Attachment 1

CONDUCT OF MAINTENANCE

Procedure 1/2-ADM-0817

RTL#: A5.800B

Beaver Valley Power Station

Unit 1/2

1/2-ADM-0817

Conduct of Maintenance

Document Owner
Manager, BV Maintenance

Revision Number	2
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

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1.0 PURPOSE

1.1 The purpose of this procedure is to describe program requirements for the conduct of maintenance activities at BVPS.

2.0 SCOPE

This procedure applies to all Maintenance personnel who initiate, review, or perform Orders at BVPS.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 1/2-ADM-0100, Procedure Writers Guide

3.1.2 1/2-ADM-0104, Procedure Use and Adherence

3.1.3 1/2-ADM-0500, Reactor Containment Entries

3.1.4 1/2-ADM-0602, Environmental Spill and Release Preparedness, Prevention and Response.

3.1.5 1/2-ADM-0701, Reporting and Notification of a Potential Mispositionings or Tampering Event

3.1.6 1/2-ADM-0801, ASME Section XI Repair/Replacement Program

3.1.7 1/2-ADM-0802, Initiating a Work Request

3.1.8 1/2-ADM-0803, Processing a Work Order

3.1.9 1/2-ADM-0804, Online Work Management

3.1.10 1/2-ADM-0813, Outbuilding Deficiencies Control Program

3.1.11 1/2-ADM-1200, Protected Area and Vital Area Controls

3.1.12 1/2-ADM-1631, Exposure Control

3.1.13 1/2-ADM-1900, Fire Protection

3.1.14 1/2-ADM-2028, Temporary Modifications

3.1.15 1/2-ADM-2031, Commercial Grade, Classification and Dedication

3.1.16 1/2-ADM-2035, Control Room Pressure Boundary Control

3.1.17 1/2-ADM-2144, Preventive Maintenance Program

3.1.18 NPDAP 1.8.15, Independent Verification and Concurrent Verification

3.1.19 NPDAP 2.4, Engineering Memoranda

3.1.20 NPDAP 3.7, Confined Space Entry

3.1.21 NPDAP 3.8, Chemicals and Hazardous Materials Management

3.1.22 NPDAP 5.3, News Release and Notification

3.1.23 NPDAP 8.7, Setpoint Change Control

3.1.24 NPDAP 9.6, Expendable Products Control

3.1.25 NOBP-LP-2001, Reference Guide for NOP-LP-2001

3.1.26 NOBP-WM-0001, Work Management Program Business Practice Maintenance Notification

3.1.27 NOBP-WM-0002, Work Management Program Business Practice Maintenance Planning

3.1.28 NOBP-WM-0003 FENOC Online Scheduling Process

3.1.29 NOBP-WM-0004, Work Management Program Business Practice Order Execution

3.1.30 NOBP-WM-0006, Surveillance Coordinators

3.1.31 NOP-CC-2003, Engineering Changes

3.1.32 NOP-ER-3001, Problem Solving and Decision Making Process

3.1.33 NOP-LP-2001, Condition Report Process

3.1.34 NOP-OP-1001, Clearance/Tagging Programs

3.1.35 NOP-WM-1001, Order Planning Process

3.1.36 NOP-WM-2001, Work Management Process

3.1.37 NOP-WM-3001, Preventive Maintenance Program

3.1.38 NOP-WM-4001, Foreign Material Exclusion

3.1.39 NOP-WM-4002, Repair Identification and Tool Pouch Maintenance

3.1.40 NOP-WM-4003, Welder/Brazer Qualification Process

3.1.41 NOP-WM-5001, Measuring and Test Equipment Calibration

3.1.42 NOP-WM-5002, Control of Measuring and Test Equipment (M&TE)

3.1.43 NOP-WM-9001, Fix-It-Now Maintenance Program

3.1.44 PIPS-E09.3, Electrical Separation

3.1.45 PIPS M08.3, Category I, II, III and F Pressure Boundary Bolting

3.1.46 PIPS-M10.1, Thermal and Sound Insulation for BVPS Unit 1

3.1.47 PIPS-M10.2, Thermal and Sound Insulation for BVPS Unit 2

3.1.48 PIPS-S14.3, Painting for Areas Outside Containment

3.1.49 1/2-PIP-S11, Painting for Containment Interior

3.1.50 Maintenance Expectations Handbook

3.1.51 BVBP-MNT-0003, Automated Tool Inventory Control and Tracking System (ATICTS)

3.1.52 BVBP-MNT-0004, Control, Use and Inspection of Rigging Equipment

3.1.53 BVBP-MNT-0005, Job Walkdown

3.1.54 BVBP-MNT-0006, Leakage Reduction Program Manual

3.2 **Commitments**

3.2.1 Condition Report 970429-01, VS-378 Out of NSA

3.2.2 Condition Report 971320-03, Cable Separation

3.2.3 Condition Report 991742, Deficiencies in MPUAPs 4.2 and 4.9

3.2.4 Condition Report 991390-08, Storage Requirements for Parts Staging Area

3.2.5 INPO SOER 97-01

3.2.6 Swagelok Installation Manual

3.2.7 NRC Generic Letter 95-02

3.2.8 Common Cause Evaluation for RPS/ESF Channel Failures

- WCAP - 10271, "Evaluation Of Surveillance Frequencies And Out-of-Service Times for The Reactor Protection Instrumentation System".

3.2.9 Partial Performance of Maintenance Procedures

- Supervision SHALL document specific reason in record copy and initial and date. Refer to NRC URI 50-334/93-05-01 and 50-412/93-05-01.

3.2.10 Condition Report 04-00886-01, Procedure Deleted Without Proper Consideration of Commitment

4.0 RECORDS AND FORM

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 1/2-ADM-0817.F01, MDM Evaluation Form

5.0 DEFINITIONS

5.1 Work Control Document

5.1.1 Any document used to identify and initiate a maintenance task or install and administratively control a design change or commercial installation. The following is a listing of work control documents:

5.1.1.1 Notifications

5.1.1.2 Orders

5.1.1.3 Engineering Change Package (ECP)

5.2 Work Package

5.2.1 A consolidated document (or collection of documents) that identifies all the necessary requirements to safely and accurately perform a maintenance task, design change or commercial application.

5.3 Emergent Work

5.3.1 An activity added to the schedule after schedule freeze that is required to be completed to maintain plant reliability, safety and short term Limiting Condition for Operation's (LCO's), except tasks performed using the Short-Cycle Process or the Fix-It-Now Process.

6.0 RESPONSIBILITIES

6.1 All Maintenance personnel shall be responsible for adhering to the requirements of this procedure.

6.2 All Maintenance Department Supervision shall be responsible to ensure that all work control documents under their jurisdiction are correctly reviewed and dispositioned.

7.0 PROCEDURE

7.1 General

7.1.1 All Maintenance activities to be performed (shall) be clearly defined by a work control document such as a Notification or an Order.

7.1.2 Design changes are implemented per Engineering Change Packages (ECP). Each ECP that implements work on functional locations in the station shall be implemented with an Order.(3.2.7)

7.1.3 Immediately notify the Control Room and your Supervisor should there be a potential mispositioning or tampering event of plant equipment. Do not reposition the equipment.

7.2 Preparation for Maintenance

7.2.1 Pre-job briefings shall be used for each task. The briefings shall be tailored to the complexity or risk significance of the work to be performed.

7.2.2 The work party shall review the Order documents and any associated procedures.

7.2.3 Work party members shall be qualified for the task to be performed.(3.2.3)

7.2.4 For safety-related equipment, a copy of all material requisitions, accept tags, license plates or CDER's shall be attached to the work package.

7.2.5 Pre-fab or preparation work should be performed in an uncontrolled area or ALARA zone if possible. Shielding, scaffolding, and mockups should be used as necessary.

7.2.6 If the maintenance activity requires work to be performed on energized equipment, all affected work party members shall be familiar with, and follow, the applicable safety guidelines listed in the Industrial Safety Manual.

7.2.7 If an Order entails use of extension cords, test cables, communications cables, or similar electrical equipment, then the requirements of electrical cable separation must be adhered to.(3.2.2)

7.2.8 Plant equipment (valves, switches, components) SHALL NOT be manipulated UNLESS procedurally controlled by one of the methods described in 1/2-ADM-0701.(3.2.1)

7.2.8.1 IF required to manipulate equipment (valves, switches, components) without one of these approved methods, STOP work and request the proper method from supervision.

7.3 Verifications

7.3.1 Verifications performed in procedures and work documents shall be concurrent unless specified otherwise. They shall be performed using the following criteria:

7.3.1.1 Personnel performing verifications shall be trained on the requirements of the verification process.

7.3.1.2 The verification process shall involve a comparison of required action to what was actually performed. The person performing the verification shall not rely on the statement of others to satisfy the verification.

7.3.1.3 Self-Checking shall be used in all maintenance activities.

7.3.1.4 Verifications should be performed in an active manner (e.g., a "Hands on Approach" should be used whenever practical to verify that the action taken was correct).

7.3.1.5 If the consequences of omission or incorrect action could result in a significant operating or safety problem, verification shall be performed by a second qualified individual during the task or condition to be verified.

7.3.1.6 Procedure or Order steps containing verifications shall require the second party to verify with minimum interaction from the step performer.

Example:

1. Connect closing coil leads to control circuit wiring in accordance with Figure 1.

(performer) INITIAL _____

(verifier) VERIFIED _____

7.3.1.7 QC shall review work packages and determine if QC coverage is required. Holdpoints may be assigned to maintenance work procedures and/or work instructions. Work shall not progress beyond a Holdpoint until QC verification has been performed and a QC signature obtained or the Holdpoint has been properly waived by a QC representative.

7.3.1.8 Procedures or the Order document steps which require Independent Verification shall be specifically noted as such within the procedure or Order control document.

7.4 **Procedure Implementation**

7.4.1 Initial Conditions/Prerequisites, Removal From Service and Return To Service sections SHALL be performed in their entirety without deviations. Marking any of these steps "N/A" is prohibited.

7.4.2 The Removal From Service section from I&C procedures issued prior to Issue 4 contain status light and annunciator lists specified for Mode 1 plant conditions. Deviations from these lists are permissible under the following conditions:

7.4.2.1 The procedure is an issue prior to Issue 4.

7.4.2.2 The deviation is in the status light and annunciator list of the Removal From Service section.

7.4.2.3 Each deviation is noted in the procedure margin.

7.4.2.4 Each deviation has been reviewed by both:

7.4.2.4.1 An I&C Supervisor

7.4.2.4.2 An on-shift SRO at the affected unit

7.4.2.5 The status light and annunciator list is stamped and initialed:

Discrepancies reviewed;
Procedure may continue

I&C _____

SRO _____

7.4.2.6 Stamp use is prohibited in any other procedure section or for any other purpose.

7.4.3 Identification of Current Approved Procedure

7.4.3.1 Verify the "APPROVED FOR USE" stamp is on the coversheet.

7.4.3.2 Verify the "APPROVED FOR USE" date has not been exceeded.

7.4.3.3 Verify the procedure is within its periodic review frequency due date,

OR

7.4.3.4 Electronically verify via Curator the procedure is active and is the current revision.

7.4.4 Procedure Briefing Sheet

7.4.4.1 Prior to using a maintenance procedure, each member of the work party shall review the procedure, and sign the briefing sheet. If any part of the procedure is not understood, contact the Work Party Supervisor or Procedure Writer/Engineer.

7.4.5 Procedure Performance

7.4.5.1 All signoffs shall be made by the person(s) performing the procedure, unless the procedure specifically designates otherwise.

7.4.5.1.1 In cases where the technician is performing an OJT/TPE on plant equipment in order to qualify, any required signatures in the procedure must be co-signed (or co-initialed) by the OJT/TPE evaluator.

7.4.5.2 If more than one individual is performing steps in the procedure at different locations, individual(s) at each location should have a copy of the procedure to follow as the activity continues.

7.4.5.3 When performing a procedure on equipment which is affected by a second procedure in progress, it is permissible to defer restoration step(s) in the first procedure providing:

7.4.5.3.1 Restoration step(s) cannot be completed because a second procedure in progress requires equipment to be maintained in the existing state.

7.4.5.3.2 The second procedure contains equivalent restoration steps.

7.4.5.4 Partial performance of procedure steps are to be controlled in accordance with 1/2-ADM-0104, Procedure Use and Adherence.[3.2.4]

7.4.5.5 Procedure Conventions

7.4.5.5.1 When a procedure step or substep states "repeat (sub)steps ... above", it refers to the specified steps or substeps immediately preceding it. It does not refer to steps or substeps in any other section of the procedure.

7.4.5.5.2 When a procedure step or substep states "repeat Calibration Adjustment and Adjustment Verification", it refers to the steps labeled "Calibration Adjustment:" and "Adjustment Verification:" preceding it within the same section.

7.4.5.5.3 When "As Found" data is within tolerance and no adjustments are desired, Maintenance procedures instruct the user to jump ahead, skipping the adjustment instructions. When As Found data is not within tolerance, the user shall continue with the next step(s), which contain the adjustment instructions.

7.4.5.5.4 Test Equipment Labeling: (I&C only)

7.4.5.5.4.1 Procedures often label or "name" test equipment to improve readability of the procedure and to provide a clear understanding of how the procedure is manipulating test signals. Signal names such as TAVG or Steam Pressure refer to the labeled test equipment, not to an actual plant parameter.

7.4.5.5.4.2 The terms "Input" and "Output" refer to the device under test, not necessarily the meter connection point. For example, the Input DVM could be connected at the output of the previous component or at a separate test point, as well as at the input of the device under test.

7.4.5.5.4.3 "Input DVM" and "Output DVM" usually correspond to the "Input" and "Output" columns on the Data Sheets.

7.4.5.5.4.4 In some Tech. Spec. surveillance procedures, comparator trip voltages must be simultaneously measured as close to the sensor as practicable and at the comparator input. In this case, the Input DVM will measure closest to the sensor and the Output DVM will measure the comparator input.

7.4.5.5.5 To facilitate partial procedure performance and minimize procedure problems, instructions are not usually provided to disconnect test equipment until the end of the procedure. When an instruction requires a piece of test equipment to be connected, it is to be understood that it is to be removed from its previous location and connected to its new location.

7.4.5.6 Option Boxes

7.4.5.6.1 Option boxes allow procedures to be performed in a wide range of plant conditions.

7.4.5.6.2 Example:

A	Title Line for Option A
	Verifications required for Option A
B	Title Line for Option B
	Verifications required for Option B
C	Title Line for Option C
	Verifications required for Option C
Circle at least one option: **A** **B** **C** **Initial** _____	

7.4.5.6.3 Each option box is subdivided into two or more lettered options. Each option contains a set of plant conditions under which the procedure can run.

7.4.5.6.4 Some complex options may have a title line which broadly describes the plant condition to which that option applies. The title line is intended as an aid. Verification of the title line is not required.

7.4.5.6.5 All conditions in one of the options must be verified before proceeding. It may be possible to verify more than one option, but only one option is required.

7.4.5.6.6 When in doubt about which option to verify, start with the first option and try to verify each condition until an option is found which can be completely verified.

7.4.5.7 Common Cause Evaluation for RPS/ESF Channel Failure[3.2.8]

7.4.5.7.1 This requirement applies to I&C and Relay procedure which test Reactor Protection System (RPS) or Engineered Safety Feature (ESF) Channels.

7.4.5.7.2 If an RPS/ESF Channel failure is detected during a procedure performed for surveillance or corrective maintenance, an evaluation SHALL be performed to consider whether the failure was caused by a condition which could also exist in redundant channels.

7.4.5.7.3 The evaluation SHALL determine, as a minimum:

7.4.5.7.3.1 Are any remedial actions required?

7.4.5.7.3.2 Is testing in other channels necessary?

7.4.5.7.4 The evaluation SHALL be documented through the Condition Report process.

7.4.5.7.5 Failures not considered common cause failures include:

7.4.5.7.5.1 Instrument drift

7.4.5.7.5.2 Power supply failure to a single channel

7.4.5.7.5.3 Failures announced through Control Room alarms or other readily observed means.

7.4.5.8 Procedure Review and Completion

7.4.5.8.1 The Work Party Leader shall review the procedure to ensure that:

7.4.5.8.1.1 All steps in the procedure have either been completed or have been N/A'd in accordance with approved site administrative procedures.

7.4.5.8.1.2 All applicable data, verifications, option selections and calculations have been correctly completed and that all as left data is within spec.

7.4.5.8.1.3 Any data obtained from other documents or logs and used in this procedure has been accurately transcribed.

7.4.5.8.2 The Work Party Leader shall inform the RO (when required) of the following items:

7.4.5.8.2.1 As-left status of the equipment.

7.4.5.8.2.2 Any equipment left out of Normal System Arrangement (NSA), even if permitted by the procedure.

7.4.5.8.2.3 Any abnormal conditions.

7.4.5.8.3 Obtain Shift Manager/Unit Supervisor signoff.

7.4.5.8.4 All procedures shall be kept with the Work Package.

7.5 Painting Controls

7.5.1 Prior to the commencement of any painting work, the following requirements shall be met:

7.5.1.1 Notify System Engineer of the scheduled painting activity. The System Engineer will inspect work after each shift or as he/she deems appropriate to ensure that no components are rendered inoperable or will have reduced operability due to painting. For work in progress reasonably expected to last a week or more in duration, inspections should be conducted after each shift by the work party supervision.

7.5.1.2 Pre-job briefings and walkdowns shall be conducted by the work party supervisor to alert painters of potential problem areas (those areas NOT to be painted). In addition, these walkdowns should identify and disposition, as necessary, any paint that should be removed from equipment that was inadvertently and erroneously painted.

7.5.1.3 All appropriate components in one particular train will be painted before work progresses to the next train. Likewise, post-maintenance testing should be performed on the one particular train before work progresses to component's operating capability.

7.5.1.4 Post-Maintenance testing of painting work should include, but not be limited to, inspections to ensure that the following components are not painted:

Expansion and construction joints
Flexible conduits
Limit switches, solenoids or other electrical equipment
Lubrication fittings
Nameplate tags or instruction plates
Non-ferrous metals
Rubber, plastic or glass
Sight glasses
Snubbers (moving parts only)
Stainless or galvanized steel (including bolts, studs, nuts)
Surfaces within 2 inches of an area to be field welded
Sway strut bushings
Valve stems, packing glands and gland nuts
Breather elements

7.5.1.5 In addition to the above items, caution should be exercised to avoid painting of any item/component such that the painting could restrict any physical movement. Following completion of work, notify Operations to allow for follow-up valve and switch verifications, as applicable.

7.6 Prevention of Damage to Unit 1/2 SLCRS Charcoal

NOTE:	TIG welding uses an inert gas blanket and filler metal rods with no coating. No hydrocarbons are produced, therefore, the requirements of this section do not apply.

7.6.1 Precautions shall be taken to prevent charcoal damage during:

7.6.1.1 Hot work activities

7.6.1.2 Painting

7.6.1.3 Use of volatile solvents

7.6.2 The following areas are subject to these controls:

Unit 1 and Unit 2

- PAB
- Fuel Building
- Safeguards
- Containment (during fuel movement)

7.6.3 Requirements To Prevent Charcoal Filter Damage

7.6.3.1 Obtain SM/US approval to conduct the subject activity in accordance with the following requirements:

CAUTION:	FOR UNIT 2, MODES 1 THROUGH 4, STEP 7.6.3.2 IS NOT APPLICABLE BECAUSE THE SLCRS ARE REQUIRED TO BE IN SERVICE AND CANNOT BE BYPASSED.

CAUTION:	FOR UNIT 1, MODES 1 THROUGH 4, STEP 7.6.3.2 BYPASSING IS THE ONLY AVAILABLE OPTION BECAUSE THE VENTILATION SYSTEMS ARE REQUIRED TO BE IN SERVICE.

7.6.3.2 Request SM/US, if possible, to bypass/secure ventilation to affected area until work activity is complete and affected area has been sufficiently purged or evaluated and determined that no charcoal damage will occur.

7.6.3.3 Utilize portable ventilation equipment with HEPA **AND** Charcoal Filter to prevent hydrocarbon damage to the SLCRS Charcoal Filters.

7.6.3.4 If neither of the above damage preventive measures can be implemented, then the activity may have to be postponed until a damage preventive measure can be implemented.

7.6.3.5 For further guidance, the Maintenance Supervisor and/or the SM/US may need to consult the System Engineer to determine preventive measures or if they are necessary in a specific case.

7.7 **Boric Acid**

7.7.1 If Boric Acid buildup is noticed during the performance of maintenance activities, Supervision shall be notified to determine necessary follow-up actions. Such actions should include:

7.7.1.1 Generate a Notification identifying the location and extent of the buildup.

7.7.1.2 Provide assistance, as necessary to facilitate required NDE inspections (e.g., lagging removal, bolting removal, etc.).

7.7.1.3 Generate a Condition Report as required to evaluate the problem and recommend solutions if inspection/trending reveals a deficiency.

7.8 **Control of Maintenance Activities**

7.8.1 The original work package, including procedures, reference drawings, data sheets, etc. **SHALL** be in the field during the performance of work with the following exceptions:

- When working in areas, where the work package could become contaminated or damaged, it is acceptable to maintain the package in a clean or environmentally safe area. In these cases, a copy of the original Order marked as **"COPY"** may be used at the job site.

- Generic Orders for the installation/removal of scaffolding, insulation, trailer installation, etc. may be maintained at the work group's office unless it contains specific installation instructions or details.

7.8.2 The following functions are controlled in accordance with the approved site documents found in the reference section of this procedure.

7.8.2.1 Temporary Modifications.

7.8.2.2 Removal and installation of permanently installed insulation.

7.8.2.3 Use of Expendable products on permanent plant equipment and systems.

7.8.2.4 Use of Chemicals and Hazardous Materials.

7.8.2.5 Guidance for prevention and response to spills or releases of regulated or hazardous materials.

7.8.2.6 Entries into confined or enclosed spaces.

7.8.2.7 Maintenance activities involving breaches of the Control Room Pressure Boundary.

7.8.2.8 Maintenance activities involving entries into Reactor Containment.

7.8.2.9 Activities involving access to radiologically controlled areas.

7.8.2.10 Technical information correspondence with Nuclear Engineering.

7.8.2.11 Setpoint changes.

7.8.2.12 Reporting of defects and noncompliance's (as defined in 10CFR21).

7.8.2.13 Fire prevention.

7.8.2.14 ASME XI Repairs and Replacements.

7.8.2.15 Commercial Grade Dedication of safety related items.

7.8.2.16 Heat Stress prevention practices.

7.8.2.17 Access to Protected and Vital areas within the site.

7.8.2.18 Tightening specifications for threaded mechanical fasteners.

7.8.2.19 Foreign Material Exclusion and Accountability.

7.8.2.20 Rigging and scaffolding.

7.8.2.21 Maintaining traceability of parts and components.

7.8.2.22 Control of Measuring and Test Equipment.

7.8.2.23 Job Walkdowns.

7.8.2.24 Leak Reduction.

7.8.2.25 Work Management through the use of the current computer system.

7.8.2.26 Order planning, scheduling, execution and closure.

7.8.2.27 Production/Generation risk evaluation.

7.8.2.28 Access to the Beaver Valley Substation.

7.8.2.29 Control of jumpers and lifted leads. Monitoring of clams.

7.9 **Post-Maintenance Actions**

7.9.1 Suitable Post-Maintenance checkout and testing such as surveillances and/or functional tests shall be performed to ensure that the maintained equipment will perform satisfactorily when placed in service.

7.9.2 Unused parts are to be reclaimed into stock. The packing list, tag, pick ticket and/or label shall accompany each part. The bar coding must be legible in order for stores to scan the information. The materials shall be in the same conditions as received, with no missing parts.(3.2.4)

7.9.3 Completed Work Package documents, i.e., WIP Log, Closure/Feedback, M&TE Travelers, shall be reviewed and processed in accordance with the applicable administrative procedures.

7.10 **Emergent Work**

7.10.1 In the event "Emergent Work" is required that would normally require a step-by-step procedure or be beyond the skills normally possessed by qualified personnel, Supervision shall follow this sequence of action:

7.10.1.1 Obtain approval from the Manager, Operations or designee to perform the maintenance activity.

7.10.1.2 Assign a responsible individual (or crew) to perform the task.

7.10.1.3 Provide suitable oral and/or written instructions to those personnel performing the work.

7.10.1.4 If material/repair techniques are not identified by existing documentation for repairs on QA Category I equipment, the Engineer/Supervisor shall determine the materials/repair techniques to be used to effect the temporary repair.

7.10.1.4.1 This determination should include, but not be limited to the following:

7.10.1.4.1.1 As-Built conditions

7.10.1.4.1.2 Comparisons of requirements of similar equipment

7.10.1.4.1.3 Information from the equipment vendor

7.10.1.4.1.4 Possible effects the repair could have on digital equipment

7.10.1.4.1.5 Good engineering practices.

7.10.1.5 The determination made by Maintenance should have the concurrence of the Control Room to ensure that there are no unreviewed safety questions and that the repair does not constitute a design change. This determination should be properly documented and attached to the Order.

7.10.1.6 The appropriate System Engineer should be contacted as necessary to determine if the temporary repair meets requirements/specifications to be considered a permanent repair. If requirements/specifications are not met, the actions/repairs necessary to make the temporary repair a permanent repair shall be identified. A Condition Report should be issued as necessary to Engineering.

7.10.1.7 Maintenance Supervision should keep any Orders for temporary repairs open until follow-up information has been received from Engineering to be included in the documentation for PORQ review.

7.10.1.8 Maintenance Supervision shall perform the following:

7.10.1.8.1 Maintain close supervision of all maintenance "Emergent Work" activities.

7.10.1.8.2 Log a thorough description of conditions (As Found and As Left assignments) and actions taken.

7.10.1.8.3 Notify the appropriate Maintenance Superintendent as soon as possible.

7.11 Minor Deficiency Monitoring (MDM) Program

7.11.1 During the validation process, the repair tag may be evaluated to determine if it qualifies as an MDM item. Manager OWC & FIN with the consensus of the Responsible System Engineer (RSE) will perform this evaluation. Existing Notifications or Orders may also be considered for inclusion into the MDM program.

Items that will be evaluated while making this decision will include but not limited to:

- Nature of the deficiency
- Amount, type (oil / chemical / water / radioactive), location (general area / containment walkway / contaminated area / clean area / outside) of leakage from the deficiency
- Amount of Operator attention required to monitor/clean-up the leakage
- Cost effectiveness of correcting the deficiency
- Required out of service time to correct the deficiency
- Required plant/component manipulation required to correct the deficiency
- Radiological significance of the deficiency
- The impact of <u>not</u> repairing the deficiency
- The ASME boundary will not be compromised as a result of categorizing the deficiency as a MDM.

7.11.2 Following the review of the above items, the RSE will recommend to the Manager OWC & FIN that this item be considered to be a candidate for the MDM program. At this point in the process, FIN Team Supervisors and/or the RSE will complete the MDM Evaluation Form. Upon obtaining the RSE signature on the MDM Evaluation Form the Manager, OWC & FIN, if in agreement, will approve the MDM Evaluation Form and replace the deficiency tag with an MDM metal tag.

7.11.3 At any time during the validation process, the deficiency can be categorized as an MDM. Once a Notification/Order number is assigned, that unique Notification/Order number will stay with the MDM until the work Notification/Order is worked or voided.

7.11.4 Once a deficiency is determined to be an MDM and a Notification/Order number is assigned, the Notifications/Orders will be retained by the FIN Team and will remain in the MDM file. The Notification/Order will receive an action code of MDM (Minor Deficiency Monitoring) and the craft will be identified as FIN. This action code and craft assignment will differentiate the MDM Notifications/Orders from other Notifications/Orders, such that MDM Notifications/Orders will not be scheduled to work until the RSE determines the time.

NOTE:	It is imperative that these action codes and craft assignments are established and controlled, otherwise the tracking of MDM Notifications/Orders will show up on backlog lists and the Notification/Order could make its way to planning and eventually get worked, thus defeating the purpose of the MDM program.

7.11.5 Once a Notification/Order is determined to be an MDM, the repair tag in the field will be removed and replaced with an embossed metal tag containing a unique MDM number (cross-referenced to the Notification/Order). The metal tag will also contain information regarding the identified deficiency and the original WR/work Notification/Order number. This metal tag will enable the FIN team, the RSE, and other plant personnel to closely monitor the status of the component while performing field walk downs. Additionally this will assist the planner when performing field walk downs in preparation for other work by identifying these as part of the MDM program. It may in fact turn out that several MDMs become voided once a planner walks down the component and concludes that component replacement is the most economical and efficient method of fixing not only a new problem, but also several old MDMs.

7.11.6 The FIN team will maintain MDM Notifications/Orders on file and will have quarterly audits performed on the MDMs. During the quarterly audit, the following items will be reviewed/evaluated.

- Original nature of the deficiency – has it changed?
- Amount of leakage from the deficiency – has it changed?
- Urgency of correcting the deficiency – has it changed?
- Have other MDMs or other Orders changed the original cost effectiveness decision of correcting the deficiency?
- Has the problem escalated to a Control Room Deficiency or Control Room Work Around?
- Has the Radiological significance changed?

7.11.7 The Quarterly MDM audit results will be distributed to the following personnel:

- Manager OWC & FIN
- Operations Manager
- System Engineering
- Work Management Section
- Radiation Protection Section

7.11.8 Any concerns/observations relative to a change in status during the quarterly audit will be brought to the attention of the Manager OWC & FIN and the RSE for resolution.

7.12 **Swagelok Fittings**

7.12.1 Initial make-up, verification and subsequent retightening of Swagelok fittings **SHALL** be performed in accordance with the Swagelok Installation Manual. Where appropriate, a gap inspection gage can be used for verification.[3.2.5, 3.2.6]