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United States Nuclear Regulatory Commission
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Subject: Request to Implement a Risk-Informed Inservice Testing Program

Ladies and Gentlemen:

The First Energy Nuclear Operating Company (FENOC) is requesting to implement a Risk-Informed Inservice Testing (RI-IST) Program as an authorized alternative to the currently NRC-endorsed American Society of Mechanical Engineers (ASME) Code specified by 10 CFR 50.55a(f) for the Davis-Besse Nuclear Power Station (DBNPS). This alternative is being requested pursuant to 10 CFR 50.55a(a)(3)(i) in that the proposed alternative provides for an acceptable level of quality and safety.

Approval is requested to utilize a risk-informed process to determine the Inservice Testing (IST) strategies for pumps and valves. The first group of components to which the risk-informed process will be applied is air-operated valves (Phase 1). It is planned to apply the risk-informed process to additional groups of components such as motor-operated valves (Phase 2), check valves (Phase 3), and pumps (Phase 4). For any group of components that DBNPS opts not to include in the RI-IST Program, the normal IST Program requirements of the Code of Record for the Third Ten-Year IST Interval will be applied.

In Serial Letter 2632, dated January 5, 2000, FENOC requested that the implementation date for the Third Ten-Year IST Interval and the above RI-IST Program be deferred from September 12, 2000 to February 1, 2002. Thus by February 1, 2002, all IST pumps and valves will be either a part of the above proposed RI-IST Program, or will be tested per the Code of Record of the Third Ten-Year Interval IST Program. The NRC granted this request on February 10, 2000, to move the implementation date for the Third Ten-Year Interval IST Program from September 12, 2000 to February 1, 2002 (Log Letter 5609).

The attachments to this letter provide justification for the use of the proposed alternative in accordance with the requirements of 10 CFR 50.55a(a)(3)(i). The previous RI-IST submittals for the Comanche Peak Steam Electric Station and the San Onofre Nuclear Generating Station were considered in the preparation of this submittal, as well as the numerous applicable NRC

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Regulatory Guides, the Electric Power Research Institute (EPRI) RI-IST reports, and the ASME RI-IST code cases.

This request has been developed as part of a Babcock and Wilcox Owner's Group (B&WOG) effort to apply the RI-IST process to air-operated valves (AOVs). The DBNPS is the lead plant in this B&WOG effort for RI-IST of AOVs; see Enclosure A. The RI-IST Program for the DBNPS uses the Probabilistic Safety Assessment (PSA) for the component risk ranking and aggregate risk assessment; see Enclosure B.

Should you have any questions regarding this request, please contact David H. Lockwood, Manager - Regulatory Affairs, at (419) 321-8450.

Sincerely Yours,

GMW/s

Attachments:
1 - Description of Proposed Program Change
2 - Identification of Changes to IST Licensing Basis
3 - Description of the RI-IST Program
4 - Summary and Assessment of Previously Approved Relief Requests
5 - Commitment List

Enclosures:
A - "Demonstration Project to Apply Risk-Informed Inservice Testing to Air-Operated Valves," B&W Owners Group, Risk-Informed Applications Committee, BAW-2359 Topical Report, July 2000.
B - "Probabilistic Safety Assessment for the Davis-Besse Nuclear Power Station, Summary Report," October 1999.

Attachment 1
Description of Proposed Program Change

Reference: NRC Regulatory Guide 1.175, Section 1.1, Description of Proposed Changes

A1.1 Licensing Basis and Commitments

The scope of pumps and valves currently in the Inservice Test (IST) Program is in accordance with the requirements of 10 CFR 50.55a. A thorough review of the program scope has been performed, using the guidance of NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants."

In addition, for the RI-IST Program, any components determined to be of high safety significance using the requirements of the ASME OMN-3 Code Case, or as evaluated by the Expert Panel will be added to the scope of the IST Program.

During the Second Ten-Year Interval for the DBNPS , the requirements of the 1986 Edition of the ASME Boiler and Pressure Vessel (B&PV) Code, Section XI, were utilized. For the Third Ten-Year Interval, the DBNPS plans to use the requirements of the 1995 Edition including the 1996 Addenda of the ASME Code for the Operation and Maintenance of Nuclear Power Plants (OM Code), with alternatives as provided for in the ASME RI-IST code cases. The 1995 Edition including the 1996 Addenda of the ASME OM Code is being used as it is the current code of record per 10CFR 50.55a, even though it was not in effect on September 12, 1999, one year prior to the end of the Second Ten-Year Interval.

Additionally, DBNPS Technical Specification 4.0.5 mentions the "Section XI of the ASME Boiler and Pressure Vessel Code and Applicable Addenda" in the context of Inservice Inspection and Inservice Testing. Since 10 CFR 50.55a was modified on September 22, 1999, the Technical Specifications will be altered to include a reference to the ASME OM Code. This change to the DBNPS Technical Specifications will be made as a separate licensing submittal.

A1.2 Testing Methods and Intervals

At the DBNPS a wide variety of valve types, actuator types, and actuator vendors were utilized for AOVs. See Table 1-1 below.

Table 1-1, Variety of AOVs at the DBNPS

Types of Valves	Butterfly, ball, 3-way ball, cage & ball, damper, globe, Y-pattern globe, pilot-operated globe, weir, and gate
Types of Actuators	Spring return piston, double acting piston, spring & diaphragm,
Valve/Actuator Vendors	ITT Hammel-Dahl, Fisher Controls, Bailey, ITT Grinnell, Neles-Jamesbury, Miller, Bettis, Copes-Vulcan, Valtek, Rockwell, Pall Pneumatics, and Contromatics

A wide variety of preventive maintenance is performed on these AOVs to maintain them in good condition for optimal system performance. Preventive Maintenance activities (based upon EPRI Report TR-106857-V1, Preventative Maintenance Basis Vol 1, Air Operated Valves) include:

- Calibration of accessories
- Packing inspection / adjustment
- Visual external inspection
- Diagnostic scan
- Internal leak detection
- Ultrasonic techniques – minimum wall thickness
- Air supply filter replacement
- Actuator assembly overhaul
- Replacement of accessories
- Valve assembly overhaul
- Packing replacement
- Stroke test – timed stroke, solenoid valve and limit switch actuations

Some of these AOVs are operated periodically (light, medium, or heavy duty cycle) during the plant operating cycle as part of normal system operation. Also the service condition of these AOVs may be harsh (severe) or mild (benign). See Table A-1 in Enclosure A for a listing of all AOVs in the IST Program (including the Augmented Testing Program) at the DBNPS.

The above factors and the requirements of the draft ASME OMN-AOV Code Case for RI-IST Programs were utilized to determine the appropriate testing strategy for each AOV. These proposed inservice testing strategies (testing methods and testing intervals) for each AOV in the proposed RI-IST Program are listed in Table 1-2.

Table 1-2, AOV RI-IST Strategies

	Category 1	Category 2	Category 3
Grouping	Based on valve, actuator and service conditions	Based on valve, actuator and service conditions	Based on actuator
Design Basis Capability	DBC for each AOV Group based upon vendor supplied data	DBC for each AOV Group based upon best available information	DBC only based upon issue identified during DBC of Cat. 1&2
Diagnostic Testing	Yes	Yes	Yes
Baseline Testing	Stroke Time & Diagnostic	Diagnostic	Diagnostic
Periodic Testing	Stroke Time & Diagnostic once per cycle going to once per two cycles max	Diagnostic once per three cycles going to once per five cycles max	Diagnostic for Post-Maintenance Test only, max of once per five cycles for IST
Periodic Exercising	Once per cycle	Once per cycle	Once per cycle
Seat Leakage	Per Code of Record	Per Code of Record	Per Code of Record
Preventive Maintenance	Based upon EPRI Report and OE	Based upon EPRI Report and OE	Based upon EPRI Report and OE
Setpoint Control	Based upon DBC	Based upon DBC	Based upon vendor data

The criteria for the development of operational readiness strategies for the AOVs is described in Enclosure A, Section 6.10.

A1.3 Proposed RI-IST Program Components

83 AOVs are being addressed in Phase 1 of the RI-IST Program. See Enclosure A, Section 4.1 for a comparison with other B&W plants.

All AOVs, identified by the PSA and the Expert Panel to be of high safety significance, are already included in the IST Program. Based upon the requirements of the ASME OMN-3 Code Case, 15 AOVs were categorized as High Safety Significant Components (HSSCs) and the remaining 68 AOVs were categorized as Low Safety Significant Components (LSSCs).

The remaining pumps and valves in the IST Program, besides the 83 AOVs described above, are future candidates for the RI-IST Program during later phases of the Program.

Enclosure A, Table A-1 lists the 83 AOVs in the proposed RI-IST Program.

A1.4 Component Basis, Performance, and Risk

The pumps and valves in the IST Program have their system functional bases identified in the DBNPS Component IST Basis Documents. These bases were utilized by the Expert Panel in their integrated decision-making process for the AOVs.

All the IST pumps and valves are in the "Maintenance Rule" system performance program developed to satisfy the requirements of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." This performance program was also utilized by the Expert Panel in their integrated decision-making for the AOVs.

Many of the IST pumps and approximately half of the IST valves are modeled in the DBNPS Probabilistic Safety Assessment (PSA). The Core Damage Frequency (CDF) and Large Early Release Frequency (LERF) contributions of the AOVs were considered by the Expert Panel in the integrated decision-making process.

A1.5 Objectives of RI-IST Program

The objectives of the RI-IST Program for Phase 1 are to:

- Establish the RI-IST process at the DBNPS,
- Identify the most risk / safety significant AOVs in the plant, and
- Focus the plant resources on these AOVs to achieve very high operational readiness of HSSC AOVs and reasonably high operational readiness of LSSC AOVs.

These objectives are complementary to the NRC PRA Policy Statement objectives, which are:

- Improved safety decision making enhanced by the use of PSA insights,
- More efficient use of agency resources, and
- Reduction in unnecessary burden of licensees.

Since the PSA uses system analysis to identify the redundant trains of equipment and diverse means of achieving safety functions that can be employed in mitigating the effects of initiating events, clearly improved safety decision-making is enhanced by the use of PSA insights. As the nuclear industry (both the plant licensee and regulators) utilizes the PSA for more risk-informed applications, a dramatic improvement in the efficient use of NRC resources will occur. As the plant licensee focuses its limited resources on the most risk / safety significant component and systems, there should be a sizable reduction in unnecessary burden to the licensee.

Attachment 2
Identification of Changes to IST Licensing Basis

Reference: NRC Regulatory Guide 1.175, Section 2.1, Licensing Considerations, Subsection 2.1.1, Evaluating the Proposed Changes

A2.1 Plant Technical Specifications

Since the base IST requirement for the Third Ten-Year Interval will be the ASME OM Code, this will be referenced in the DBNPS Technical Specifications that currently reference Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This change will be handled by a separate licensing submittal request.

A2.2 Updated FSAR

The DBNPS maintains an Updated Safety Analysis Report (USAR), however the USAR does not directly discuss the IST Program. USAR Section 7.4.1 discusses maintaining the reactor in a shutdown condition as an element of the IST Program, USAR Table 9.3 lists several AOVs required for safe shutdown. Several USAR Sections discuss the frequency of testing. The USAR will require alteration to ensure no conflicts exist with regard to the testing being performed or testing frequency as a result of RI-IST.

A2.3 Other IST Program Licensing Basis

The other internal commitments that may relate to the IST Program licensing basis for Davis-Besse, other than those discussed above, are based on specific responses to LERs, IENs, SRTP-MUP, SRTP-MFW, IRs, B&W-OG TRs, and NLDs.

A2.4 Modification of Other IST Program Licensing Basis

The previous internal commitments for AOVs described above in Section A2.3 are hereby superceded by the following:

- Design Basis Program for AOVs
- Plant Preventive Maintenance Program for AOVs
- Maintenance Rule Performance Monitoring Program for AOVs (which affects all IST components)
- RI-IST testing strategies for AOVs developed and implemented by this program

A2.5 DBNPS ASME Quality Assurance Manual

Section 21 of the DBNPS ASME Quality Assurance Manual is entitled "Inservice Inspection and Testing" and describes the requirements and responsibilities for inservice inspection and inservice testing as required by 10 CFR 50.55a. This manual will be updated to reflect the new Code of Record prior to the start of the Third Ten Year Interval.

Attachment 3
Description of the RI-IST Program

A3.1 Description of the Categorization Process

Reference: NRC Regulatory Guide 1.175, Section 2.3, Probabilistic Risk Assessment, Subsection 2.3.2, Categorization of Components

The RI-IST process that the DBNPS utilized to categorize the AOVs was in accordance with the requirements of the ASME OMN-3 Code Case. This process as it was applied to the DBNPS is described in some detail in Enclosure A, Section 6. These requirements included risk ranking all the PSA modeled AOVs in the plant by determining their F-V and RAW. The initial decision criteria applied was based on the RAW / F-V QUAD (described in ASME CRTD Vol 40-2) using RAW = 2 and F-V = .001 as the boundaries.

Since only 46 AOVs are modeled in the DBNPS PSA (see Enclosure A, Table 4-5), those AOVs appear on the QUAD chart as follows (28 of the 46 modeled AOVs are in the IST Program):

QUAD A (F-V < .001 & RAW < 2)	14 IST AOVs	31 Total AOVs
QUAD B (F-V < .001 & RAW > 2)	1 IST AOVs	1 Total AOVs
QUAD C (F-V > .001 & RAW > 2)	11 IST AOVs	11 Total AOVs
QUAD D (F-V > .001 & RAW < 2)	2 IST AOVs	3 Total AOVs

Six sensitivity studies for data and uncertainties, human factors, test and maintenance unavailabilities, LSSC failure rates, truncation limits, and common cause were performed per the requirements of the ASME OMN-3 Code Case. The results of these sensitivity studies were provided to the Expert Panel as additional background information.

The Expert Panel was constituted and trained in accordance with the requirements of the ASME OMN-3 Code Case. The same Expert Panel that is being utilized for the Maintenance Rule Program, is also being used for the RI-IST Program and AOV Reliability Program. DBNPS Procedure DB-PF-00003, Maintenance Rule, controls the Expert Panel process for both the Maintenance Rule Program and the RI-IST Program. The current members of the Expert Panel are:

- Maintenance Rule Program Manager (chairman of the Expert Panel)
- Senior PSA Engineer
- Regulatory Affairs Licensing Engineer
- Project Manager
- Shift Manager (Senior Reactor Operator)
- Maintenance Engineering Supervisor

In addition, the IST Program Engineer and the AOV Program Engineer were invited guests during all Expert Panel sessions for the RI-IST integrated decision-making for the AOVs. A worksheet was prepared for each of the 180 AOVs considered by the Expert Panel (those AOVs within the DBNPS AOV Reliability Program which includes the 83 IST and Augmented Testing Program AOVs). The basis for the HSSC / LSSC decision was recorded by the Expert Panel on these worksheets.

The AOVs in QUADs B and C were categorized as HSSC by the Expert Panel. Three additional AOVs not modeled in the PSA were also categorized as HSSC. The Expert Panel looked closely at the single AOV that appeared in QUAD D that was not in the IST Program. The PSA model identified this valve as high F-V but low RAW. Since no PMs or periodic tests had been performed on this component, the PSA over time assumed that it had very poor reliability. By creating a PM to periodically refurbish the AOV, its assumed reliability improved and its F-V decreased to below .001, thereby moving it into QUAD A.

The plant has a feedback mechanism to factor actual plant component performance into the failure rates used by the PSA, using the bayesian update technique.

Overall, the DBNPS plant is using the requirements of the ASME OMN-3 Code Case to structure its RI-IST Program. More detail is provided in Enclosure A, B&W Owners Group Report.

A3.2 Description of the PSA

Reference: NRC Regulatory Guide 1.175, Section 2.3, Probabilistic Risk Assessment, Subsection 2.3.1, Scope, Level of Detail, and Quality of PRA for IST Applications

The DBNPS PSA was originally developed in response to NRC Generic Letter 88-20. The scope of the PSA is Level 1 and 2, uses the small event tree / large fault tree modeling technique, models approximately 40,000 cutsets, and has been updated numerous times. By plant procedure the PSA is periodically updated to reflect the current plant design, procedures, and programs. The DBNPS PSA is summarized in Enclosure B.

The DBNPS CDF is 1.6E-05 and LERF is 7.3E-08 for full power operations. The major contributors are transients (62%), LOCA (20%), internal flooding (13%), IS-LOCA (3%), and SGTR (2%). A further sub-breakdown of the transient category is: CCW / SW malfunctions (20%), instrument air malfunctions (12%), flooding in the pump rooms (10%), reactor trips (7%), loss of 4 KV bus (7%), loss of main feedwater (6%), and loss of off-site power (3%).

The PSA determined the F-V and RAW for the 46 modeled AOVs (see Enclosure A, Table 4-5) using a truncation level of 1E-04 below the CDF or 1.6E-09, as recommended by the EPRI PSA Applications Guide and the draft ASME PRA Standard.

The quality of the DBNPS PSA is above average for the nuclear industry, as determined by the peer certification process(The DBNPS is the only B&W plant that has undergone the peer certification process to date), discussions within the B&W-Owners Group PRA Subcommittee, and the NRC review of the Individual Plant Examination (IPE) and Individual Plant Examination External Events (IPEEE) submittals.

A3.3 Description of the Change Impact

Reference: NRC Regulatory Guide 1.175, Section 2.3, Probabilistic Risk Assessment, Subsection 2.3.3, Use of a PRA to Evaluate the Risk Increase from Changes to the IST Program

Of the 83 AOVs in the DBNPS IST and Augmented Testing Program, 15 were determined to be HSSC. The maintenance program tasks for those 15 AOVs were judged to be appropriate and the current IST Program requirements were not changed. Conversely, 68 of the IST AOVs were determined to be LSSCs. Based on the current maintenance program tasks and their performance to date, the testing strategy was modified to that shown in Table 1-2. The aggregate risk assessment, required by the ASME OMN-3 Code Case, showed that the "delta" risk as measured by CDF or LERF was negligible.

A3.4 Description of the Maintenance of Key Safety Principles

Reference: NRC Regulatory Guide 1.175, Section 2.2, Traditional Engineering Evaluation, Section 2.3, Probabilistic Risk Assessment, and 2.4 Integrated Decision Making

NRC Regulatory Guides 1.174 and 1.175 identify five Key Safety Principles, which are:

(1) The proposed change meets the current regulations unless it is explicitly related to a requested exemption or rule change.

(2) The proposed change is consistent with the defense-in-depth philosophy.

(3) The proposed change maintains sufficient safety margin.

(4) When proposed changes result in an increase in core damage frequency or risk, the increases should be small and consistent with the intent of the Commission's Safety Goal Policy Statement.

(5) The impact of the proposed change should be monitored using performance measurement strategies.

The Key Safety Principles are maintained by the use of the RI-IST process, which determines the safety significance and testing strategies for components in the ASME IST Program and identifies non-ASME components (pump and valves) modeled in the PSA determined to be HSSC.

First, this proposed change to the IST Program is allowed by 10 CFR 50.55a(a)(3)(i) and is tacitly encouraged by NRC Regulatory Guide 1.175.

Second, Defense-In-Depth is maintained as long as CDF and LERF are maintained at reasonably low frequencies. These reasonably low frequencies are identified in NRC Regulatory Guide 1.174 and ASME OMN-3 Code Case (Rev 1). The DBNPS CDF and LERF support these Defense-In-Depth guidelines.

Third, safety margin is maintained when the plant components that may affect CDF and LERF are reliable and available to perform the required accident mitigating function when needed. At the DBNPS these IST components are being maintained functional and reliable.

Fourth, the increase in risk as identified by the CDF and LERF for this proposed change is negligible.

Fifth, since these IST components are within the purview of the Maintenance Rule, the designed safety margin is programmatically preserved.

The RI-IST process is described in the ASME OMN-3 Code Case. With the implementation of this process, the five Key Safety Principles are maintained. The implementation of this process is further described in Enclosure A, Section 6.

A3.5 Description of Integrated Decision Making

Reference: NRC Regulatory Guide 1.175, Section 2.4, Integrated Decision Making

The DBNPS adopted the requirements of the ASME OMN-3 Code Case, which require the formation of an Expert Panel to perform the integrated decision making process. This process was used in the categorization of the AOVs into HSSCs and LSSCs. Additional information regarding the DBNPS integrated decision-making process can be found in Enclosure A, Section 6.

A3.6 General Implementation Approach or Plan

Reference: NRC Regulatory Guide 1.175, Section 3.1, Inservice Testing Program Changes and Section 3.2, Program Implementation

The DBNPS is utilizing the ASME OMN-3 Code Case to categorize components to be considered for RI-IST into HSSC and LSSC classifications, and the draft ASME OMN-AOV Code Case to group components and to develop the appropriate testing strategies. For any components not included in the RI-IST Program, the requirements of the ASME IST Code of Record will be utilized.

Upon NRC approval of this licensing request and prior to implementation of the RI-IST Program, the DBNPS will modify implementing and surveillance procedures to support the RI-IST

Program. As the design verification, baseline testing requirements, and analysis/data evaluation are completed for a certain group of AOVs, the appropriate testing strategies will be implemented. As was mentioned previously, future RI-IST Program submittals are planned in Phase 2 for MOVs, Phase 3 for CVs, and Phase 4 for pumps.

A3.7 Description of Component Group Testing Monitoring

Reference: NRC Regulatory Guide 1.175, Section 3.3, Performance Monitoring

One of the key aspects of the testing strategy of IST AOVs is to group the AOVs so the performance of any one of the AOVs within that group is indicative of the performance of the remaining AOVs in that same group. Thus AOV performance problems identified by surveillance testing, preventive maintenance, or operational cycling will be evaluated in the normal course of the DBNPS Corrective Action Program. See Enclosure A, Section 6.10 for more information on the development of the AOV testing strategies.

A3.8 Description of RI-IST Corrective Action Plan

Reference: NRC Regulatory Guide 1.175, Section 3.4, Feedback and Corrective Action

The DBNPS has a corrective action program as required by 10 CFR 50 Appendix B. The ASME OM Code has specific corrective action requirements applicable to the IST Program spelled out in Subsection ISTA 9240. The ASME OMN-3 Code Case has specific corrective action requirements identified in Paragraph 4.7.2 that are applicable to a RI-IST Program. Also see Enclosure A, Sections 3.12 and 6.12.

A3.9 Description of RI-IST Periodic Reassessment Plan

Reference: NRC Regulatory Guide 1.175, Section 3.5, Periodic Reassessment

The ASME OMN-3 Code Case provides for a living RI-IST Program that includes feedback as specified in Paragraph 4.7.1. Also see Enclosure A, Sections 3.13 and 6.13. The DBNPS periodic reassessment plan will address the requirements of the ASME OMN-3 Code Case, and typically will include changes in plant configuration, component performance, test results, and industry experience for similar components.

Part of this periodic reassessment will be a feedback loop of information to the PSA. This will include information such as components tested since the last reassessment, number and type of tests, grouping population, number of failures, corrective actions taken including generic implication, and changed test frequencies.

Attachment 4
Summary and Assessment of Previously Approved Relief Requests

Reference: NRC Regulatory Guide 1.175, Section 2.1.2, Relief Requests and Technical Specification Changes

A4.1 Relief Requests

At the DBNPS there are no relief requests for AOVs in the IST Program.

A4.2 Cold Shutdown Justifications

At the DBNPS there are 24 systems with IST components, 14 systems with IST AOVs, and four systems with IST AOVs that had cold shutdown justification during the Second IST Program Ten-Year Interval that affected 18 IST AOVs. Below is a description of the four systems and 18 AOVs.

A4.2.1 Containment Purge System

Within the Containment Purge System there are four AOVs that have a cold shutdown justification for IST. These AOVs all serve a Containment Isolation Valve (CIV) safety function.

- CV-5005 and CV-5006 (48 inch butterfly purge inlet CIVs)
- CV-5007 and CV-5008 (48 inch butterfly purge outlet CIVs)

A4.2.2 Feedwater System

Within the Feedwater System are four AOVs that contain cold shutdown justification for IST. These AOVs all serve a power production function.

- SP-6A and SP-6B (16 inch angle valves for feedwater main control)
- SP-7A and SP-7B (6 inch globe valves for feedwater to steam generator startup control)

A4.2.3 Main Steam System

Within the Main Steam System there are four AOVs that contain cold shutdown justification for IST. These AOVs all serve a transient safety function and a CIV Safety function.

- ICS-11A and ICS-11B (8 inch angle valves for main steam atmospheric dump)
- MS-100 and MS-101 (36 inch stop check valves for main steam isolation)

A4.2.4 Makeup System

Within the Makeup System there are six AOVs that contain cold shutdown justification for IST. These AOVs all serve a CIV safety function.

- MU-3 (2.5 inch gate valve for letdown line containment isolation)
- MU-38 (1 inch globe valve for RCP seal return line containment isolation)
- MU-66A, MU-66B, MU-66C, and MU-66D (1.5 inch globe valves for RCP seal injection supply line containment isolation)

A4.3 Technical Specification Changes

As described in Attachment A2.1, a change to the Plant Technical Specifications is needed to address the reference to the ASME OM Code.

A4.4 Risk Significance of These AOVs

Of the 18 AOVs that were the subject of cold shutdown justifications during the Second IST Program Ten-Year Interval, 2 were categorized as HSSC by the DBNPS Expert Panel. Those two AOVs were:

- MS-100 and MS-101 (Main Steam Isolation Valves)

The cold shutdown justification stated that these two valves would be tested: exercise, time, and fail when scheduled during cold shutdown.

A4.5 Other Compensatory Programmatic Requirements

These two MSIVs are currently subject to at least two other plant programs as follows:

- Preventive Maintenance Program
- Maintenance Rule Performance Program

Previous experience indicates that these two AOVs are good performers, despite being tested at longer intervals (cold shutdown vice quarterly). It is the judgment of the Expert Panel that the risk to the plant associated with changing modes to perform a test is far greater that the potential risk reduction gained by proving the component's performance via more frequent testing.

A4.6 Recommendation For These Cold Shutdown Justified AOVs

The RI-IST testing strategy for these 18 AOVs is:

- HSSCs (MS-100 and MS-101) – Testing of these AOVs during normal operation is impractical and contrary to safety (would set the stage for an initiating event). These valves will continue to be tested during cold shutdown.

- LSSCs (sixteen AOVs) – Testing of these AOVs at intervals longer than quarterly (and refueling cycle intervals) appears to have no deleterious effect. These valves will be tested in accordance with the strategies recommended by the ASME for AOVs in the RI-IST Program

COMMITMENT LIST

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station in this document. Any other actions discussed in the submittal represent intended or planned actions by Davis-Besse. They are described only as information and are not regulatory commitments. Please notify the Manager - Regulatory Affairs (419-321-8450) at Davis-Besse of any questions regarding this document or associated regulatory commitments.

COMMITMENTS	DUE DATE
None	N/A