

May 19, 1987
(NMP1L 0154)

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Re: REPLY TO THE NOTICE OF VIOLATION
Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

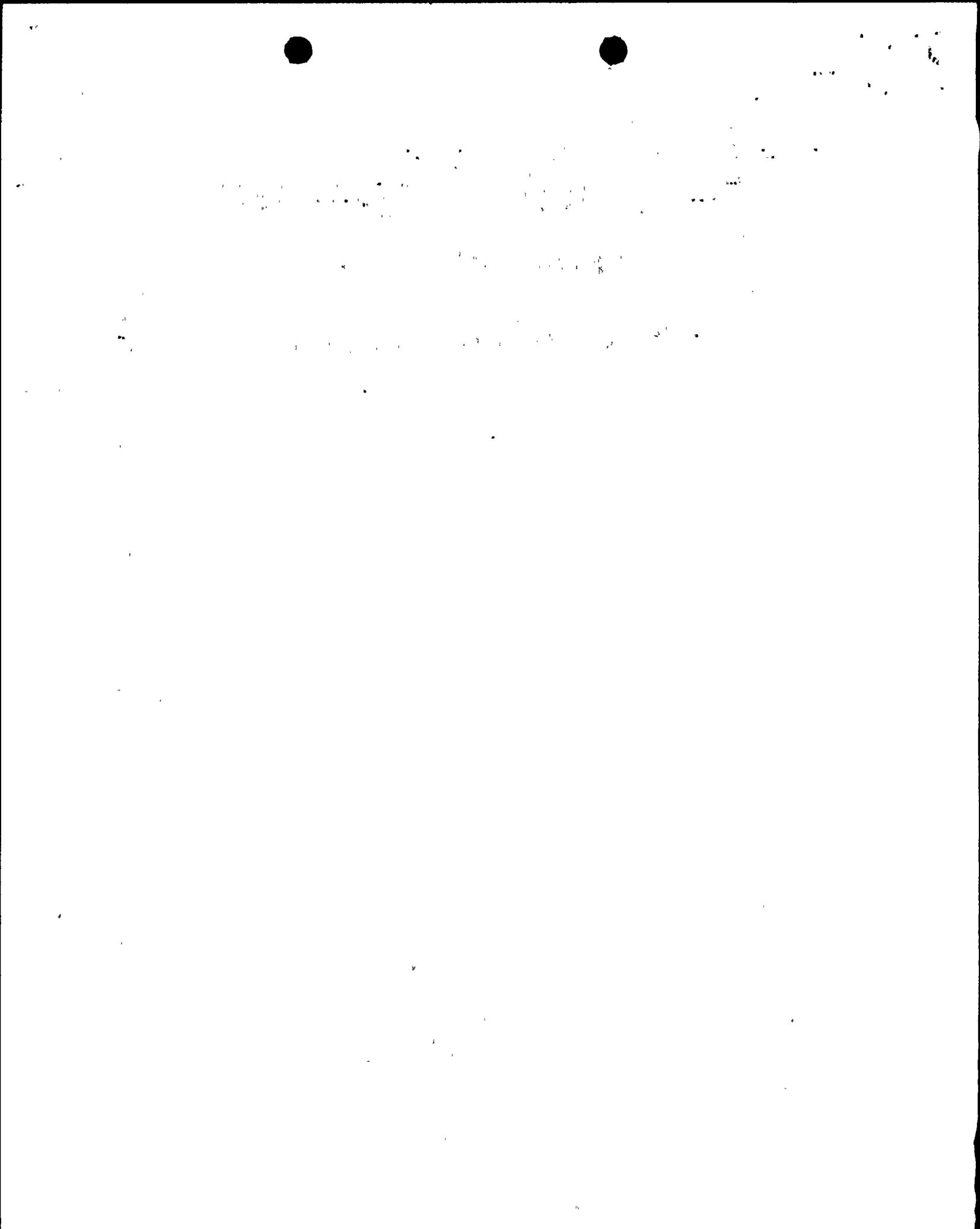
Gentlemen:

Your letter of April 29, 1987 forwarded a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Fifty Thousand Dollars (\$50,000). In accordance with 10CFR2.201, find attached Niagara Mohawk's Response to the Notice of Violation. By separate letter, Niagara Mohawk is remitting the civil penalty.

Niagara Mohawk has taken extensive actions to resolve each deficiency discussed in the Notice of Violation and to develop or enhance programs to prevent recurrence. The attached Response addresses the specific corrective and preventative actions we have taken. A number of these actions are described in our response to the recent Systematic Assessment of Licensee Performance (SALP) Report for Unit 1. The management improvement actions we have taken are not limited to Unit 1, but will enhance management performance at both units.

Your letter also indicated the perception of an apparent complacent attitude among certain members of our staff. Complacency among nuclear personnel will not be tolerated, and we have taken a number of short and long term actions to correct this problem. The Senior Vice President - Nuclear and the Vice President - Quality Assurance have sent memoranda to all nuclear personnel to emphasize the necessity of procedural and regulatory compliance. These executives, as well as other senior managers, have also conducted a number of meetings, encompassing all nuclear personnel, to stress the necessity for a professional and conscientious attitude, attention to detail, and procedural compliance. We are continuing to emphasize this issue in our periodic management meetings and in our training programs. In addition, after completing our evaluation of the allegations, several individuals were disciplined, which included time-off without pay. As a longer term measure, we are implementing a formal Management Effectiveness Program which will include the following: development of Division policy statements and charters; streamlining of procedures; identification of individual responsibility and accountability; measures of success; and feedback to management on performance and problems.

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In summary, Niagara Mohawk recognizes the importance of the resolution of the matters raised by the Notice of Violation to the safe and efficient management of its nuclear program. To assure the continuation of a long tradition of excellence in nuclear operations, Niagara Mohawk has taken a number of actions and implemented programs to focus significant management direction and oversight on its nuclear operations. We expect the actions and programs described in this letter and in the attached Response to the Notice of Violation to enhance the inherent capability of our trained and experienced personnel to safely operate our nuclear units. We are confident that, with the actions now completed and in progress, we are performing, and will continue to perform to a high standard of excellence, in accordance with our license, other regulatory requirements and our commitments. We look forward to moving to a new period of operating excellence for both Nine Mile Point Unit 1 and Unit 2.

Sincerely,

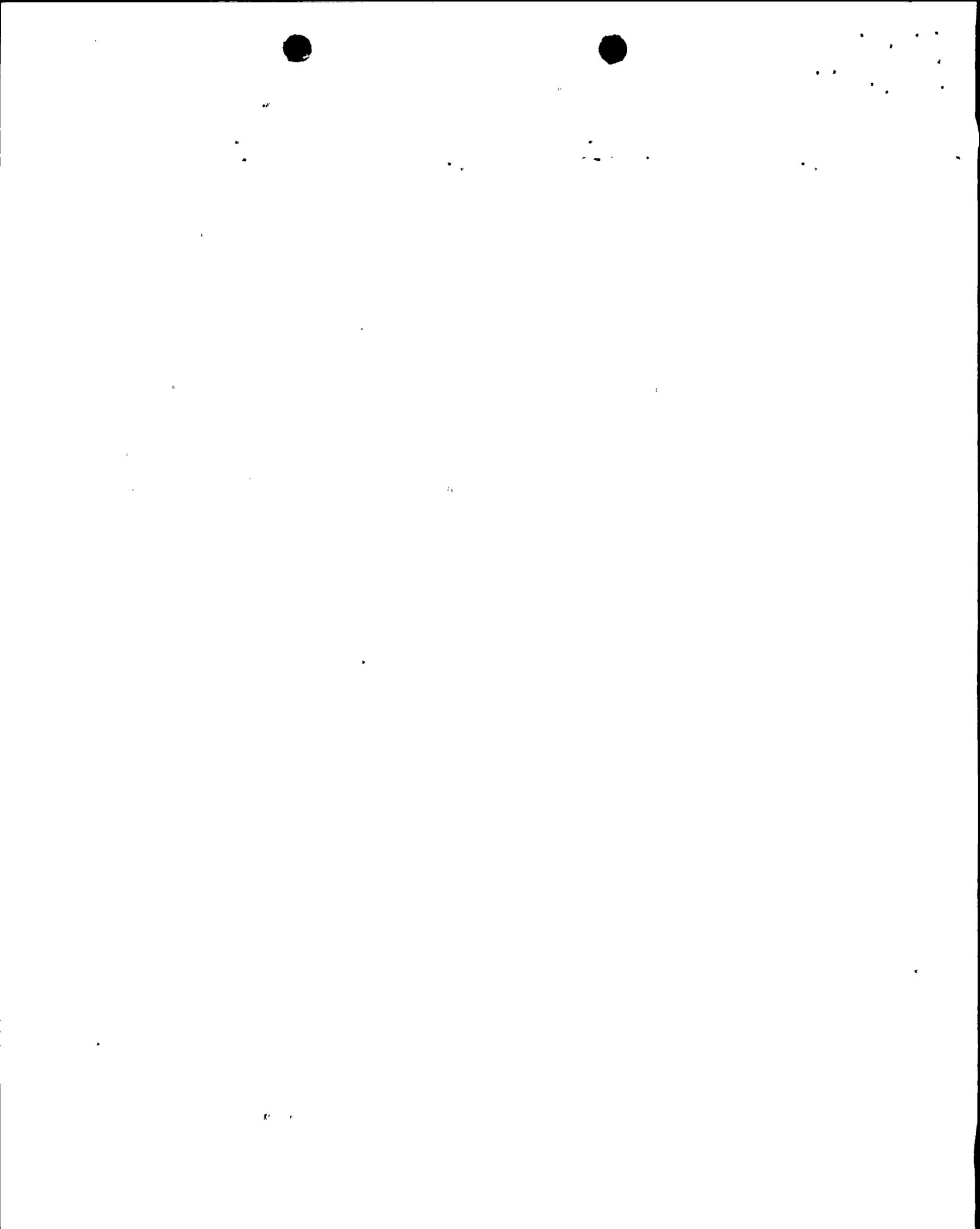
NIAGARA MOHAWK POWER CORPORATION



C. V. Mangan
Senior Vice President

CVM:svm
Attachment
(8726I)

cc: Mr. W. T. Russell, Regional Administrator, USNRC Region I
Mr. W. A. Cook, Resident Inspector, Nine Mile Point Nuclear Station Unit 1
Mr. R. A. Benedict, Project Manager



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of]
Niagara Mohawk Power Corporation] Docket No. 50-220
(Nine Mile Point Unit 1)]

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Senior Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

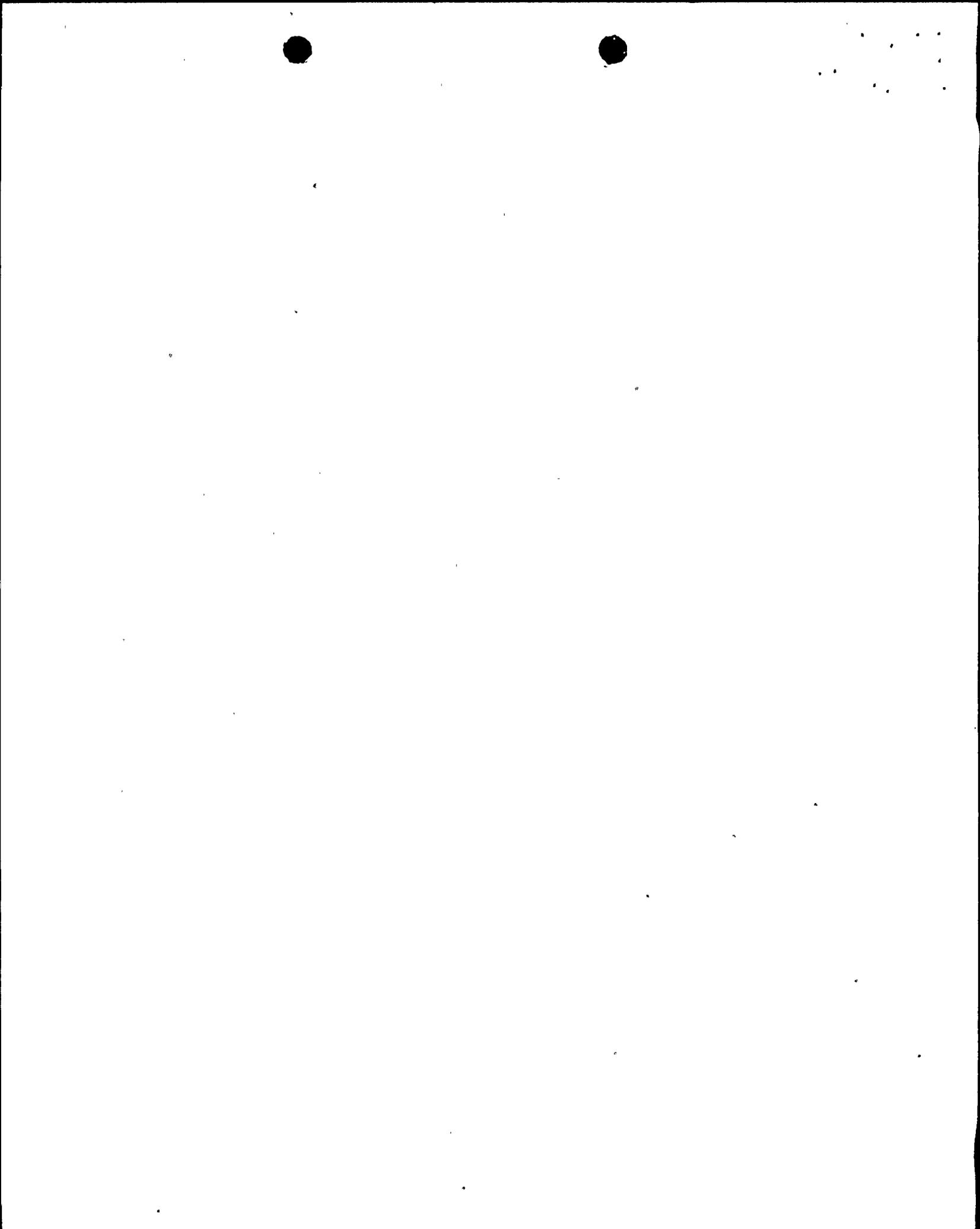
C. Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 19th day of May, 1987.

Mary Frateschi
Notary Public in and for
Onondaga County, New York

My Commission expires:

MARY FRATESCHI
Notary Public in the State of New York
Qualified in Onondaga County No. 4797550
My Commission Expires June 30, 1989



NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT UNIT 1

DOCKET NO. 50-220

DPR-63

RESPONSE TO NOTICE OF VIOLATION DATED APRIL 29, 1987



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GENERAL

This section of Niagara Mohawk's Response to the Notice of Violation contains background information on activities related to the issues identified in the Notice. Also provided here is a brief summary of the status of some of the corrective actions Niagara Mohawk has taken to address these violations. Where possible we have also indicated results of some of these actions.

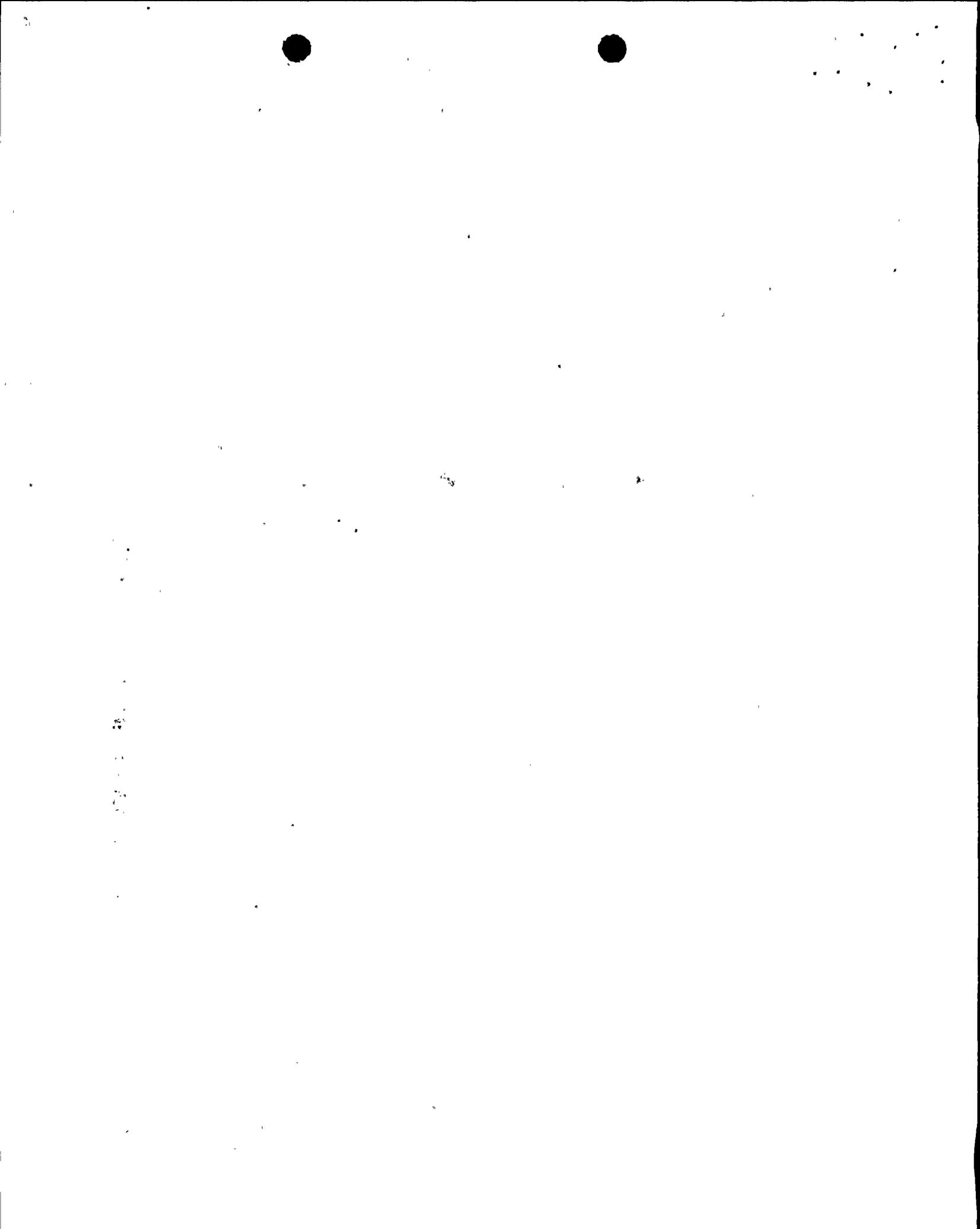
The Notice of Violation stated that the violations, when evaluated collectively, indicate underlying weaknesses in the control of licensed activities at Unit 1. These weaknesses were identified in four (4) specific areas. A similar observation was made in the NRC's overall evaluation of Niagara Mohawk's performance during the latest Systematic Assessment of Licensee Performance (SALP). The response to the SALP Report described a number of actions and programs Niagara Mohawk has undertaken to address these areas. This Response specifically addresses Niagara Mohawk's assessment of the validity, cause and corrective actions for the noted violations. This Response also includes information related to the specific examples noted in the description of the violations.

The violations were identified during three NRC inspections conducted over several weeks during mid 1986. Two of these inspections were directly related to allegations made to the NRC by a technician at Nine Mile Point Unit 1. Much of the information provided to the NRC during these inspections was developed by Niagara Mohawk's own investigation of these allegations. Niagara Mohawk began corrective actions almost immediately, and has provided periodic status reports to the NRC by letters, and during management and enforcement conferences, inspection exit meetings, and the recent Systematic Assessment of Licensee Performance (SALP) meeting. These status reports not only addressed the steps taken to resolve the specific issues, but also addressed the broader programmatic aspects of the concerns.

Niagara Mohawk has programs already in place which address the areas described in your Notice of Violation as requiring additional emphasis. These programs, described in more detail below, have been the subject of previous correspondence and meetings with you. Because of the long term nature of some of these programs, we are only now beginning to realize their benefits.

Some of the programs developed by Niagara Mohawk to address the areas described in your Notice of Violation were developed prior to the NRC's investigations. For example, in April 1984, we identified weaknesses in our Engineering procedures and data bases. At that time, we initiated the Engineering Assurance Program. This program consisted of the development of System Descriptions, Design Criteria, Standard Specifications, Electrical Design Guidelines and the restructuring and development of Nuclear Engineering & Licensing procedures. This program took over two years and was essentially completed in the summer of 1986.

In mid-1984, as the result of an NRC Enforcement Order, a management diagnostic was performed on Nine Mile Point Unit 1 by Management Analysis Company (MAC). The results of that management evaluation indicated there were a number of programs and areas where practices, procedures and organization could be improved to more effectively manage operations. At that time, 83 action items were identified, many of which were already a part of the Engineering Assurance Program or other programs under development by Niagara Mohawk. The MAC diagnostic resulted in commitments to the NRC, which in turn



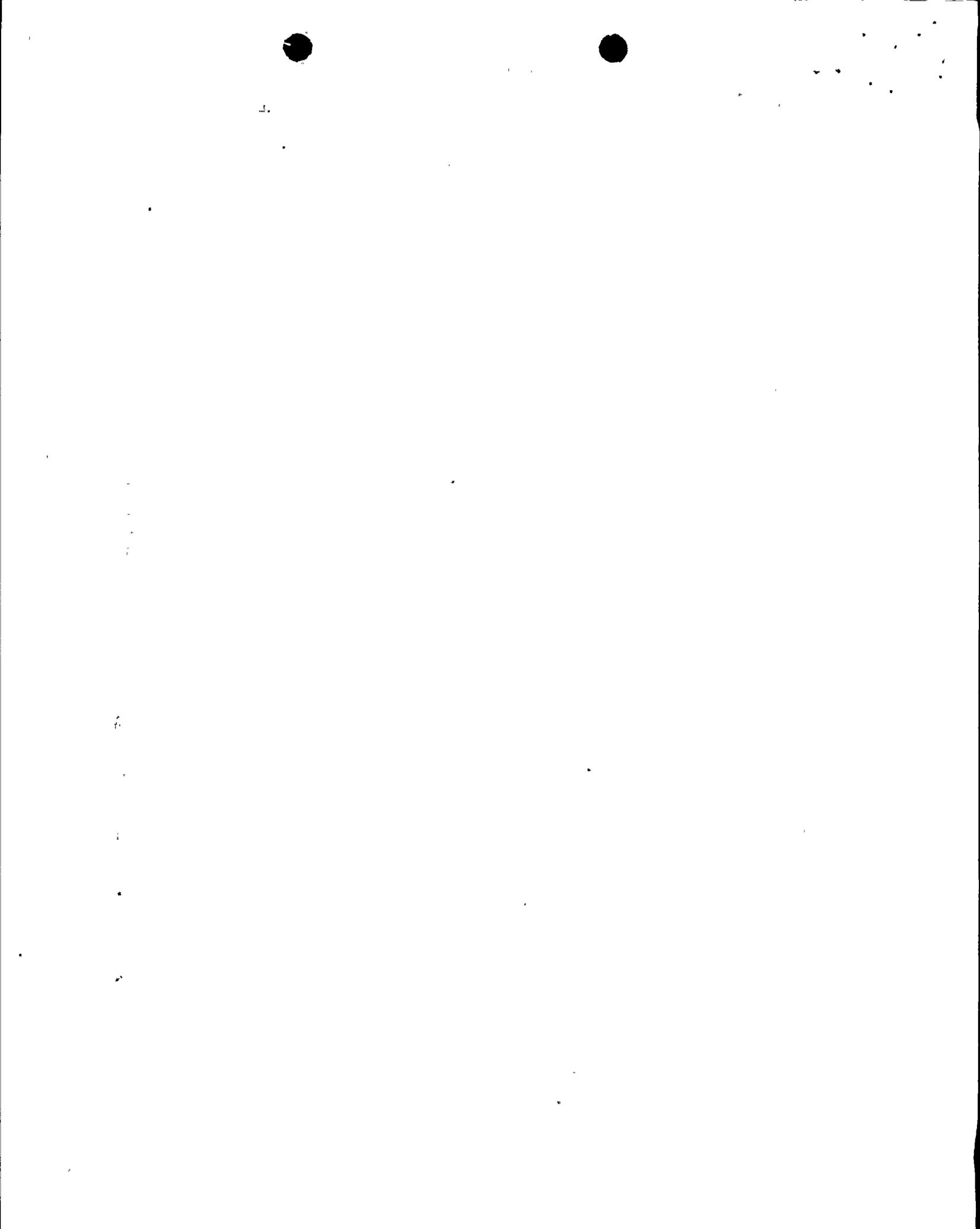
resulted in programs that were under development at the time of the allegations referenced in the Notice of Violation. Following our investigation of the allegations, Niagara Mohawk developed additional short term actions and long term programs.

Our letters of August 15 and August 31, 1986 described actions taken subsequent to the July 1986 allegations. These specific short term actions could be broadly classified as: increased communication, procedural revision, additional procedures, and organizational changes. Efforts at increased communication involved memos and meetings with senior management and the formation of an Advisory Committee to review problems common to several groups in the Nuclear Division. The procedure changes included revising procedures, and developing new procedures for root cause evaluations and problem reports. Among the organizational changes, we formed a site engineering group in order to handle problems more expeditiously.

After implementing the initial short term actions at Nine Mile Point, we decided to continue the Advisory Committee, which is composed of the primary managers within Nuclear Engineering & Licensing, and the department heads at Nine Mile Point. Initially, the purpose of the Advisory Committee was to identify problems within the division so that those could be classified into programmatic areas. As a result of that initial effort, we identified four programmatic concern areas for which we needed to develop long term programs. These were: root cause, material control, procedures and management effectiveness.

Subsequently, the Advisory Committee oversaw the activities of individual task forces which were formed by Niagara Mohawk management to clearly define each of the individual concern areas and to further develop recommendations to address the concern. The task forces presented their recommendations to the senior management of the Nuclear Division and the Quality Assurance Department in November 1986. Senior management reviewed and acted on each recommendation. Thirty-one (31) of the sixty-seven (67) recommendations were assigned to specific individuals who were charged with developing programs and appropriate implementation schedules. Implementation of all other accepted recommendations will follow completion of this first group of programs.

There are several instances where improvements in our operations have already been noted. For example, a number of the examples in the Notice of Violation discussed problems in the radiological control area. Recently, our operating staff and Quality Assurance Department completed an audit of the lead man effectiveness program and found no violations of procedures. Another example of improved performance is the approximately 100 problems that were brought to management's attention as a result of this problem report program. Many of these problem reports have resulted in Modification Requests which are currently under review and evaluation. Even though many of these Problem Reports have not been closed, management has had the opportunity to evaluate the significance of the individual problems, and to take appropriate action based upon the significance of the issues. We have also seen indications of increased awareness and attention to procedural compliance. For example, there has been a significant increase in the number of requests for temporary changes to procedures.

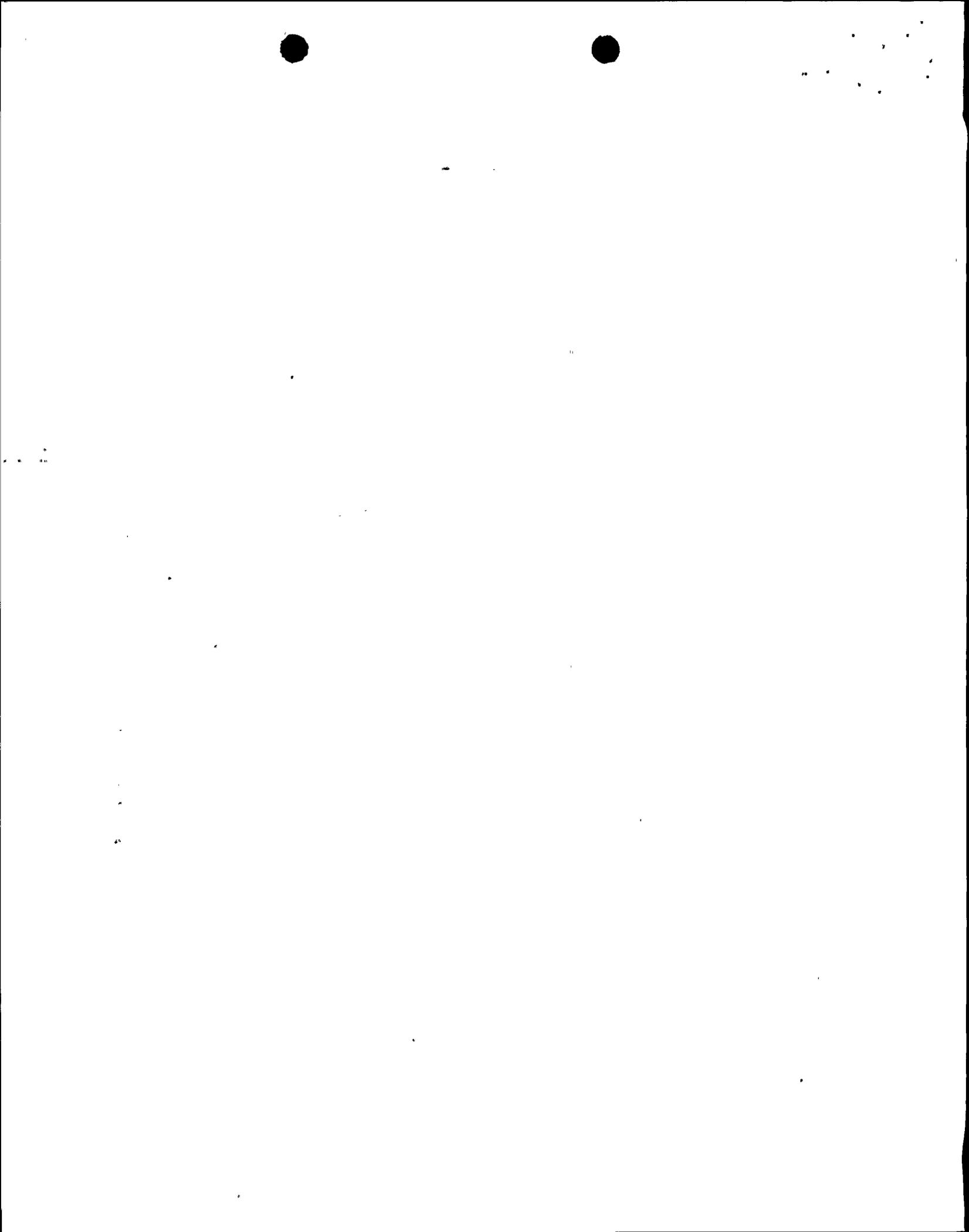


Violation A

Technical Specification 6.8.1 requires that written procedures and administrative policies be established, implemented and maintained that cover the activities recommended in Sections 5.1 and 5.3 of ANSI Standard N18.7-1972. Section 5.1 of ANSI N18.7-1972 specifies that a maintenance program be developed to maintain safety-related equipment which includes the following: (1) proper preplanning and performance of maintenance in accordance with written instructions or procedures that incorporate appropriate vendor manual information, (2) documented permission by responsible operating personnel to release equipment for work, and (3) post-maintenance review, testing and return to service to verify functional acceptability.

Contrary to the above, written procedures and administrative policies were not either established, implemented, or maintained covering the following maintenance activities, as evidenced by the following examples:

1. On August 21, 1986, maintenance was performed on the Control Rod Drive (CRD) hydraulic control unit scram inlet and outlet valves, safety-related equipment, without establishment and implementation of appropriate written procedures for conducting this maintenance. Specifically, the packing for the valves was tightened without proper approval of shift supervision, without proper preplanning and written instructions, and without any post-maintenance testing.
2. In April 1986, a local leak rate test of the Feedwater Isolation Check Valve was not conducted in accordance with the approved Nine Mile Nuclear Station Procedure N1-ISP-25.7. Specifically, the cavity between the inboard isolation valve and outboard check valve was initially pressurized to 100 psig rather than 35.5 psig as stated in the procedure, and this change was not evaluated for its effect on the validity of the test.
3. In July 1986, two Local Power Range Monitor (LPRM) cable connectors were replaced with a model connector that was not in accordance with NMNS Procedure N1-IMP-LPRM-1. Specifically, Amphenol Type BNC connectors were used instead of the required Amphenol Type SMA connectors.
4. On September 15, 1986, the restoration of safety-related equipment to an operable status after the maintenance activities was not performed in accordance with Administrative Procedure 5.0, "Procedure for Repair," in that physical separation of electrical equipment was not maintained. Specifically, three steel panel isolation barriers which separate safety-related from non-safety-related equipment were not reinstalled within Remote Shutdown Panel No. 11. Additionally, switch and relay covers and a spare instrument were not reinstalled.



5. NMNS Procedure N1-ST-Q3 and N1-ST-1C5 used for the performance of surveillance testing of the High Pressure Coolant Injection (HPCI) pumps were not revised to incorporate new HPCI flow acceptance criteria. Further, on July 14, 1986, these procedures were not used during the surveillance testing of the HPCI pumps.
6. The control and use of metering and test equipment (M&TE) was not conducted in accordance with Administrative Procedure AP-8.4, "Procedure for Control and Calibration of Equipment Used in Tests and Inspections", as evidenced by the following examples:
 - a. On April 16, 1985, Transition Minitemp Calibrator (Serial No. 18947) was calibrated off-site and, as of September 18, 1986, a current calibration report was not maintained with the responsible supervisor, as required.
 - b. On November 4, 1985, a Gould recorder (Serial No. 1155) was used on at least thirteen instances during the performance of timing tests on scram valves without the required recording of its use on a protected log sheet.
 - c. As of September 18, 1986, recorder channel modules, which were individually calibrated, were interchanged between several Gould recorder units without recording this fact on a protected log sheet, as required.
7. On June 18, 1986, NMNS Procedure N1-ST-C3, "Automatic Startup of HPCI System," was not properly followed in that the procedure was signed-off as complete without documenting the completion of the Feedwater (HPCI) System and Condensate System "return to service" alignments on the procedure Data Sheet.
8. As of September 18, 1986, housekeeping and cleanliness was not performed in accordance with Administrative Procedure 8.5 in that loose nuts, bolts, relay and switch covers, and other loose hardware and trash were present in the Recirculation Pump Motor Generation Field Breaker Cubicles and Remote Shutdown Panels.
9. Design drawings that reflect plant modifications were not prepared and delivered to the Station Superintendent in a timely manner as required by Administrative Procedure APN-9, "Procedure for Station Permanent and Temporary Modifications and Replacement," as evidenced by the following examples:
 - a. In 1984, a Plant Modification (No. 84-36) was made to the wiring for Anticipated Transient Without Scram (ATWS) Panel No. 1S48, and as of September 12, 1986, the associated wiring diagram (No. C-34122-C/1) at the facility was not prepared to accurately reflect the Modification.



- b. On September 17, 1986, the latest available wiring diagram (No. C-3481C, Sheet 5, Revision 0, and Sheet 6, Revision 1) at the facility for the Remote Shutdown Panels was not prepared to reflect the as-installed wiring configuration in that ten wiring configurations were different than indicated on the diagram.

Response to Violation A

Niagara Mohawk admits the violation as stated. The reasons for the violation, as indicated in the examples, were failure to properly implement existing procedures and performance of maintenance activities without appropriate written procedures. Niagara Mohawk has taken several steps to correct this situation. Initially, each specific example was reviewed by the appropriate supervisor with the personnel involved. The need for strict adherence to approved procedures was stressed in these reviews. In addition, the Senior Vice President - Nuclear held meetings with all nuclear personnel to stress the need for strict adherence to procedures. A memorandum was distributed to these personnel summarizing the importance of procedural compliance even in the face of schedule constraints. Also, each department has included in its continuing training programs the issue of procedural compliance. This will promote strict adherence to procedures when performing work.

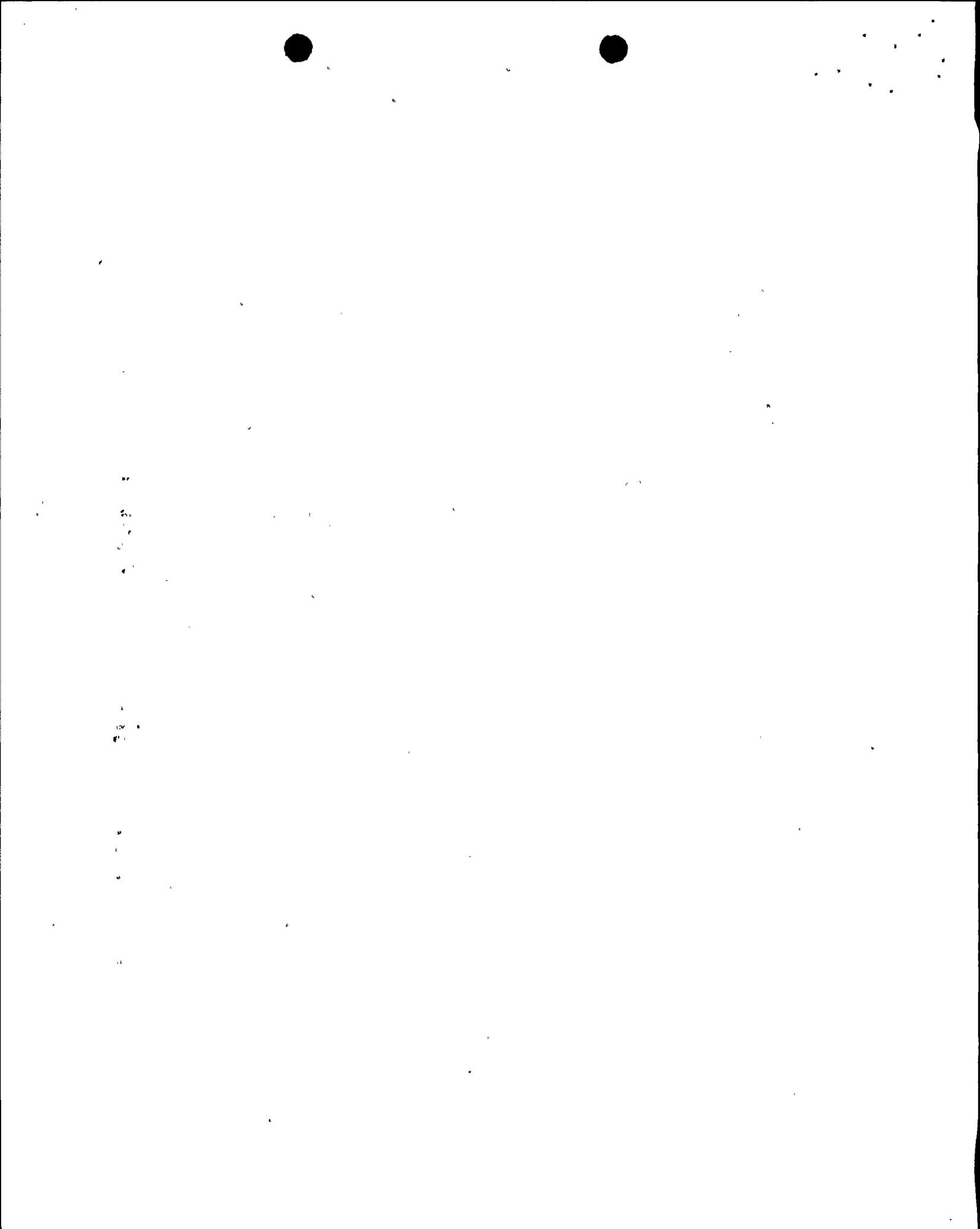
These actions should prevent further violation of this type.

Response to Specific Examples in Violation A

Example 1 - NRC Inspection Report 50-220/86-17, dated January 22, 1987, provided a comprehensive description and analysis of the Control Rod Drive maintenance event. Your report was consistent with our investigation and subsequent analysis. A fundamental breakdown in work controls occurred which allowed the work activities to proceed beyond the approved scope. We agree that our immediate investigation and review of the event was not sufficient to uncover certain pertinent information, nor was it self-critical enough to identify potential root causes beyond the most obvious. Similar weaknesses were discussed in the recent SALP evaluation.

We have discussed with the NRC in the past the short term actions and long term programs developed to address these identified weaknesses. The details were provided:

- in our August 15, 1986 letter,
- during our August 18, 1986 meeting,
- during our August 28, 1986 meeting,
- in our August 31, 1986 letter,



- during our September 4, 1986 meeting,
- during our February 19, 1987 meeting,
- during our March 26, 1987 SALP meeting, and
- in our April 22, 1987 SALP response.

In addition to these actions and programs, the Maintenance Department has also taken the following specific measures:

- a. Decreasing the existing first-line management workload by filling an open Assistant Supervisor Mechanical Maintenance position. In addition, three (3) mechanical maintenance generation specialists and two (2) electrical maintenance generation specialists have been hired, and another electrical maintenance generation specialist will be hired by June 30, 1987.
- b. Establishing mechanical and electrical training schedules for 1987.
- c. Conducting Unit Supervisor and Assistant Supervisor "Managing Your Position" staff meetings outlining in detail their responsibility and authority as it relates to conduct of operation.
- d. Establishing continuing training sessions. During each such training session, any significant procedure change occurring during the previous month is reviewed. In addition, a specific procedure may be selected for a detailed review.
- e. Reemphasizing a practice wherein maintenance superintendents witness and comment on specific surveillance, preventative maintenance, or corrective maintenance work in progress.

Niagara Mohawk also initiated a Vendor Manual Program in November 1985. This program includes a review of maintenance procedures and instructions to ensure that appropriate vendor information is incorporated. This program is scheduled to be completed by July 1988. We have also implemented procedure S-SUP-1 establishing a Root Cause Evaluation Program and procedure S-SUP-2 establishing a Problem Report Program.

Many of the programs are in the early stages of implementation and the expected benefits have not yet been fully realized. We will continue to monitor the implementation of the programs and evaluate their impact on the quality of our nuclear operations.

Example 2 - Our letters of August 15 and August 31, 1986 provided the results of our investigation regarding the pressurization of the feedwater check valve in excess of the required test pressure. NRC Inspection Report 50-220/86-17, dated January 22, 1987, presented the results of the NRC's evaluation regarding this



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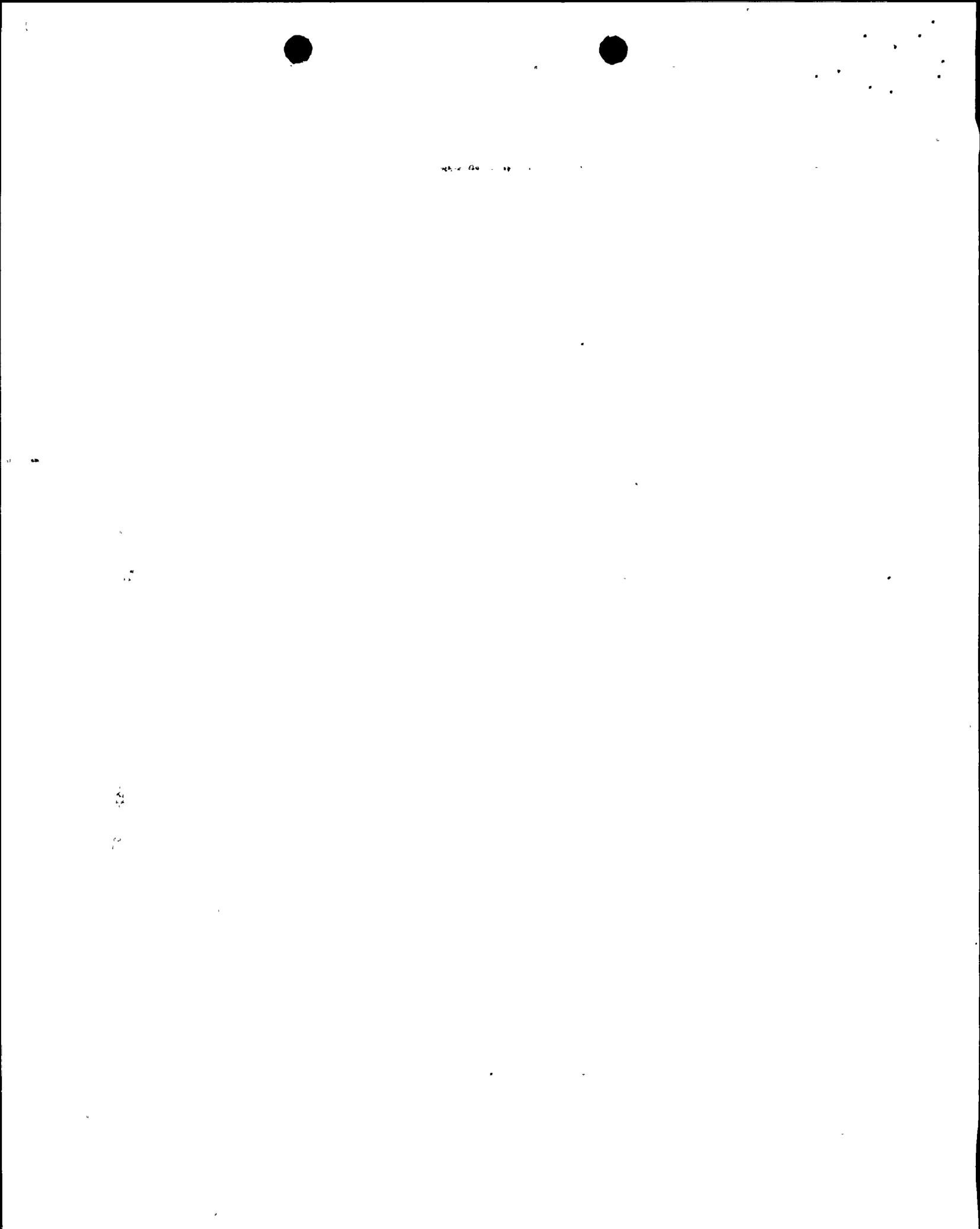
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incident. Both investigations concluded that it was common practice to pressurize the feedwater check valve in excess of the required test pressure prior to performing local leak rate tests, and further that this practice was not in accordance with approved procedures. Consequently, Niagara Mohawk performed a safety evaluation which concluded that pressurizing the feedwater check valve prior to performing the local leak rate test was not inconsistent with the expected station conditions following the design basis accident. Additional information was provided by letter dated February 17, 1987. That letter also requested approval of our test methods. In the interim, the applicable procedures are being revised to ensure that if a check valve is subjected to pressures in excess of the leak rate test procedure, it will be stroked open prior to any local leak rate testing. Our current schedule calls for completing these revisions prior to their need, but no later than July 1, 1987.

- Example 3 - Our letter of August 15, 1986 presented the results of our investigation of the use of non-certified LPRM connectors on several LPRMs. The NRC investigation and analysis was provided by Inspection Report 86-17, dated January 22, 1987. Both investigations concluded non-approved LPRM connectors were installed contrary to approved procedures. Immediate corrective action was initiated at the time to remove the non-approved LPRM connectors and replace them with qualified connectors. As discussed above, short and long term actions and programs were initiated to address the programmatic implications of this and other examples. Specific actions to address this item included:
- a. Preparation of a safety evaluation which concluded that the installed configuration was technically acceptable.
 - b. Revision of applicable procedures which included: 1) the catalog number for the required connector; 2) Quality Control notification prior to beginning LPRM connector maintenance activity; and 3) amplification of post-maintenance testing steps.
 - c. Initiation of a modification to: 1) replace the existing LPRM connector with a more reliable, quick disconnect connector, and 2) install a splice panel underneath the reactor vessel to provide a disconnect to facilitate maintenance, testing or replacement. The proposed modification also requires revision of site procedures and is scheduled for the 1988 refueling and maintenance outage.

- Example 4 - NRC Inspection Report 86-13 discussed the results of visual inspection of the remote shutdown panel. It concluded that maintenance activities were not performed in accordance with approved procedures. It further noted that appropriate work requests were written for immediate corrective action.

Short term and long term actions and programs to address the programmatic implications of this deficiency have been discussed



in our responses to the allegations and SALP report. Specific actions of the Maintenance Department to address procedural compliance weakness are discussed in Example 1 above.

Example 5 - NRC Inspection Report 86-13 discussed the events involved in surveillance testing of the High Pressure Coolant Injection System in July 1986. It concluded the surveillance activity was performed without an approved procedure revision to incorporate temporary acceptance criteria. It further indicated the results of the surveillance test were recorded in the shift log.

As the revised acceptance criteria was intended to be a one-time-only use, station management decided that the documentation method would be by entry in the shift log. Niagara Mohawk acknowledges that this decision was contrary to applicable site administrative controls. The programmatic implications of procedural non-compliance have been incorporated in our short term and long term programs previously discussed. Specific actions related to this event include a revision to the pump curves before the next scheduled test. Acceptance criteria as specified in the surveillance test were subsequently met.

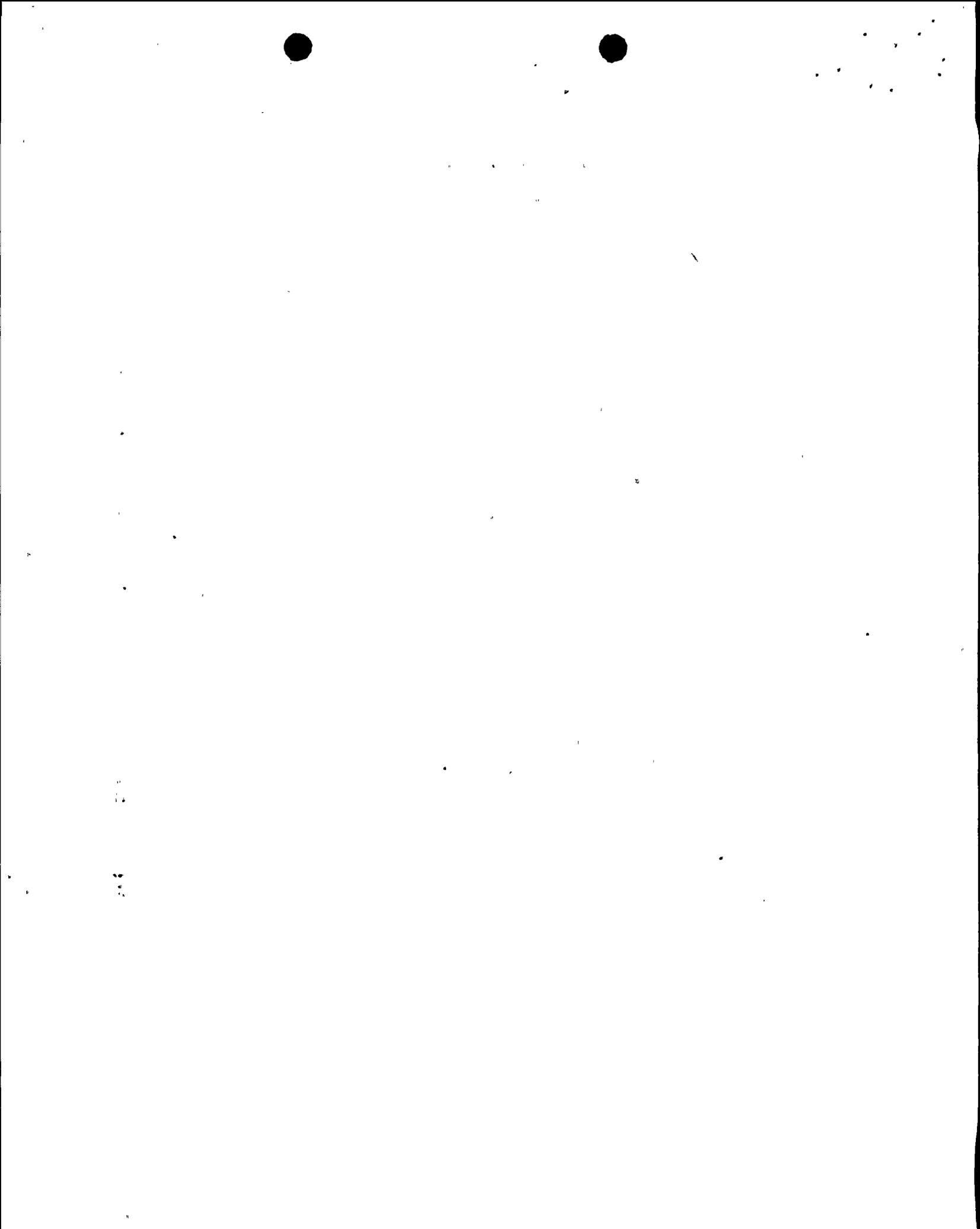
Example 6 - NRC Inspection Report 86-13 discussed several procedural violations associated with control and use of metering and test equipment. The programmatic implications of procedural non-compliance have been addressed by in our short term and long term programs previously discussed.

Specific actions related to this event include:

1. Dedicating an Instrument and Control Technician to control meter and test equipment at Unit 1.
2. Designating an area near the I&C shop to store and control meter and test equipment.
3. Establishing log sheets for all meter and test equipment including: a) those not requiring calibration records and b) components that are interchangeable between various meters and test equipment.

Example 7 - NRC Inspection Report 86-13 discussed a procedural violation involving failure to record the feedwater and condensate system alignments as required by the appropriate surveillance procedure. Our investigation indicated the operator erred in not recording the required data. The procedure is being revised to provide additional guidance.

Programmatic implications of procedural non-compliances have been addressed by our short term and long term programs previously discussed.



Example 8 - NRC Inspection Report 86-13 discussed a procedural violation associated with housekeeping and cleanliness of our recirculation field breaker cubicles. It further stated that appropriate work requests were written for immediate corrective action and the conditions were corrected prior to the close of the inspection.

Short term and long term actions and programs to address the programmatic implication of this finding have been discussed in our response to the allegations and SALP report. Specific examples of the Maintenance Department actions to address procedural compliance weakness are discussed in Example 1 above.

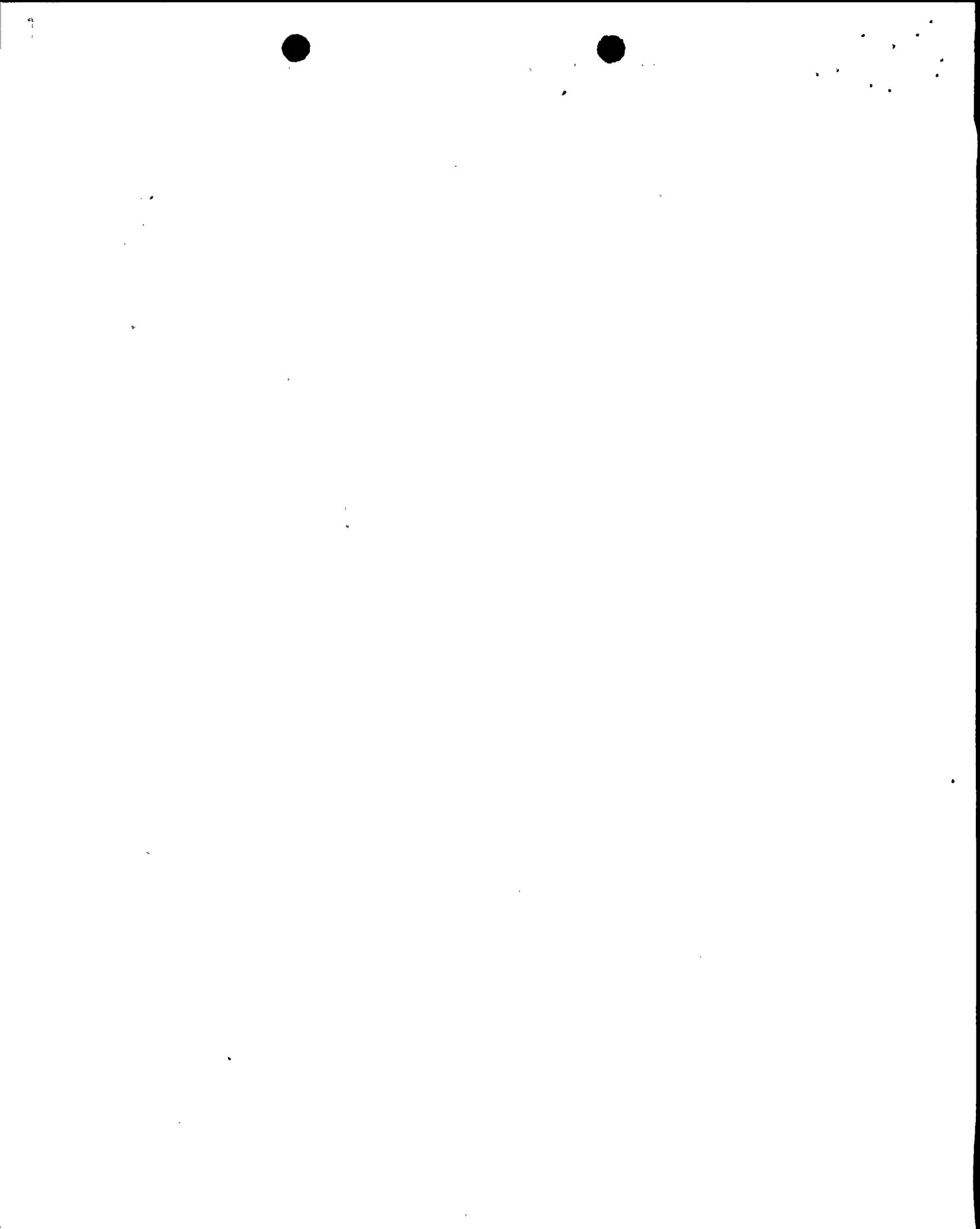
Example 9 - NRC Inspection Report 86-13 discussed the failure to maintain drawings relative to the as-built condition of the ATWS Instrument Panel and Remote Shutdown Panels. These were considered to be examples of procedural violations of the Site Administrative Procedure controlling modifications. This procedure required timely revisions to applicable drawings.

The Engineering Assurance Program had previously identified a large backlog of as-built drawing work and established a program to reduce this backlog to a manageable level. This effort was prioritized as follows:

<u>Priority Level</u>	<u>Description</u>
1	Reconfiguring certain high use drawings to facilitate more rapid issuances of drawing packages.
2	Completing as-built work for Drawing Change Requests (DCRs) and Drawing Transmittals Letters (DTLs) which did not require a walkdown.
3	Completing as-built work for Drawing Change Requests (DCRs) and Drawing Transmittal Letters (DTLs) which did require a walkdown.

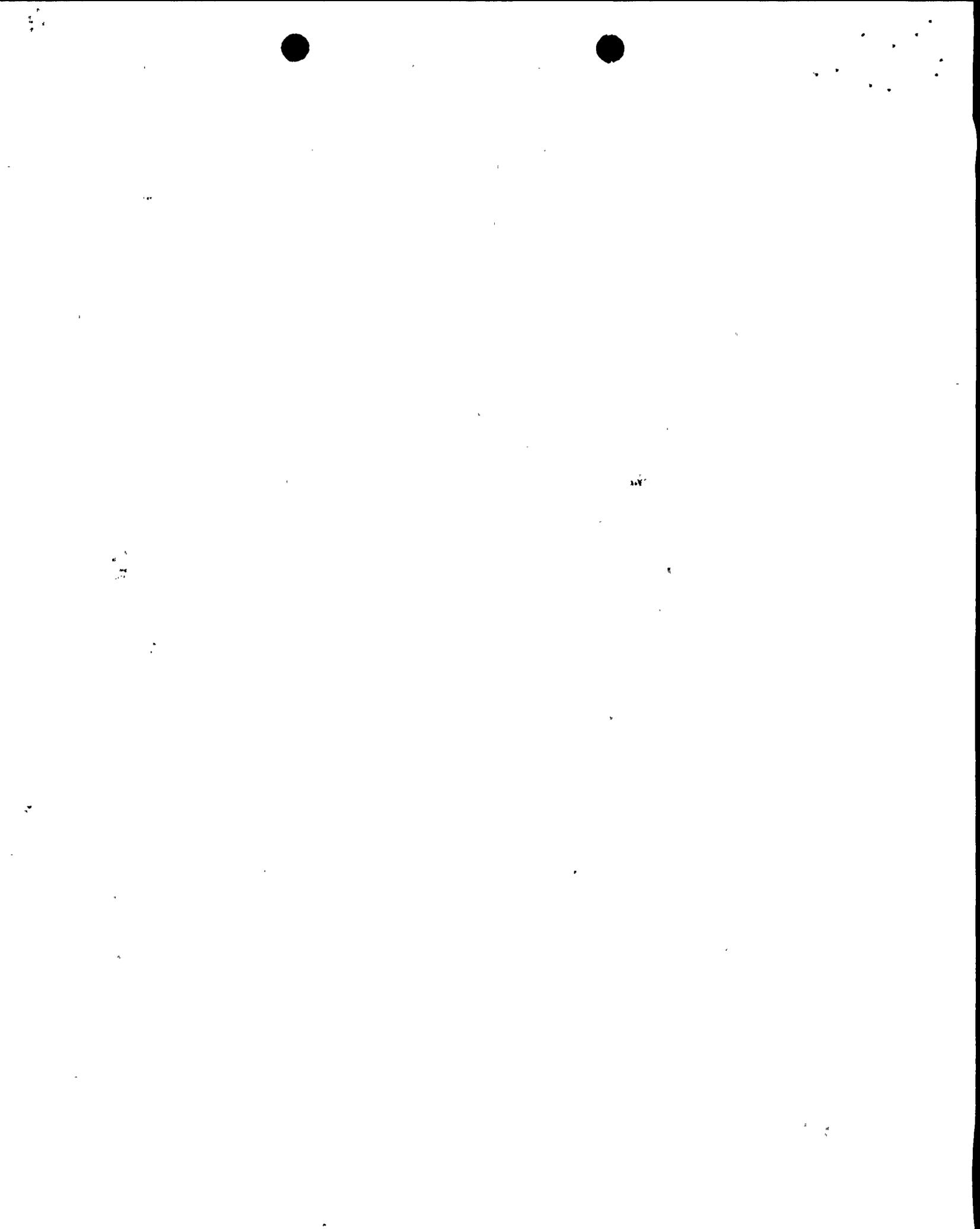
The physical configuration of the ATWS Control Panels and Remote Shutdown Panels required verification (walkdowns) prior to documenting the installation of the panels. These walkdown efforts were scheduled and completed during the 1986 refueling and maintenance outage. The results of the walkdowns of the Remote Shutdown Panels were incorporated into revised drawings issued in November, 1986. Revised drawings associated with the ATWS panels were issued in September 1986. However, recent verification efforts associated with another modification discovered additional drawing discrepancies in the ATWS panel. Revised drawings are scheduled to be issued in June 1987.

The as-built verification (walkdown) effort has been ongoing. To date, eleven (11) systems, twenty-four (24) panels, and nineteen (19) powerboards have been walked down. Of these,



revised drawings have been issued for nine (9) systems, four (4) panels, and six (6) powerboards. The remaining drawing packages are in various stages of completion.

It has recently become apparent that Engineering's policy of issuing final design drawings on a per modification basis has lead to confusion on the part of the operations personnel. This confusion is more prevalent with electrical design drawings which are multi-system. This concern prompted the Niagara Mohawk Quality Assurance Department to issue a Stop Work Order. This Stop Work Order prohibited the issuance of construction drawings until a less confusing method of issuing electrical design drawings had been established. The Quality Assurance Department modified this Order to allow some work to continue after procedures were revised to reduce the confusion created by issuing construction drawings. Additional corrective actions are being evaluated that will permit removal of the Stop Work Order.



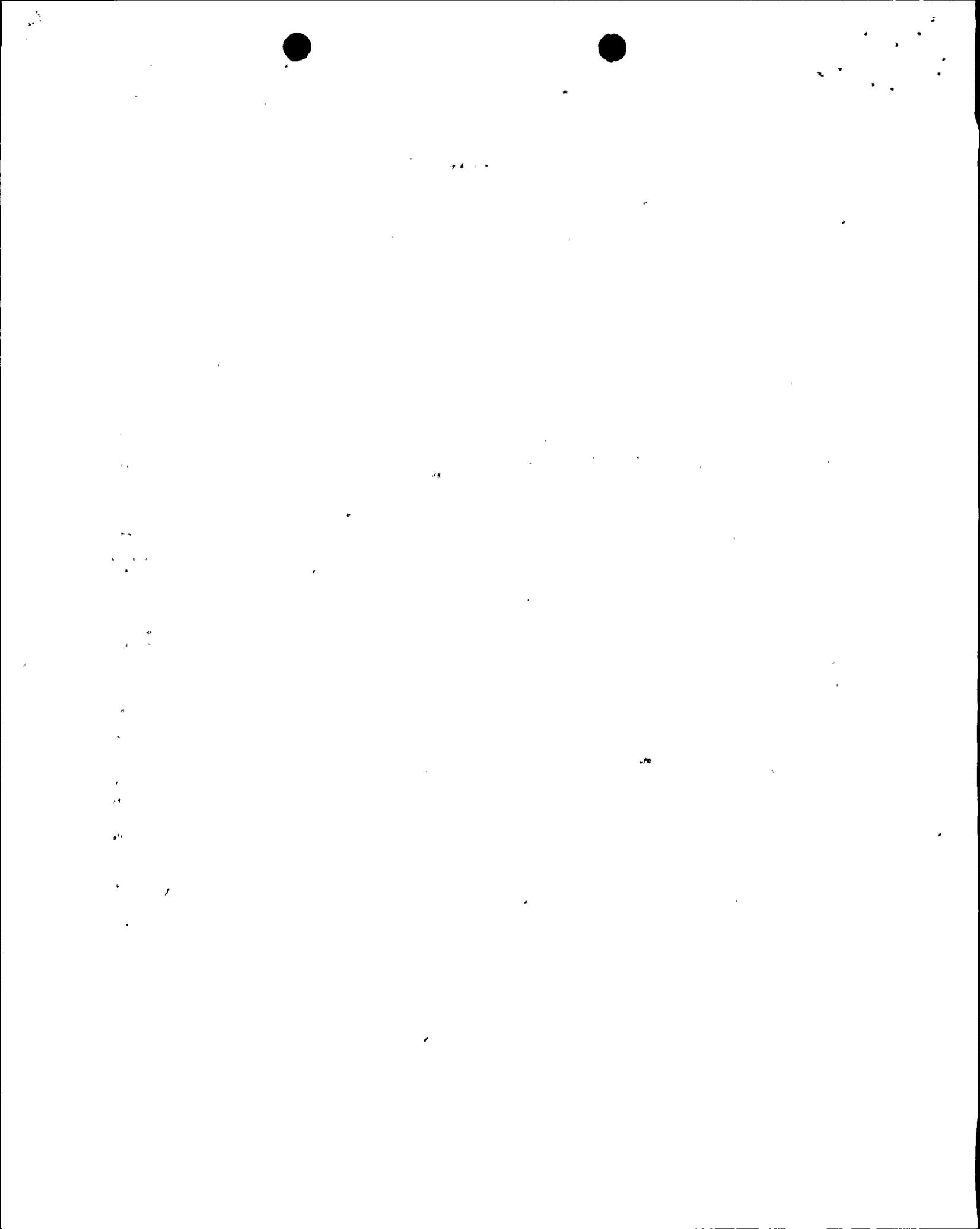
Violation B 10 CFR Part 50, Appendix B, Criterion XI, requires, in part, that test results be documented and evaluated to assure that test requirements have been satisfied.

Contrary to the above, on August 14, 1986, test results were not evaluated to assure that test requirements had been satisfied. Specifically, although Raw Water Pump No. 121 motor current was observed as outside the acceptable range, an evaluation of the data was not completed and NMNS Procedure NI-ST-Q6, "Containment Spray and Raw Water Pumps Operability Test," was completed as satisfactory.

Response to Violation B

Niagara Mohawk admits the violation as stated. The reason for this violation was personnel error in that the test results were accepted as satisfactory without proper evaluation of the data collected and/or resolution of unacceptable results. Niagara Mohawk has taken actions to correct this situation and prevent recurrence. The Surveillance Procedures have been reviewed and revised as necessary, to properly indicate required acceptance criteria so that it is clear to the operator whether the results are satisfactory or unsatisfactory, prior to signing off the procedure. In addition, the Senior Vice President - Nuclear Division held meetings with all site personnel, in which the use of procedures and strict adherence to approved procedures was stressed. Finally, the Superintendent of Operations is conducting training sessions with Operations personnel, addressing the need for strict adherence to approved procedures during the conduct of station operation. This training is being conducted as part of the regular operator training program and will be completed by June 30, 1987.

Niagara Mohawk believes that the review and revision of procedures, coupled with the additional training in the area of procedure use, will prevent recurrence of this type of violation.



Violation C

10 CFR 20.201(b) requires, in part, that each licensee make or cause to be made such surveys as may be necessary to comply with the regulations in 10 CFR Part 20 and are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. 10 CFR 20.201(a) defines a survey, in part, as an evaluation of the radiation hazards incident to the presence of sources of radiation.

Contrary to the above,

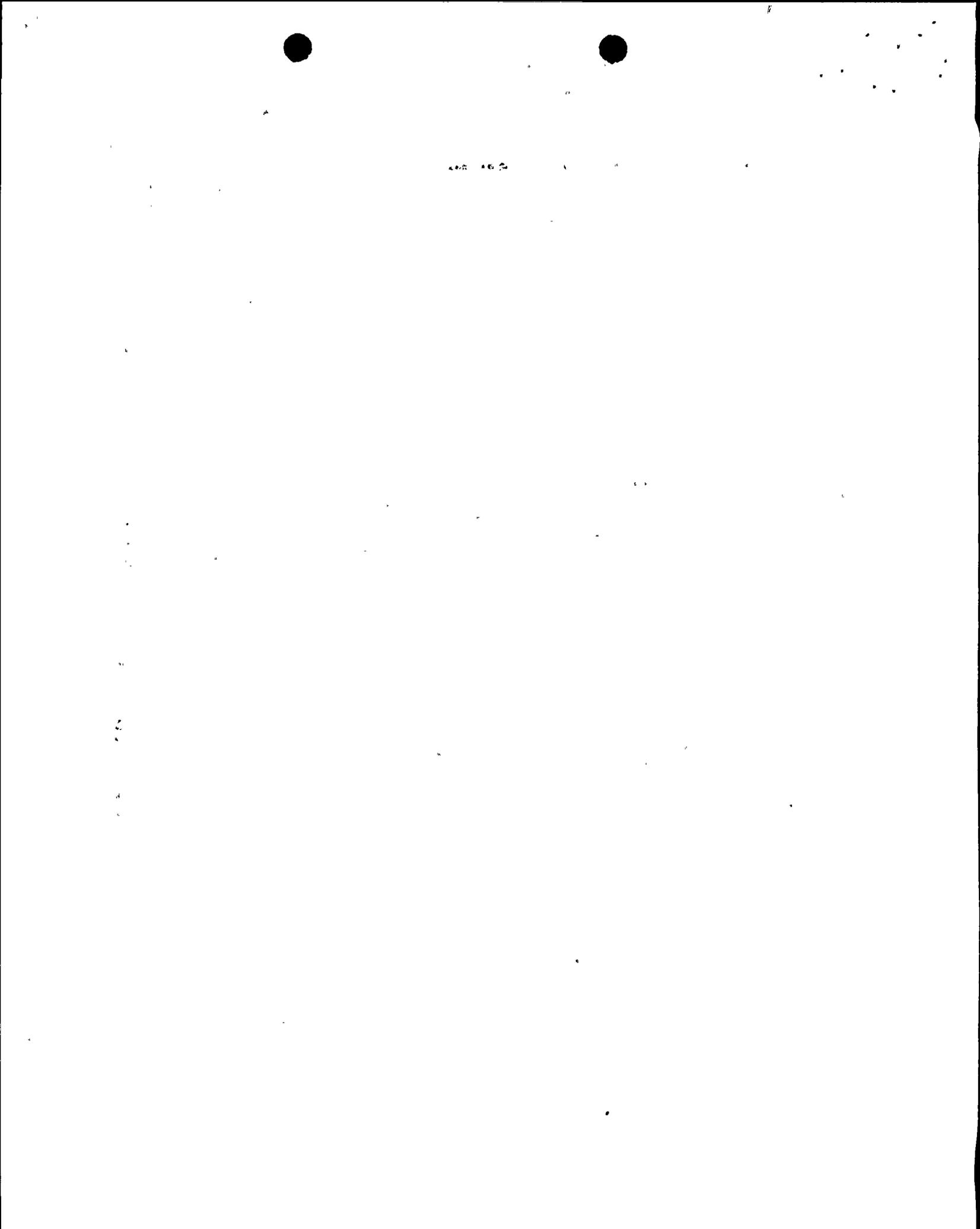
1. although an Instrument and Control (I&C) technician's pocket dosimeter went offscale while performing maintenance on local power range monitors under the reactor vessel on April 28, 1986, the individual reentered the area and performed additional work under the vessel, without an evaluation being performed to determine the extent of the radiation hazards that may have been present and without ensuring that the limits set forth in 10 CFR 20.101 were not exceeded.
2. on April 29, 1986, an adequate survey was not performed of an area under the reactor vessel area where maintenance on local power range monitors was to be performed in that the radiation levels from the control rod drive (CRD) flanges were not determined. An individual performing the maintenance could come in contact with the CRD flanges which had a contact radiation level of approximately 1200 millirem per hour. A technician was not instructed to avoid the area of these flanges, and this resulted in the technician working with his head resting against a flange without knowing that the flange had a contact radiation level of approximately 1200 millirem per hour.

Response to Violation C

Niagara Mohawk admits the violation as stated. Niagara Mohawk has reviewed the facts surrounding these incidents and attributes these events to a lack of effective training with inadequate management control of work in radiation areas.

Corrective measures taken to prevent the recurrence of these incidents included:

1. A memorandum was issued to site personnel from the Site General Superintendent reemphasizing actions to be taken by personnel during an offscale Self-Reading Pocket Dosimeter event. This additional information was later incorporated into Site Radiation Protection Procedures.
2. A Training Modification Request was issued and implemented to discuss this incident and its lessons learned with site personnel as part of the General Employee/Radiation Protection Training Program.

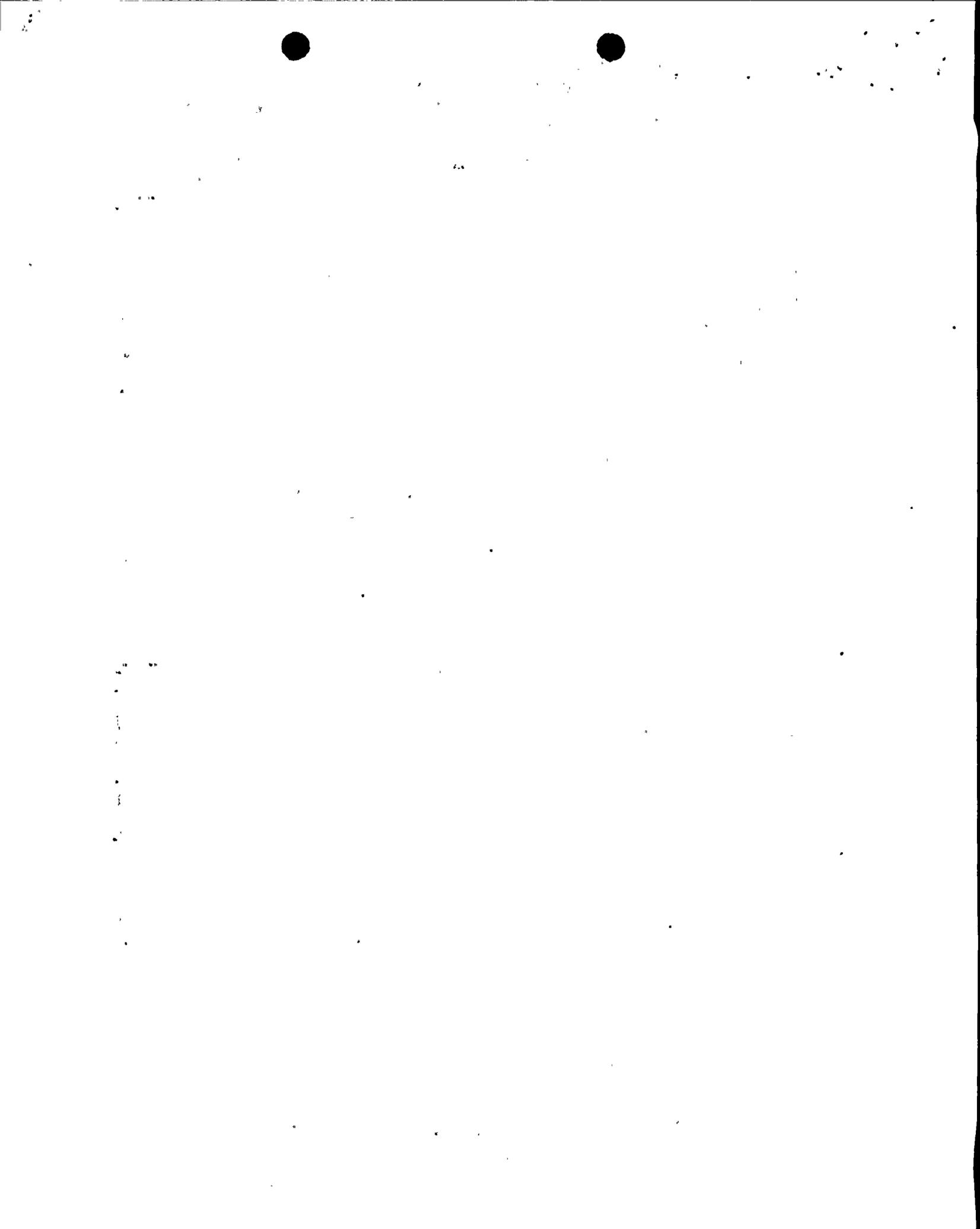


3. Procedures used to evaluate potential abnormal exposures were developed in response to Inspection Report 86-16. In addition, these procedures were later strengthened to include the guidance of IE Notice 86-41 and to provide a mechanism for management assessment.
4. A memorandum was issued to Site personnel from the Site General Superintendent stressing Leadman responsibilities when controlling work on Radiation Work Permits. This information was later incorporated into Site Radiation Procedures.
5. The individual's Dosimetry and Self Monitoring Qualification were revoked and he was denied entry into the restricted area until he attended and successfully completed a full Training Self Monitoring Qualification program.
6. Site Radiation Protection Procedures were revised to provide additional guidance relative to work place radiological survey requirements.
7. The conduct of Leadman responsibilities was audited to verify and ensure program compliance.

In addition to these steps, general programmatic improvements were developed in response to these incidents. These improvements included:

1. Reorganizing the Chemistry and Radiation Management Department to provide additional senior level manpower and divide the department's responsibilities into specialized functional areas.
2. Establishing a Radiological Performance Monitoring Program to trend radiological reports for management assessment.
3. Improving management assessment and involvement in the Site Radiation Protection Program through formalized training and on the job evaluation of work in progress.

All corrective actions described above have been completed. Niagara Mohawk will continue to monitor the radiological performance of station personnel to prevent the recurrence of violations of this nature.



Violation D Technical Specification 6.11 requires, in part, that procedures for personnel radiation protection be prepared consistent with the requirements of 10 CFR Part 20, and be adhered to for all operations involving personnel radiation exposure.

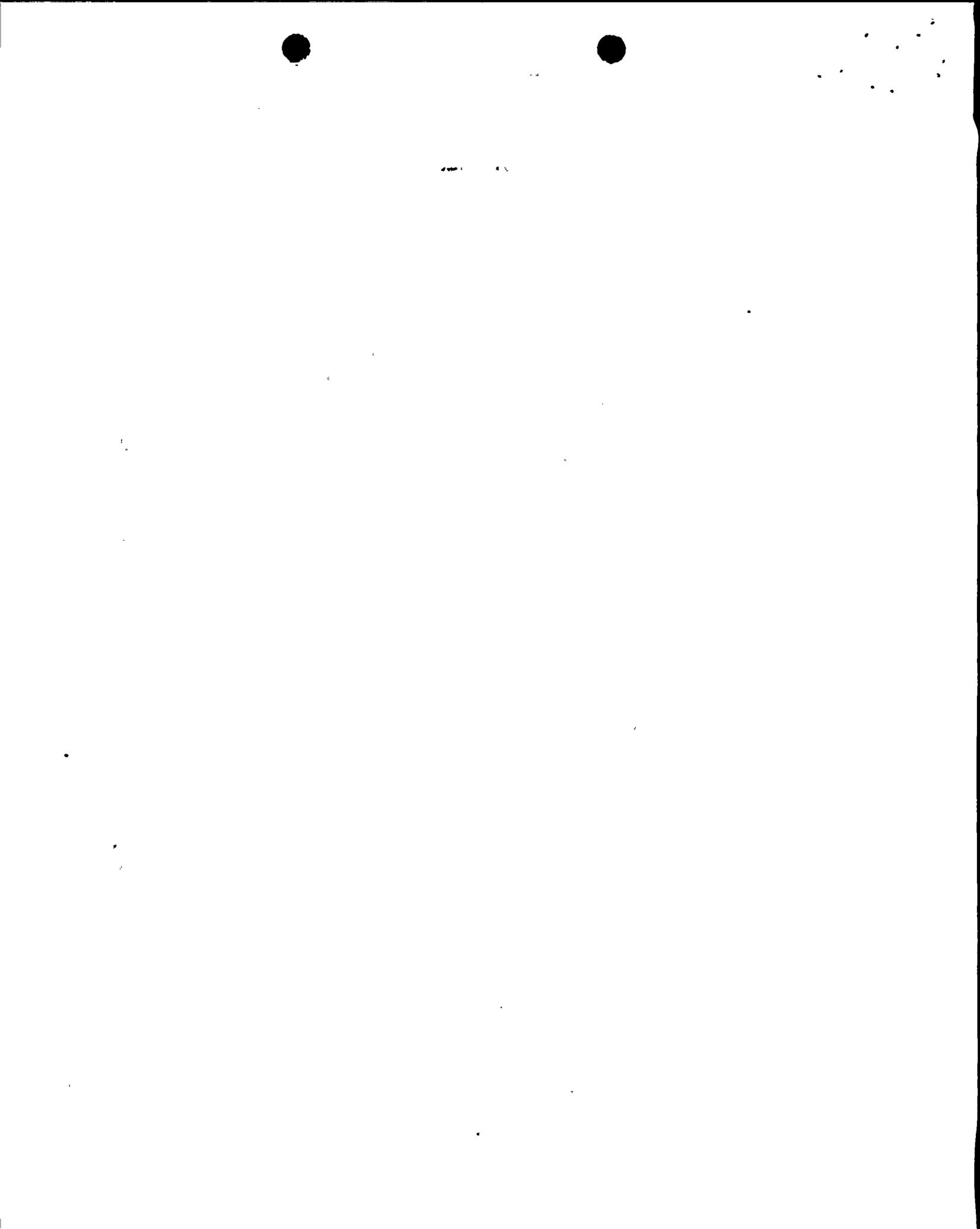
Contrary to the above, in several instances, procedures for personnel radiation protection were not adhered to for operations involving personnel radiation exposure, as evidenced by the following examples:

1. On April 28 and 29, 1986, an I&C Technician working under the reactor vessel received an uncontrolled radiation exposure as evidenced by off scale dosimetry readings, and Radiological Occurrence Reports were not issued in accordance with NMNS Procedure S-RP-5, "Radiation and Radioactive Contamination Control," Revision 4.
2. On April 28, 1986, an I&C Technician, whose dosimeter indicated an accumulated dose of 300 millirem, did not rezero his dosimeter, as required by NMNS Procedure S-RP-1, "Access and Radiological Control," Revision 5, prior to entering an area under the reactor vessel where the radiation field could result in an offscale reading.
3. On April 29, 1986, an I&C Technician, designated as the Leadman for work performed under the reactor vessel, did not ensure, as required by NMNS Procedure S-RP-2, "Radiation Work Permit Procedure," Revision 4, that the instructions of a Radiation Work Permit (RWP) were strictly followed. Specifically, the Leadman entered the area without the extremity dosimeter required by RWP No. 2043.
4. On April 28, 1986, an I&C Technician returned his extremity dosimeter to dosimetry personnel, but did not return his whole body film badge at the same time, as required by NMNS Procedure S-RTP-7, "Issuing and Collecting Dosimetry Devices," Revision 6.
5. On April 28, 1986, an I&C Technician's pocket dosimeter went offscale indicating a potential high exposure, but the film badge was not submitted to the vendor for processing as required by NMNS Procedure S-RRI-12, "Sending Special Reads to Landauer," Revision 0.

Response to Violation D

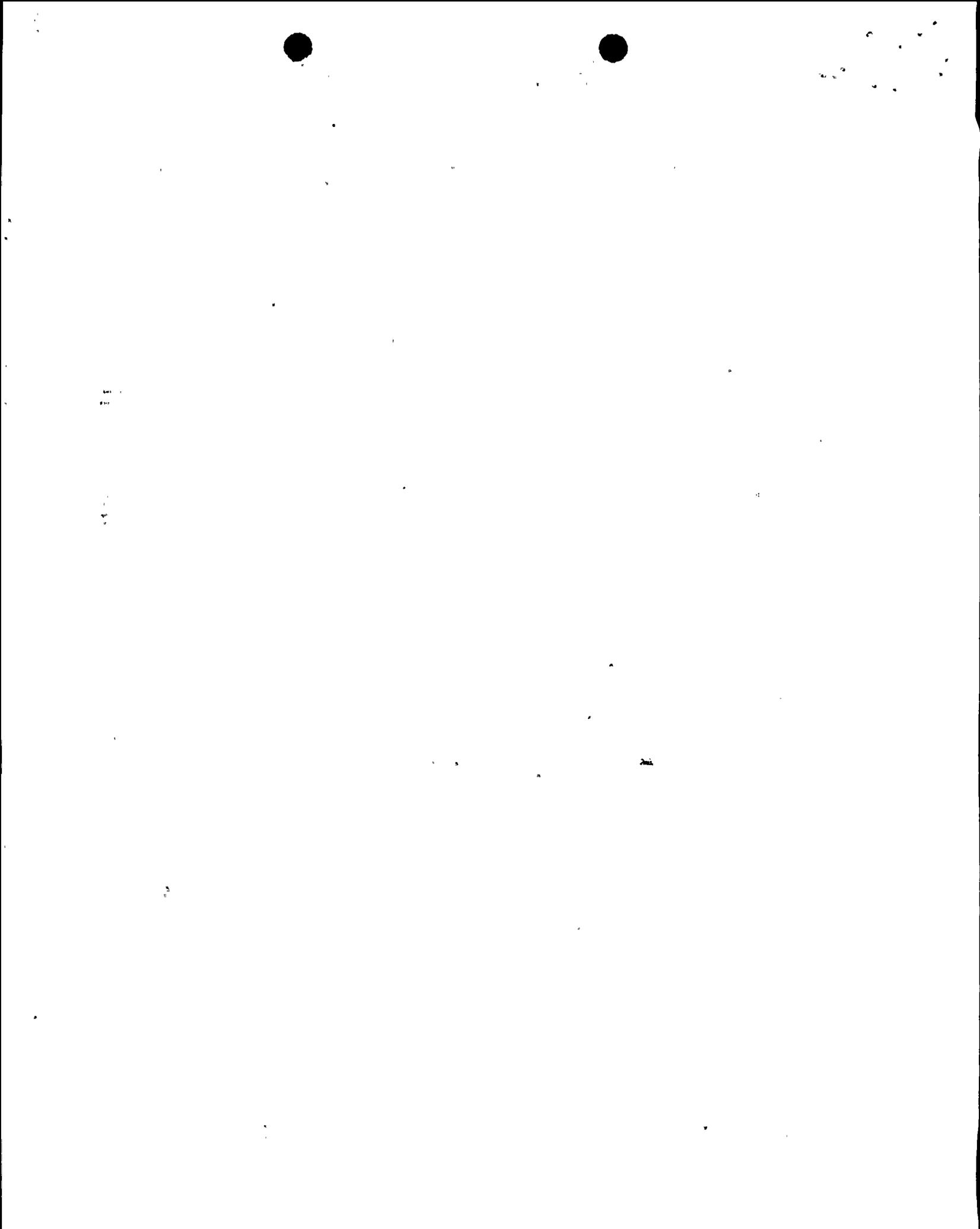
Niagara Mohawk admits the violation as stated. Niagara Mohawk has reviewed the circumstances surrounding the incidents on April 28 and 29, 1986 and attributes this violation to a lack of effective training, inadequate management control and failure to follow procedures.

Corrective measures taken to preclude the recurrence of these incidents included those actions identified in our response to Violation C and the following:



1. Additional guidance and training was provided to Radiation Records Clerks and Radiation Protection Technicians emphasizing their required actions for an offscale Self Reading Pocket Dosimetry event.
2. A memorandum was issued to Unit Supervisors directing that Pre-ALARA Work Reviews be discussed with all workers prior to commencing work.
3. Site Radiation Protection Procedures were revised to include more specifics regarding:
 - a. The return and/or request of dosimetry for doubtful or no apparent reasons.
 - b. Issuance of extremity and/or supplemental whole body dosimetry.
 - c. Each individual's responsibilities when in the station's restricted area.
 - d. Surveying and resurveying of areas during work.
 - e. The proper placement, accessibility and mechanism for reading and rezeroing of Self Reading Pocket Dosimeters in contaminated work areas.
 - f. Methodology for making announcements during high maintenance activities to direct personnel to read their Self Reading Pocket Dosimeters.
 - g. Additional manpower support to supplement Station Radiation Protection Staff in investigating and following up on Radiological Non-Conformance Event Transmittals (NETS) and Radiological Incident Reports (RIRS).

All corrective measures described above have been completed. Niagara Mohawk will continue to monitor the Station's radiological performance to prevent recurrence of incidents of this nature.



Violation E

Technical Specification 6.12.1 requires, in part, that each individual or group of individuals permitted to enter areas with radiation levels greater than 100 mrem/hour be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rates in the area have been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection, with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area, shall perform periodic radiation surveillance at the frequency specified by the Radiation Protection Supervisor or designated in the Radiation Work Permit.

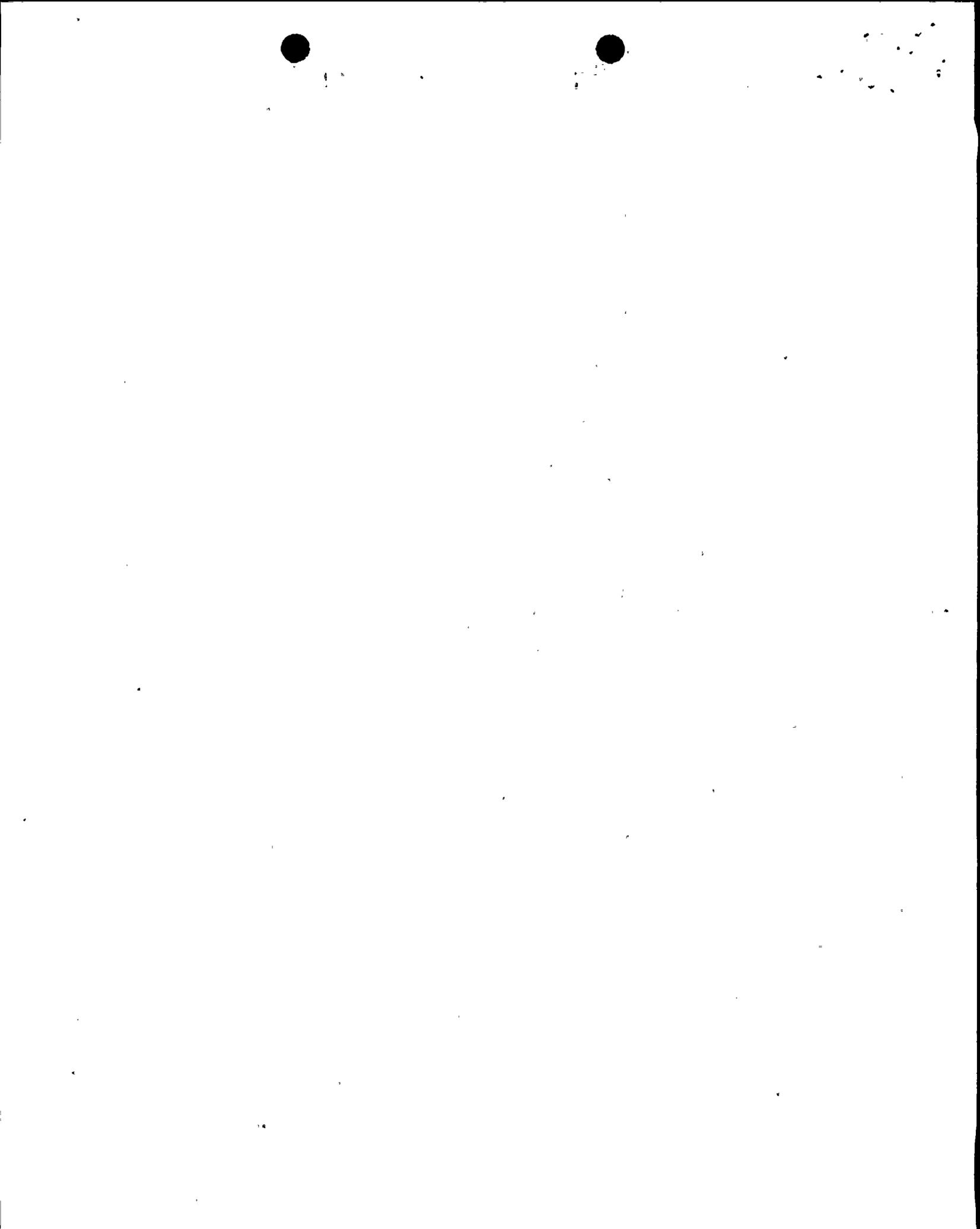
Contrary to the above, on April 29, 1986, an I&C Technician entered an area under the reactor vessel and performed work on the Local Power Range Monitors (LPRMs) where the upper part of his body could come in contact with the Control Rod Drive (CRD) flanges where the radiation levels were as high as 1200 mrem/hr on contact. The technician was not provided with a continuously indicating or continuously integrating device, nor was he accompanied by an individual qualified in radiation protection to perform periodic surveillance at the frequency specified on the RWP.

Response to Violation E

Niagara Mohawk admits the violation as stated. Niagara Mohawk has reviewed the facts and circumstances surrounding this incident and attributes these events to a lack of specific procedural guidance.

Corrective measures taken to preclude the recurrence of these incidents include those actions previously stated under violations C and D and the following:

1. Radiation Protection procedures were revised and implemented to provide use of the additional options (b & c) discussed in Tech Spec 6.12.1. This revision also required Radiation Protection Technicians to alert personnel of the method of monitoring to be used and to include a statement of these methods on the Radiation Work Permit.



2. Equipment has been purchased to ensure personnel performing this work in the future will maintain a fixed geometry in relation to the Radiological Source in the work area.

All corrective actions described above have been completed.

In addition to the above corrective actions, we are also investigating further enhancements in this area including:

1. The use of CRD flange shields,
2. The use of integrating alarming pocket dosimeters,
3. Modifications to allow LPRM connector work to be performed in a lower background area of the drywell (see discussion under Example 3 of Violation A).

