

**U.S. NUCLEAR REGULATORY COMMISSION  
REGION I**

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Report Nos.:      94-17      94-16      94-15  
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Licensee:            Northeast Nuclear Energy Company  
                         P. O. Box 270  
                         Hartford, CT 06141-0270

Facility:            Millstone Nuclear Power Station, Units 1, 2, and 3

Inspection at:      Waterford, CT

Dates:              March 6, 1994 - April 16, 1994

Inspectors:         R. Barkley, Project Engineer, RPS 4A, DRP  
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Approved by:      Lawrence T. Doerflein      5/24/94  
                         Lawrence T. Doerflein, Chief      Date  
                         Reactor Projects Section No. 4A

**Scope:** NRC special inspection by the DRP Section 4A Project Engineers primarily in the areas of plant operations and maintenance, principally at Unit 1.

**Results:** A violation noted in Section 1.1 detailing examples of the failure of licensee maintenance personnel to obtain a work request prior to the start of work was not cited in accordance with Section VII.B of the NRC Enforcement Policy. Two unresolved items were identified regarding the type of automated work order that should be issued for certain surveillance procedures (Section 1.7) and the replacement of wire nut electrical connectors (Section 2.2). The licensee's followup of a concern regarding the qualification of contractor maintenance personnel was good, but management expectations regarding the oversight of unqualified employees need to remain emphasized, particularly given the lack of a formal policy in this area.

## DETAILS

### 1. MAINTENANCE

In the August/September 1993 time frame and again in March 1994, the NRC became aware of various concerns in the area of maintenance performance deficiencies at Millstone Unit 1. An immediate review of these concerns by the resident inspectors and Region I management determined that none of these concerns involved an immediate safety issue, and a decision was made to address these concerns as resources were available. The following concerns were reviewed during this inspection; Sections 1.1 - 1.7 discuss concerns noted in August/September 1993, while Sections 1.8 - 1.10 discuss concerns noted in March 1994:

#### 1.1 Work performed without an automated work order (AWO).

- (1) On or about August 25, 1993, it was observed that longer bolts had been installed on the micarta cover for the collector ring fan on the main turbine generator. This work was apparently performed without first obtaining an AWO as required by ACP-QA-2.02C, "Work Orders." This was reported to licensee management by the maintenance worker in a memorandum dated November 4, 1994.

Management investigated the concern and determined it was factual. The bolts had been replaced by a maintenance engineer who did not obtain an AWO before the fact. In their response to the maintenance worker, the licensee stated that although there was a violation of an administrative procedure (and thus a violation of TS 6.8.1), the work was of low safety significance and was performed on non-safety related equipment. The response also noted that licensee management felt the engineer was qualified to do the work based on his knowledge, experience and training.

The inspector discussed this violation of the ACP with the Maintenance Manager. He stated that the maintenance engineer had been verbally counselled on his failure to use an AWO. He also felt that this was an isolated case and the problem had been corrected.

- (2) On August 30, 1993, a plant equipment operator (PEO) was observed working on the 'B' Turbine Building Closed Cooling Water (TBCCW) Pump seal line apparently without having obtained an AWO prior to doing the work as required by ACP-QA-2.02C.

The inspector examined the TBCCW pump where the work had taken place and interviewed the PEO who had done the work. The PEO stated that he removed a portion of the pump gland seal drain line in order to install a bottle to collect leakage. The leakage collection was done at the request of an operations engineer to obtain data for a radwaste reduction project. He stated that PEOs normally do work that doesn't require an AWO and the PEO mistakenly thought that one was not required for this job. Discussions with the PEO's supervision indicated that an AWO should have been written in this case. Discussions with maintenance personnel indicated that they obtain an AWO for all work performed.

Although the TBCCW pump is not a safety-related piece of equipment, it is under the control of ACP-2.02C for use of AWOs. The removal of a portion of the 'B' TBCCW gland seal piping is a violation of the ACP. Subsequent to the inspector's findings in this matter, the Unit 1 Director took corrective action by issuing a memorandum (MP-1-94-53) to Unit 1 department heads reminding them to ensure that their personnel use an AWO when performing work on plant equipment that exceeds the work routinely authorized as part of their rounds.

- (3) NRC Inspection Report 50-245/93-27 documented a similar violation in which a maintenance supervisor performed work on emergency lighting units (ELUs) without first obtaining an AWO. A notice of violation (NOV) concerning this problem was issued in report 93-27 issued on February 2, 1994. The licensee responded to the NOV on March 14, 1994.

Since: the examples identified above of the violation of ACP-2.02C occurred prior to the similar violation being identified in report 50-245/93-27; they are low safety significance and involved non-safety-related equipment; appear to be isolated cases when compared to the large number of AWOs normally issued at the plant for maintenance work; and the licensee is taking corrective action, the above noted examples will not be cited, in accordance with Section VII.B of the Enforcement Policy.

## 1.2 Shelf life items past their expiration dates

Procedure NEO 6.14, "Shelf Life Items," provides the guidance for handling shelf life items. Items whose shelf life expires in the warehouse are set aside and are tagged with a white tag with red lettering. Shelf life items issued to the shop are clearly tagged as shelf life items with a white tag with green lettering. The shelf life expiration date is clearly marked on the tag. In addition, the shelf life expiration date is also stated on the material information form (MIF) which accompanies each job.

The inspector observed shelf life items in the shop staged for specific jobs. Such items were clearly marked with expiration dates which were observable by maintenance personnel. If a shelf life expires, the item is either discarded or the shelf life can be extended using an inspection checklist provided in procedure NEO 6.14. This procedure appeared comprehensive to the inspector. The inspector observed that in-shop controls and tagging appear to be sufficient to preclude the installation of expired items. No observations of expired material being installed in the plant were noted by the inspector. The inspector had no further questions concerning this item.

### 1.3 Emergency Lighting Unit (ELU) Testing

The inspector reviewed the records for preventive maintenance (PM) done on ELUs for the last 2 years. This is a semi-annual PM as established by the licensee. Records for the last 2 years indicate that the PM for testing the lights (MP 790.2, "Emergency Lighting Inspection") has been performed twice a year, although not necessarily on 6 month intervals. However, review of PM data further back indicated that no PM was performed between February 7, 1991, and January 7, 1992, and between June 7, 1989, and June 27, 1990. Licensee records indicate that AWOs were issued to perform the PMs at the 6 month point in each case, but for some reason they were not performed. While there is a mechanism for waiving the performance of a PM, this did not appear to have been done in these cases.

Preventive maintenance and surveillance testing of ELUs is not a Technical Specification or 10 CFR 50, Appendix R, specified requirement. Testing and PM frequency and requirements are established by the licensee, who has freedom to adjust PM frequencies when required.

In response to the inspector's findings, licensee management issued a "Controlled Routing - Action Required" (CR# 0894-019) which stated that: "Maintenance and I&C will evaluate what controls are in place to ensure proper implementation of the PM Program. This evaluation should include a discussion of source documents, the process for ensuring proper implementation, and mechanism for management involvement. The results of this evaluation will be shared with the station." The results are due by July 1994.

There is no established regulatory or manufacturer's limit on ELU or ELU battery life. The manufacturer warranties the batteries for 5 years, but the life of each battery could be much more than 5 years. According to the licensee, since August 1993, all ELU batteries have been replaced. While records are not complete in this

area, it appears that most batteries were installed 6 to 7 years before their recent replacement. In the future, batteries will be replaced between the 4 and 5 year point in accordance with MP 790.2. The inspector had no further questions regarding this concern.

#### 1.4 ELUs not being repaired in timely manner.

This concern was that some ELUs had priority 2 work orders against them for months. Procedure ACP-QA-2.02C, "Work Orders," has several definitions as to what constitutes a priority 2 work order. For the ELU repairs, the two definitions that most closely apply are "...Problem that jeopardizes compliance with regulatory requirements.." or "...PM work that is overdue and which has been determined by operations or maintenance supervision to require a higher priority..." No specific time frame is specified in ACP-2.02 for completion of any priority of AWO. The licensee stated that ELU work was held up due to a shortage of ELU batteries and internal electronic cards and that after batteries became available, some work could not be performed immediately due resource constraints and competing higher priority work.

The inspector reviewed a printout of ELU AWOs generated from June to December 1993. There were 70 AWOs generated to repair ELUs during the above time period; 30 of these were priority 2. The rest were either priority 3 or 4. A review of 29 of the 30 priority 2 AWOs indicate all but one took no longer than one month to complete. These time frames for repair do not appear to be excessive, particularly given the part shortages experienced. A review of these records and discussions with the electrical supervisor during that time period indicate that there was not any attempt to delay priority 2 work on the ELUs. As stated above all batteries in the ELUs have been replaced. The inspector had no further questions regarding this concern.

#### 1.5 AWO submitted to install an evacuation speaker in the Unit 1 Health Physics (HP) office without obtaining a plant design change request (PDCR) and another evacuation speaker moved without a PDCR.

On September 10, 1993, a Unit 1 electrician was given an AWO to install an evacuation speaker (public address [PA] system) in the Unit 1 HP office. The electrician questioned his supervisor whether a PDCR should be required for this work. The supervisor said he would raise the question to Unit 1 engineering. On September 20 or 21, 1993, another electrician was observed moving another PA speaker using an AWO, but no PDCR was involved in the work.

The inspector observed that a PA speaker has not been installed in the Unit 1 HP office. A discussion with the supervisor indicated that after the question was raised, he was informed by Unit 1 engineering that a PDCR was required; thus work on the

job was terminated. The inspector discussed the job with the Unit 1 Engineering Supervisor who confirmed that the job would have required a short form PDCR. To date, the decision has been made not to proceed with this work.

The second case involved a speaker that was moved using an AWO but not a PDCR. In this case the PA speaker was not electrically disconnected but moved from one side of a partition to the other side. The Engineering Supervisor stated that a PDCR would not be needed for this minor job as neither the PA system or existing drawings would be affected. It should be noted that neither job involved plant installed or safety related equipment and that work on the first speaker relocation was terminated and the speaker was returned to its original state prior to any violation of PDCR procedural requirements. The inspector had no further questions regarding this concern.

#### 1.6 Megger testing (insulation resistance testing) of 4160 KV load centers

The inspector verified that procedures exist for performing megger testing of 4160 KV load centers in Units 2 and 3 (i.e. [Unit 2] MP 2720Q and [Unit 3] MP 3788AL). A less detailed procedure also exists for Unit 1 - MP 772.2, "High Voltage Grounding 4160 Switchgear." MP 772.2 provides a very general procedure for use of an electrical ground and test device to perform megger tests. ANSI 18.7, which provides standards in this area, permits work to be done without procedures if it can be considered within the skill of the craft worker; megger testing is considered within the skill of the craft. Unit 1 maintenance management stated they evaluated this concern and decided that the current procedure (MP 772.2) and journeyman electrician skills provided sufficient guidance for performing megger tests. The inspector noted that there is no specific regulatory requirement to establish a meggering procedure and that the existing guidance meets the intent of ANSI 18.7. The inspector had no further questions in this area.

#### 1.7 Surveillance tests performed without a procedure and prerequisites in certain surveillance procedures are unclear as to the type of AWO required.

In January 1993, a supervisor allegedly told electrical maintenance personnel that a procedure was not required to perform a surveillance test if it was only referenced in an AWO rather required by the AWO. The inspector questioned the now former supervisor concerning this issue. He admitted to making the statement, but pointed out that he had only been in the job less than two months and made the statement based on a misunderstanding of some information that he had been told. After the error was pointed out to him, he thought that he corrected it at that time. The inspectors review of procedures and discussions with plant personnel indicate that no surveillance tests are performed without the use of a procedure. This incident appears to be an isolated error which was quickly corrected and caused no work to be improperly done.

With regard to the type of AWO required by procedure SP 786.1, "U-TEK-TOR Fire Detection System Checks," prerequisite step 4.1 states "Ensure that an approved Automated Work Order (AWO) is available." Further, the procedure has a signoff to verify that all prerequisites are met. The inspector was presented with copies two AWOs issued during September 1993. One AWO was for testing of the gas turbine building fire alarm and was a "one part" AWO; and the other AWO was for testing the battery room fire alarm and was a "two part" AWO. A two part AWO requires both Maintenance Department and Shift Supervisor (SS) approval; a one part AWO requires no approvals at all. This inconsistency confused some maintenance personnel as to what constitutes an approved AWO (i.e. Does a one part AWO meet the requirement of prerequisite 4.1?). Other instances of this problem may exist since the same prerequisite may be in other surveillance test procedures.

This issue is not a safety or regulatory issue since procedure SP 786.1, as well as other surveillance test procedures, require SS approval in the text of the procedure before starting the test. SS Approval on the AWO, in this case, is a redundancy. The inspector raised this problem to licensee management who stated they would look into it. The issues as to what constitutes an approved AWO and what kind of AWO should be issued when performing surveillance procedures is considered an unresolved item (URI 50-245/94-17-01).

#### 1.8 Emergency Gas Turbine Generator Lube Oil Pump Maintenance

On March 2-3, 1994, the Emergency Gas Turbine Generator Lube Oil Pump was reinstalled following maintenance. This pump is a safety related (QA) piece of equipment. The motor leads were reconnected using standard electrical tape instead of QA electrical tape which is normally issued for safety-related jobs. The individual performing the work questioned the use of non-QA tape and was told by a staff engineer that it was alright to use standard electrical tape. Also it was noted that there was no quality control (QC) inspection for this job. Therefore, it was questioned whether or not the electrical connections for this pump were proper.

Inspector discussions with shop supervision and two Unit 1 staff electrical engineers indicated that there was no QA electrical tape universally used for all safety related work. The only QA electrical tapes in use were Okonite brand tape or Raychem brand tape. These tapes are used in environmentally qualified work such as high radiation environments or high humidity and temperature environments. Raychem splices are used in the containment and other locations with potential high temperature and high humidity environments. The licensee has established procedures for the use of these tapes for equipment environmental qualification (EEQ) work.

The inspector checked with the station warehouse and determined that both Okonite and Raychem tapes were the only QA electrical tapes available. The inspector also observed the electrical connections at the lube oil pump. These were bolted lug

connections covered with standard electrical tape. These connections appeared appropriate for that component. The gas turbine building is not designated as an EEQ area; thus these electrical connections did not require an EEQ electrical tape.

QC inspections are not required for all safety-related work. Licensee programs and procedures allow judgements to be made on which safety related work will require QC inspections. Work was performed by AWO M1-94-04273 which required Quality Services Division (QSD) approval prior to performing work. No QC hold points were established as a result of this review.

Although QC hold points are not required for each QA job, QSD provided the inspector data that showed, during the Unit 1 outage, 400 to 500 individual QC inspections were performed. In addition, QC surveillance of maintenance activities is performed on a routine basis. Based on the inspector's observations, the electrical connection work performed was acceptable and in conformance with licensee procedures. The inspector had no further questions concerning this issue.

#### 1.9 Safety-related Motor Operated Valves (MOVs) Improperly Terminated (Re-connected) Using Wire Nuts.

Apparent discussions between Maintenance personnel and a quality control (QC) technician indicated that there may be improper installation of safety-related motor operated valves (MOVs). Some MOVs may have been installed using wire nut connections when the current approved methods require taped lugs. The inspector interviewed the QC inspector who stated that his conversation was apparently misunderstood in that he did not have a problem with the terminations of safety-related MOVs. His question concerned the replacement of wire nuts with currently approved electrical splices when new work was done. He observed work performed by Generation Test Services which routinely replaced wire nut connectors referred to as "Scotch Locks" with electrical splices approved by procedure MP 760.4, "Power and Control Cable and Wire Terminations." This procedure allows butt splices, lug terminations, Raychem splices, and Ideal set screw connectors. The QC technician's discussion with the Unit 1 Electrical Maintenance Shop indicated that some shop personnel routinely replaced wire nut connectors if the connection was disturbed and other shop personnel replaced connectors into the "as found" condition using the originally installed wire nuts. Some shop personnel routinely replaced wire nuts with currently approved connectors if the item was worked on.

The Electrical Shop foreman stated he instructed all his electricians to upgrade electrical splices if they work on them. However, currently installed wire nuts will not be replaced if they do not have to be disconnected for maintenance. Also, electrical connections will not be changed on motors which have to be moved but not disconnected.

A QA surveillance report was written (QS-94-039), but not issued, documenting the above. This report has not been issued because the QC technician determined that the I&C Department technicians return all electrical splices to the "as found" condition and do not replace wire nuts unless called for in a plant modification. The Quality and Assessment Services Department is trying to resolve these differences in maintenance practices among GTS, Electrical Maintenance, and I&C. As a result of the QC finding and NRC inspector questions in this area, the licensee issued a "Controlled Routing - Action Required" item (CR # 0894-020) requesting that "MP-1 Engineering determine the rules which governs the use of wire nuts in QA applications and provide guidance to department heads concerning the proper use of wire nuts." The results of the CR evaluation are due by May 6, 1994. This item is considered unresolved pending licensee resolution of this issue (URI 50-245/94-17-02).

The inspector personally inspected recent work on motor or limit switch connections in the following safety related motor operated valves:

- (1) 1-SW-9, Service Water Inlet to TBCCW Heat Exchangers
- (2) 1-HV-3, Reactor Building Air Exhaust Isolation Valve
- (3) 1-HV-2, Reactor Building Air Supply Backup Isolation.
- (4) 1-SD-2A, Shutdown Cooling Pump "A" Supply Isolation
- (5) 1-SD-4A, "A" Shutdown Heat Exchanger Outlet
- (6) 1-LP-43B, "B" LPCI Test Valve To Torus Outboard Stop

In addition, the following two valves which had not been worked on during the outage were also inspected:

- (1) 1-LP-9B, Outboard Stop To Loop Injection
- (2) 1-LP-9A, Outboard Stop To Loop Injection

The inspector noted that: 1) subsequent to the above inspection of electrical connections, both the '9A' and '9B' valves were removed and opened for a special inspection by the licensee, and 2) due to the age and kind of electrical tape installed in '9A' and '9B', it appeared that the electrical installation may have been the original.

The inspector observed that all connections were properly terminated and that all electrical splices were proper. All workmanship observed appeared to be excellent. No wire nut connections were observed in safety-related motor operated valves, although wire nut connectors do exist in other plant safety-related equipment due to original installation. The electrician who opened the junction boxes on '43B' stated that he had replaced wire nut connections in the braking mechanisms on both '43 A&B' during this outage but did not believe any more wire nuts existed in safety-related MOVs. Generation Test Services later stated to the inspector that they tested

44 MOVs during this outage as a result of NRC Generic Letter 89-10 and did not observe any wire nuts. The memo further stated that "...If during the course of new installation, rewiring due to modifications, or testing, we identify the use of wire nut type connectors we will either change these devices to a butt splice or lug to lug, bolted connection with proper insulation."

The inspector was shown existing wire nut connectors on valves associated with the emergency diesel generator (EDG). The shop foreman stated that they were to be replaced as these connectors were being worked on. Subsequent inspection revealed that wire nut connectors were replaced on electrical connections for EDG Air Start Solenoid Valves AS-1 & 2. In the same terminal box, two wire nut connectors remained for the EDG Air Start Vent Valve which were not replaced as this valve was not worked on.

Based on the above discussions and the direct visual observation of the motor operated valves discussed above, it does not appear that MOVs are improperly terminated or that there exists a safety issue in this area. However, as stated above, the licensee has recognized a need to establish a policy to ensure consistency for proper use/replacement of wire nut connectors.

**1.10 A Copper Pipe Substituted in the A and B Reactor Protection System (RPS) MG Set Control Panels at Unit 1.**

During this inspection, the 'A' RPS MG set was out of service for maintenance. Hence, the cover to the 'A' MG set control panel was removed to allow visual observation inside the control panel. The inspector confirmed that in two places in the control panel copper piping, approximately 1½" long and ½" round, was installed as shorting blanks into two separate fuse holders in the panel. They appeared to have been made directly from bar stock versus machined or specifically designed for the use as a shorting blank. Of the two fuse holders containing shorting links, one fuse holder was unlabeled and the other was labeled as FU2. A third fuse holder, which was labeled FU1, contained a 3.2 amp fuse.

The drawing for this circuit indicates that one of the shorting blanks may be appropriate but is unclear as to what should be installed in FU2. The major component listing in the technical manual was equally unclear. The inspector requested that an engineering evaluation be provided as to adequacy of the current circuit. This evaluation stated that FU2 was not a fuse but a maintenance shorting link, that FU1 was a 10 amp fuse, that the copper tubing would handle the current, and the component was not safety related.

The inspector discussed this evaluation with the Unit 1 Director. The inspector considered the evaluation unacceptable in that: it did not address the need for a design change notice; it stated that a 10 amp fuse was identified for FU1 by the drawings

and the materials listing while a 3.2 amp fuse was installed; it did not adequately explain the copper tubing installed at FU2; and although it did address the current capacity of the copper tubing, it did not explain whether or not this piping is a proper shorting blank. There was no indication when these blanks may have been installed or by whom they were installed. Thus, while this installation does not appear to be a safety issue, the installation of copper tubing as shorting blanks was confirmed for RPS MG Set 'A'. The installation of copper tubing as shorting blanks in MG set 'B' was not confirmed by the inspector since the control panel was closed.

Based on the inspectors findings, a further engineering evaluation was performed by the licensee and issued on April 14, 1994. This evaluation confirmed that the copper tubing is in both MG set circuits and that the current drawings did not accurately reflect the location of fuses. The licensee determined that the tubing was an acceptable part of the original equipment. The evaluation further stated that drawing change notices will be issued to reflect the "as built" configuration. The inspector had no further questions concerning this issue.

## 2.0 REVIEW OF CONTRACTOR MAINTENANCE MECHANIC TRAINING AND QUALIFICATION

On January 31, 1994, the NRC referred written concerns regarding the training and qualification of contractor maintenance mechanics at Millstone Station to the licensee for action. The licensee's response, dated March 2, 1994, detailed their findings in this matter and appropriately addressed the concerns with the testing process raised in the concern. A number of the concerns regarding the classification of contractor maintenance mechanics were substantiated, but dealt with the proper pay grade classification of workers versus their documented qualification to perform safety-related work independent of licensee direct supervision. Furthermore, while there may have been weaknesses in the training program of the contractor in question, the licensee does not rely on that training program to either ensure compliance with the intent of 10 CFR 50.120 or with the proper assignment of employee grade classification. The particular contractor of concern also conducted a review of their employee's qualifications as well as the recent changes to their contract specifications regarding the qualification of mechanics at the senior level. As summarized in their March 2, 1994, letter as well as described during phone conversations in January 1994 with the NRC, licensee management undertook a number of prompt corrective actions to confirm and emphasize the qualification of all contractor employees at Millstone Station and Haddam Neck.

The inspector discussed the qualification process with the responsible Training Manager as well as the Unit 1 and 3 Maintenance Managers at Millstone Station. All indicated that ensuring the use of qualified contractor maintenance mechanics was the responsibility of the first line supervisor. Most contractors, particularly the contractor noted in the concern, are not used in independent safety-related work, but only as a supplement to the licensee's workforce. In those limited cases where contract employees are assigned to perform

independent work, usually specialty tasks, they are qualified through the licensee's qualification program as detailed in Training Department procedures. The requirements for the qualification and oversight of contractor maintenance personnel are detailed in Nuclear Engineering and Operations (NEO) procedure 2.36, Revision 0, "Qualification of Non-site, Non-permanent Personnel Who Perform Maintenance Related Functions." For safety-related work performed by unqualified contractor maintenance mechanics, direct supervision by a qualified licensee employee is required. Direct supervision was interpreted by the Unit 1 and 3 Maintenance Managers to be responsible for the quality of work and oversight of quality work aspects, although brief absences from direct work oversight is permissible provided that the work performed is fully inspectable. However, the inspector did note that this guidance was not incorporated in any licensee procedure or policy statement.

The inspector reviewed security and radiation work permits (RWPs) to determine the amount of supervisor oversight that was provided to non-qualified employees (contractors) who were performing work on the containment purge supply and exhaust valves during the Unit 3 refueling outage. A review of training records indicated that only the supervisor for the job was qualified to work on the pneumatic valves; therefore per NEO procedure 2.36 (and ACP 2.28 of the same name which preceded NEO 2.36), oversight by a qualified worker was required. A review of the security and RWP records revealed that the amount of oversight provided for the supply valves and that provided for the exhaust valves varied. Security records show that supervision was in the containment over six and one half hours during work on the containment supply valves (October 7 through 13). Records indicate that supervision provided less than a half hour of oversight for the containment exhaust valves which were worked October 27 through 29.

The inspector questioned the Unit 3 Maintenance Manager regarding the adequacy of oversight provided for the containment exhaust valves. The Maintenance Manager stated that the coverage provided was adequate since the contractor personnel had demonstrated their competence for the work performed on the containment supply valves, thus allowing less direct oversight on the exhaust valves. He also stated that Quality Services Department personnel had witnessed the critical work steps and that the satisfactory retest of the valves provided assurance that the work was performed correctly. The Maintenance Manager stated that the supervisors responsible for the oversight had a clear understanding of the expectations and knew their responsibilities in assuring quality work.

The Unit 3 Maintenance Manager has discussed this issue with his department supervisors and will ensure all the Unit 3 maintenance department personnel are aware of the requirements. He also stated that he would discuss the issue with other maintenance managers to aid in a more consistent approach to contractor oversight across the station.

The inspector determined that the corrective actions taken in regards to the training and qualification of contractor personnel were good. However, the licensee's oversight of the work performed on the Unit 3 containment purge and supply valves did not meet management's expectations as previously stated to the inspector. While there was limited

review of work previously performed that may have been conducted by unqualified contractor maintenance mechanics working independently, such instances are believed to be rare according to discussions with Maintenance and Training Department management. Furthermore, since there typically are few contractor employee signatures on procedures, due to their frequent work oversight or administrative assistance from qualified licensee employees, a more detailed review would likely have failed to reveal additional problems. The inspector did express concern regarding the continued and consistent implementation of management's expectations for the proper oversight of unqualified workers in light of the aforementioned Unit 3 containment valve work reviewed by the inspector. The lack of a formal policy regarding supervisory oversight of non-qualified workers is unresolved (URI 50-245/94-17-03) pending licensee determination of specific management expectations in this area.

### 3.0 REVIEW OF PREVIOUSLY IDENTIFIED ITEMS

(Closed) **Violation 50-245/92-04-06:** Two examples of technical inadequacies and configuration control problems not identified during the Plant Design Change Record (PDCR) process. The licensee promptly completed initial corrective action on the inadequacies with the PDCR process which led to: 1) the use of an existing electrical cable which was not EQ, but was required to be (and was later tested and determined to be qualifiable) and 2) the failure to update the electrical load profile for the station battery 18A after load additions (a condition identified during surveillance testing of the battery). The cause of these two problems was determined to be personnel error by the responsible individuals for the projects, specifically a failure to follow procedures and an inattention to detail. The responsible individuals were counselled and the experience gained shared with the engineering departments of all three Millstone units.

The licensee conducted an extensive process mapping evolution of their design change and control practices in the 1992-1993 timeframe. The improvement suggestions which had been identified, including the timely notification of PDCR modifications to Operations and the involvement of EQ engineering specialists, were incorporated into the recently published Design Control Manual. The licensee is also pursuing corrective actions along this line for other violations identified in this area, particularly at Unit 2. Based on the corrective actions ongoing or taken and the minor safety significance of the violation, this violation is closed.

### 4.0 MANAGEMENT MEETINGS

Periodic meetings were held with various managers to discuss the inspection findings during the inspection period. Following the inspection, an exit meeting was held with Mr. Harry Haynes via telephone on April 25, 1994, to discuss the inspection findings and observations with station management. No proprietary information was covered within the scope of the inspection. No written material regarding the inspection findings was given to the licensee during the inspection.