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December 23, 1992
C321-92-2348

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

References:

1. Oyster Creek Nuclear Generating Station Inservice Test Program, Rev 7
dated October 11, 1991
2. NRC Letter and Safety Evaluation (TAC No. M82017)
dated September 24, 1992

Gentlemen:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Inservice Test Program, Rev 7
Additional Information and Clarifications

By Reference 1, above, GPU Nuclear submitted the Inservice Test (IST) Program for the Oyster Creek Nuclear Generating Station to cover the next ten year interval. By Reference 2, above, the USNRC evaluated the Program. In that safety evaluation, several relief requests were denied, but requested that any additional information which may be relevant to re-evaluation be submitted within 3 months. This letter provides the additional information and requisite clarifications to assist the NRC in their review of the noted relief requests.

Enclosure 1 to this letter provides a matrix relating: 1) the NRC Safety Evaluation Table 1 relief request number; 2) the NRC Safety Evaluation Appendix A Anomaly number designation; and 3) additional information and/or revised relief request Attachment references. Enclosure 2 provides the specific Attachments designated in the Enclosure 1 matrix. The next revision to the IST Program will reflect the withdrawal of the six relief requests reflected in Enclosure 1 as well as the additional clarifications described in Enclosure 2. The next revision will be submitted within one year of the receipt of the approval of this submittal.

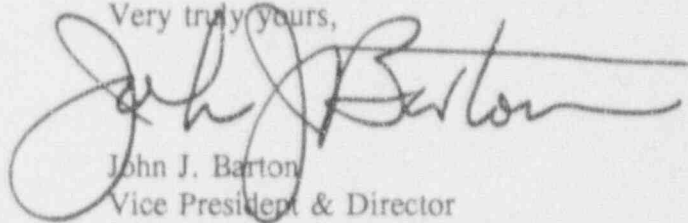
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If you should have any questions or require any additional information, please contact Mr. John Rogers of my staff at 609.971.4893.

Very truly yours,

A handwritten signature in dark ink, appearing to read "John J. Barton". The signature is fluid and cursive, with a large loop at the end.

John J. Barton
Vice President & Director
Oyster Creek

JJB/JJR

cc: Administrator, Region 1
Senior NRC Resident Inspector
Oyster Creek NRC Project Manager

ENCLOSURE 1
RESPONSE MATRIX

TABLE 1
RELIEF REQUEST No.

NRC APPENDIX A
ANOMALY

GPUN RESPONSE

PR-3	1	ATTACHMENT A
PR-4	2	ATTACHMENT B
GVR-4.1	3	ATTACHMENT C
GVR-4.2	4	ATTACHMENT D
GVR-4.3	5	ATTACHMENT E
VR-43	-	ATTACHMENT F
VR-3A	6	Relief Request 3A will be withdrawn. ASME XI, IWV-3423(e) permits testing at a lower differential pressure for check valves.
VR-29	7	ATTACHMENT G
VR-11	8	ATTACHMENT H
VR-37	9	ATTACHMENT I
VR-42	9	ATTACHMENT J
VR-45	9	ATTACHMENT K

TABLE 1
RELIEF REQUEST No.NRC APPENDIX A
ANOMALYGPUN RESPONSE

VR-12A	10	Relief Request 12A will be withdrawn. Relief was granted by NRC Generic Letter 89-04.
VR-13 (Part 2)	11	ATTACHMENT L
VR-14	12	ATTACHMENT M
VR-15A	6	Relief Request 15A will be withdrawn. ASME XI, IWV-3423(e) permits testing at a lower differential pressure for check valves.
VR-40	13	ATTACHMENT N
VR-41	14	Relief Request 41 will be withdrawn. Modifications are presently scheduled for the current refueling outage which will eliminate the spare valves in this system.
VR-46 (Part 1) (Part 2)	15	Relief Request 46 will be withdrawn. As part of the ten year update to the IST Program, the test procedures were developed and have been successful in obtaining stroke times based upon observed changes in system pressure and flow. This method of stroke time measurement is sufficiently accurate to monitor valve condition and detect degradation.

TABLE 1
RELIEF REQUEST No.

NRC APPENDIX A
ANOMALY

GPUN RESPONSE

VR-48

16

Relief Request 48 will be withdrawn. A note will be added to the Appendix B Table 1 Valve Test Requirements of the IST Program. The note will indicate that normal pump operation confirms the open position of these valves on a daily basis during pump operation.

ENCLOSURE 2
ADDITIONAL INFORMATION

ATTACHMENT A

RELIEF REQUEST PR-3 - Clarification

Acceptance Criteria

Pump vibration acceptance criteria were previously developed based on industry experience for these types of rotating equipment. Any pump baselined since 1991 complies with OM-6 acceptance criteria. Other pumps retain their previously developed acceptance criteria. In all cases, the high action acceptance criteria is less than the 0.7 in/sec maximum allowed by OM-6. Since existing acceptance criteria are conservative compared to OM-6, it is acceptable to continue using these values until the pumps are rebaselined, at which time acceptance criteria will be developed in accordance with OM-6.

Method of Testing

Centrifugal pumps: OM-6 section 4.6.4 requires that vibration measurements shall be taken in two orthogonal directions on each accessible pump bearing housing. Measurements must also be taken in the axial direction on each accessible pump thrust bearing housing. Vibration readings are currently taken in only one direction at each bearing (the direction of the largest vibration, based on an annual full spectrum vibration analysis). Procedures must be revised to comply with OM-6 requirements. The procedures will be revised within one year of the date of the NRC approval of this request. In the interim, monitoring vibration in one direction at each pump bearing with acceptance criteria at least as restrictive as OM-6 ensures adequate vibration monitoring to detect pump degradation.

Vertical line shaft pumps: OM-6 section 4.6.4 requires vibration measurements to be taken on the upper motor bearing housing in three orthogonal directions, one of which must be the axial direction. Existing vibration procedures record vibration readings in two orthogonal directions at the base of the pump on the intake deck. Procedures must be revised to comply with the OM-6 requirement. The procedures will be revised within one year of the date of the NRC approval of this request. In the interim, monitoring vibration at the base of the pump on the intake deck with acceptance criteria at least as restrictive as OM-6 ensures adequate vibration monitoring to detect pump degradation.

Reciprocating pumps: OM-6 section 4.6.4 requires that vibration measurements shall be taken on the bearing housing of the crankshaft, approximately perpendicular to both the crankshaft and the line of plunger travel. The only set of reciprocating pumps is in the Standby Liquid Control System. Provision exists for taking vibration readings in the direction specified by OM-6, but readings are currently only taken in a direction perpendicular to the crankshaft and parallel to the line of plunger travel. The procedure must be revised to meet the OM-6 requirement.

Vibration measurement, reference points: OM-6 section 4.6.4 requires that if a portable vibration analyzer is used, the reference points must be clearly identified on the pump to permit subsequent duplication in both location and plane. Each test procedure contains a pump sketch with vibration data points marked. These labeled sketches permit duplication of vibration measurement location in subsequent tests. Vibration test points are not marked on the pumps at the present time. Each point will be marked to comply with this OM-6 requirement.

Other

Instrumentation Quality: Meets $\pm 5\%$ accuracy requirements of OM-6

Frequency response range: OM-6 requires response range from 1/3 minimum pump shaft rotational speed to at least 1000 Hz. The pump with the slowest rotational speed is the Service Water pump, at 1200 rpm (20Hz). 1/3 of this speed is approximately 6.67 Hz. The instrumentation used for vibration measurement has a minimum frequency response range of 5Hz, so OM-6 requirements are met. The upper limit of 1000 Hz is also met by this equipment.

ATTACHMENT B

RELIEF REQUEST PR-4

SYSTEM: Core Spray, Containment Spray, Emergency Service Water, Service Water, Condensate Transfer

PUMPS: Related to the above systems.

CATEGORY: Varied

FUNCTION: Suction pressure gages for above pumps and discharge pressure gages for Service Water pumps

TEST REQUIREMENT: IWP-4120 requires that full scale range of each instrument be three times the reference value or less.

BASIS FOR RELIEF: Containment Spray pump suction pressure (PI-21-349, 350, 351, 352)

Range: -15 psig to +15 psig

Accuracy: ± 0.6 psig ($\pm 2\%$ of 30)

Reference Values:

	Containment Spray Pumps			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Suction Pressure (P_s)	5	5	5	5.5
Discharge Pressure (P_D)	71	71	71	71.5

Justification: Suction pressure is only a fraction of pump discharge pressure (7.7%, at most). A small change in suction pressure will have minimal affects on the calculation of pump differential pressure. Since Containment Spray is a fixed resistance system, pump flow is used to track pump performance. Therefore, small changes in pump suction pressure will not impair analysis of pump performance.

ATTACHMENT BRELIEF REQUEST PR-4 (Con't)

Condensate Transfer pump suction pressure (PI-18, PI-20)

Range: -20 in Hg to +30 psig

Accuracy: $\pm .5$ psig ($\pm 1.67\%$)

Reference values:

	Condensate Transfer Pumps	
	<u>A</u>	<u>B</u>
Suction Pressure (P_s)	12.5	8.5
Discharge Pressure (P_D)	152.5	163

Justification:

Condensate Transfer Pump suction pressure varies directly with Condensate Storage Tank level. Only PI-20, for Condensate Transfer Pump B, does not meet the Code requirement for range. Pump B's suction pressure is only 5.2% of discharge pressure. A small change in the suction pressure reading will have a minimal effect on pump differential pressure values used for trending pump performance. Maintenance requirements and failure predictions are based on long-term performance trends, in which any errors in suction pressure reading will tend to average out over time, so ability to analyze pump performance is not impaired.

ATTACHMENT BBELIEF REQUEST PR-4 (Con't)

Emergency Service Water suction pressure (PI-533-1173, 1172)

Range: 0-10 psig

Accuracy: ± 0.2 psig ($\pm 2\%$)

Reference Values:

	Emergency Service Water Pumps			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Suction Pressure (P_s)	2.4	2.5	2.5	2.5
Discharge Pressure (P_D)	157.0	165.8	148.5	149.5

Justification:

P_s is a small fraction of P_D (1.7% at most). A small change in P_s will have a minimal effect on calculated differential pressure. These gauges essentially read intake water level and are used for purposes other than reading ESW suction pressure. The gauges must be able to indicate at least 5.81 psig (corresponding to 8 ft. above mean sea level) in order to take appropriate procedural actions in the event of intake structure flooding. A change in range to a maximum of 7.2 psig to meet Code requirements would provide minimal benefit in increased accuracy and could possibly interfere with use of these gauges for purposes other than In-Service Testing. Also, a change from a 0-10 psig range would necessitate use of a non-standard gauge.

ATTACHMENT BRELIEF REQUEST PR-4 (Con't)

Service Water pump suction pressure (PI-533-1173, 1172)

Range: 0-10 psig

Accuracy: ± 0.2 psig ($\pm 2\%$)

Reference values:

	Service Water Pumps	
	<u>A</u>	<u>B</u>
Suction Pressure (P_s)	2.4	2.8
Discharge Pressure (P_D)	63/60/49	72/65/60 (see Note 1)

Justification:

P_s is a small fraction of P_D (4.9% at most). A small change in P_s will have a minimal effect on calculated differential pressure. These gauges essentially read intake water level and are used for purposes other than reading Service Water suction pressure. The gauges must be able to indicate at least 5.81 psig (corresponding to 8 ft. above mean sea level) in order to take appropriate procedural actions in the event of intake structure flooding. A change in range to a maximum of 7.2 psig to meet Code requirements would provide minimal benefit in increased accuracy and could possibly interfere with use of these gauges for purposes other than In-Service Testing. Also, a change from a 0-10 psig range would necessitate use of a non-standard gauge.

NOTE 1

In order to test these pumps at the code required frequency each pump is baselined at three flow rates 4000, 5000, and 6000 gpm, respectively. Seasonal temperatures and varying heat loads require that certain flow rates be maintained to prevent plant transients and interfacing system trips.

ATTACHMENT BRELIEF REQUEST PR-4 (Con't)

Service Water pump discharge pressure (PI-29, 30)

Range: 0-160 psig

Accuracy: ± 2 psig ($\pm 1.25\%$)

Reference values:

	Service Water Pump	Flow Rate		
		4000 gpm	5000 gpm	6000 gpm
<u>A</u>	Discharge Pressure (P_D)	63	60	49
<u>B</u>	Discharge Pressure (P_D)	72	65	60

Justification:

The Service Water pumps require more than one reference value because required system flow rates are dependent upon the heat loads to be dissipated. These heat loads are based upon operating mode and environmental/seasonal changes. Any significant change in system flow rate will cause undesirable operational transients in those systems cooled by the Reactor Building Closed Cooling Water System, which is cooled by Service Water. The expanded range of the discharge pressure gauges has provided the necessary flexibility to accommodate testing on a quarterly basis and still provide the level of accuracy required to analyze pump performance. Only one reference value, Pump A at 6000 gpm, does not meet the requirement for full-scale range of gauge (PI-29) less than or equal to three times the reference value. Service Water pumps are not usually operated at 6000 gpm. They are operated in this range usually when intake water temperature rises to above 75°F, and then the two pumps are run in parallel. The only time a single pump is run at 6000 gpm (and thus the discharge pressure gauge range is too wide) is for in-service testing. For all other reference values, the gauge range meets code requirements. It is not desirable to change one of the two gauges to meet Code requirements, and changing both would be a burden for the minimal gain in accuracy.

ATTACHMENT BRELIEF REQUEST PR-4 (Con't)

Core Spray main pump suction pressure (PI-25 A, B, C, D)

Range: 0-10 psig

Accuracy: ± 0.2 psig ($\pm 2\%$)

Reference values:

	Core Spray Pumps			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Suction Pressure (P_s)	2.3	3	1.4	4.5
Discharge Pressure (P_D)	182	172	180	172

Justification:

P_s is a small fraction of P_D (2.6% at most). A small change in P_s will have a minimal effect on calculated differential pressure. Changing the range to meet Code requirements for the lowest reference value of 1.4 psig would make the high end a maximum of 4.2 psig. This maximum value would not accommodate the normal variation in pressure reading (torus water level plus any applied reference pressure) experienced for this pump from April 1987 to September 1992. Suction pressure readings have varied from 0.6 to 6.2 psig. All pumps experience similar variations in suction pressure:

	Core Spray Pumps			
	<u>NZ01A</u>	<u>NZ01B</u>	<u>NZ01C</u>	<u>NZ01D</u>
P_s range	1.4-4.2	2.5-4.8	0.6-6.2	1.7-5.9
P_s average	2.6	3.4	2.7	3.4

A 0-10 psig gauge is most suited to accommodate this variation in readings. Changing the range of three of these four gauges to meet Code requirements would be detrimental in one case (NZ01C), and would result in minimal gain in the other two cases.

ATTACHMENT CRELIEF REQUEST GVR-4.1Increased Test Requirements

Relief is requested from the increased test frequency requirements of IWV 3417(a) of Section XI. As permitted by position 5 of GL 89-04, limiting value of full stroke time has been based on a valve average stroke time when the valve was known to be operating properly. The limiting value was then set based on a reasonable deviation from this reference time or the requirements of the Tech. Spec. or Safety Analysis, whichever is more restrictive. The increased test frequency requirements in the present code conflict with the method of selecting the limiting value of stroke. If a valve exceeds the limiting value it is declared inoperable. The following methodology is used when determining limiting values for stroke times:

- A. Electric motor-operated valves with reference stroke times greater than 15 sec. shall exhibit no more than $\pm 15\%$ change in stroke time when compared to the reference value.
- B. Other power-operated valves with reference stroke times greater than 15 sec. shall exhibit no more than $\pm 25\%$ change in stroke time when compared to the reference value.
- C. Electric motor-operated valves with reference stroke times less than or equal to 15 sec. shall exhibit no more than a $\pm 25\%$ or ± 1 sec. change in stroke time, whichever is greater, when compared to the reference value.
- D. Other power-operated valves with reference stroke times less than or equal to 15 sec. shall exhibit no more than $\pm 50\%$ change in stroke time when compared to the reference value.
- E. Valves that stroke in less than 2 sec. may be exempted from C and D above. In such cases, the maximum limiting stroke time shall be 2 sec. when rounded off to the nearest whole second.

Exceptions to the above methodology may be required on a case by case basis. For some valves, process variables, such as system pressure, and/or DC bus voltage can cause normal stroke time variations that may exceed the conservative limiting values established as indicated above. Another exception to the above methodology could be when no direct position indication exists and stroke time is based upon an observed parameter change such as pressure or flow. Timing valves in this manner can result in wider variations in stroke time measurements due to the subjective nature of testing. Any exceptions to the above method of establishing limiting values of stroke time will be documented with an Engineering Evaluation to justify the methodology and limiting values used. Using the above methodology satisfies the intent of GL 89-04 and is comparable to the acceptance criteria specified in IWV-3417(a).

ATTACHMENT D

RELIEF REQUEST GVR-4.2

System Out of Service

Paragraph IWV-3416 of Section XI requires that for any systems out of service, all valves in that system shall be tested before the system is returned to service.

Oyster Creek Technical Specifications do allow for reduced system availability to accomplish maintenance or modifications to safety related systems during shutdown periods. To require testing of all valves in that system before returning the system to a reduced system availability would conflict with the allowable provisions of the Technical Specifications. When reduced system availability is permitted by Technical Specifications, testing will consist of those valves necessary to satisfy the reduced system availability as required by Technical Specifications. Prior to returning the entire system back to service, all valves in that system shall be tested. Compliance with the plant Technical Specifications will provide an acceptable level of quality and safety.

ATTACHMENT E

RELIEF REQUEST GVR-4.3

Corrective Action

Paragraph IWV-3417 of Section XI requires that when corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before start-up.

Relief is requested from IWV-3417 for valves specifically addressed in Technical Specifications with respect to operability and startup requirements. Compliance with the plant Technical Specifications will provide an acceptable level of quality and safety.

Relief is also requested from IWV-3417 for those cases where evaluation and analysis can demonstrate that the specific safety functions of the valve involved are either no longer required or compensatory actions have been taken to assure the safety function is preserved. This evaluation and analysis will be documented and maintained as a record of corrective action.

ATTACHMENT FRELIEF REQUEST VR-43

SYSTEM: Liquid Poison

VALVES: V-19-37, V-19-38

CATEGORY: C

FUNCTION: Pump Discharge Check Valves

TEST REQUIREMENT: Exercise every three months.

BASIS FOR RELIEF: The means for testing these valves in the closed direction would involve mechanical operations that could involve personal hazard due to the high pressure output of the liquid poison pumps. Reverse flow through a positive displacement pump is not a probable mode of failure and relief valve discharge and leakage is checked on a quarterly basis. These are the two possible paths should the pump discharge check valve fail in the open position. Quarterly pump testing and relief valve leakage testing would detect any excessive backflow and cause the operating pump to fail its acceptance criteria. If this condition were to occur, the involved components would be repaired or replaced.

ALTERNATE TESTING: These valves are exercised every three months to verify full open position. No reverse flow test will be done.

ATTACHMENT GRELIEF REQUEST VR-29

SYSTEM: Control Rod Drive

VALVES: V-15 (132)

CATEGORY: D

FUNCTION: These rupture discs (137 of them) protect the High Pressure nitrogen side of the HCUs from being overpressurized while charging accumulators. The rupture discs are rated for 2000 psig.

TEST REQUIREMENT: IWV-3620 - Rupture discs shall be tested in accordance with the periodic testing requirements of ANSI/ASME OM-1-1981 for nonreclosing pressure relief devices.

BASIS FOR RELIEF: These rupture discs are provided to ensure the nitrogen side of the hydraulic control unit is not overpressurized during periodic charging activities. Each accumulator is charged one at a time by using a temporary connection to a charging station. The charging station is provided with a regulator and a relief valve which is set at 1500 psig. Multiple failures would be required before a rupture disc would be challenged during a charging operation. The failure of a rupture disc can only affect one control rod and will not affect overall system performance. The passive integrity of these rupture discs fulfill the safety related function of these components. The passive integrity is continually monitored by means of pressure switches. Any degradation in integrity will cause an alarm condition and investigation by operators.

ALTERNATE TESTING: Continuous monitoring of passive integrity as described above.

ATTACHMENT HRELIEF REQUEST VR-11

SYSTEM: Core Spray

VALVES: V-20-60, V-20-61, V-20-88, V-20-89

CATEGORY: C

FUNCTION: These valves provide isolation between the Core Spray System and the Fire Protection System. These valves also provide a secondary source of makeup to the Reactor, utilizing fire water via the core spray piping.

TEST REQUIREMENT: Full stroke exercise every three months, per IWV-3520.

BASIS FOR RELIEF: Initiating flow through these valves will cause unacceptable water chemistry transients in the suppression pool and/or reactor vessel.

ALTERNATE TESTING: The closed position of each pair of these valves is verified quarterly by means of a leak test. These valves will be disassembled and inspected to verify open and close stroke as permitted by NRC generic letter 89-04 Position 2. Before reinstalling the valve cap, the disc is manually lifted and allowed to swing closed. Due to unacceptable water chemistry it is not possible to test open these valves by means of flow. After reassembly the closed position is verified by a leak test. Non-intrusive techniques presently available would not be feasible since they require flow through the valve. These valves form a group in that they are the same size, manufacturer model and materials of construction and required to pass the same flowrate. Two of the subject check valves are mounted vertically, flow up, while the other two are in the horizontal. Since vertical is the more restrictive orientation a vertical valve was the first to be opened. No adverse conditions were observed. Therefore, these valves will be grouped with the horizontal valves. One valve of the group will be disassembled during each refueling outage such that over four refueling outages all of the valves will have been inspected. While this is somewhat different than the GL 89-04 position it is GPUN opinion that since the valves do not see any active service and are of the same size and type, any wearing or degradation would be the same for all four valves. GPUN believes there is negligible benefit to safety by the disassembly of two valves each refueling outage as compared to the disassembly of one valve each refueling outage.

ATTACHMENT IRELIEF REQUEST VR-37

SYSTEM: Core Spray

VALVES: V20-52, V-20-53, V-20-54, V-20-55

CATEGORY: C

FUNCTION: Core Spray Booster Pump Discharge Check Valves

TEST REQUIREMENT: Full stroke exercise every three months.

BASIS FOR RELIEF: The test line utilized for testing these valves will not pass the maximum flowrate of 4100 gpm. It will pass at least 3400 gpm.

ALTERNATE TESTING: The valves will be partial flow tested every three months and whenever the valves are returned to service after open and inspection activities. These valves are of the same manufacturer, size, model and type. One valve of this group will be opened and inspected at each refueling outage.

NOTE: GPUN will actively pursue the possibility of utilizing a non-intrusive diagnostic technique to demonstrate the ability of these valves to pass design flow by means of a partial flow test.

ATTACHMENT JRELIEF REQUEST VR-42

SYSTEM: Core Spray

VALVES: V-20-8, V-20-9, V-20-16, V-20-22

CATEGORY: C

FUNCTION: Core Spray Main Pump Discharge Check Valves

TEST REQUIREMENT: Full stroke exercise every three months.

BASIS FOR RELIEF: The test line utilized for testing these valves will not pass the maximum flowrate of 4100 gpm. It will pass at least 3400 gpm.

ALTERNATE TESTING: The valves will be partial flow tested every three months and whenever the valves are returned to service after open and inspection activities. These valves are of the same manufacturer, size, model and type. One valve of this group will be opened and inspected at each refueling outage.

NOTE: GPUN will actively pursue the possibility of utilizing a non-intrusive diagnostic technique to demonstrate the ability of these valves to pass design flow by means of a partial flow test.

ATTACHMENT K

RELIEF REQUEST VR-45

SYSTEM: Core Spray

VALVES: V-20-50, V-20-51

CATEGORY: C

FUNCTION: Core Spray Booster Pump Bypass Check Valves

TEST REQUIREMENT: Full stroke exercise every three months.

BASIS FOR RELIEF: The test line utilized for testing these valves will not pass the maximum flowrate of 3700 gpm.

ALTERNATE TESTING: The valves will be partial flow tested every three months and whenever the valves are returned to service after open and inspection activities. These valves are of the same manufacturer, size, model and type. One valve of this group will be opened and inspected at each refueling outage.

NOTE: GPUN will actively pursue the possibility of utilizing a non-intrusive diagnostic technique to demonstrate the ability of these valves to pass design flow by means of a partial flow test.

ATTACHMENT LRELIEF REQUEST VR-13 (Part 2)

SYSTEM: Main Steam

VALVES: V-01 (NR-108A), V-01 (NR-108B), V-01 (NR-108C), V-01 (NR-108D), V-01 (NR-108E)

CATEGORY: B

FUNCTION: To provide automatic and manual pressure control for the RCS as well as providing for automatic depressurization of the RCS in case of an accident.

TEST REQUIREMENT: Full stroke exercise and measure stroke time every three months, per IWV-3410.

BASIS FOR RELIEF: Exercising these valves during power operation simulates a small-break transient, subjecting the RCS and related piping to unnecessary transients. These valves cannot be exercised at cold shutdown because reactor pressure is necessary to stroke the valves. No direct position indication exists for these valves. However, acoustic monitors do provide an indirect means to determine position and can be used to time the stroke of these valves.

ALTERNATE TESTING: Valves will be full stroke exercised and stroke time measured during startup following a refueling outage; i.e., on a refueling outage frequency.

ATTACHMENT MRELIEF REQUEST VR-14

SYSTEM: Main Steam

VALVES: V-1-190, V-1-191, V-1-192, V-1-193

CATEGORY: C

FUNCTION: These valves are installed on the discharge headers of the electromatic relief valves in the drywell and were designed to open upon a low pressure condition in the discharge line. Relief of the low pressure condition after initial lifting and reseating of the electromatic relief valves will prevent a water column from being established due to the pressure differential between the discharge line and the torus. This water column is undesirable due to the potential increase in hydraulic forces during subsequent relief valve lifts. These valves do not provide any over pressure relief.

TEST REQUIREMENT: Every three months, per IWV-3520.

BASIS FOR RELIEF: The drywell is a high radiation area that is normally kept inerted with a nitrogen atmosphere. These valves are not provided with any mechanisms for exercising the internals, and the test method used requires removal of the valve inlet screen and the use of a special tool rig to stroke and measure the opening force. At the completion of the test, the tool rig is removed and inlet screen reinstalled. The installation and removal of the test rig and inlet screen does not require any disassembly of the valve internals. Therefore, no post testing is required after this exercise test.

ALTERNATE TESTING: Exercise at refueling, when conditions allow access to the drywell; i.e., when containment is de-inerted.

ATTACHMENT NRELIEF REQUEST VR-40

Valves V-38-9, 10, 16, 17, 22, and 23 are not configured with direct position indication nor are they configured with individual control switches for operation. Because of this configuration, it is not possible to utilize an indirect means such as flow or pressure to monitor the position and status of the individual valves. Exercising these valves with this configuration does not allow operators to confirm that the valves have changed position. Therefore, testing in the present configuration would not provide any significant data for valve operability determination. These are original, as-built limitations and have existed throughout the last ten-year interval. As the installed configuration does not allow testing in accordance with ASME XI, continuing relief is requested for the next ten-year interval.

Separate from the IST limitations, modifications have been scheduled to be made to the control circuitry for four of these valves (V-38-9, 10, 16, and 17) during the current refueling outage. These modifications will allow individual operation of the modified valves. After modifications, a new test procedure will be implemented which has been written to confirm valve exercising, fail safe testing, and stroke time measurement sufficiently accurate to monitor valve condition and detect degradation. However, the testing methods to be used will require time to collect and evaluate data to determine effectiveness. No modifications are presently scheduled for valves V-38-22 and 23.