3	Centrifugal	CN-2592-1.0	NR	Q	Q	Q	Q	CN-SRP-CA-01	NONE	23
2CAPU0002	Motor Driven Auxiliary Feedwater Pump 2B	3	Centrifugal	CN-2592-1.0	NR	Q	Q	Q	Q	CN-SRP-CA-01	NONE	23
2CAPU0003	Turbine Driven Auxiliary Feedwater Pump #2	3	Centrifugal	CN-2592-1.0	Q	Q	Q	Q	Q		NONE	23
2KCPU0001	Component Cooling Water Pump 2A1	3	Centrifugal	CN-2573-1.0	NR	Q	Q	Q	Q		NONE	23
2KCPU0002	Component Cooling Water Pump 2A2	3	Centrifugal	CN-2573-1.0	NR	Q	Q	Q	Q		NONE	23
2KCPU0003	Component Cooling Water Pump 2B1	3	Centrifugal	CN-2573-1.0	NR	Q	Q	Q	Q		NONE	23
2KCPU0004	Component Cooling Water Pump 2B2	3	Centrifugal	CN-2573-1.0	NR	Q	Q	Q	Q		NONE	23
2NDPU0001	Residual Heat Removal Pump 2A	2	Vertical Line Shaft Centrifugal	CN-2561-1.0	NR	Q	Q	Q	Q		NONE	23

UNIT 2 - CATAWBA NUCLEAR STATION
Pump Inservice Testing Program

Pump ID. Number	Description	Code Class	Pump Type	Flow Diagram	Speed	Inlet Pressure	Differential Pressure	Vibration	Flow Rate	Relief Request	Remarks	Rev
2NDPU0002	Residual Heat Removal Pump 2B	2	Vertical Line Shaft Centrifugal	CN-2561-1.1	NR	Q	Q	Q	Q		NONE	23
2NIPU0009	Safety Injection Pump 2A	2	Centrifugal	CN-2562-1.2	NR	Q	Q	Q	Q		NONE	23
2NIPU0010	Safety Injection Pump 2B	2	Centrifugal	CN-2562-1.2	NR	Q	Q	Q	Q		NONE	23
2NSPU0001	Containment Spray Pump 2A	2	Vertical Line Shaft Centrifugal	CN-2563-1.0	NR	Q	Q	Q	Q		NONE	23
2NSPU0002	Containment Spray Pump 2B	2	Vertical Line Shaft Centrifugal	CN-2563-1.0	NR	Q	Q	Q	Q		NONE	23
2NVPU0015	Centrifugal Charging Pump 2A	2	Centrifugal	CN-2554-2.0	NR	Q	Q	Q	Q		NONE	23
2NVPU0016	Centrifugal Charging Pump 2B	2	Centrifugal	CN-2554-1.7	NR	Q	Q	Q	Q		NONE	23
2RNPU0002	Nuclear Service Water Pump 2A	3	Vertical Line Shaft Centrifugal	CN-2574-1.0	NR	Q	Q	Q	Q		NONE	23
2RNPU0004	Nuclear Service Water Pump 2B	3	Vertical Line Shaft Centrifugal	CN-2574-1.2	NR	Q	Q	Q	Q		NONE	23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	STEAM GENERATOR BLOWDOWN RECYCLE (BB)													
2BB008A	CN-2580-1.0	JO5	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB010B	CN-2580-1.0	J06	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB019A	CN-2580-1.0	D05	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB021B	CN-2580-1.0	D06	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB056A	CN-2580-1.0	H05	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB057B	CN-2580-1.0	H06	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB060A	CN-2580-1.0	F05	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB061B	CN-2580-1.0	F06	2	B	ACT	Gate	MO	ST-Q	PI					23
2BB147B	CN-2580-1.0	K06	2	B	ACT	Globe	MO	ST-Q	PI					23
2BB148B	CN-2580-1.0	I06	2	B	ACT	Globe	MO	ST-Q	PI					23
2BB149B	CN-2580-1.0	G06	2	B	ACT	Globe	MO	ST-Q	PI					23
2BB150B	CN-2580-1.0	E06	2	B	ACT	Globe	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	AUXILIARY FEEDWATER SYSTEM (CA)													
2CA008	CN-2592-1.0	D09	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
2CA010	CN-2592-1.0	D05	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
2CA012	CN-2592-1.0	D01	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-03			23
2CA015A	CN-2592-1.0	D02	3	B	ACT	Gate	MO	ST-Q	PI					23
2CA018B	CN-2592-1.0	D06	3	B	ACT	Gate	MO	ST-Q	PI					23
2CA020	CN-2592-1.0	I11	3	C	ACT	3-Way	SA	FS						23
2CA023	CN-2592-1.0	J10	3	C	ACT	Check	SA	FSO/C-Q						23
2CA027	CN-2592-1.0	I04	3	C	ACT	3-Way	SA	FS						23
2CA028	CN-2592-1.0	J03	3	C	ACT	Check	SA	FSO/C-Q						23
2CA032	CN-2592-1.0	I08	3	C	ACT	3-Way	SA	FS						23
2CA033	CN-2592-1.0	J07	3	C	ACT	Check	SA	FSO/C-Q						23
2CA036	CN-2592-1.1	C12	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA037	CN-2592-1.1	G12	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA038A	CN-2592-1.1	H12	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA040	CN-2592-1.1	J12	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA041	CN-2592-1.1	I12	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA042B	CN-2592-1.1	I12	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA044	CN-2592-1.1	J09	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA045	CN-2592-1.1	I09	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA046B	CN-2592-1.1	I09	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA048	CN-2592-1.1	C09	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA049	CN-2592-1.1	G09	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA050A	CN-2592-1.1	H09	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA052	CN-2592-1.1	C06	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA053	CN-2592-1.1	G09	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA054B	CN-2592-1.1	H06	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA056	CN-2592-1.1	J06	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA057	CN-2592-1.1	I06	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	AUXILIARY FEEDWATER SYSTEM (CA)													
2CA058A	CN-2592-1.1	I06	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA060	CN-2592-1.1	J03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA061	CN-2592-1.1	I03	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA062A	CN-2592-1.1	I03	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA064	CN-2592-1.1	C03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2CA065	CN-2592-1.1	G03	2	C	ACT	Check	SA	FSO/C-Q			CN-CA-01			23
2CA066B	CN-2592-1.1	H03	2	B	ACT	Gate	MO	ST-Q	PI					23
2CA085B	CN-2592-1.0	D07	3	B	ACT	Gate	MO	ST-Q	PI					23
2CA116A	CN-2592-1.0	D08	3	B	ACT	Gate	MO	ST-Q	PI					23
2CA149	CN-2592-1.1	I01	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-CA-05			23
2CA150	CN-2592-1.1	I05	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-CA-05			23
2CA151	CN-2592-1.1	I08	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-CA-05			23
2CA152	CN-2592-1.1	I11	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-CA-05			23
2CA171	CN-2592-1.0	C06	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-02			23
2CA172	CN-2592-1.0	C08	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-02			23
2CA173	CN-2592-1.0	E08	3	C	ACT	Check	SA	FSO/C-Q			CN-CA-04			23
2CA185	CN-2592-1.1	E01	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CA186	CN-2592-1.1	E05	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CA187	CN-2592-1.1	E08	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CA188	CN-2592-1.1	E11	2	B	ACT	Gate	AO	ST/FT-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO 1	TEST REQ'MT NO 2	REL :F REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	FEEDWATER SYSTEM (CF)													
2CF031	CN-2591-1.1	G13	2	C	ACT	Check	SA	FSC-Q						23
2CF033	CN-2591-1.1	F13	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
2CF040	CN-2591-1.1	G09	2	C	ACT	Check	SA	FSC-Q						23
2CF042	CN-2591-1.1	F09	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
2CF049	CN-2591-1.1	G06	2	C	ACT	Check	SA	FSC-Q						23
2CF051	CN-2591-1.1	F06	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
2CF058	CN-2591-1.1	G03	2	C	ACT	Check	SA	FSC-Q						23
2CF060	CN-2591-1.1	F03	2	B	ACT	Gate	HO	ST/FT-Q	PI		CN-CF-01			23
2CF087	CN-2591-1.1	F02	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CF088	CN-2591-1.1	F06	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CF089	CN-2591-1.1	F09	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CF090	CN-2591-1.1	F13	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2CF166	CN-2591-1.1	G13	2	C	ACT	Check	SA	FS-Q						23
2CF167	CN-2591-1.1	G09	2	C	ACT	Check	SA	FS-Q						23
2CF168	CN-2591-1.1	G06	2	C	ACT	Check	SA	FS-Q						23
2CF169	CN-2591-1.1	G02	2	C	ACT	Check	SA	FS-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
DIESEL GENERATOR ENGINE FUEL OIL SYSTEM (FD)														
2FD022	CN-2609-3.0	J13	3	B	ACT	Globe	SO	ST/FT-Q						23
2FD029	CN-2609-3.0	F05	3	C	ACT	Check	SA	FSO/C-Q						23
2FD034	CN-2609-3.0	H13	3	C	ACT	Relief	SA	RV				40 PSIG		23
2FD062	CN-2609-3.1	J12	3	B	ACT	Globe	SO	ST/FT-Q						23
2FD069	CN-2609-3.1	F05	3	C	ACT	Check	SA	FSO/C-Q						23
2FD074	CN-2609-3.1	H13	3	C	ACT	Relief	SA	RV				40 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	REFUELING WATER SYSTEM (FW)													
2FW001A	CN-2571-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
2FW004	CN-2571-1.0	L07	2	A	PAS	Gate	MA	LJ						23
2FW005	CN-2571-1.0	L05	2	A/C	PAS	Check	SA	LJ						23
2FW011	CN-2571-1.0	J04	2	A	ACT	Plug	MA	LJ						23
2FW013	CN-2571-1.0	J05	2	A	ACT	Plug	MA	LJ						23
2FW027A	CN-2571-1.0	F03	2	B	ACT	Gate	MO	ST-Q	PI					23
2FW028	CN-2571-1.0	F02	2	C	ACT	Check	SA	FSO/C-Q			CN-FW-01			23
2FW032B	CN-2571-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
2FW033A	CN-2571-1.0	B08	2	B	ACT	Globe	MO	ST-Q	PI					23
2FW049B	CN-2571-1.0	B08	2	B	ACT	Globe	MO	ST-Q	PI					23
2FW052	CN-2571-1.0	E10	-	C	ACT	Check	SA	FSO-Q						23
2FW055B	CN-2571-1.0	H03	2	B	ACT	Gate	MO	ST-Q	PI					23
2FW056	CN-2571-1.0	H02	2	C	ACT	Check	SA	FSO/C-Q			CN-FW-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	INSTRUMENT - AIR LOCK SYSTEM (IA)													
2IACV5340	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IACV5350	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IACV5360	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IACV5370	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IACV5380	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IACV5390	CN-2499-IA1.01		2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-IA-01			23
2IASV5080	CN-2499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2IASV5160	CN-2499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2IASV5400	CN-2499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2IASV5410	CN-2499-IA1.01		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	COMPONENT COOLING (KC)													
2KC001A	CN-2573-1.0	C06	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2KC002B	CN-2573-1.0	C09	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2KC003A	CN-2573-1.0	C06	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC005	CN-2573-1.0	E04	3	C	ACT	Check	SA	FSO/C-Q						23
2KC008	CN-2573-1.0	E04	3	C	ACT	Check	SA	FSO/C-Q						23
2KC011	CN-2573-1.0	E11	3	C	ACT	Check	SA	FSO/C-Q						23
2KC014	CN-2573-1.0	E11	3	C	ACT	Check	SA	FSO/C-Q						23
2KC018B	CN-2573-1.0	C09	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC047	CN-2573-1.5	H04	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2KC050A	CN-2573-1.0	K07	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC053B	CN-2573-1.0	K08	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC056A	CN-2573-2.0	E03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2KC057A	CN-2573-2.0	J03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2KC081B	CN-2573-2.1	E03	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2KC082B	CN-2573-2.1	J03	3	B	ACT	Globe	AO	ST/FT-Q	PI					23
2KC228B	CN-2573-1.0	K08	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC230A	CN-2573-1.0	K07	3	B	ACT	Gate	MO	ST-Q	PI					23
2KC279	CN-2573-1.3	K05	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2KC280	CN-2573-1.3	E02	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-KC-03			23
2KC305B	CN-2573-1.3	D13	2	B	ACT	Gate	MO	ST-Q	PI					23
2KC315B	CN-2573-1.3	L12	2	B	ACT	Gate	MO	ST-Q	PI					23
2KC320A	CN-2573-1.3	B10	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
2KC332B	CN-2573-1.3	E02	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
2KC333A	CN-2573-1.3	G02	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-01			23
2KC338B	CN-2573-1.3	D12	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23
2KC340	CN-2573-1.3	E12	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-KC-03			23
2KC424B	CN-2573-1.3	L05	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23
2KC425A	CN-2573-1.3	L06	2	B	ACT	Gate	MO	ST-Q	PI		CN-KC-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	COMPONENT COOLING (KC)													
2KC429B	CN-2573-1.5	H03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2KC430A	CN-2573-1.5	J03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2KCC37A	CN-2573-1.0	C03	3	B	ACT	Globe	MO	STO/C-Q	PI					23
2KCC40B	CN-2573-1.0	C10	3	B	ACT	Globe	MO	STO/C-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
DIESEL GENERATOR ENGINE COOLING WATER SYSTEM (KD)														
2KD006	CN-2609-1.0	J10	3	C	ACT	Check	SA	FSO/C-Q		CN-KD-01				23
2KD021	CN-2609-1.0	E10	3	C	ACT	Check	SA	FSO/C-Q		CN-KD-01				23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SPENT FUEL COOLING (KF)													
2KF101B	CN-2570-1.0	H13	2	B	ACT	Plug	MO	ST-Q	PI					23
2KF103A	CN-2570-1.0	H12	2	B	ACT	Plug	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GEN. ENGINE LUBE OIL (LD)													
2LD002	CN-2609-2.0	F09	3	C	ACT	Relief	SA	RV				70 PSIG		23
2LD017	CN-2609-2.0	K09	3	C	ACT	Check	SA	FSO/C-Q						23
2LD018	CN-2609-2.0	J06	3	C	ACT	Check	SA	FSO/C-Q						23
2LD032	CN-2609-2.2	F09	3	C	ACT	Relief	SA	RV				70 PSIG		23
2LD047	CN-2609-2.2	K05	3	C	ACT	Check	SA	FSO/C-Q						23
2LD048	CN-2609-2.2	J06	3	C	ACT	Check	SA	FSO/C-Q						23
2LD071	CN-2609-2.0	K06	3	C	ACT	Check	SA	FSO/C-Q						23
2LD072	CN-2609-2.0	J06	3	C	ACT	Check	SA	FSO/C-Q						23
2LD078	CN-2609-2.2	K06	3	C	ACT	Check	SA	FSO/C-Q						23
2LD079	CN-2609-2.2	J06	3	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	RADIATION MONITORS (MI)													
2MIMV6470	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MIMV6471	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MIMV6480	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MIMV6481	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MIMV6490	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MIMV6491	CN-1499.03-09.02	K10	2	A	ACT	Needle	MA	LJ						23
2MISV5230	CN-2499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2MISV5231	CN-2499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2MISV5232	CN-2499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23
2MISV5233	CN-2499-MI19		2	A	ACT	Globe	SO	ST/FT-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	BORON RECYCLE (NB)													
2NB260B	CN-2556-2.0	G04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NB262	CN-2556-2.0	G06	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-NB-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SAMPLING SYSTEM (NM)													
2NM003A	CN-2572-1.0	K03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM006A	CN-2572-1.0	J03	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM007B	CN-2572-1.0	K06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM022A	CN-2572-1.0	K11	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM025A	CN-2572-1.0	K12	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM026B	CN-2572-1.0	K08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM069	CN-2572-1.1	G10	2	A	ACT	Relief	SA	LJ	RV			700 PSIG		23
2NM072B	CN-2572-1.1	I06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM075B	CN-2572-1.1	I08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM078B	CN-2572-1.1	I09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM081B	CN-2572-1.1	I11	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM082A	CN-2572-1.1	E09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NM187A	CN-2572-1.4	K02	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM190A	CN-2572-1.4	K02	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM191B	CN-2572-1.4	I02	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM197B	CN-2572-1.4	K05	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM200B	CN-2572-1.4	K06	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM201A	CN-2572-1.4	I06	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM207A	CN-2572-1.4	K08	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM210A	CN-2572-1.4	K09	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM211B	CN-2572-1.4	I09	2	B	ACT		MO	ST-Q	PI					23
2NM217B	CN-2572-1.4	K11	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM220B	CN-2572-1.4	K13	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM221A	CN-2572-1.4	I12	2	B	ACT	Globe	MO	ST-Q	PI					23
2NM424	CN-2572-1.0	J03	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2NM425	CN-2572-1.0	K12	2	A/C	ACT	Check	SA	FSC-Q	LJ					23

Unit 2 - Catawba Nuclear Station
Inservice Testing Program

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	REACTOR COOLANT SYSTEM (NC)													
2NC001	CN-2553-1.1	K03	1	C	ACT	Relief	SA	RV				2485 PSIG		23
2NC002	CN-2553-1.1	K04	1	C	ACT	Relief	SA	RV				2485 PSIG		23
2NC003	CN-2553-1.1	K06	1	C	ACT	Relief	SA	RV				2485 PSIG		23
2NC031B	CN-2553.1.1	F04	1	B	ACT	Gate	MO	ST-Q	PI					23
2NC032B	CN-2553-1.1	G04	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
2NC033A	CN-2553-1.1	F03	1	B	ACT	Gate	MO	ST-Q	PI					23
2NC034A	CN-2553-1.1	G03	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
2NC035B	CN-2553-1.1	F02	1	B	ACT	Gate	MO	ST-Q	PI					23
2NC036B	CN-2553-1.1	G02	1	B	ACT	Globe	AO	ST/FT-Q	PI		CN-NC-02			23
2NC053B	CN-2553-1.1	K11	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NC054A	CN-2553-1.1	K09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NC056B	CN-2553-1.1	I13	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2NC057	CN-2553-1.1	I12	2	A/C	PAS	Check	SA	FSO/C-Q	LJ		CN-NC-01			23
2NC141	CN-2553-1.3	J08	2	A	PAS	Gate	MA	LJ						23
2NC142	CN-2553-1.3	K08	2	A	PAS	Gate	MA	LJ						23
2NC195B	CN-2553-1.3	E07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2NC196A	CN-2553-1.3	D07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2NC250A	CN-2553-1.1	L07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
2NC251B	CN-2553-1.1	L07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
2NC252B	CN-2553-1.1	K07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23
2NC253A	CN-2553-1.1	K07	1	B	ACT	Globe	MO	ST-Q	PI		CN-NC-03			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	RESIDUAL HEAT REMOVAL (ND)													
2ND001B	CN-2561-1.0	L13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-01			23
2ND002A	CN-2561-1.0	J13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-01			23
2ND003	CN-2561-1.0	I13	2	C	PAS	Relief	SA	RV				450 PSIG		23
2ND010	CN-2561-1.0	G10	2	C	ACT	Check	SA	FSO/C-Q			CN-ND-03			23
2ND025A	CN-2561-1.0	E13	2	B	ACT	Globe	MO	ST-Q	PI					23
2ND026	CN-2561-1.0	G04	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
2ND027	CN-2561-1.0	J06	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
2ND028A	CN-2561-1.0	I04	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-05			23
2ND031	CN-2561-1.0	G02	2	C	PAS	Relief	SA	RV				600 PSIG		23
2ND032A	CN-2561-1.0	E03	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-04			23
2ND035	CN-2561-1.0	D02	2	C	PAS	Relief	SA	RV				600 PSIG		23
2ND036B	CN-2561-1.1	L13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-02			23
2ND037A	CN-2561-1.1	J13	1	A	ACT	Gate	MO	ST-Q	LT/PI		CN-ND-02			23
2ND038	CN-2561-1.1	I13	2	C	PAS	Relief	SA	RV				450 PSIG		23
2ND044	CN-2561-1.1	G10	2	C	ACT	Check	SA	FSO/C-Q			CN-ND-03			23
2ND059B	CN-2561-1.1	E13	2	B	ACT	Globe	MO	ST-Q	PI					23
2ND060	CN-2561-1.1	G04	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
2ND061	CN-2561-1.1	J06	2	B	ACT	Butterfly	AO	ST/FT-Q	PI					23
2ND064	CN-2561-1.1	H02	2	C	PAS	Relief	SA	RV				600 PSIG		23
2ND065B	CN-2561-1.1	E03	2	B	ACT	Gate	MO	ST-Q	PI		CN-ND-04			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	ICE CONDENSER REFRIGERATION (NF)													
2NF228A	CN-2558-2.0	H14	2	A	ACT	Gate	AO	ST/FT-Q	LJ/PI					23
2NF229	CN-2558-2.0	F14	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-NF-01			23
2NF233B	CN-2558-2.0	L10	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2NF234A	CN-2558-2.0	L12	2	A	ACT	Gate	AO	ST/FT-Q	LJ/PI					23
2NF235	CN-2558-2.0	K10	2	A/C	ACT	Check	SA	FSO/C-Q	LJ					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
2NI009A	CN-2562-1.0	C09	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-01			23
2NI010B	CN-2562-1.0	C06	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-01			23
2NI012	CN-2562-1.0	F08	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-02			23
2NI015	CN-2562-1.0	I11	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI017	CN-2562-1.0	I09	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI019	CN-2562-1.0	I07	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI021	CN-2562-1.0	I05	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI047A	CN-2562-1.1	K09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NI048	CN-2562-1.1	K08	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-NI-05			23
2NI054A	CN-2562-1.1	G02	1	B	ACT	Gate	MO	PI						23
2NI059	CN-2562-1.1	D02	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
2NI060	CN-2562-1.1	C02	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
2NI065B	CN-2562-1.1	F05	1	B	ACT	Gate	MO	PI						23
2NI070	CN-2562-1.1	D05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
2NI071	CN-2562-1.1	C05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
2NI076A	CN-2562-1.1	G07	1	B	ACT	Gate	MO	PI						23
2NI081	CN-2562-1.1	D07	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
2NI082	CN-2562-1.1	C07	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
2NI088B	CN-2562-1.1	G10	1	B	ACT	Gate	MO	PI						23
2NI093	CN-2562-1.1	D10	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-06			23
2NI094	CN-2562-1.1	C10	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-04			23
2NI095A	CN-2562-1.1	F13	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2NI096B	CN-2562-1.1	H13	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NI100B	CN-2562-1.2	G13	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-08			23
2NI101	CN-2562-1.2	G13	2	C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-07			23
2NI102	CN-2562-1.2	F13	2	C	PAS	Relief	SA	RV				220 PSIG		23
2NI103A	CN-2562-1.2	I13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NI114	CN-2562-1.2	I08	2	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
2NI115A	CN-2562-1.2	H08	2	B	ACT	Globe	MO	ST-Q	PI					23
2NI116	CN-2562-1.2	J08	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-10			23
2NI118A	CN-2562-1.2	H06	2	B	ACT	Gate	MO	ST-Q	PI					23
2NI119	CN-2562-1.2	K06	2	C	PAS	Relief	SA	RV				1900 PSIG		23
2NI120B	CN-2562-1.2	I05	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NI121A	CN-2562-1.2	J05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-21			23
2NI122B	CN-2562-1.2	K04	2	B	ACT	Globe	MO	ST-Q	PI					23
2NI124	CN-2562-1.2	I04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI125	CN-2562-1.2	H04	1	A/C	PAS	Check	SA	FSO/C-Q	LT					23
2NI126	CN-2562-1.2	I01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI128	CN-2562-1.2	K04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI129	CN-2562-1.2	J03	1	A/C	PAS	Check	SA	FSO/C-Q	LT					23
2NI134	CN-2562-1.2	K01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI135B	CN-2562-1.2	E13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NI136B	CN-2562-1.2	D13	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-19			23
2NI143	CN-2562-1.2	E08	2	C	ACT	Check	SA	FSO/C-Q						23
2NI144A	CN-2562-1.2	F08	2	B	ACT	Globe	MO	ST-Q	PI		CN-NI-22			23
2NI147B	CN-2562-1.2	G10	2	B	ACT	Globe	MO	ST-Q	PI		CN-NI-09			23
2NI148	CN-2562-1.2	D08	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-10			23
2NI150B	CN-2562-1.2	F06	2	B	ACT	Gate	MO	ST-Q	PI					23
2NI151	CN-2562-1.2	E06	2	C	PAS	Relief	SA	RV				1900 PSIG		23
2NI152B	CN-2562-1.2	D05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-21			23
2NI153A	CN-2562-1.2	D04	2	B	ACT	Globe	MO	ST-Q	PI					23
2NI154B	CN-2562-1.2	H03	2	B	ACT	Globe	MO	ST-Q	PI					23
2NI156	CN-2562-1.2	E03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI157	CN-2562-1.2	E01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI159	CN-2562-1.2	C03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23
2NI160	CN-2562-1.2	C01	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-11			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
2NI161	CN-2562-1.3		2	C	PAS	Relief	SA	RV				1900 PSIG		23
2NI162A	CN-2562-1.3	J08	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-12			23
2NI165	CN-2562-1.3	G03	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
2NI167	CN-2562-1.3	G06	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
2NI169	CN-2562-1.3	G09	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
2NI171	CN-2562-1.3	G12	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-13			23
2NI173A	CN-2562-1.3	E10	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-15			23
2NI175	CN-2562-1.3	F11	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
2NI176	CN-2562-1.3	F09	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
2NI178B	CN-2562-1.3	E04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-15			23
2NI180	CN-2562-1.3	F05	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
2NI181	CN-2562-1.3	F04	1	A/C	ACT	Check	SA	FSO/C-Q	LT		CN-NI-14			23
2NI183B	CN-2562-1.2	G04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-16			23
2NI184B	CN-2562-1.3	C10	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-17			23
2NI185A	CN-2562-1.3	C05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-17			23
2NI332A	CN-2562-1.2	L12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-18			23
2NI333B	CN-2562-1.2	K12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-18			23
2NI334B	CN-2562-1.2	K11	2	B	ACT	Gate	MO	ST-Q	PI		CN-NI-23			23
2NI342	CN-2562-1.2	D13	2	C	ACT	Check	SA	FSO/C-Q			CN-NI-20			23
2NI351	CN-2562-1.0	I11	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI352	CN-2562-1.0	I09	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI353	CN-2562-1.0	I07	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI354	CN-2562-1.0	I05	1	C	ACT	Check	SA	FSO/C-Q			CN-NI-03			23
2NI391	CN-2562-1.1	C03	2	A	ACT	Globe	AO	LT						23
2NI392	CN-2562-1.1	C04	2	A	ACT	Globe	AO	LT						23
2NI393	CN-2562-1.1	C08	2	A	ACT	Globe	AO	LT						23
2NI394	CN-2562-1.1	C11	2	A	ACT	Globe	AO	LT						23
2NI395	CN-2562-1.2	E01	2	A	ACT	Globe	AO	LT						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	SAFETY INJECTION SYSTEM (NI)													
2NI396	CN-2562-1.2	K01	2	A	ACT	Globe	AO	LT						23
2NI397	CN-2562-1.2	I01	2	A	ACT	Globe	AO	LT						23
2NI398	CN-2562-1.2	C01	2	A	ACT	Globe	AO	LT						23
2NI438A	CN-2562-1.1	K01	2	B	ACT	Globa	MO	ST-Q	PI					23
2NI439B	CN-2562-1.1	K05	2	B	ACT	Globe	MO	ST-Q	PI					23
2NI471	CN-2562-1.1	F13	2	A	ACT	Check	SA	LJ						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTAINMENT SPRAY (NS)													
2NS001B	CN-2563-1.0	C13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS003B	CN-2563-1.0	E13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS004	CN-2563-1.0	D13	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
2NS012B	CN-2563-1.0	C05	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS013	CN-2563-1.0	C03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS015B	CN-2563-1.0	E05	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS016	CN-2563-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS018A	CN-2563-1.0	J13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS020A	CN-2563-1.0	I13	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS021	CN-2563-1.0	I13	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
2NS029A	CN-2563-1.0	I05	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS030	CN-2563-1.0	I02	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS032A	CN-2563-1.0	K05	2	B	ACT	Gate	MO	ST-Q	PI					23
2NS033	CN-2563-1.0	K03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS038B	CN-2563-1.0	F05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NS-03			23
2NS041	CN-2563-1.0	F03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS043A	CN-2563-1.0	H05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NS-03			23
2NS046	CN-2563-1.0	H03	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-02			23
2NS098	CN-2563-1.0	J09	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23
2NS099	CN-2563-1.0	D09	2	C	ACT	Check	SA	FSO/C-Q			CN-NS-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CHEMICAL & VOLUME CONTROL (NV)													
2NV001A	CN-2554-1.0	H02	1	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-12			23
2NV002A	CN-2554-1.0	H02	1	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-12			23
2NV010A	CN-2554-1.0	H08	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
2NV011A	CN-2554-1.0	I09	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
2NV013A	CN-2554-1.0	G08	2	B	ACT	Gate	AO	ST/FT-Q	PI		CN-NV-11			23
2NV014	CN-2554-1.0	G10	2	A	ACT	Relief	SA	LJ	RV			600 PSIG		23
2NV015B	CN-2554-1.0	H12	2	A	ACT	Globe	MO	ST-Q	LJ/PI		CN-NV-01			23
2NV087	CN-2554-1.0	C08	2	C	ACT	Relief	SA	RV				150 PSIG		23
2NV089A	CN-2554-1.0	B09	2	B	ACT	Gate	MO	ST-Q			CN-NV-02			23
2NV090	CN-2554-1.0	D09	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2NV091B	CN-2554-1.0	B11	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-02			23
2NV188A	CN-2554-1.1	C05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-03			23
2NV189B	CN-2554-1.1	C04	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-03			23
2NV202B	CN-2554-1.6	D01	2	B	ACT	Globe	MO	ST-Q	PI		CN-NV-07			23
2NV203A	CN-2554-1.6	D01	2	B	ACT	Globe	MO	ST-Q	PI		CN-NV-07			23
2NV205	CN-2554-1.1	G04	2	C	ACT	Relief	SA	RV				150 PSIG		23
2NV206	CN-2554-1.6	C03	2	B	ACT	Plug	AO	PI						23
2NV218	CN-2554-1.6	C06	2	B	ACT	Plug	AO	PI						23
2NV220	CN-2554-1.1	G04	2	C	ACT	Check	SA	FSO-Q						23
2NV222	CN-2554-1.1	E06	2	C	ACT	Relief	SA	RV				220 PSIG		23
2NV223	CN-2554-1.1	H07	2	C	ACT	Relief	SA	RV				75 PSIG		23
2NV252A	CN-2554-1.7	K11	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-10			23
2NV253B	CN-2554-1.7	K12	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-10			23
2NV254	CN-2554-1.7	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-05			23
2NV268	CN-2554-1.7	I05	2	C	ACT	Check	SA	FSO/C-Q						23
2NV270	CN-2554-1.7	I05	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-06			23
2NV273	CN-2554-1.7	E14	2	C	ACT	Relief	SA	RV				220 PSIG		23
2NV288	CN-2554-1.7	E05	2	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CHEMICAL & VOLUME CONTROL (NV)													
2NV290	CN-2554-1.7	D05	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-CC			23
2NV312A	CN-2554-1.2	K05	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-04			23
2NV314B	CN-2554-1.2	K06	2	B	ACT	Gate	MO	ST-Q	PI		CN-NV-04			23
2NV813	CN-2554-1.7	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NV-08			23
2NV865A	CN-2554-1.8	H01	2	B	ACT	Globe	MO	ST-Q	PI					23
2NV872A	CN-2554-1.8	F08	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2NV874	CN-2554-1.8	F10	2	A/C	ACT	Check	SA	FSC-Q	LJ		CN-NV-09			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
2NW006	CN-2569-1.0	G12	2	C	ACT	Check	SA	FSO-Q			CN-NW-01			23
2NW008A	CN-2569-1.0	G13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW013A	CN-2569-1.0	E09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW017	CN-2569-1.0	E11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW020A	CN-2569-1.0	F09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW021	CN-2569-1.0	E12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW024	CN-2569-1.0	E13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW027	CN-2569-1.0	E14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW035A	CN-2569-1.0	H09	2	B	ACT	Globe	MO	ST-Q	PI					23
2NW037	CN-2569-1.0	I09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW040	CN-2569-1.0	J11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW043	CN-2569-1.0	J10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW046A	CN-2569-1.0	K09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW047	CN-2569-1.0	L10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW050	CN-2569-1.0	L11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW061B	CN-2569-1.0	G02	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW063	CN-2569-1.0	G04	2	C	ACT	Check	SA	FSO-Q			CN-NW-01			23
2NW068B	CN-2569-1.0	E05	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW069B	CN-2569-1.0	F06	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW070	CN-2569-1.0	E05	2	C	ACT	Gate	SA	FSO/C-Q			CN-NW-02			23
2NW074	CN-2569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW077	CN-2569-1.0	E04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW080	CN-2569-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW086	CN-2569-1.0	E01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW089	CN-2569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW092	CN-2569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW095	CN-2569-1.0	C04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW096	CN-2569-1.0	C02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
2NW103	CN-2569-1.0	C01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW105B	CN-2569-1.0	H06	2	B	ACT	Globe	MO	ST-Q	PI					23
2NW107	CN-2569-1.0	I06	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW109	CN-2569-1.0	K05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW110B	CN-2569-1.0	K06	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW111	CN-2569-1.0	J05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW114	CN-2569-1.0	L05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW120	CN-2569-1.0	J05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW121	CN-2569-1.0	E01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW123	CN-2569-1.0	E03	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW124	CN-2569-1.0	E04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW125	CN-2569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW126	CN-2569-1.0	E05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW127	CN-2569-1.0	C01	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW128	CN-2569-1.0	C02	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW129	CN-2569-1.0	C04	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW130	CN-2569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW131	CN-2569-1.0	C05	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW132	CN-2569-1.0	K10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW133	CN-2569-1.0	K10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW135	CN-2569-1.0	J10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW136	CN-2569-1.0	J11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW138	CN-2569-1.0	E11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW139	CN-2569-1.0	E12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW140	CN-2569-1.0	E13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW141	CN-2569-1.0	E14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW145B	CN-2569-1.0	C05	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW147	CN-2569-1.0	J07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
2NW148	CN-2569-1.0	J07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW159	CN-2569-1.0	I12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW160	CN-2569-1.0	J12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW163	CN-2569-1.0	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW164	CN-2569-1.0	K12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW168	CN-2569-1.0	K13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW169	CN-2569-1.0	K13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW171	CN-2569-1.0	J13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW172	CN-2569-1.0	J13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW175A	CN-2569-1.0	C12	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW178	CN-2569-1.0	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW179	CN-2569-1.0	C12	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW180A	CN-2569-1.0	C13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW183	CN-2569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW184	CN-2569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW185A	CN-2569-1.0	C13	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW188	CN-2569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW189	CN-2569-1.0	C13	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW190A	CN-2569-1.0	C14	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW193	CN-2569-1.0	C14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW194	CN-2569-1.0	C14	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW195A	CN-2569-1.0	E08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW196	CN-2569-1.0	F08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW197	CN-2569-1.0	F08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW200A	CN-2569-1.0	E08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW201	CN-2569-1.0	E08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW202	CN-2569-1.0	D08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW205	CN-2569-1.0	F07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PENETRATION VALVE INJECTION WATER SYSTEM (NW)														
2NW206	CN-2569-1.0	F07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW209	CN-2569-1.0	E07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW210	CN-2569-1.0	E07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW213	CN-2569-1.0	C07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW214	CN-2569-1.0	C07	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW217B	CN-2569-1.0	C08	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW218	CN-2569-1.0	C08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW219	CN-2569-1.0	C08	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW222B	CN-2569-1.0	C09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW223	CN-2569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW224	CN-2569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW227B	CN-2569-1.0	C09	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW230	CN-2569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW231	CN-2569-1.0	C09	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW232B	CN-2569-1.0	C10	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW235	CN-2569-1.0	C10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW236	CN-2569-1.0	C10	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW237B	CN-2569-1.0	C11	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW240	CN-2569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW241	CN-2569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW242B	CN-2569-1.0	C11	2	B	ACT	Gate	SO	ST/FT-Q	PI					23
2NW245	CN-2569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW246	CN-2569-1.0	C11	2	C	ACT	Check	SA	FSO/C-Q			CN-NW-02			23
2NW247	CN-2569-1.0	J11	2	C	PAS	Relief	SA	RV				150 PSIG		23
2NW248	CN-2569-1.0	D11	2	C	PAS	Relief	SA	RV				150 PSIG		23
2NW249	CN-2569-1.0	D06	2	C	PAS	Relief	SA	RV				150 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	FIRE PROTECTION SYSTEM (RF)													
2RF389B	CN-1599-2.1	E01	2	A	ACT	Gate	MO	ST-Q	PI					23
2RF392	CN-1599-2.1	E03	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RF-01			23
2RF447B	CN-1599-2.1	G04	2	A	ACT	Gate	MO	ST-Q	PI					23
2RF448	CN-1599-2.1	G07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RF-01			23
2RF457B	CN-1599-2.1	G03	2	B	ACT	Gate	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SAMPLING WATER SYSTEM (RN)													
2RN009	CN-1574-1.0	E11	3	C	ACT	Check	SA	FSO/C-Q						23
2RN011A	CN-1574-1.0	E09	3	B	ACT	Ball	MO	ST-Q	PI					23
2RN018	CN-1574-1.2	F13	3	C	ACT	Check	SA	FSO/C-Q						23
2RN020B	CN-1574-1.2	E11	3	B	ACT	Ball	MO	ST-Q	PI					23
2RN028A	CN-1574-1.0	E11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN038B	CN-1574-1.2	F13	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN047A	CN-1574-1.1	H10	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN048B	CN-1574-1.1	H12	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN049A	CN-1574-1.1	G11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN050B	CN-1574-1.1	G11	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN051A	CN-1574-1.1	C08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN052B	CN-1574-1.1	C08	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN144A	CN-2574-2.0	C05	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN148A	CN-2574-2.0	L01	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN225B	CN-2574-2.4	C06	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN229B	CN-2574-2.4	L07	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN232A	CN-2574-2.1	D02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN250A	CN-2574-2.1	C07	3	B	ACT	Gate	MO	ST-Q	PI					23
2RN291	CN-2574-2.1	J13	3	B	ACT	Ball	AO	ST/FT-Q	PI					23
2RN292B	CN-2574-2.5	E02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN310B	CN-2574-2.5	E06	3	B	ACT	Gate	MO	ST-Q	PI					23
2RN351	CN-2574-2.5	I13	3	B	ACT	Ball	AO	ST/FT-Q	PI					23
2RN404B	CN-2574-2.7	D04	2	B	ACT	Gate	MO	ST-Q	PI					23
2RN405	CN-2574-2.7	E03	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RN-01			23
2RN430	CN-2574-2.2	B03	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2RN437B	CN-2574-2.2	L06	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-02			23
2RN438	CN-2574-2.2	L08	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-RN-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO 1	TEST REQ'MT NO 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	NUCLEAR SAMPLING WATER SYSTEM (RN)													
2RN484A	CN-2574-2.2	C08	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-03			23
2RN485	CN-2574-2.2	B08	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2RN487B	CN-2574-2.2	C07	2	B	ACT	Gate	MO	ST-Q	PI		CN-RN-03			23
2RN846A	CN-2574-2.1	J02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN847A	CN-2574-2.1	J01	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN848B	CN-2574-2.5	J02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN849B	CN-2574-2.5	J02	3	B	ACT	Butterfly	MO	ST-Q	PI					23
2RN854	CN-2574-1.0	F12	3	C	ACT	Relief	SA	RV				-0.2 PSIG		23
2RN855	CN-2574-1.0	F03	3	C	ACT	Relief	SA	RV				-0.2 PSIG		23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM TO AUX EQUIPMENT (SA)													
2SA002	CN-2593-1.1	G04	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2SA003	CN-2593-1.1	G05	2	C	ACT	Check	SA	FSO/C-Q			CN-SA-01			23
2SA005	CN-2593-1.1	H04	2	B	ACT	Gate	AO	ST/FT-Q	PI					23
2SA006	CN-2593-1.1	H05	2	C	ACT	Check	SA	FSO/C-Q			CN-SA-01			23

Unit 2 - Catawba Nuclear Station
Inservice Testing Program

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM (SM)													
2SM001	CN-2593-1.0	K13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
2SM003	CN-2593-1.0	H13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
2SM005	CN-2593-1.0	F13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
2SM007	CN-2593-1.0	C13	2	B	ACT	Globe	AO	ST/FT-Q	PI		CN-SM-01			23
2SM009	CN-2593-1.0	J13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SM010	CN-2593-1.0	G13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SM011	CN-2593-1.0	E13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SM012	CN-2593-1.0	B13	2	B	ACT	Globe	AO	ST/FT-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	MAIN STEAM TO ATMOSPHERE (SV)													
2SV001	CN-2593-1.0	K12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SV002	CN-2593-1.0	K04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
2SV003	CN-2593-1.0	K05	2	C	ACT	Relief	SA	RV				1190 PSIG		23
2SV004	CN-2593-1.0	K07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
2SV005	CN-2593-1.0	K08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
2SV006	CN-2593-1.0	K10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
2SV007	CN-2593-1.0	I12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SV008	CN-2593-1.0	I04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
2SV009	CN-2593-1.0	I05	2	C	ACT	Relief	AO	RV				1190 PSIG		23
2SV010	CN-2593-1.0	I07	2	C	ACT	Relief	AO	RV				1205 PSIG		23
2SV011	CN-2593-1.0	I08	2	C	ACT	Relief	AO	RV				1220 PSIG		23
2SV012	CN-2593-1.0	I10	2	C	ACT	Relief	AO	RV				1230 PSIG		23
2SV013	CN-2593-1.0	F12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SV014	CN-2593-1.0	F04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
2SV015	CN-2593-1.0	F05	2	C	ACT	Relief	SA	RV				1190 PSIG		23
2SV016	CN-2593-1.0	F07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
2SV017	CN-2593-1.0	F08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
2SV018	CN-2593-1.0	F10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
2SV019	CN-2593-1.0	D12	2	B	ACT	Globe	AO	ST/FT-Q	PI					23
2SV020	CN-2593-1.0	C04	2	C	ACT	Relief	SA	RV				1175 PSIG		23
2SV021	CN-2593-1.0	C05	2	C	ACT	Relief	SA	RV				1190 PSIG		23
2SV022	CN-2593-1.0	C07	2	C	ACT	Relief	SA	RV				1205 PSIG		23
2SV023	CN-2593-1.0	C08	2	C	ACT	Relief	SA	RV				1220 PSIG		23
2SV024	CN-2593-1.0	C10	2	C	ACT	Relief	SA	RV				1230 PSIG		23
2SV025B	CN-2593-1.0	K11	2	B	ACT	Gate	MO	ST-Q	PI					23
2SV026B	CN-2593-1.0	I11	2	B	ACT	Gate	MO	ST-Q	PI					23
2SV027A	CN-2593-1.0	C11	2	B	ACT	Gate	MO	ST-Q	PI					23
2SV028A	CN-2593-1.0	F11	2	B	ACT	Gate	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	BREATHING AIR SYSTEM (VB)													
2VB083B	CN-2605-3.2	I07	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23
2VB085	CN-2605-3.2	H07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VB-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE STARTING AIR (VG)													
2VG005	CN-2609-4.0	I02	3	C	ACT	Check	SA	FSC-Q						23
2VG006	CN-2609-4.0	I13	3	C	ACT	Check	SA	FSC-Q						23
2VG007	CN-2609-4.0	I02	3	C	ACT	Check	SA	FSC-Q						23
2VG008	CN-2609-4.0	I13	3	C	ACT	Check	SA	FSC-Q						23
2VG015	CN-2609-4.0	G02	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG016	CN-2609-4.0	G13	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG025	CN-2609-4.0	D05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG026	CN-2609-4.0	D10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG027	CN-2609-4.0	C05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG028	CN-2609-4.0	C10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG029	CN-2609-4.0	D06	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG030	CN-2609-4.0	D10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG031	CN-2609-4.0	C05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG032	CN-2609-4.0	C10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG049	CN-2609-4.1	I02	3	C	ACT	Check	SA	FSC-Q						23
2VG050	CN-2609-4.1	I13	3	C	ACT	Check	SA	FSC-Q						23
2VG051	CN-2609-4.1	J02	3	C	ACT	Check	SA	FSC-Q						23
2VG052	CN-2609-4.1	J13	3	C	ACT	Check	SA	FSC-Q						23
2VG059	CN-2609-4.1	G02	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG060	CN-2609-4.1	G13	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG069	CN-2609-4.1	D05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG070	CN-2609-4.1	D10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG071	CN-2609-4.1	C05	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG072	CN-2609-4.1	C10	3	B	ACT	Gate	SO	ST-Q	PI		CN-VG-02			23
2VG073	CN-2609-4.1	D05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG074	CN-2609-4.1	D10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG075	CN-2609-4.1	C05	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23
2VG076	CN-2609-4.1	C10	3	C	ACT	Check	SA	FSO/C-Q			CN-VG-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	DIESEL GENERATOR ENGINE STARTING AIR (VG)													
2VG133	CN-2609-4.1	H02	3	C	ACT	Check	SA	FSO/C-Q						23
2VG134	CN-2609-4.1	H13	3	C	ACT	Check	SA	FSO/C-Q						23
2VG135	CN-2609-4.0	H02	3	C	ACT	Check	SA	FSO/C-Q						23
2VG136	CN-2609-4.0	H13	3	C	ACT	Check	SA	FSO/C-Q						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	INSTRUMENT AIR SYSTEM (VI)													
2VI077B	CN-2605-1.5	I05	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI		CN-VI-02			23
2VI079	CN-2605-1.5	I08	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VI-01			23
2VI312A	CN-2605-1.5	I06	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2VI367	CN-2605-1.5	E09	-	C	ACT	Check	SA	FSO/C-Q			CN-VI-03			23
2VI368	CN-2605-1.5	F09	-	C	ACT	Check	SA	FSO/C-Q			CN-VI-03			23
2VI369	CN-2605-1.5	E08	-	C	ACT	Check	SA	FSO-Q			CN-VI-04			23
2VI370	CN-2605-1.5	F08	-	C	ACT	Check	SA	FSO-Q			CN-VI-04			23

Unit 2 - Catawba Nuclear Station
Inservice Testing Program

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT PURGE VENTILATION SYSTEM (VP)														
2VP001B	CN-2576-1.0	I05	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP002A	CN-2576-1.0	I06	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP003B	CN-2576-1.0	H05	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP004A	CN-2576-1.0	H06	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP006B	CN-2576-1.0	G05	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP007A	CN-2576-1.0	G06	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP008B	CN-2576-1.0	F05	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP009A	CN-2576-1.0	F06	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP010A	CN-2576-1.0	I09	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP011B	CN-2576-1.0	I10	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP012A	CN-2576-1.0	H09	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP013B	CN-2576-1.0	H10	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP015A	CN-2576-1.0	F09	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP016B	CN-2576-1.0	F10	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP017A	CN-2576-1.0	E09	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP018B	CN-2576-1.0	E10	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP019A	CN-2576-1.0	E06	2	A	PAS	Butterfly	AO	LJ/PI						23
2VP020B	CN-2576-1.0	E05	2	A	PAS	Butterfly	AO	LJ/PI						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
CONTAINMENT AIR RELEASE & ADDITION SYSTEM (VQ)														
2VQ002A	CN-2585-1.0	I02	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23
2VQ003B	CN-2585-1.0	G02	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2VQ015B	CN-2585-1.0	I12	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2VQ016A	CN-2585-1.0	J12	2	A	ACT	Diaphram	MO	ST-Q	LJ/PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	STATION AIR SYSTEM (VS)													
2VS054B	CN-1605-2.1	G05	2	A	ACT	Gate	MO	ST-Q	LT/PI					23
2VS056	CN '605-2.1	G03	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VS-01			23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONT. AIR RET. & HYDROGEN SKIMMER SYSTEM (VX)													
2VX001A	CN-2557-1.0	G03	2	B	ACT	Butterfly	MO	ST-Q	PI					23
2VX002B	CN-2557-1.0	G14	2	B	ACT	Butterfly	MO	ST-Q	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	CONTIANMENT HYDROGEN SAMPLE & PURGE SYSTEM (VY)													
2VY015B	CN-2559-1.0	F07	2	A	PAS	Gate	MO	LJ	PI					23
2VY016	CN-2559-1.0	D07	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-VY-01			23
2VY017A	CN-2559-1.0	D04	2	A	PAS	Gate	MO	LJ	PI					23
2VY018B	CN-2559-1.0	G04	2	A	PAS	Gate	MO	LJ	PI					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
EQUIPMENT DECONTAINMENT SYSTEM (WE)														
2WE020	CN-2568-1.0	J07	2	A	PAS	Globe	MA	LJ						23
2WE022	CN-2568-1.0	H07	2	A	PAS	Globe	MA	LJ						23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
	LIQUID WASTE RECYCLE SYSTEM (WL)													
2WL321	CN-2565-2.4	H06	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2WL450A	CN-2565-2.0	I04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2WL451B	CN-2565-2.0	J04	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2WL805A	CN-2565-2.0	I08	2	A	ACT	Gate	MO	ST-Q	LJ/PI					2
2WL806	CN-2565-2.0	I08	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2WL807B	CN-2565-2.0	J08	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2WL825A	CN-2565-2.4	H07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2WL827B	CN-2565-2.4	J07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2WL830	CN-2565-2.2	D08	3	C	ACT	Check	SA	FSO/C-Q						23
2WL832	CN-2565-2.2	D10	3	C	ACT	Check	SA	FSO/C-Q						23
2WL867A	CN-2565-2.1	I07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2WL868	CN-2565-2.1	I06	2	A/C	ACT	Check	SA	FSC-Q	LJ					23
2WL869B	CN-2565-2.1	H07	2	A	ACT	Gate	MO	ST-Q	LJ/PI					23
2WLA022	CN-2565-2.6	H10	2	A/C	ACT	Check	SA	FSC-Q	LJ					23

VALVE NUMBER	FLOW DIAGRAM	FLOW COOR	ASME CLASS	VALVE CATGRY	ACT PAS	VALVE TYPE	ACT TYPE	TEST REQ'MT NO.1	TEST REQ'MT NO. 2	RELIEF REQST	JUSTIF FOR DEFERRAL	REMARKS	TEST ALTERNATIVES	REV
MAKEUP DEMINERALIZER WATER SYSTEM (YM)														
2YM119B	CN-1601-3.1	E09	2	A	ACT	Globe	MO	ST-Q	LJ/PI					23
2YM121	CN-1601-3.1	E11	2	A/C	ACT	Check	SA	FSO/C-Q	LJ		CN-YM-01			23

CATAWBA NUCLEAR STATION

RELIEF REQUEST

Section 5.0

5.1 PUMP GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
None		

5.2 PUMP SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
CN-SRP-CA-01	Auxiliary Feedwater Pumps	Revised 06/29/96

Specific Relief Request

Item Number: CN-SRP-CA-01

Pump: CA Pump 1A, CA Pump 1B,
CA Pump 2A, CA Pump 2B,

Test Requirement: Oma-1988, Part 6, Section 4.6.1.2.a requires that the full scale range of the instrument shall be three times the reference value or less.

Basis for Relief: The installed process instrumentation for the CA pumps suction pressure measurement is as follows:

Pump	Local	Control Room
1A/2A	0-160 psig (0.5% error)	0-90 psig (1.12% error)
1B/2B	0-160 psig (0.5% error)	0-90 psig (1.12% error)

The typical range of values for the suction pressure of the CA pumps during testing is 33-38 psig; therefore, the local process instrumentation on CA Pumps 1A/2A and 1B/2B does not meet the three times criteria. The accuracy of the process instrumentation (0.5%) is well below the requirements specified in Oma-1988 Part 6, Table 1 for pressure instrumentation accuracy (2.0%). The actual reading error at test pressure due to the process instrumentation accuracy is 2.42% (0.5% * 160/33). If a 0-90 psig test instrument is used (which meets the three times criteria) and it has an accuracy of 2.0%, then the reading error due to instrument accuracy would be 5.45% (2% * 90/33). When the requirements of Oma-1988 Part 6, Section 4.6.1.2.a and Table 1 are combined, the actual instrument error introduced to the test is less than the code allowable (2.42% vs. 5.45%). Using the process instrument for suction pressure data does not degrade the quality of the test, and meets the intent of the instrumentation requirements of the code.

Test Alternative: The installed process instrumentation at both the control room and locally at the CA pumps can be used to measure CA pump suction pressure for CA Pump 1A, CA Pump 1B, CA Pump 2A, and CA Pump 2B tests.

5.3 VALVE GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
None		

5.4 VALVE SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
None		

CATAWBA NUCLEAR STATION

JUSTIFICATION FOR DEFERRAL

Section 6.0

6.1 VALVE JUSTIFICATION FOR DEFERRALS

Justification for Deferral	Applicability	Status
CN-CA-01	CA to Steam Generator Checks	Revised 06/29/96
CN-CA-02	Auxiliary Feedwater from Nuclear Service Water Checks	Revised 06/29/96
CN-CA-03	CA Pump Suction Checks	Revised 06/29/96
CN-CA-04	CA Assured M/V from RC Checks	Revised 06/29/96
CN-CA-05	CF to CA Nozzle Isolation Valves	Revised 06/29/96
CN-CF-01	CF Isolations	Revised 06/29/96
CN-FW-01	FWST to ND Pump Suction Checks	Revised 06/29/96
CN-IA-01	Personnel Air Lock Isolation Checks	Revised 06/29/96
CN-KC-01	KC to NCDT Hx. Isolation Valves	Revised 06/29/96
CN-KC-02	KC to NC Pump Containment Isolations	Revised 06/29/96
CN-KC-03	KC Containment Check	Revised 06/29/96
CN-KD-01	Diesel Generator KD Pump Discharge Check	Revised 06/29/96
CN-NB-01	NB Containment Check	Revised 06/29/96
CN-NC-01	NC Containment Check	Revised 06/29/96
CN-NC-02	Reactor Coolant System PORV	Revised 06/29/96
CN-NC-03	Reactor Vessel Head Vents	Revised 06/29/96
CN-ND-01	NC to ND Pump A Isolations	Revised 06/29/96
CN-ND-02	NC to ND Pump B Isolations	Revised 06/29/96
CN-ND-03	ND Pump discharge Checks	Revised 06/29/96
CN-ND-04	ND Cross Connect Isolations	Revised 06/29/96
CN-ND-05	ND Pump Supply to NV and NI Pumps Isolations	Revised 06/29/96
CN-NF-01	NF Containment Isolation Check	Revised 06/29/96
CN-NI-01	NV to NC Injection Isolations	Revised 06/29/96
CN-NI-02	NV to NC Injection Check	Revised 06/29/96
CN-NI-03	NI Pump to Cold Leg Checks	Revised 06/29/96
CN-NI-04	NI Cold Leg Checks	Revised 06/29/96
CN-NI-05	NI to Accumulator N_2 Supply Checks	Revised 06/29/96
CN-NI-06	Cold Leg Discharge Checks	Revised 06/29/96
CN-NI-07	FWST to NI Pumps Check	Revised 06/29/96
CN-NI-08	FWST to NI Pumps Isolation	Revised 06/29/96
CN-NI-09	NI Pump Recirculating Isolations	Revised 06/29/96
CN-NI-10	NI Pump Discharge Checks	Revised 06/29/96
CN-NI-11	NI to Hot Legs Checks	Revised 06/29/96
CN-NI-12	NI Cold Leg Isolation	Revised 06/29/96
CN-NI-13	NI to Cold Legs Checks	Revised 06/29/96
CN-NI-14	ND to Cold Legs Checks	Revised 06/29/96
CN-NI-15	ND to Cold Legs Isolation	Revised 06/29/96
CN-NI-16	NI to Hot Legs Isolation	Revised 06/29/96
CN-NI-17	Containment Sump Recirculating Isolations	Revised 06/29/96
CN-NI-18	ND Train A to NV Pump Suction Isolation	Revised 06/29/96
CN-NI-19	ND Train B to NI Pump Suction Isolation	Revised 06/29/96
CN-NI-20	ND Train B to NI Pump Suction Check	Revised 06/29/96
CN-NI-21	NI Pump Discharge to NC Loops Isolations	Revised 06/29/96
CN-NI-22	NI Pumps Miniflow Isolations	Revised 06/29/96
CN-NI-23	NI Pump Suction Isolations from ND and NV	Revised 06/29/96

6.1 VALVE JUSTIFICATION FOR DEFERRALS

Justification for Deferral	Applicability	Status
CN-NS-01	FWST to NS Pump Checks	Revised 06/29/96
CN-NS-02	NS Spray Header Checks	Revised 06/29/96
CN-NS-03	ND to NS Spray Header Isolations	Revised 06/29/96
CN-NV-01	NV Letdown Containment Isolation	Revised 06/29/96
CN-NV-02	NV to NC Pump Seals Return Header Cont. Isolation	Revised 06/29/96
CN-NV-03	NV to VCT Outlet Isolation	Revised 06/29/96
CN-NV-04	NV Charging Line Containment Isolation	Revised 06/29/96
CN-NV-05	NV Pump Suction to FWST Checks	Revised 06/29/96
CN-NV-06	NV Pump to Charging Line Checks	Revised 06/29/96
CN-NV-07	NV Pump Miniflow Isolations	Revised 06/29/96
CN-NV-08	NV Pumps Section from ND Checks	Revised 06/29/96
CN-NV-09	Standby M/U Pump Cont. Header Checks	Revised 06/29/96
CN-NV-10	NV Pumps Suction from FWST	Revised 06/29/96
CN-NV-11	NV Letdown Orifice Outlet Valves	Revised 06/29/96
CN-NV-12	NC to NV Letdown Isolation	Revised 06/29/96
CN-NW-01	NW Surge Chamber from RN Checks	Revised 06/29/96
CN-NW-02	NW Supply to Cont. Isolation Valves Check	Revised 06/29/96
CN-RF-01	RF to Containment Isolation Valve Checks	Revised 06/29/96
CN-RN-01	RN-Upper Containment Vent Unit Checks	Revised 06/29/96
CN-RN-02	RN to Lower Containment Vent. Units Supply Header Cont. Isol.	Revised 06/29/96
CN-RN-03	RN to Lower Containment Vent. Units Return Header Cont. Isol.	Revised 06/29/96
CN-SA-01	Main Steam to CAPT Checks	Revised 06/29/96
CN-SM-01	Main Steam Containment Isolations	Revised 06/29/96
CN-VB-01	VB Containment Isolation Valves	Revised 06/29/96
CN-VG-01	D/G Starting Air Checks	Revised 06/29/96
CN-VG-02	D/G Starting Air Checks	Revised 06/29/96
CN-VI-01	VI Containment Header Checks	Revised 06/29/96
CN-VI-02	VI Containment Isolation Valves	Revised 06/29/96
CN-VI-03	N_2 to NC PORV Checks	Revised 06/29/96
CN-VI-04	N_2 to NC PORV Checks	Revised 06/29/96
CN-VS-01	VS to Unit 1 Containment Header Checks	Revised 06/29/96
CN-VY-01	VY Containment Isolation Valve Checks	Revised 06/29/96
CN-YM-01	YM Containment Isolation Checks	Revised 06/29/96

Justification for Deferral

Item Number:	CN-CA-01
Valve:	1CA037, 1CA041, 1CA045, 1CA049, 1CA053, 1CA057, 1CA061, 1CA065 2CA037, 2CA041, 2CA045, 2CA049, 2CA053, 2CA057, 2CA061, 2CA065
Flow Diagram:	CN-1592-1.1 CN-2592-1.1
Code Category:	C
ASME Class:	2
Function:	Open to allow Auxiliary Feedwater (CA) System supply to the steam generators.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every three months per Oma-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Full stroke testing these valves during power operation would unnecessarily thermal shock the steam generators and feedwater piping.
Test Alternative & Frequency:	Valves will be full stroke exercised following each cold shutdown of greater than 30 days prior to entering Mode 2.

Justification for Deferral

Item Number:	CN-CA-02
Valve:	1CA171, 1CA172 2CA171, 2CA172
Flow Diagram:	CN-1592-1.0 CN-2592-1.0
Code Category:	C
ASME Class:	3
Function:	Open to allow assured makeup to Auxiliary Feedwater (CA) System from the Nuclear Service Water (RN) System on RN to CA swapover signal. Close to prevent diversion of flow when the system is in operation and RN to CA swapover has occurred it its associated RN train is out of service.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every three months per Oma-1988 Part 10, 4.3.2.1. Check valve reverse flow test per GL 89-04.
Basis for Deferral:	Full stroke testing these valves would unnecessarily contaminate the CA system with RN water. No means exist to test for valve closure.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function every three months. During each refueling outage, one of the two check valves will be disassembled and the disk will be mechanically exercised. During the next refueling outage, the other valve will be disassembled, such that each valve will be tested in a two refueling outage time period. Should one valve fail to stroke acceptably, the other valve will also be disassembled. During each refueling outage, one of the two check valves will be disassembled and checked for proper seating capability. During the next refueling outage, the other valve will be disassembled, such that each valve will be tested in a two refueling outage time period. Should one valve indicate improper seating capability, the other valve will also be disassembled.

Justification for Deferral

Item Number:	CN-CA-03
Valve:	1CA008, 1CA010, 1CA012 2CA008, 2CA010, 2CA012
Flow Diagram:	CN-1592-1.0 CN-2592-1.0
Code Category:	C
ASME Class:	3
Function:	Close to prevent diversion of flow when the system is in operation and a Nuclear Service Water (RN) to CA swapover or Condenser Circulating Water (RC) to CA swapover has occurred.
Test Requirement:	Check valve reverse flow test per GL 89-04.
Basis for Deferral:	Past leak rate testing during refueling outages has indicated no reverse flow problems. Based upon the past results, and limits on scope of testing due to piping configuration, the reverse flow test requirements will now be satisfied by sample disassembly.
Test Alternative & Frequency:	During each refueling outage, one of the three check valves will be disassembled checked for proper seating capability. During the subsequent refueling outage, the other valves will be disassembled (one per outage),such that each valve will be tested in a three refueling outage time period. Should one valve indicate improper seating capability, the other two valves will also be disassembled.

Justification for Deferral

Item Number:	CN-CA-04
Valve:	1CA173 2CA173
Flow Diagram:	CN-1592-1.0 CN-2592-1.0
Code Category:	C
ASME Class:	3
Function:	Open to allow assured makeup to Auxiliary Feedwater (CA) System from the Condenser Circulating Water (RC) System on RC to CA swapover signal, and allow RC supply to the Turbine Driven CA Pump in the event requiring use of the Standby Shutdown Facility (SSF). Close to prevent diversion of flow when the system is in operation and Nuclear Service Water (RN) to CA swapover and RC to CA swapover has occurred.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every three months per Oma-1988 Part 10, 4.3.2.1. Check valve reverse flow test per GL 89-04.
Basis for Deferral:	Stroke Testing this valve would unnecessarily contaminate the CA system with RC water. No means exist to test for valve closure.
Test Alternative & Frequency:	During each refueling outage, the check valves will be disassembled and the disk will be mechanically exercised. During each refueling outage, the check valve will be disassembled and checked for proper seating capability.

Justification for Deferral

Item Number:	CN-CA-05
Valve:	2CA149, 2CA150, 2CA151, 1CA152
Flow Diagram:	CN-2592-1.1
Code Category:	B
ASME Class:	2
Function:	Close on Feedwater Isolation signal and Phase "A" Containment Isolation signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function every three months per OMa-1988 Part 10, 4.2.1.2. Test valve for fail safe actuation every three months per OMa-1988 Part 10, 4.2.1.6. Stroke time valve (full stroke) every three months per OMa-1988 Part 10, 4.2.1.8.
Basis for Deferral:	The Westinghouse D-5 steam generator design requires these valves to be used for a portion of the main Feedwater flow during power operation. Closing these valves at 100% power would isolate this flow, possibly resulting in preheater damage.
Test Alternative & Frequency:	These valves will be: exercised (full stroke) during cold shutdown, tested for fail safe actuation during cold shutdown, and stroke timed tested during cold shutdown.

Justification for Deferral

Item Number:	CN-CF-01
Valve:	1CF033, 1CF042, 1CF051, 1CF060 2CF033, 2CF042, 2CF051, 2CF060
Flow Diagram:	CN-1591-1.1 CN-2591-1.1
Code Category:	B
ASME Class:	2
Function:	Isolates main feedwater piping from the steam generators upon receipt of a feedwater isolation signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function, observe fail-safe operation, and stroke time every 3 months.
Basis for Deferral:	Closing these valves during power operation is considered impractical from an operating viewpoint. Closure would isolate feedwater to the steam generator which may result in a severe transient in the steam generator, possibly causing a unit trip.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function, fail-safe operation verified, and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-FW-01
Valve:	1FW028, 1FW056 2FW028, 2FW056
Flow Diagram:	CN-1571-1.0 CN-2571-1.0
Code Category:	C
ASME Class:	2
Function:	Opens on flow from Refueling Water Storage Tank to suction of Residual Heat Removal Pumps.
Test Requirement:	Exercise check valve (Full Stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	These valves can only be full stroke tested with the residual heat removal pump operating at full flow in recirculation to the refueling water storage tank. To do this requires closing one of the cold leg injection cross-tie valves and opening the manual valve (1ND033) (2ND033) leading back to the FWST. Based on Design Engineering and Westinghouse evaluation, this renders both trains of ND inoperable. This is not allowed by Technical Specification 3/4.5.2 in Modes 1-3 since both trains are required to be operable. Technical Specification 3/4.5.3 requires one train of ND to be operable in Mode 4.
Test Alternative & Frequency:	Full Stroke testing will be performed during cold shutdown. Valves will be partial stroked quarterly.

Justification for Deferral

Item Number:	CN-IA-01
Valve:	1IACV5340, 1IACV5350, 1IACV5360, 1IACV5370, 1IACV5380, 1IACV5390 2IACV5340, 2IACV5350, 2IACV5360, 2IACV5370, 2IACV5380, 2IACV5390
Flow Diagram:	CN-1499-IA1.01 CN-2499-IA1.01
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-KC-01
Valve:	1KC320A, 1KC332B, 1KC333A 2KC320A, 2KC332B, 2KC333A
Flow Diagram:	CN-1573-1.3 CN-2573-1.3
Code Category:	B
ASME Class:	2
Function:	Isolates flow to the reactor coolant drain tank heat exchanger upon receipt of a high containment pressure signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of one of these valves in the closed position during testing would inhibit the flow path through the reactor coolant drain tank heat exchanger. This would result in boiling of the water in the reactor coolant drain tank resulting in excess heat in containment. This increased heat load could cause unit shutdown due to exceeding Tech Spec containment temperature limits.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-KC-02
Valve:	1KC338B, 1KC424 B, 1KC425A 2KC338B, 2KC424 B, 2KC425A
Flow Diagram:	CN-1573-1.3 CN-2573-1.3
Code Category:	B
ASME Class:	2
Function:	Isolates flow to the reactor vessel support coolers, reactor coolant pump motor bearing coolers, and reactor coolant pump thermal barriers, upon receipt of a high-high containment pressure signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of these valves in the closed position during testing would inhibit flow to the reactor vessel support coolers, reactor coolant pump motor bearing coolers, and reactor coolant pump thermal barriers. This action could result in unit shutdown and possible damage to the vessel and reactor coolant pumps.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-KC-03
Valve:	1KC280, 1KC340 2KC280, 2KC340
Flow Diagram:	CN-1573-1.3 CN-2573-1.3
Code Category:	A/C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its safety function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-KD-01
Valve:	1KD006, 1KD021 2KD006, 2KD021
Flow Diagram:	CN-1609-1.0 CN-2609-1.0
Code Category:	C
ASME Class:	3
Function:	Opens on diesel engine start to pass cooling water flow from the diesel generator engine driven jacket water circulation pump.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valve design does not provide any indication of position.
Test Alternative & Frequency:	Valves will be verified to operate during monthly Tech Specs Diesel Test (PT/1/A/4350/02A. B - Diesel Generator A, B Operability Test) (PT/2/A/4350/02A, B - Diesel Generator A, B Operability Test) by verifying proper cooling is supplied during diesel run. In addition, the valves will be disassembled (as required by IE Bulletin No. 83-03) during each refueling and the mechanical integrity of the valve internals verified.

Justification for Deferral

Item Number:	CN-NB-01
Valve:	1NB262 2NB262
Flow Diagram:	CN-1556-2.0 CN-1556-2.0
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every three (3) months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-NC-01
Valve:	1NC057 2NC057
Flow Diagram:	CN-1553-1.1 CN-2553-1.1
Code Category:	A/C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-NC-02
Valve:	1NC032B, 1NC034A, 1NC036B 2NC032B, 2NC034A, 2NC036B
Flow Diagram:	CN-1553-1.1 CN-2553-1.1
Code Category:	B
ASME Class:	1
Function:	Reactor Coolant System PORV opens to relieve pressure for the primary system.
Test Requirement:	Stroke time and observe fail-safe operation every three (3) months.
Basis for Deferral:	PORVS do not serve a safety function when unit is at operating temperature and pressure. PORVs protect the Reactor Coolant System from over pressurization during LTOP conditions 1(2)NC032B & 1(2)NC034A only. Also according to NRC Branch Technical Position RSB5-2 the full stroke exercise should take place during cold shutdown vs. quarterly during power operations due to the high probability of sticking open. Tech Spec 4.4.4.1 prevents Catawba from performing the surveillance test in Modes 1 and 2.
Test Alternative & Frequency:	Stroke time testing and fail-safe observation will be performed at cold shutdown for 1(2)NC032B, 1(2)NC034A, & 1(2)NC036B; and in all cases prior to entering LTOP conditions in accordance with Generic Letter 90-06 for 1(2)NC032B & 1(2)NC034A. Testing will not be required more often than once per quarter as defined in Oma-1988 Part 10,4.2.1.1.

Justification for Deferral

Item Number:	CN-NC-03
Valve:	1NC250A, 1NC251B, 1NC252B, 1NC253A 2NC250A, 2NC251B, 2NC252B, 2NC253A
Flow Diagram:	CN-1553-1.1 CN-2553-1.1
Code Category:	B
ASME Class:	1
Function:	Reactor vessel head vent.
Test Requirement:	Stroke time test in accordance with Oma-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening these valves at full pressure could cause damage to the valve seating surfaces. A reactor coolant leak could be caused.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	CN-ND-01
Valve:	1ND001B, 1ND002A 2ND001B, 2ND002A
Flow Diagram:	CN-1561-1.0 CN-2561-1.0
Code Category:	A
ASME Class:	1
Function:	Valves open to provide suction to Residual Heat Removal Pump A during normal unit cooldown.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	These valves have been provided with an interlock which prevents their opening when Reactor Coolant System pressure is above approximately 425 PSIG.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-ND-02
Valve:	1ND036B, 1ND037A 2ND036B, 2ND037A
Flow Diagram:	CN-1561-1.1 CN-2561-1.1
Code Category:	A
ASME Class:	1
Function:	Valves open to provide suction to Residual Heat Removal Pump B during normal unit cooldown.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	These valves have been provided with an interlock which prevents their opening when Reactor Coolant System pressure is above approximately 425 PSIG.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-ND-03
Valve:	1ND010, 1ND044 2ND010, 2ND044
Flow Diagram:	CN-1561-1.0, CN-1561-1.1 CN-2561-1.0, CN-2561-1.1
Code Category:	C
ASME Class:	2
Function:	Residual heat removal pump discharge check valve.
Test Requirement:	Exercise check valve (Full Stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	These valves can only be full stoke tested with the residual heat removal pump operating at full flow in recirculation to the refueling water storage tank. To do this requires closing one of the cold leg injection cross-tie valves and opening the manual valve (1ND033) (2ND033) leading back to the FWST. Based on Design Engineering and Westinghouse evaluation this renders both trains of ND inoperable. This is not allowed by Technical Specification 3/4.5.2 in Modes 1-3 since both trains are required to be operable. Technical Specification 3/4.5.3 requires one train of ND to be operable in Mode 4.
Test Alternative & Frequency:	These valves will be exercised (Partial Stroke) by operating the residual heat removal pump in minimum flow mode every 3 months. These valves will be exercised (Full Stroke) during cold shutdown.

Justification for Deferral

Item Number:	CN-ND-04
Valve:	1ND032A, 1ND065B 2ND032A, 2ND065B
Flow Diagram:	CN-1561-1.0, CN-1561-1.1 CN-2561-1.0, CN-2561-1.1
Code Category:	B
ASME Class:	2
Function:	Cross connect cold leg injection flow path from the two trains of residual heat removal.
Test Requirement:	Exercise valve (Full Stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Based on Design Engineering and Westinghouse evaluation, closing one of these valves renders both trains of residual heat removal inoperable. This is not allowed by Technical Specification 3/4.5.2 in Modes 1-3 since both trains are required to be operable. Technical Specification 3/4.5.3 requires one of train of ND to be operable in Mode 4.
Test Alternative & Frequency:	Valves will be exercised (Full Stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-ND-05
Valve:	1ND028A 2ND028A
Flow Diagram:	CN-1561-1.0 CN-2561-1.0
Code Category:	B
ASME Class:	2
Function:	Residual Heat Removal pump supply to NV and NI pumps.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Opening valve provides flow path from FWST to suction of centrifugal charging pumps. This could result in a plant transient due to an increase in RCS Boron inventory.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NF-01
Valve:	1NF229 2NF229
Flow Diagram:	CN-1558-2.0 CN-2558-2.0
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-NI-01
Valve:	1NI009A, 1NI010B 2NI009A, 2NI010B
Flow Diagram:	CN-1562-1.0 CN-2562-1.0
Code Category:	B
ASME Class:	2
Function:	Opens to allow flow from centrifugal charging pump discharge to reactor coolant loop cold leg.
Test Requirement:	Exercise valve (Full Stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Exercising these valves quarterly during power operations would result in flow of non-preheated water through the injection lines and thermal shocking of the injection nozzles.
Test Alternative & Frequency:	Valve will be exercised (Full Stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-02
Valve:	1NI012 2NI012
Flow Diagram:	CN-1562-1.0 CN-2562-1.0
Code Category:	C
ASME Class:	2
Function:	Opens on flow from the Centrifugal Charging Pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Using a centrifugal charging pump to provide flow to (1NI012) (2NI012) would result in injecting borated water into the Reactor Coolant System through the cold leg injection lines. This would result in thermal shock to the reactor coolant piping. During cold shutdowns exercising this valve could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-03
Valve:	1NI015, 1NI017, 1NI019, 1NI021, 1NI351, 1NI352, 1NI353, 1NI354 2NI015, 2NI017, 2NI019, 2NI021, 2NI351, 2NI352, 2NI353, 2NI354
Flow Diagram:	CN-1562-1.0 CN-2562-1.0
Code Category:	C
ASME Class:	1
Function:	These valves open on flow from the Centrifugal Charging Pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Operating these valves would require using a centrifugal charging pump to provide flow which would result in injecting borated water into the Reactor Coolant System thereby causing thermal shock to the reactor coolant piping. During cold shutdowns exercising this valve could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (full stroke, to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-04
Valve:	1NI060, 1NI071, 1NI082, 1NI094 2NI060, 2NI071, 2NI082, 2NI094
Flow Diagram:	CN-1562-1.1 CN-2562-1.1
Code Category:	A, C
ASME Class:	1
Function:	Opens on flow from the cold leg accumulators, safety injection pumps or residual heat removal pumps to provide flow to the reactor coolant system cold legs.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	These valves cannot be full or part stroke exercised during power operation since safety injection pump discharge pressure (approximately 1520 psig) cannot overcome reactor coolant system pressure.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function at cold shutdown. During each refueling, one of the four check valves will be disassembled and the disk will be mechanically exercised. The next refueling, a different valve in this group will be disassembled, and so on, such that all four valves will be tested within a four refueling time period. Should any one valve fail to stroke acceptably, the remaining three valves will also be disassembled.

Justification for Deferral

Item Number:	CN-NI-05
Valve:	1NI048, 2NI048
Flow Diagram:	CN-1562-1.1 CN-2562-1.1
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-NI-06
Valve:	1NI059, 1NI070, 1NI081, 1NI093 2NI059, 2NI070, 2NI081, 2NI093
Flow Diagram:	CN-1562-1.1 CN-2562-1.1
Code Category:	A, C
ASME Class:	1
Function:	Opens on flow from the cold leg accumulators to provide flow to the reactor coolant system cold legs.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	These valves cannot be full or part stroke exercised during power operations since cold leg accumulator pressure (approximately 600 psig) cannot overcome reactor coolant system pressure. During cold shutdown exercising these valves could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	During approach to or startup from cold shutdown, these valves will be partial stroked by opening associated Cold Leg Accumul[illegible]solation valve and noting decrease in level. During each refuel[illegible]g, one of the four check valves will be disassembled and the disk will be mechanically exercised. The next refueling a different valve in this group will be disassembled, and so on, such that all four valves will be tested within a four refueling time period. Should any one valve fail to stroke acceptably, the remaining three valves will also be disassembled.

Justification for Deferral

Item Number:	CN-NI-07
Valve:	1NI101 2NI101
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	C
ASME Class:	2
Function:	Opens to provide flow from refueling water storage tank to safety injection pumps suction.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full stroke exercised during power operation since the only full flow flowpath discharges into the reactor coolant system. Safety injection pump discharge pressure (~1520 psig) cannot overcome reactor coolant system pressure. During cold shutdown this valve cannot be full stroke exercised since this could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function every 3 months and exercise check valve (full stroke) to the position required to fulfill its function during refueling.

Justification for Deferral

Item Number:	CN-NI-08
Valve:	1NI100B 2NI100B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Provides suction for both trains of safety injection pumps from the refueling water storage tank.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would render both trains of safety injection pumps inoperable.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-09
Valve:	1NI147B 2NI147B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Valve is normally open to provide miniflow path to the refueling water storage tank.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of miniflow path for both trains of safety injection pumps. This would result in pump damage due to dead heading the safety injection pumps in the event of a safety injection signal with reactor coolant pressure above 1520 psig (Safety Injection Pump Discharge Pressure).
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-10
Valve:	1NI116, 1NI148 2NI116, 2NI148
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	C
ASME Class:	2
Function:	Opens on flow from the safety injection pumps to the reactor coolant cold legs or hot legs.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full or partial stroke exercised during power operation since the only flowpath discharges into the reactor coolant system. Safety injection pump discharge pressure (~1520 psig) cannot overcome reactor coolant system pressure. During cold shutdown these valves cannot be full or partial stroke exercised since this could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-11
Valve:	1NI124, 1NI126, 1NI128, 1NI134, 1NI156, 1NI157, 1NI159, 1NI160 2NI124, 2NI126, 2NI128, 2NI134, 2NI156, 2NI157, 2NI159, 2NI160
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	A, C
ASME Class:	1
Function:	These valves open to provide hot leg recirculation flow from the safety injection pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full or partial stroke exercised during power operation since the only flowpath discharges into the reactor coolant system. Safety injection pump discharge pressure (~1520 psig) cannot overcome reactor coolant system pressure. During cold shutdown these valves cannot be full or partial stroke exercised since this could result in a low temperature overpressurization or the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-12
Valve:	1NI162A 2NI162A
Flow Diagram:	CN-1562-1.3 CN-2562-1.3
Code Category:	B
ASME Class:	2
Function:	Valve is normally open to provide cold leg injection flow from both trains of safety injection pumps.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of cold leg injection flow from the safety injection pumps rendering both trains of safcty injection inoperable.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-13
Valve:	1NI165, 1NI167, 1NI169, 1NI171 2NI165, 2NI167, 2NI169, 2NI171
Flow Diagram:	CN-1562-1.3 CN-2562-1.3
Code Category:	A, C
ASME Class:	1
Function:	Valves open on cold leg injection flow from the safety injection pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full or partial stroke exercised during power operation since the only flowpath discharges into the reactor coolant system. Safety Injection Pump Discharge Pressure (~ 1520 psig) cannot overcome reactor coolant system pressure. During cold shutdown these valves cannot be full or partial stroke exercised since this could result in a low temperature overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-14
Valve:	1NI175, 1NI176, 1NI180, 1NI181 2NI175, 2NI176, 2NI180, 2NI181
Flow Diagram:	CN-1562-1.3 CN-2562-1.3
Code Category:	A, C
ASME Class:	1
Function:	Valves open on cold leg injection from the residual heat removal pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full or partial stroke exercised during power operations since the only flowpath discharges into the reactor coolant system. Residual Heat Removal Pump discharge pressure (~210 psig) cannot overcome reactor coolant system pressure.
Test Alternative & Frequency:	Valves will be partial stroke exercised during cold shutdown. The valves will be full stroke exercised at refueling by sample disassembly or other NRC accepted means.

Justification for Deferral

Item Number:	CN-NI-15
Valve:	1NI173A, 1NI178B 2NI173A, 2NI178B
Flow Diagram:	CN-1562-1.3 CN-2562-1.3
Code Category:	B
ASME Class:	2
Function:	Each valve isolates two of the four cold leg injection flow paths from the residual heat removal discharge crossover line.
Test Requirement:	Exercise (Full Stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Based on Design Engineering and Westinghouse evaluation, closing one of these valves renders both trains of residual heat removal inoperable. This is not allowed by Technical Specification 3/4.5.2 in Modes 1-3 since both trains are required to be operable. Technical Specification 3/4.5.3 requires one train of ND to be operable in Mode 4.
Test Alternative & Frequency:	Valves will be exercised (Full Stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-16
Valve:	1NI183B 2NI183B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Opens to align hot leg injection during recirculation phase following safety injection actuation.
Test Requirement:	Exercise valve (Full Stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Based on Design Engineering and Westinghouse evaluation, in order for a train of ND to be operable to perform its ECCS function, it must be able to discharge into all four cold leg injection lines. This is in the event of single train failure. With this additional valve open, one ND pump could then be aligned to all four cold leg injection paths plus two hot leg paths during an ECCS actuation.
Test Alternative & Frequency:	Valve will be exercised (Full Stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-17
Valve:	1NI184B, 1NI185A 2NI184B, 2NI185A
Flow Diagram:	CN-1562-1.3 CN-2562-1.3
Code Category:	B
ASME Class:	2
Function:	Opens to provide flow from the Containment Sump to the suction of Residual Heat Removal and Containment Spray Pumps during post accident recirculation phase.
Test Requirement:	Exercise valve (Full Stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	To prevent water from entering lower containment when cycling these valves, piping downstream must be drained. This results in making one train of ECCS inoperable for an extended period of time until completion of the test, refilling the piping and realignment of isolation valves. Also, the large amount of potentially contaminated water that must be drained is a major Health Physics and Radwaste Chemistry problem.
Test Alternative & Frequency:	Valve will be exercised (Full Stroke) to the position required to fulfill its function and stroke time during Cold Shutdown.

Justification for Deferral

Item Number:	CN-NI-18
Valve:	1NI332A, 1NI333B 2NI332A, 2NI333B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Aligns suction of centrifugal charging pumps to the refueling water storage tank (FWST).
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	If one of these valves were to fail in the open position during testing, the FWST would be aligned to the suction of the charging pumps. This could result in an increase in RCS Boron inventory and could result in plant shutdown.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its safety function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-19
Valve:	1NI136B 2NI136B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Valve is opened for the recirculation phase of ECCS operation to allow flow from the residual heat removal pumps to the safety injection pumps.
Test Requirement:	Exercise valve (Full Stroke) to the position required to fulfill its function and stroke time every three months.
Basis for Deferral:	Based on Design Engineering evaluation, opening this valve during power operation could degrade ND system flow in the event of a Large Break LOCA.
Test Alternative & Frequency:	Valve will be exercised (Full Stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-20
Valve:	1NI342 2NI342
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	C
ASME Class:	2
Function:	Opens to provide suction to the safety injection pumps from residual heat removal pump (1B) (2B) discharge during the recirculation phase following safety injection actuation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valve cannot be full stoke exercised during power operation since the only full flow flowpath discharges into the Reactor Coolant system. Safety injection pump discharge pressure (approximately 1520 psig) cannot overcome Reactor Coolant System pressure. Valve cannot be full stroke exercised during cold shutdown since this could result in a cold overpressurization of the Reactor Coolant System. Valve cannot be partial stroke exercised during power operation since the valve lineup would require opening (1NI1. 5B) (2NI136B). If an accident would occur with (1NI136B) (2NI136B) open, injection flow would be diverted from both trains of the ND system.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function at cold shutdown. Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NI-21
Valve:	1NI121A, 1NI152B 2NI121A, 2NI152B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Valves 1(2)NI121A and 1(2)NI152B are motor operated gate valves on the discharge side of NI Pump A and B to NC Loops B&C and A&D, respectively. The valves are normally closed during the injection phase and cold leg recirculation phases of ECCS operation to prevent diversion of flow via the NC hot legs.
Test Requirement:	Exercise valve full-stroke to position required to fulfill its function and stroke time every three months per Oma-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Exercising the valves in modes 1-3 can result in challenging NI pump discharge relief valves and overpressurization of NI piping due to reactor coolant leakage pressurizing piping downstream.
Alternate Testing & Frequency:	These valves will be exercised (full-stroked) to position to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-22
Valve:	1NI144A, 2NI144A
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Valves NI144A are motor operated valves on the NI Pump B miniflow line. The valves are open during the injection mode when the NI Pumps are operating. During the recirculation mode, when the NI Pumps are taking suction from the containment sump (via the ND System), the valves are closed to isolate the miniflow line. Closure of the valves prevents the possibility of introducing reactor coolant water into the FWST and diversion of flow from the NC System. The valves are also interlocked with valves, ND28A & NI136B such that they can not be opened unless valves, ND28A and NI136B are closed.
Test Requirement:	Exercise valve full-stroke to position required to fulfill its function and stroke time every three months per OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	If NI144A was closed for testing and of a loss of offsite power with the loss of Train A diesel generator as the single failure occured, the valve could not be reopened which would result in a loss of both NI pumps.
Test Alternative & Frequency:	These valves will be exercised (full-stroked) to position to fulfill its function during cold shutdown.

Justification for Deferral

Item Number:	CN-NI-23
Valve:	1NI334B, 2NI334B
Flow Diagram:	CN-1562-1.2 CN-2562-1.2
Code Category:	B
ASME Class:	2
Function:	Provides flowpath from B Train of Residual Heat Removal to B Train of Chemical and Volume Control, and from A Train of Residual Heat Removal to A Train of Safety Injection.
Test Requirement:	Stroke time test in accordance with Oma-1988 Part 10,4.2.1.1.
Basis for Deferral:	Closing this valve during power operation degrades both trains of Safety Injection. With the single failure of Train B diesel generator, Train A of Safety Injection, which is provided suction from Residual Heat Removal via NI334B or NI136B, would be inoperable (since NI136B is normally closed). Train B of Safety Injection would already be inoperable due to the single failure.
Test Alternative & Frequency:	Valve will be cycled and stroke timed tested during cold shutdown.

Justification for Deferral

Item Number:	CN-NS-01
Valve:	1NS004, 1NS021, 1NS098, 1NS099 2NS004, 2NS021, 2NS098, 2NS099
Flow Diagram:	CN-1563-1.0 CN-2563-1.0
Code Category:	C
ASME Class:	2
Function:	Valves open to provide flow from the refueling water storage tank to the spray headers.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	These valves cannot be full stroke exercised since the only full flow flowpath is to the spray headers which would result in spraying containment.
Test Alternative & Frequency:	Valves will be exercised (partial stroke) to the position required to fulfill its function every 3 months. 1(2)NS004 and 1(2)NS021 will be alternately disassembled and the disk will be mechanically exercised each refueling. Should the valve fail to stroke acceptably, the other valve will be also disassembled. 1(2)NS098 and 1(2)NS099 will be alternately disassembled and the disk will be mechanically exercised each refueling. Should the valve fail to stroke acceptably, the other valve will be also disassembled.

Justification for Deferral

Item Number:	CN-NS-02
Valve:	1NS013, 1NS016, 1NS030, 1NS033, 1NS041, 1NS046 2NS013, 2NS016, 2NS030, 2NS033, 2NS041, 2NS046
Flow Diagram:	CN-1563-1.0 CN-2563-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to flow from the containment spray and residual heat removal pumps to the containment spray headers.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	To full or partial stroke these valves flow from the containment spray or residual heat removal pumps would have to be initiated. This would result in spraying water through the spray nozzles into containment
Test Alternative & Frequency:	During each refueling one of the six check valves will be disassembled and the disk will be mechanically exercised. The next refueling a different valve in this group will be disassembled and so on, such that all six valves will be tested within a six refueling time period. Should any one valve fail to stroke acceptably, the remaining five valves will also be disassembled.

Justification for Deferral

Item Number:	CN-NS-03
Valve:	1NS038B, 1NS043A 2NS038B, 2NS043A
Flow Diagram:	CN-1563-1.0 CN-2563-1.0
Code Category:	B
ASME Class:	2
Function:	Residual Heat Pump A (and B) to Containment Spray Header Containment Isolation Valve.
Test Requirement:	Stroke time test in accordance with Oma-1988, Part 10, 4.1.1.1.
Basis for Deferral:	If an accident occurred with one of these valves open, injection flow would be diverted from both trains of the NI System.
Test Alternative & Frequency:	Valves 1(2)NS038B and 1(2)NS043A will be tested during Cold Shutdown.

Justification for Deferral

Item Number:	CN-NV-01
Valve:	1NV015B 2NV015B
Flow Diagram:	CN-1554-1.0 CN-2554-1.0
Code Category:	A
ASME Class:	2
Function:	Valves closes to isolate flow to the letdown heat exchanger.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of pressurizer level control and could result in plant shutdown.
Test Alternative & Frequency:	Valve will be exercise (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-02
Valve:	1NV089A, 1NV091B 2NV089A, 2NV091B
Flow Diagram:	CN-1554-1.0 CN-2554-1.0
Code Category:	B
ASME Class:	2
Function:	These valves isolate the return flow path from the reactor coolant pump seal water supply.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Closure of one of these valves during power operation would inhibit seal water flow across the reactor coolant pump seals. This would result in damage to the pump seals.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-03
Valve:	1NV188A, 1NV189B 2NV188A, 2NV189B
Flow Diagram:	CN-1554-1.1 CN-2554-1.1
Code Category:	B
ASME Class:	2
Function:	Valves close to isolate the volume control tank (normal charging supply) upon receipt of a safety injection signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill itsfunction and stroke time every 3 months.
Basis for Deferral:	Closure of one of these valves during normal unit operation would isolate the normal suction for the charging pumps. Alternate suction paths would result in increasing the reactor coolant system boron inventory and could result in plant shutdown. In addition, seal water for the reactor coolant pumps would inhibited. This may result in damage to the reactor coolant pump seals.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-04
Valve:	1NV312A, 1NV314B 2NV312A, 2NV314B
Flow Diagram:	CN-1554-1.2 CN-2554-1.2
Code Category:	B
ASME Class:	2
Function:	Valves close to isolate the charging line to the Reactor Coolant System upon receipt of a safety injection signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Closure of one of these valves during power operation would isolate charging flow to the Reactor Coolant System. This could result in loss of pressurizer level control and cause plant shutdown.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown

Justification for Deferral

Item Number:	CN-NV-05
Valve:	1NV254 2NV254
Flow Diagram:	CN-1554-1.7 CN-2554-1.7
Code Category:	C
ASME Class:	2
Function:	Valve opens on flow from the refueling water storage tank to suction of the centrifugal charging pumps.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valve cannot be full or partial stroke exercised during power operation as this would increase the reactor coolant system boron inventory and possibly cause plant shutdown. This valve cannot be full stroke exercised during cold shutdown since this could result in a cold overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function at cold shutdown. Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NV-06
Valve:	1NV270, 1NV290 2NV270, 2NV290
Flow Diagram:	CN-1554-1.7 CN-2554-1.7
Code Category:	C
ASME Class:	2
Function:	Open to provide flow from the centrifugal charging pumps to the normal charging line or Cold Leg Injection Header.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valves cannot be full stroke exercised during power operation. The only full flow flowpath is through the Cold Leg Injection Header into the reactor coolant system. This would cause an increase in reactor coolant system boron inventory and possibly cause plant shutdown. Valves cannot be full stroke exercised during cold shutdown since this could result in a cold overpressurization of the reactor coolant system.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function every 3 months. Exercise check valve (full stroke) to the position required to fulfill its function at refueling.

Justification for Deferral

Item Number:	CN-NV-07
Valve:	1NV202B, 1NV203A 2NV202B, 2NV203A
Flow Diagram:	CN-1554-1.6 CN-2554-1.6
Code Category:	B
ASME Class:	2
Function:	Valves can be closed to isolate the centrifugal charging pump miniflow line during cold leg injection phase following a LOCA.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of one of these valves in the closed position during test would isolate the centrifugal charging pumps miniflow line. This path must remain open in the event of a LOCA until the operator verifies a primary side break at which time the valves are closed. In the event of a secondary side break, the miniflow path must remain open in order to prevent possible dead heading and damaging the centrifugal charging pumps.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-08
Valve:	1NV813 2NV813
Flow Diagram:	CN-1554-1.7 CN-2554-1.7
Code Category:	C
ASME Class:	2
Function:	Opens to provide suction to the centrifugal charging pumps from residual heat removal pump discharge during the recirculation phase following safety injection actuation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Valve cannot be full stroke exercised during power operation since the only full flow flowpath discharges into the Reactor Coolant System. This would cause an increase in Reactor Coolant System boron inventory and possibly cause plant shutdown. Valve cannot be partial stroke exercised during power operation. Use of the partial stroke flowpath (through the miniflow line to the seal water heat exchanger) would: 1) Cause an increase in the boron concentration in the volume control tank which is the normal source of makeup water for the positive displacement charging pump. This would cause an increase in the Reactor Coolant System boron inventory and possibly cause plant shutdown. 2) Cause the return path for the reactor coolant pump seal water to be deadheaded due to the miniflow path pressure. This would result in loss of cooling to the seals and cause possible pump damage. Valve cannot be full stroke exercised during cold shutdown since this could result in a low temperature overpressurization of the Reactor Coolant System.
Test Alternative & Frequency:	Exercise check valve (partial stroke) to the position required to fulfill its function during cold shutdown and exercise check valve (full stroke) to the position required to fulfill its function during refueling.

Justification for Deferral

Item Number:	CN-NV-09
Valve:	1NV874 2NV874
Flow Diagram:	CN-1554-1.8 CN-2554-1.8
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-NV-10
Valve:	1NV252A, 1NV253B 2NV252A, 2NV253B
Flow Diagram:	CN-1554-1.7 CN-2554-1.7
Code Category:	B
ASME Class:	2
Function:	Aligns refueling water storage tank (FWST) to the suction of the centrifugal charging pumps upon receipt of a safety injection signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	If one of these valves were to fail in the open position during testing, the FWST would be aligned to the suction of the charging pumps. This would result in an increase in RCS Boron inventory and could result in a plant shutdown.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-11
Valve:	1NV010A, 1NV011A, 1NV013A 2NV010A, 2NV011A, 2NV013A
Flow Diagram:	CN-1554-1.0 CN-2554-1.0
Code Category:	B
ASME Class:	2
Function:	These valves must automatically close to isolate containment upon receipt of a Pressurizer Low Level signal, if either valve 1(2)NV001A or 1(2)NV002A closes, upon receipt of a Phase A Containment Isolation Signal (ST), or on a concurrent failure of the PD pump and both centrifugal charging pumps. These valves are cross-interlocked with valves 1(2)NV001A and 1(2)NV002A such that they will automatically close if either 1(2)NV001A or 1(2)NV002A is not in the "Open" position. These valves can be operated from the Auxiliary Shutdown Panel, and cannot be opened unless valves 1(2)NV001A and 1(2)NV002A are both open.
Test Requirement:	Stroke time and observe fail-safe operation every three (3) months.
Basis for Deferral:	Letdown header relief valve 1(2)NV014 has experienced lifting and subsequent seat leakage as a result of pressure transients during orifice swaps for stroke time testing of valves 1(2)NV010A, 1(2)NV011A, and 1(2)NV013A. Leakage past 1(2)NV014 is considered Reactor Coolant (NC) system leakage. This leakage directly impacts Technical Specification 3.4.6.2. Based on the above, testing of these valves is impractical and non-conservative during power operation.
Test Alternative & Frequency:	Valves 1(2)NV010A, 1(2)NV011A, and 1(2)NV013 will be stroke time tested and fail-safe operation verified during cold shutdown.

Justification for Deferral

Item Number:	CN-NV-12
Valve:	1NV001A, 1NV002A 2NV001A, 2NV002A
Flow Diagram:	CN-1554-1.0 CN-2554-1.0
Code Category:	B
ASME Class:	1
Function:	Valves closes to isolate flow to the letdown heat exchanger.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function, observe fail-safe operation, and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of pressurizer level control and could result in plant shutdown.
Test Alternative & Frequency:	Valve will be exercise (full stroke) to the position required to fulfill its function, fail-safe operation verified, and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-NW-01
Valve:	1NW006, 1NW063 2NW006, 2NW063
Flow Diagram:	CN-1569-1.0 CN-2569-1.0
Code Category:	C
ASME Class:	2
Function:	Open to provide flow from Nuclear Service Water System to the containment valve injection water surge chambers.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	Operating these valves would result in placing raw water in the NW System.
Test Alternative & Frequency:	Exercise check valve (full stroke) to the position required to fulfill its function at refueling (NW surge chamber can be drained and isolated at this time.)

Justification for Deferral

Item Number:	CN-NW-02
Valve:	1NW017, 1NW021, 1NW024, 1NW027, 1NW037, 1NW040, 1NW043, 1NW047, 1NW050, 1NW053, 1NW070, 1NW074, 1NW077, 1NW080, 1NW083, 1NW086, 1NW089, 1NW092, 1NW095, 1NW098, 1NW101, 1NW107, 1NW109, 1NW111, 1NW114, 1NW120, 1NW121 through 1NW136, 1NW138, 1NW139, 1NW140, 1NW141, 1NW147, 1NW148, 1NW159, 1NW160, 1NW163, 1NW164, 1NW168, 1NW169, 1NW171, 1NW172, 1NW178, 1NW179, 1NW183, 1NW184, 1NW188, 1NW189, 1NW193, 1NW194, 1NW196, 1NW197, 1NW201, 1NW202, 1NW205, 1NW206, 1NW209, 1NW210, 1NW213, 1NW214, 1NW218, 1NW219, 1NW223, 1NW224, 1NW230, 1NW231, 1NW235, 1NW236, 1NW240, 1NW241, 1NW245, 1NW246 2NW017, 2NW021, 2NW024, 2NW027, 2NW037, 2NW040, 2NW043, 2NW047, 2NW050, 2NW070, 2NW074, 2NW077, 2NW080, 2NW086, 2NW089, 2NW092, 2NW095, 2NW098, 2NW101, 2NW107, 2NW109, 2NW111, 2NW114, 2NW120, 2NW121, 2NW123 through 2NW133, 2NW135, 2NW136, 2NW138, 2NW139, 2NW140, 2NW141, 2NW147, 2NW148, 2NW159, 2NW160, 2NW163, 2NW164, 2NW168, 2NW169, 2NW171, 2NW172, 2NW178, 2NW179, 2NW183, 2NW184, 2NW188, 2NW189, 2NW193, 2NW194, 2NW196, 2NW197, 2NW201, 2NW202, 2NW205, 2NW206, 2NW209, 2NW210, 2NW213, 2NW214, 2NW218, 2NW219, 2NW223, 2NW224, 2NW230, 2NW231, 2NW235, 2NW236, 2NW240, 2NW241, 2NW245, 2NW246
Flow Diagram:	CN-1569-1.0 CN-2569-1.0
Code Category:	C
ASME Class:	2
Function:	These valves open to supply containment valve injection water to certain containment isolation valves. Valves close to prevent system backleakage into NW System.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its functions every 3 months.

Justification for Deferral

Item Number: CN-NW-02 (Continued)

Basis for Deferral: Normal plant conditions will not allow these check valves to operate since the valves fed by the NW System are in systems which are normally pressurized with flow passing through them.

To operate the check valves normal system pressures would have to be bled off in order to allow NW pressure to open the check valves. This is not possible during normal plant operation. Also to stroke valves closed requires Tech. Spec. action statements and containment entry.

Test Alternative & Frequency: Valves will be full stroked open each refueling outage.

One third of valves will be reverse flow tested each refueling outage with all valves tested over a three outage period. (Generic Letter 89-04 response).

Justification for Deferral

Item Number:	CN-RF-01
Valve:	1RF392, 1RF448 2RF392, 2RF448
Flow Diagram:	CN-1599-2.2 CN-2599-2.2
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-RN-01
Valve:	1RN405, 1RN438 2RN405, 2RN438
Flow Diagram:	CN-1574-2.8 CN-2574-2.2, CN-2574-2.7
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-RN-02
Valve:	1RN437B 2RN437B
Flow Diagram:	CN-1574-2.8 CN-2574-2.2
Code Category:	B
ASME Class:	2
Function:	This valve closes on a high-high containment pressure signal to isolate the supply header to lower containment.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of nuclear service water flow to the reactor coolant pump motor coolers. This would result in unit shutdown and possible damage to the reactor coolant pumps.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-RN-03
Valve:	1RN484A, 1RN487B 2RN484A, 2RN487B
Flow Diagram:	CN-1574-2.2 CN2574-2.1, CN-2574-2.2
Code Category:	B
ASME Class:	2
Function:	Valves close on a high-high containment pressure signal to isolate the lower containment return header.
Test Requirement:	Exercise valves (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of one of these valves in the closed position during testing would result in loss of nuclear service water flow to the reactor coolant pump motor coolers. This would result in unit shutdown and possible damage to the reactor coolant pumps.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-SA-01
Valve:	1SA003, 1SA006 2SA003, 2SA006
Flow Diagram:	CN-1593-1.1 CN-2593-1.1
Code Category:	C
ASME Class:	2
Function:	Closes to prevent steam flow reversal in the event of a loss of steam generator.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months per Oma-1988 Part 10,4.3.2.1. Check valve reverse flow test per GL 89-04.
Basis for Deferral:	System design does not provide any indication for verifying valve position. No means exist to test for valve closure.
Test Alternative & Frequency:	Verification of ability to prevent reverse flow will be performed during refueling. During each refueling one of the two check valves will be disassembled and the disk will be mechanically exercised. The next refueling the other valve will be disassembled, such that both valves will be tested within a two refueling time period. Should any one valve fail to stroke acceptably, the remaining valve will also be disassembled.

Justification for Deferral

Item Number:	CN-SM-01
Valve:	1SM001, 1SM003, 1SM005, 1SM007 2SM001, 2SM003, 2SM005, 2SM007
Flow Diagram:	CN-1593-1.0 CN-2593-1.0
Code Category:	B
ASME Class:	2
Function:	Main steam isolation valves.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function, stroke time, and verify fail safe actuation every 3 months.
Basis for Deferral:	Closure of these valves during power operation could introduce a severe transient in the main steam lines which could cause a unit trip.
Test Alternative & Frequency:	This valve will be partially stroked at least once per 92 days. In addition, valve will be exercised (full stroke) to the position required to fulfill its function, stroke timed, and fail safe actuation verified during startup after cold shutdown.

Justification for Deferral

Item Number:	CN-VB-01
Valve:	1VB-85 2VB-85
Flow Diagram:	CN-1605-3.2 CN-2605-3.2
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-VG-01
Valve:	1VG015, 1VG016, 1VG029, 1VG030, 1VG031, 1VG032, 1VG059, 1VG060, 1VG073, 1VG074, 1VG075, 1VG076 2VG015, 2VG016, 2VG029, 2VG030, 2VG031, 2VG032, 2VG059, 2VG060, 2VG073, 2VG074, 2VG075, 2VG076
Flow Diagram:	CN-1609-4.0, CN-1609-4.1 CN-2609-4.0, CN-2609-4.1
Code Category:	C
ASME Class:	3
Function:	Open to supply starting air to Diesel Generators.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	No method exists of directly verifying valve movement. Failure of one valve to operate will result in increase in start time of diesel generator during performance of monthly Tech Spec Surveillance Requirement 4.8.1.1.2.a.4.
Test Alternative & Frequency:	Valve will be verified to operate during monthly Tech Spec Diesel Test (PT/1/A/4350/02A,B - Diesel Generator A, B Operability Test) (PT/2/A/4350/02A,B - Diesel Generator A, B Operability Test) by verifying diesel starts within required time. In addition, during cold shutdown, a test will be performed which verifies the diesel is able to start within required time with one starting air tank disabled at a time. The test will be performed twice, first with one bank disabled, then with the opposite bank disabled.

Justification for Deferral

Item Number:	CN-VG-02
Valve:	1VG025, 1VG026, 1VG027, 1VG028, 1VG069, 1VG070, 1VG071, 1VG072 2VG025, 2VG026, 2VG027, 2VG028, 2VG069, 2VG070, 2VG071, 2VG072
Flow Diagram:	CN-1609-4.0, CN-1609-4.1 CN-2609-4.0, CN-2609-4.1
Code Category:	B
ASME Class:	3
Function:	Open to supply starting air to Diesel Generators
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months. Verify remote position indication every 2 years.
Basis for Deferral:	Valve design does not provide any indication of position. Failure of this valve to perform its required function will result in increase in start time of Diesel Generator during performance of monthly Tech Spec Surveillance Requirement 4.8.1.1.2.a.4.
Test Alternative & Frequency:	Valves will be verified to operate during monthly Tech Spec Diesel Test (PT/1/A/4250/02A, B - Diesel Generator A, B Operability Test) Test (PT/2/A/4250/02A, B - Diesel Generator A, B Operability Test) by verifying diesel starts within required time. In addition, during cold shutdown a test will be performed which verifies the diesel is able to start within required time with one starting air bank disabled at a time. The test will be performed twice, first with one bank disabled, then with the opposite bank disabled.

Justification for Deferral

Item Number:	CN-VI-01
Valve:	1VI079 2VI079
Flow Diagram:	CN-1605-1.4 CN-2605-1.5
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-VI-02
Valve:	1VI077B 2VI077B
Flow Diagram:	CN-1605-1.4 CN-2605-1.5
Code Category:	A
ASME Class:	2
Function:	Provides containment isolation. Closes upon receipt of a containment high-high pressure signal.
Test Requirement:	Exercise valve (full stroke) to the position required to fulfill its function and stroke time every 3 months.
Basis for Deferral:	Failure of this valve in the closed position during testing would result in loss of instrument air supply to valves and controls within containment. This would result in loss of normal reactor coolant letdown, containment ventilation unit controls, normal air supply to the power operated relief valves, etc., thereby possibly causing unit shutdown.
Test Alternative & Frequency:	Valve will be exercised (full stroke) to the position required to fulfill its function and stroke timed during cold shutdown.

Justification for Deferral

Item Number:	CN-VI-03
Valve:	1VI367, 1VI368 2VI367, 2VI368
Flow Diagram:	CN-1605-1.14 CN-2605-1.5
Code Category:	C
ASME Class:	
Function:	Close to prevent reverse flow of nitrogen from cold leg accumulator when supplying PORV's from safety air source.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during cold shutdown by stroking the PORV's using the safety air source.

Justification for Deferral

Item Number:	CN-VI-04
Valve:	1VI369, 1VI370 2VI369, 2VI370
Flow Diagram:	CN-1605-1.14 CN-2605-1.5
Code Category:	C
ASME Class:	
Function:	Open to provide flowpath for nitrogen from cold leg accumulator when supplying PORV's from safety air source.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve operation when passing flow.
Test Alternative & Frequency:	Verify proper valve operation during cold shutdown by stroking the PORV's using the safety air source.

Justification for Deferral

Item Number:	CN-VS-01
Valve:	1VS056 2VS056
Flow Diagram:	CN-1605-2.1
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function ever 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-VY-01
Valve:	1VY016 2VY016
Flow Diagram:	CN-1559-1.0 CN-2559-1.0
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.

Justification for Deferral

Item Number:	CN-YM-01
Valve:	1YM121 2YM121
Flow Diagram:	CN-1601-3.1 CN-1601-3.1
Code Category:	A, C
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Exercise check valve (full stroke) to the position required to fulfill its function every 3 months.
Basis for Deferral:	System design does not provide any indication for verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Verify valve closure during performance of leak rate test during refueling.