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Docket No. 50-289/320

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MEMORANDUM FOR: Atomic Safety and Licensing Appeal Board for TMI-1 Restart

FROM: Gus C. Lainas, Assistant Director for Operating Reactors,
Division of Licensing

SUBJECT: BOARD NOTIFICATION (BN-82-83) - TMI-1 RESTART HEARING

The enclosed inspection report (IR 50-320/82-04) identifies inadequate corrective maintenance actions on TMI-2 ventilation filter systems considered important to safety (Item II.D., page 19 of the enclosure). These issues relate to TMIA Contention 5 of the TMI-1 restart proceeding concerning safety related maintenance. The information contained in this inspection report does not change previous staff positions primarily because it is concerned with TMI-2 while the TMI-1 maintenance organization, system and management controls are separate from that of TMI-2. However, Region I will inspect the TMI-1 maintenance system to determine if similar problems exist with the TMI-1 system.

Original signed by

Gus C. Lainas, Assistant Director
for Operating Reactors
Division of Licensing

Enclosure:
Inspection Report

cc w/enclosure:
See next page

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G PDR

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DATE	8/11/82:cb	8/12/82	8/11/82			

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DISTRIBUTION OF BOARD NOTIFICATION

Three Mile Island, Unit 1/COMM
Docket No. 50-289 (Restart)

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Mr. Jeremiah J. Ray
Dr. Paul C. Shewmon
Dr. Chester P. Siess
Mr. David A. Ward

JUN 2 1982

Docket No. 50-320

GPU Nuclear Corporation
ATTN: Mr. J. J. Barton
Acting Director of TMI-2
P.O. Box 480
Middletown, Pennsylvania 17057

Gentlemen:

Subject: Inspection 50-320/82-04

This refers to the routine safety inspection conducted by Mr. R. Conte of this office on March 21 - April 24, 1982 of activities authorized by NRC License DPR-73 and to the discussions of our findings held by Mr. Conte with yourself and other members of your staff at the conclusion of the inspection.

Areas examined during this inspection are described in the NRC Region I Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Based on the results of this inspection, it appears that certain of your activities were not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. These violations have been categorized into the levels described in the Federal Register Notice (47 FR 9987), dated March 9, 1982. You are required to respond to this letter and in preparing your response, you should follow the instructions in Appendix A.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Additionally, an apparent violation of NRC requirements is described in the inspection report (paragraph 11.d) enclosed with this letter. We are considering this item for appropriate enforcement action and will be addressing this matter under separate correspondence at a later time. However, as a part of our review of this matter, we want to discuss with you the circumstances surrounding this and other related apparent violations. You will be contacted subsequently regarding a mutually acceptable date and time for a management conference.

We are particularly concerned about the adequacy of your corrective action system that allowed activities adverse to quality associated with the operation of the Reactor Building (RB) Purge, Auxiliary Building (AB) and Fuel Handling Building (FHB) Ventilation Systems to go apparently uncorrected.

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In June of 1980, maintenance records associated with filter replacement identified filter bypassing in the RB purge filter trains due to the filter cabinet under-drain system. The corrective action to stop the bypassing was to use "tuck tape" contrary to plant drawings and specifications. In September of 1980, inspection and testing of High Efficiency Particulate Absolute (HEPA) filters following filter replacement for the AB Ventilation System were conducted in accordance with maintenance procedures and using a checklist (apparently an excerpt from ANSI N510-1975) to assure that there was no bypassing via the drain system. Documentation of as-found conditions was lacking, but it appears from maintenance records that a specific check for conformance to drawings and specifications was not performed. A similar replacement of FHB Ventilation filters occurred in September 1981 based on a request for work in November 1980. Still, the nonconformance was not identified.

As a result of an Unusual Event on January 8, 1982, plant instruments indicated degraded filter performance and/or bypassing of the AB and FHB Ventilation System. Investigation and corrective action apparently were not initiated until after NRC site staff questioned your staff on this matter. Contrary to Technical Specifications, a determination of reportability for the event was not made until March 3, 1982, and subsequent to a meeting with NRC site personnel on March 2, 1982. Additionally, at the conclusion of this inspection period, records were not available for many of the HEPA filter inspections and tests performed by one of your contractors for various filter replacements in 1979 to 1980.

Another example of delayed corrective actions associated with these ventilation systems is noted. In our letter dated October 6, 1981, which transmitted NRC Region I Inspection Report No. 50-320/81-15, we brought to your attention four apparent violations of Technical Specification Operability and Surveillance Requirements related to these ventilation systems. In your letter dated January 25, 1982 you acknowledged two of the four violations and committed to a response date for the remaining two items by February 5, 1982. Since these violations do not constitute an immediate threat to public health and safety and in the interest of assuring effective corrective action, this office granted an additional extension for the responses on April 28, 1982. Timely corrective action to address these issues has not been apparent.

The operability of the ventilation systems for the Reactor Building, Auxiliary Building and Fuel Handling Building is an important aspect when considering the contamination of components housed within those buildings, as a result of the March 28, 1979, accident. We consider the apparent degradation of these ventilation systems to be a serious matter and believe that the management and procedure controls associated with this problem need to be examined. In light of your unique activity to safely decontaminate and defuel TMI-2, we have concluded

JUN 22 1982

that a management conference is necessary as soon as possible.

At the conference, you should be prepared to discuss the circumstances surrounding these matters, your immediate corrective actions, your views on the significance of the problem and your findings on the adequacy of the control systems that allowed these to occur. In addition, you should also be prepared to discuss the existing controls in your corrective actions system and contemplated improvements for major decontamination activities, including the upcoming reactor core evaluation activities.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1). The telephone notification of your intent to request withholding, or any request for an extension of the 10 day period which you believe necessary, should be made to the Supervisor, Files, Mail and Records, USNRC Region I, at (215) 337-5223.

Your cooperation with us in this matter is appreciated.

Sincerely,

Original Signed By:

Richard W. Starostecki, Director
Division of Project and Resident
Programs

Enclosures:

1. Appendix A, Notice of Violation
2. NRC Region I Inspection Report 50-320/82-04

cc w/encl:

L. King, Acting Director, Site Operations
J. E. Larson, Supervisor, TMI-2 Licensing
E. G. Wallace, PWR Licensing Manager
J. B. Liberman, Esquire
G. F. Trowbridge, Esquire
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania
Ms. Mary V. Southard, Co-Chairman, Citizens for a Safe Environment
(Without Report)

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bcc w/encl:

Region I Docket Room (w/concurrence)

L. Barrett, Deputy Program Director, TMI Program Office

J. Goldberg, OELD:HQ

Chief, Operational Support Section (wo/encl)

Ms. Mary V. Southard, Co-Chairman, Citizens for a Safe Environment

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OFFICE	TMIS	TMIS	TMIS	TMPO	DPRP#2	DPRP
NAME	RC [handwritten] / Imp	MShanbaky	Afasano	LBarrett	RKeimig	RStarostecki
DATE	5/7/82	5/7/82	5/7/82	5/7/82	5/16/82	6/2/82

NOTICE OF VIOLATION

GPU Nuclear Corporation
Three Mile Island Unit 2

Docket No. 50-320
License No. DPR-73

As a result of the inspection conducted on March 21 - April 24, 1982, and in accordance with the Federal Register Notice (47 FR 9987) dated March 9, 1982, the following violations were identified.

- A. 10 CFR 50, Appendix B, Criterion XVII, and Recovery Quality Assurance Plan Section 3.3.2.a require, in part, that sufficient records shall be maintained to furnish evidence of activities affecting quality such as the results of inspections and tests; and that inspection and test records shall be retrievable.

Contrary to the above, as of April 24, 1982, records of an activity affecting quality, inspection and dioctyl-phthalate (DOP) testing of High Efficiency Particulate Absolute (HEPA) filters, were not retrievable for various important to safety ventilation systems (Auxiliary Building, Fuel Handling Building, and Reactor Building). Various filter replacements with subsequent inspections and testing occurred in 1980 and 1981.

This is a Severity IV Violation (Supplement I).

- B. The Order for Modification of License, dated July 20, 1979, as amended by the Order dated February 11, 1980, states, in part: "...Pending further Amendment of the Facility Operating License, the licensee shall maintain the facility in accordance with requirements set forth in Attachment 1..." (Proposed Technical Specification, Appendix A to License No. DPR-73). The proposed Technical Specification 6.8.1 requires, in part, that written procedures, covering procedure adherence and temporary change method, shall be implemented. Administrative Procedure (AP) 1001, Revision 26, October 20, 1981, TMI Document Control, paragraph 3.6.4.2.4 requires, in part, that one copy of the original temporary change notice (TCN) be attached to the working (procedure) copy for evolutions in progress; and that the affected procedure section identify the TCN number, and initial of the individual making the change. AP 1060, Revision 0, March 3, 1981, Procedure Usage and Implementation, paragraphs 4.2.1.1 and 4.2.1.3 require, in part, that major evolutions involving special operating procedures (SOP) shall be initialed step-by-step and dated.

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Contrary to the above, between March 15, 1982, and March 23, 1982, the specified procedure adherence and temporary change method was not implemented for SOP 2-82-016, dated March 11, 1982, Removal of [Makeup Filter] MU-F-4A and 4B and Cleaning of Filter Housing. The record of procedure completion did not have a copy of the original TCN No. 2-82-123, dated March 19, 1982. The TCN affected section (paragraph 3.18) of SOP 2-82-016, a prerequisite valve lineup, did not identify the TCN number and individual who incorporated the valve lineup change. A major evolution of SOP-2-82-016, Section 3.18 prerequisite valve lineup, was not properly initialed step-by-step and not dated as provided for by SOP 2-82-016. (On March 22, 1982, during the implementation of SOP 2-82-016, an Unusual Event resulted due to abnormal reactor coolant system leakage.)

This is a Severity Level IV Violation (Supplement I).

- C. 10 CFR 50, Appendix B, Criterion XVI, and the accepted Quality Assurance Plan, Section 8.1 require, in part, that activities adverse to quality such as deficiencies or nonconformances are promptly identified and corrected, and corrective actions be taken to preclude repetition.

Contrary to the above, on March 25, 1982, an individual entered the Reactor Building (RB) without instructions from the RB Command Center, contrary to the RB entry procedure. The uninstructed individual entry into the RB signifies a deficiency adverse to quality. This was a repetitive incident of a similar occurrence on February 24, 1982, identified by the licensee.

This is a Severity Level IV Violation (Supplement I).

- D. 10 CFR 71.54(c) requires, in part, that prior to each use of certain packages for radioactive material shipments that the licensee make a determination that sealing gaskets are "...free from defects."

Contrary to the above, on November 13, 1981, a defective package cover gasket was used for a radioactive material shipment. The gasket had a three inch crack and a piece of the gasket edge was broken off.

This is a Severity IV Violation (Supplement V).

- E. The Order for Modification of License, dated July 20, 1979, as amended by the Order dated February 11, 1980, states, in part: "...Pending further Amendment of the Facility Operating License, the licensee shall maintain the facility in accordance with requirements set forth in Attachment 1..." (Proposed Technical Specification, Appendix A to License No. DPR-73). The proposed Technical Specification 6.9.1.8 requires, in part, that for reportable events information provided on the licensee event report (LER) form shall be supplemented by additional

narrative material to provide complete explanation of the circumstances surrounding the event.

Contrary to the above, LER 82-11/01L-0, dated April 7, 1982, Potential Bypass Path Around Several Ventilation System Filtration Units at TMI-2, did not provide a complete explanation of the circumstances surrounding the event. Justification for various licensee statements/conclusions in the LER were not provided with respect to: known level in the filter cabinet drain system seal water tank, which was used as the basis to eliminate it as a bypass path; time period for cleanout drain taping; description of cleanout drain contamination levels other than relatively high, and the known or estimated extent of filter bypassing.

This is a Severity V Violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, GPU Nuclear Corporation is hereby required to submit to this office within 30 days of the date of this Notice, a written statement or explanation in reply, including (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending your response time.

With respect to Item D, we note that GPU Nuclear Corporation corrected this item and took measures to prevent recurrence. Therefore, a reply is not necessary with respect to that item.

Dated _____

JUN 27 1982

Original Signed By:

Richard W. Starostecki, Director
Division of Project and Resident
Programs

U. S. NUCLEAR REGULATORY COMMISSION

Region I

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 50320-820325
 50320-820322
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 50320-811228
 50320-820304
 50320-820201
 50320-820209

Report No. 50-320/82-04

Docket No. 50-320

License No. DPR-73 Priority -- Category C

Licensee: GPU Nuclear Corporation

P.O. Box 480

Middletown, Pennsylvania 17057

Facility Name: Three Mile Island Nuclear Station, Unit 2

Inspection At: Middletown, Pennsylvania

Inspection Conducted: March 21 - April 24, 1982

Inspectors: *R. Conte* 5/7/82
 R. Conte, Senior Resident Inspector (TMI-2) date signed

Benny O'Neill 5/7/82
 B. O'Neill, Radiation Specialist date signed

L. Thonus 5/7/82
 L. Thonus, Resident Inspector (TMI-2) date signed

Accompanied by: *J. Wiebe Sr* 5/7/82
 J. Wiebe, Nuclear Engineer date signed
 NRC TMI Program Office

Ronald R. Bellamy 5/7/82
 R. Bellamy, Chief, Technical Support Section date signed
 NRC TMI Program Office

Approved by: *A. Fasano for* 5-25-82
 A. Fasano, Chief, Three Mile Island Section, date signed
 Projects Branch No. 2

Inspection Summary:

Inspection conducted on March 21 - April 24, 1982 (Inspection Report Number 50-320/82-04)

Areas Inspected: Routine safety inspection conducted by site inspectors of licensee action on previous inspection findings; routine plant operations; routine surveillance and maintenance; routine health physics and environmental areas; Reactor Building (RB) entries; radiological material shipments; licensee event reports (LER's); licensee action on NRC bulletins, and ventilation system filter bypassing. The inspection involved 212 inspector-hours.

Results: Of the nine areas inspected, five apparent violations were identified in five areas (use of a defective gasket on a shipping cask - paragraph 2; failure to take adequate corrective actions on violations of the RB entry procedure - paragraph 6; failure to fully describe the circumstances of an event in an LER - paragraph 11.c; failure to properly incorporate a temporary change into a special operating procedure (SOP) and to properly document the SOP valve lineup - paragraph 10.f(3); failure to take timely and adequate corrective action on indication of ventilation system filter bypassing - paragraph 11.d; and, failure to retrieve inspection and test records on ventilation filter inspection and test - paragraph 11.e).

DETAILS

1. Persons Contacted

General Public Utilities (GPU) Nuclear Corporation

- *J. Barton, Acting Vice President (TMI-2)
- *J. Byrne, Licensing Engineer
- *P. Carmel, Decontamination Coordinator
- *S. Chaplin, Licensing Engineer
- *J. Chwastyk, Manager Plant Operations
- *W. Conway, Acting Radwaste Support Manager
- *J. Flarigan, Radiological Engineering Manager
- *J. Garrison, Quality Assurance (QA) Auditor
- E. Gee, Supervisor Respiratory Protection
- *G. Giangi, TMI Emergency Preparedness Manager
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- P. Hollenbeck, Radiological Engineer
- *L. King, Acting Director Site Operations
- *G. Kunder, Supervisor Technical Specification Compliance
- *D. LeQuia, Operation QA Monitor
- M. Murphy, Radiological Engineer
- *R. Neidig, Communications
- P. Newkirk, Deputy Manager Radiological Field Operations
- M. Pastor, Recovery Programs Operations and Construction Director
- *J. Renshaw, Manager Radiological Field Operations
- *R. Rogan, Manager Emergency Preparedness
- *P. Ruhter, Manager Radiological Engineering
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- R. Warren, Lead Mechanical Engineer
- *D. Weaver, Instrument and Control Supervisor
- J. Weiser, Manager TMI Information Center

Other licensee personnel were also interviewed.

*denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Open) Unresolved Item (320/81-10-01): Licensee to re-review and revise (Submerged Demineralizer System (SDS)) procedures. Significant procedure deficiencies were identified in NRC review of SDS procedures prior to SDS operation in July 1981. During this review the adequacy of the licensee's review and approval process was questioned. NRC comments on SDS procedures were satisfactorily resolved prior to SDS operation.

During licensee preparations (early 1982) for reactor coolant system processing through SDS, procedures were written/ revised to cover this special evolution (scheduled for mid-May 1982) and these procedures were submitted to NRC site staff in accordance with Technical Specification 6.8.2.

The NRC reviewer noted improvement in the quality of the procedures compared to those submitted for initial SDS operations. However, some procedure comments covered the following items.

- Draft procedure operations and limits were inconsistent with the proposed safety evaluation limits.
- Draft procedure contained sampling requirements which were inconsistent with licensee plans for sampling.
- Draft procedure contained steps which were inconsistent with other procedures.
- There appeared to be no standardized method for determining which valves were to be included in valve lineup or what position to place valves when the evolution was completed.
- When copying other similar draft procedures care was not taken to assure all differences were addressed (referencing sections or appendices not included in the procedure).

Overall, the adequacy of licensee review appeared to be one in coordinating draft procedure generation with respect to other applicable documents (draft or issued).

During this inspection period, discussions were initiated between NRC site personnel and licensee representatives on licensee plans to revise Technical Specifications, Section 6 on the licensee's review and approval process to improve the quality of review of all documents including procedures. This area will continue to be reviewed by NRC.

(Closed) Unresolved Item (320/81-20-03): Radioactive material package with cracked gasket. Based on discussions and correspondence with the Office of Nuclear Material Safety and Safeguards (NMSS) of NRC, it was concluded that the crack and missing piece of gasket constituted a "defect". This represents an apparent violation of 10 CFR 71.54(c) requirements (320/82-04-01).

This was discussed with licensee representatives on March 25, 1982. On April 19, 1982, the inspector reviewed the licensee's corrective actions (procedure revisions) and discussed these actions with licensee representatives. The procedure revisions (Operating Procedure 2104-4.111, Revision 2) require personnel to treat cracks as defects regardless of whether they are thru-wall or not. The inspector determined the licensee's corrective actions and measures to prevent recurrence acceptable.

(Closed) Unresolved Item (320/81-23-02): Review of ventilation system performance during January 8, 1982, Unusual Event. Details see paragraph 11.c.

(Closed) Unresolved Item (320/82-02-01): Licensee corrective actions on failure to follow procedures on control of high radiation areas. The inspector reviewed licensee actions and corrective measures regarding a licensee identified violation of Radiological Control Procedure (RCP) 4161, Control of High Radiation Areas, Revision 1, dated March 3, 1981, Section 6.21. The inspector determined that the licensee has initiated corrective actions and procedure improvements, and reinstructed all Radiological Control Technicians regarding control of high radiation areas.

(Closed) Unresolved Item (320/82-02-02): Failure to follow procedures during Reactor Building (RB) entries. During Entry 35 an individual failed to use a self-contained breathing apparatus (SCBA) in the pressure-demand mode, as required by Radiation Control Procedure (RCP) 4052.

The inspector reviewed the incident with the Supervisor Respiratory Protection (TMI). During this inspection period, the inspector reviewed the contents of new training courses: GET-103, Respiratory Protection; and Course 103.1, Respiratory Protection for Health Physics Technicians. The inspector determined that the implementation of a program for additional training in the correct use of respiratory protection is an acceptable corrective action.

Failure to follow procedures with respect to an individual's entry into the RB without instructions recurred and is addressed in paragraph 6.c.

3. Routine Plant Operations

Inspections of the facility, which included specific and more frequent reviews in the control room, were conducted to assess compliance with general operating requirements of Technical Specification 6.8.1 in the following areas: licensee review of selected plant parameters for abnormal trends; plant status from a maintenance/modification viewpoint including plant cleanliness; licensee control of ongoing and special evolutions including control room personnel awareness of these evolutions; control of documents including logkeeping practices; and, area radiological controls.

Random inspections of the control room during regular and back shift hours were conducted at least three times per week. The selected sections of the shift foreman's log and control room operator's log were reviewed for the period March 21 - April 23, 1982. Selected sections of other control room daily logs were reviewed for the period from midnight to the time of review. Inspections of areas outside the control room occurred on April 1 and 14, 1982. Selected licensee planning meetings were also observed.

4. Routine Surveillance and Maintenance

Completed surveillance and work packages were reviewed to support the inspector's followup on the January 8, 1982, Unusual Event. Findings are addressed in that section of the report (paragraph 11).

5. Routine Health Physics and Environmental Review

a. Plant Tours

The site radiation specialists completed routine plant inspection tours. These inspections included all control points and selected radiologically controlled areas. Observations included:

- Access control to radiologically controlled areas
- Adherence to Radiation Work Permit (RWP) requirements
- Proper use of respiratory protection equipment
- Adherence to radiation protection procedures
- Use of survey meters including personnel frisking techniques
- Cleanliness and housekeeping conditions
- Fire protection measures

b. Measurement Verification

Measurements were independently made by the inspector to verify the quality of licensee performance in the following selected areas.

- Radioactive material shipping
- Radiological control, radiation and contamination surveys
- Onsite environmental air and water sampling and analyses

During the period March 21, 1982, to April 24, 1982, environmental samples were obtained from the following locations.

- On April 8, 1982, samples were taken from onsite test borings Nos. 2, 3, and 17 (Ground Water Monitoring Program). Portions of the samples were sent to the USNRC Region I Laboratory, King of Prussia, Pennsylvania, and to the Radiological and Environmental Sciences Laboratory in Idaho.
- On April 16, 1982, one (4 liter) sample was taken from the Borated Water Storage Tank (BWST) pipe chase and sent to the Environmental Protection Agency (EPA) Laboratory, Middletown, Pennsylvania.

- On April 20, 1982, one (4 liter) sample was taken from the Air Intake Tunnel and sent to the EPA Laboratory, Middletown, Pennsylvania.

Sample results are not available and will be reported in a subsequent report. No violations were identified.

6. Reactor Building Entries

- a. The site staff monitored Reactor Building (RB) entries conducted during the inspection period to verify the following on a sampling basis.
 - The RB entry was properly planned and coordinated for effective task implementation including adequate as low as is reasonably achievable (ALARA) review, personnel training, and equipment testing.
 - Proper radiological precautions were planned and implemented including the use of a RWP.
 - Specific procedures were developed for unique tasks and properly implemented.
- b. The site staff attended RB entry status meetings; reviewed selected documents, applicable procedures, and RWP's concerning these entries.

Entries 53 through 58 were conducted during this inspection period. A synopsis of the entry tasks follows.

- Entries 53 through 55 (March 24-25, 1982) - Gross decontamination experiment terminated: Testing of detergents, strippable coating, and mechanical scrubber. Completion of data gathering acquisition.
 - Entry 56 (March 31, 1982) - trash removal, photographs, and radiation survey.
 - Entry 57 (April 14, 1982) - problem with personnel hatch door interlock mechanism.
 - Entry 57 (2nd entry, 11:58 PM, April 14, 1982) - Performed preventive maintenance on personnel door to equipment hatch (emergency exit door).
 - Entry 58 (April 22, 1982) - Installation of suction hose to the incore instrumentation trough on the 282 ft elevation floor, and removal of HPR-214 (Reactor Building dome radiation monitor).
- c. During Reactor Building Entry 38 on February 24, 1982, an individual entered the Reactor Building without the Reactor Building Command Center being manned. The individual was not instructed by the

RB Entry Command Center. The unauthorized entry was identified by the Entry Coordinator (a contractor individual) and corrective actions initiated by the licensee. Corrective actions included revised training of entry personnel, and additional procedural requirements mandating specific verbal approval to entry personnel from the Command Center before opening the airlock inner door to enter the Reactor Building. The inspector reviewed the effectiveness of the corrective actions implemented with respect to this previous inspection finding (Unresolved Item 320/82-02-02; paragraph 2).

During this inspection period, the inspector noted that a second similar incident had occurred. Two individuals entered the Reactor Building without authorization from the Command Center (Entry 54 on March 25, 1982). From licensee documentation, the inspector determined that it was approximately 5 minutes before personnel in the Command Center realized the unauthorized entry.

The inspector reviewed Radiological Deficiency Report 82-0028, dated March 25, 1982, and interviewed involved personnel. From these reviews, the inspector determined that the corrective actions implemented after the initial occurrence on February 4, 1982, were ineffective in that the specific responsibilities of entry teams and Command Center personnel were not delineated.

This represents apparent violation of 10 CFR 50, Appendix B, Criterion XVI, and Recovery Quality Assurance Plan, Section 8.1 (320/82-04-02).

7. Radioactive Material Shipments

- a. The site radiation specialists inspected all radioactive material shipments during the inspection period to verify the items listed below.
 - Licensee had complied with approved packaging and shipping procedures.
 - Licensee had prepared shipping papers, which certified that the radioactive materials were properly classified, described, packaged, and marked for transport.
 - Licensee had applied warning labels to all packages and placarded vehicles.
 - Licensee controlled the radioactive contamination and dose rates below the regulatory limits.
- b. Inspector review of this area consisted of: examination of shipping papers, procedures, packages, and vehicles; and performance of radiation and contamination surveys for each shipment.

During this period, 14 radioactive material shipments were made by the inspector.

No violations were identified.

8. Licensee Event Reports

- a. The inspector reviewed Licensee Event Reports (LER's) required to be submitted in accordance with Technical Specifications (TS) 6.9.1.8 and 6.9.1.9 (and NUREG 0161) to verify the following: Event and cause description clearly reported event information; the required LER form was properly completed; and adequate corrective action was specified.

Initial screening of these events was completed to determine generic applicability, need for additional site verification, and the necessity for additional NRC management review.

The below listed LER's were reviewed.

- LER 82-10/03L-0, dated March 25, 1982, Auxiliary Building (AB) ventilation exhaust flow below TS 3.9.12 limit
- LER 82-11/01L-0, dated April 7, 1982, Reactor Building (RB) Purge, Fuel Handling Building (FHB), and AB ventilation filter bypass

LER 82-11/01L-0 did not provide complete explanations of several items. This finding is addressed in paragraph 11.c.

- b. LER's were reviewed, in plant, to verify the following: Specified corrective actions including generic implications were completed, or scheduled and assigned to cognizant licensee personnel; the event did not involve an unreviewed safety question or continued operation in violation of regulatory requirements or license conditions; and report satisfied TS reporting requirements.

The below listed LER's were reviewed.

- LER 81-38/01L, Meteorological instrumentation inoperable. On December 28, 1981, between 2:55 AM and 11:20 AM the wind speed and wind direction monitoring instruments were inoperable due to icing. As soon as was consistent with personnel safety, the licensee temporarily heat traced the instruments. The licensee has ordered instrument jacket heaters from the manufacturer. The licensee anticipated that they will be installed before the winter of 1982-1983 when they may be needed.
- LER 82-04/03L of February 1, 1982, Auxiliary Building ventilation flow exceeded TS limit. Opening of doors to the Auxiliary Building decreased the resistance to flow causing flow to exceed a temporary maximum TS limit (69,300 cfm) placed on the system. The actual flow rate of 70,000 cfm is within the design flow (84,000 cfm) of the system and did not involve equipment degradation or failure. The current TS limits and the licensees proposed revisions both allow flows of up to 84,000 cfm.

- 82-07/03L of March 4, 1982, Auxiliary Building (AB) ventilation flow below TS limit. TMI-1 and TMI-2 share a common air space in the Fuel Handling Building (FHB) truck bay. A TMI-1 supply fan trip lowered the air supply to this space causing building air pressures to become more negative and exhaust flows to decrease. This decreased flow rate was not caused by any equipment degradation or failure in TMI-2.
- 82-09/03L, Auxiliary Building ventilation flow below TS limits. On February 1, 1982, a temporary change to the ventilation flow requirements expired. At 3:00 AM on February 1, 1982, the licensee adjusted exhaust fan vortex dampers to obtain the required flow. No equipment degradation or failure was involved.
- 82-11/01L, Filter bypass on Auxiliary Building, Fuel Handling Building, and Reactor Building Purge Ventilation System (Details in paragraph 11.c).

9. NRC Bulletins

a. Introduction

In accordance with NRC Region I letter, dated June 8, 1979, the licensee received NRC Bulletins for information only during the period March 30, 1979, to April 17, 1980. No requirement for licensee action in response to NRC Bulletins was justified in light of the March 28, 1979, accident.

Subsequent to the establishment of stable cold shutdown reactor plant conditions, NRC Region I, in a letter, dated April 17, 1980, requested the licensee to review all Bulletins issued since March 28, 1979, for applicability to TMI-2.

The licensee's review was to determine the applicability of each Bulletin; and for those Bulletins that had applicability, a date for bulletin action completion was to be provided. Applicability was to be determined with respect to system integrity for maintaining TMI-2 in a safe shutdown condition. This letter also announced the inclusion of the licensee on the normal distribution list for all bulletins and that future bulletins should be similarly reviewed as noted above. Licensee action on those bulletins determined to be not applicable may be deferred provided NRC Region I agrees with that determination.

The licensee's response letters dated May 29, 1980, and July 9, 1980, completed the review of bulletins issued between March 28, 1979, and April 17, 1980. The licensee also responded to bulletins issued subsequent to April 17, 1980. In the May 29, 1980, letter, the licensee provided the guidelines used to classify applicable bulletins (to Pressurized Water Reactors). They are:

- Long Term Action (LTA) - Bulletins or portions thereof that are not applicable to systems that relate to the maintenance of a safe shutdown condition in the recovery mode.
- Short Term Action (STA) - Bulletins or portions thereof that are applicable to systems that relate to the maintenance of a safe shutdown condition in the recovery mode.

NOTE: Portions of Bulletins requiring actions performed in or addressing the Reactor Containment Building or in areas access to which is restricted for ALARA considerations will not be performed with the remainder of the short term bulletin actions.

- No action will be taken at this time on long term bulletins. They will be reevaluated for applicability in June of 1983.

b. Review

The purpose of this review was to evaluate the licensee's determination of applicability, LTA, and STA for NRC Bulletins.

Documents reviewed included selected sections of 1979, 1980, and 1981 NRC Bulletins and licensee responses to those bulletins.

c. Findings

The inspector acknowledged the licensee's determination of LTA and STA for the following bulletins:

Long Term Action (LTA)

- IEB 79-01, Environmental Qualification of Class IE Equipment
- IEB 79-04, Incorrect weights for Swing Check Valves Manufactured by Velan Eng. Corporation
- IEB 79-05, Nuclear Incident at TMI
- IEB 79-13, Cracking in Feedwater System Piping
- IEB 79-14, Seismic Analysis for As-Built Safety Related Piping Systems
- IEB 79-21, Temperature Effects on Level Measurements
- IEB 79-27, Loss of Non-Class-1E Instrumentation and Control Power System Bus During Operations
- IEB 80-04, Analysis of a PWR Main Steamline Break with Continued Feedwater Addition
- IEB 80-06, Engineered Safety Feature (ESF) Reset Controls

- IEB 80-16, Potential Misapplication of Rosemont, Incorporated, Models 1151 and 1152 Pressure Transmitters with Either "A" or "D" Output Codes
- IEB 80-18, Maintenance of Adequate Minimum Flow Through Centrifugal Charging Pumps Following Secondary Side High Energy Line Rupture

Short Term Action (STA)

- IEB 79-10, Requalification Training Program Statistics
- IEB 79-16, Vital Area Access Controls
- IEB 79-19, Packaging of Low Level Radwaste for Transport and Burial
- IEB 79-23, Potential Failure of Emergency Diesel Generator Field Exciter Transformer
- IEB 79-24, Frozen Lines
- IEB 80-05, Vacuum Conditions Resulting in Damage to Chemical Volume Control System (CVCS) Holdup Tanks
- IEB 80-10, Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release to Environment
- IEB 80-15, Possible Loss of ENS (Emergency Notification System) with Loss of Offsite Power
- IEB 80-20, Failure of Westinghouse Type W-2 Spring Return to Neutral Control Switches
- IEB 81-03, Flow Blockage of Cooling Water to Safety System Components by Asiatic Clam and Mussel

Other bulletins and associated licensee responses continued to be reviewed. The inspector had no further comments.

10. Makeup Filter Removal and Associated Unusual Event

a. Makeup (MU) Filter Removal

As a result of the March 28, 1979, accident, the filters in the Makeup and Purification System became clogged with highly radioactive material and fuel debris from the Reactor Coolant System (RCS). As an example of the significant curie loading on these filters, a Seal Injection Filter (MU-F4A) Housing contact reading was 9 R/hr. Two filters were removed in 1981 and stored onsite; the remaining four filters were to be removed, starting on March 22, 1981.

These filters were to be shipped to a Department of Energy facility for evaluation and disposal.

Inspector review of licensee preparations and removal of these filters was made to verify these aspects.

- The evolution was properly planned and coordinated for effective task implementation including adequate as low as is reasonably achievable (ALARA) review, personnel training, and equipment testing.
- Proper radiological precautions were planned and implemented including the use of a Radiation Work Permit (RWP).
- Specific procedures were developed and properly implemented.

The site radiation specialist observed dry-runs and mockup training used in preparation for the filter removals. Selected sections of the following documents were reviewed.

- SOP-2-82-016, dated March 11, 1982, Removal of MU-F-4A and 4B and Cleaning of Filter Housing
- TCN (Temporary Change Notice) No. 2-82-123, dated March 19, 1982, to SOP-2-82-016
- RWP No. 3352, dated March 22, 1982, MU Valve Alley and Seal Injection Filter Cubicle Entry for MU-F-4A

Selected observations of the filter removal evolutions were made during the week of March 21, 1982.

The inspector also verified that these filters were properly transported from the site on April 7, 1982.

b. Preparations for and Removal of MU Filter Findings

Good radiological control practices were exercised by the licensee during the preparations for and removal of the filters. The total personnel exposure for the filter removal and cleanup operation was approximately one man-rem. The filters were shipped in accordance with Department of Transportation Regulations.

No violations were identified.

c. March 22, 1982, Unusual Event Description

During the morning of March 22, 1982, the licensee was completing final prerequisites for the MU filter removal evolution. The first filter to be removed was MU-F-4A, Reactor Coolant Pump Seal Injection Filter. Another evolution affecting the RCS was RCS sampling. RCS pressure was being maintained by the Standby Pressure Control (SPC) System, at 100 psig.

At 9:55 AM on March 22, 1982, the MU filter removal evolution started with the unbolting of the four MU-F-4A housing cover bolts. With the loosening of the second bolt, water started to spray from the filter housing. At about that time, control room operators noted that RCS leakage, calculated from the SPC Panel, was between 1 gallon per minute (gpm) and 3 gpm. Between 10:20 AM and 10:25 AM, the shift foreman in the control room, communicated with the job foreman and concluded that the RCS leakage was not due to the MU filter removal job. Apparently the job foreman for the filter removal evolution left the work area to communicate with the shift foreman and was not aware of the spraying in the MU filter cubicle. At 10:25 AM, the shift foreman declared an Unusual Event based on unidentified RCS leakage in excess of 1 gpm in accordance with Emergency Plan Implementing Procedures.

The licensee and NRC site staff responded to the event which included notification to state and local officials. RCS sampling was secured. Workers retightened the loosened bolts on the filter housing reducing the leakage somewhat, but not totally. There was no indication of airborne radioactivity and plant effluent monitors did not indicate a release of radioactivity. At approximately 11:00 AM, the licensee's event response analysis concluded that SPC water (not radioactively contaminated) was supplying the leak at the MU filter housing, and operators provided additional valve isolation protection for the MU filter. Between 11:00 AM and 12:05 PM, the water on the floor of the filter cubicle was cleaned up and operators monitored the effectiveness of the leak isolation actions. With an indication of approximately 0 gpm RCS leakage, the licensee secured the Unusual Event at 12:18 PM. During the event, there was no major change in RCS pressure.

d. Licensee Review of the Unusual Event

At 2:00 PM on March 27, 1982, the licensee conducted a formal review of the Unusual Event declared earlier that day. This review identified that the filter housing was still leaking (few drops per minute) which could not be calculated from the SPC panel indications until a long period of time elapsed. Corrective action was to provide additional valve isolation protection.

Further, the need for better communication between the control room and the MU filter job work area was realized.

By 8:00 AM on March 23, 1982, these corrective actions were completed and the filter removal evolution was restarted in accordance with SOP-2-82-016.

e. NRC Review of the Unusual Event

The inspector reviewed licensee activities in response to the March 22, 1982, Unusual Event to assess the following items.

- Event description, including date, time, cause, and systems or plant components affected including a sequence of events formulated and reviewed
- Safety significance of the event, and compliance with TS or other license requirements
- Reportability of the event and licensee plans regarding a press release
- Necessity to notify state or local government officials
- Amount of radioactivity released, if applicable
- Assess adequacy of operating procedures used at the time of the event
- Adequacy of licensee corrective actions and/or measures to prevent recurrence

Observations were made in-plant during the licensee event response and at the licensee's post event critique. Interviews were conducted with licensee personnel involved with the filter removal task. In addition to the above noted documents reviewed during the filter removal preparations, selected sections of additional documents were reviewed subsequent to the event.

- GPU Nuclear Inter-Office Memorandum (GPUN IOM) TRB-82-0033, dated March 23, 1982, Investigative Critique Minutes MU-F-4A Filter Housing Leak
- GPUN IOM TRB-82-053, dated April 14, 1982, Investigative Critique Minutes MUF-4A Housing Leak - Correction
- Superintendent Event Report (SER) Index for 1982
- SER 82-73, dated March 23, 1982, RCS Leak Greater than 1 gpm but Less Than 3.5 gpm, Unusual Event [of March 22, 1982]
- SER 82-74, dated March 23, 1982, Red Tagged Valve Found Out of Position
- Emergency Planning March 22, 1982, Unusual Event Package
- GPUN IOM IC-136-2 (KRH-82-0002), dated March 24, 1982, Valve Found Out of Position
- GPUN IOM EP 73-02, March 31, 1982, Valve Found Out of Position
- Tag Application 8829, dated March 15, 1982, and associated Switching and Tagging Order

f. NRC Findings on Review of Unusual Event

- (1) The procedure used for the filter removal (SOP-2-82-016) did not consider a recent change in plant conditions in that SPC injection water was rerouted on March 3, 1982. Procedures to control the filter removal evolution and the rerouting of SPC injection water were developed simultaneously. Based on as-found conditions late in the day on March 22, 1982, valve isolation protection for the MU seal injection filters was by a flow control valve (not designed for isolation) and by one of two upstream filter isolation valves. The adequacy of licensee procedure review is being reviewed separately by NRC (details, paragraph 2).
- (2) During the prerequisite valve lineup for SOP-2-82-016 on March 23, 1982, the operator identified that MU-V342A was to be closed with a red (do not operate) tag placed on the valve operator, but he thought he found it open. The individual took action to close the valve. This apparent discrepancy was reported to the licensee in a Superintendent Event Report (No. 82-74). Subsequent review by the licensee indicated that the "Stowe Operator" (reach rod clutch assembly) might have malfunctioned due to slippage. This slippage could have given the operator the impression the valve was not closed. A licensee representative also postulated that the operator might have misread the position indication.

The licensee is still investigating the apparent discrepancy. This is unresolved pending licensee completion of action as noted above and subsequent NRC review (320/82-04-04).

- (3) Administrative controls for the changing of procedures and the proper completion of procedures were not implemented. The copy of SOP-2-82-016, used in the field for the MU filter removal, had attached a preliminary copy of the TCN (No. 2-82-123), contrary to administrative controls. This was evident in that the field copy of the TCN was not properly numbered and a properly corrected error on the controlled copy of the TCN was not noted on the field copy.

Further, the field copy of SOP-2-82-016, Section 3.18 (prerequisite valve lineup) verified step-by-step completion by an individual's initials on one signoff blank and an arrow drawn through the remaining blanks for the other valve checks. This is also not permitted by administrative controls.

Also, Section 3.18 of the file copy of SOP-2-82-016 did not indicate that it was affected by a TCN. Part of the TCN deleted two valves but the field copy of the SOP indicated that these valves were checked closed (by arrow as noted above).

An associated tag application and switching order (8829) indicated the correct valve lineup (application of "do not operate" tags) in accordance with the subject SOP and TCN. Therefore, on March 15, 1982, valves were positioned and tags were placed consistent with the SOP and corrected TCN valve lineup.

The completed tag application and the field copy of the SOP-2-82-016 indicated contradictory information on what valves were checked. The failure to properly implement administrative procedure (AP) 1001, paragraph 3.6.4.2.4 and AP 1060, paragraphs 4.2.1.1 and 4.2.1.3 represents an apparent violation of TS 6.8.1 (320/82-04-05).

11. Filter Bypass in Ventilation Systems

a. Background

Apparent inadequate performance of the Fuel Handling Building (FHB), Auxiliary Building (AB) and Reactor Building Purge (RBP) Ventilation Systems during an Unusual Event on January 8, 1982, involving high airborne radioactivity in the AB, and FHB was initially identified and documented in NRC Region I Inspection Report No. 50-320/81-23 (Unresolved Item 320/81-23-02).

Additional information concerning this event is presented in Inspection Reports 50-320/82-01 and 82-02. Also, Inspection Report No. 50-320/81-15 documented four apparent violations concerning the ventilation system; three dealt with surveillance requirements, the fourth item with system operability.

A followup Licensee Event Report (LER) No. 82-11/01L, dated April 7, 1982, concerning this event was submitted subsequent to a meeting with NRC site staff on March 2, 1982. The LER identified that the inadequate performance of the filter banks was due to filter train bypassing via the under drain system, and was reportable.

b. System Description

The AB, FHB, and RBP ventilation systems are similar in design. Each of these systems have two filter trains which contain banks of prefilters, High Efficiency Particulate Absolute (HEPA) filters, carbon adsorbers and a final bank of HEPA filters. The carbon adsorbers are not installed in the RBP system. The filter trains are upstream of the exhaust fans, and thus the filter trains are under negative pressure. Each train contains five plenums, one upstream of the prefilter, three between filter banks and one downstream of the final filter bank. Each plenum has a drain, all five drains connect in a common drain header for each train. The two drain headers, one from each train, form a system drain. The three system drains (AB, FHB, and RBP) discharge separately under

water in the seal water tank, AH-T-6, on the 305' elevation of the Auxiliary Building. Four of the five drain openings are designed to be plugged, with the center drain remaining open. The drain system is shown on plant drawing 2250, Revision 5, dated October 23, 1974, and details of the drains are shown on drawing 2598, Revision 3, dated January 3, 1978. These details show carbon steel plugs in four of the five drains. These four plugged drains are designated as "cleanouts."

The seal water tank (AH-T-6) has a level control system and high/low water level alarms. The level controller is designed to maintain level between 21" and 29" from the bottom of the tank. The low level alarm is actuated at 14". The licensee measured the bottom of the drain pipe downcomers at 9½". The seal water tank has an overflow which drains to the Auxiliary Building sump.

c. Followup of LER 82-11/01L

LER 82-11/01L, dated April 7, 1982, described the licensee's determination of inadequate filter system performance, the licensee's evaluation of potential causes, and the immediate corrective actions taken. The potential causes listed below were evaluated by the licensee.

- Airborne contamination in Auxiliary Building drains being blown through the seal water tank and up through the filter unit drains
- Common mode failure of HEPA filters
- Filter bypass through the under-drains

The licensee's evaluation concluded that the pathway was through the under-drain system.

The LER did not include an estimate of the filter's efficiencies. The LER indicated that the cleanouts had been taped over to prevent under-drain bypassing, but when this action was taken could not be substantiated. The LER stated that contamination levels in the downstream drain openings were relatively high, but did not quantify them or compare them to levels elsewhere in the filter train plenums. Nor was there an explanation included of how the licensee determined that the water level in AH-T-6 was above the drain downcomers.

Technical Specification (TS) 6.9.1.8 requires that LER's be supplemented by additional narrative information to provide a "...complete explanation of the circumstances surrounding the event...." The inspector identified the above examples of failure to properly complete the LER as violation of TS 6.9.1.8 (320/82-04-03).

The inspector substantiated that the drain downcomers in AH-T-6 were under water through discussions with licensee personnel, review of setpoint logs, and review of calibration records on the level controller and alarm setpoint. The licensee's post-event dioctyl-phthalate (DOP) tests of the Auxiliary Building HEPA filters indicated that there was no leakage through the filters, thereby negating HEPA filter common mode failure.

d. Review of Ventilation System Maintenance

In an effort to determine the possibility of filter bypassing through the under-drains, the inspector reviewed the below listed job tickets which were used by the licensee's maintenance group to perform work on the AB, FHB, and RBP ventilation systems.

- Job Ticket 1962, replace 30 HEPA filters in AB ventilation train "A"; work requested on April 19, 1979; started work April 19, 1979; field work completed on April 23, 1979
- Job Ticket 1970, replace two damaged HEPA filters in FHB ventilation train "B"; work requested on April 23, 1979; started work on April 23, 1979; field work completed on April 24, 1979
- Job Ticket 4663, replace HEPA filters in FHB ventilation train "B"; work requested on May 5, 1980; started work on May 5, 1980; field work completed May 9, 1980
- Job Ticket 4664, replace HEPA filters in FHB ventilation train "A"; work requested on May 5, 1980; started work on May 15, 1980; field work completed on May 15, 1980
- Job Ticket 5041, tighten HEPA filters and replace drain plugs in RBP train "B"; work requested June 18, 1980; started work on June 19, 1980; field work completed on June 19, 1980
- Job Ticket 5042, change HEPA filters in RBP train "B"; work requested June 18, 1980; started work June 19, 1980; field work completed June 19, 1980
- Job Ticket 5047, replace damaged filters and cap off drain holes in RBP train "A"; work requested June 20, 1980; started work June 20, 1980; field work completed June 20, 1980
- Job Ticket 5549, change Auxiliary Building trains "A" and "B" HEPA filters; work requested August 27, 1980; started work September 2, 1980; field work completed September 6, 1980
- Job Ticket 5572, DOP test AB filter trains "A" and "B"; work requested September 2, 1980; started work September 4, 1980; field work completed September 4, 1980

-- Job Ticket 6108, change FHB filter trains "A" and "B" HEPA filters; work requested November 16, 1980; started work September 2, 1981; field work completed September 4, 1981

Job Ticket 5041 of June 1980 indicated that drain plugs (cleanouts) in the RBP "B" train needed to be replaced because the train failed a DOP test and that the drains were covered with "tuck tape." Job Ticket 5047 of June 1980 requested that cleanouts in the RBP "A" train be capped off and indicated that it had been done. The corrective maintenance performed by Job Tickets 5041 and 5047 was to use "tuck tape" to plug the cleanouts. This was not in accordance with drawing 2598, which requires carbon steel plugs.

In September 1980, Job Ticket 5572 required an inspection and test of both trains of ventilation filters for the AB. The Appendix A checklist (excerpt ANSI N510-1975) was sufficiently detailed to perform a check of filter drain bypassing. No deficiencies were documented on the job ticket. Test records for 1979 and 1980 filter replacements were not available for review to determine if checks for filter drain bypassing occurred (see paragraph 11.e).

Symptoms of filter inefficiency or bypass were exhibited during the January 8, 1982, Unusual Event. These system deficiencies were identified and evaluated only after NRC site staff questioning on this matter at meetings on February 9, 1982, and March 2, 1982. On March 3, 1982, the licensee made the determination that a prompt (24 hour) reportable condition existed, and submitted a prompt report on March 4, 1982.

The failure to properly correct under-drain bypassing, when first detected in June 1980, is an apparent violation of 10 CFR 50, Appendix B, Criterion XVI, and Recovery Quality Assurance Plan Section 8.1 (320/82-04-06).

e. Review of Filter Testing

The inspector reviewed the results of AB and FHB ventilation tests performed in September 1981 and February 1982. These tests were performed using ANSI N510-1975 and included DOP tests and visual inspection. Acceptance testing of the systems, performed in 1978 prior to the initial operations of TMI-2 was also reviewed.

On April 21, 1982, the inspector requested other records of filter inspection and testing. The licensee could not locate records of special operating procedures (SOP-26 and SOP-37) which were apparently used in 1980 to perform visual and DOP tests of the RBP "B" and "A" filter trains, respectively. Also, the licensee could not locate records of visual and DOP tests of the AB and FHB ventilation systems performed in 1979 and 1980.

The job ticket work packages did not have DOP test results for the associated filter replacements. One of the work packages was specifically a DOP test. A contractor performed these DOP tests, and apparently the test results were included in separate reports.

Licensee representatives could locate only one contractor DOP test report. Completed records of the subject SOP's also could not be located by the close of the inspection period.

The failure to retrieve these required records of inspections and test represents apparent violation of 10 CFR 50, Appendix B, Criterion XVII, and Recovery Quality Assurance Plan, Section 3.3.2.a (320/82-04-07).

f. Corrective Action

The licensee installed expandable rubber plugs in the drains which are designated as "cleanouts." This job was completed on March 24, 1982. The licensee is evaluating permanent plugging methods. This will be a followup by NRC in conjunction with the licensee's response to the apparent violation (paragraph 11.d).

12. Unresolved Items

Unresolved Items are findings about which more information is needed to ascertain whether they are violations, deviations, or acceptable. Unresolved items are addressed in paragraphs 2 and 10.f(2).

13. Exit Interview

On April 26, 1982, a meeting was held with licensee representatives (denoted in paragraph 1) to discuss the inspection scope and findings. In addition to the reporting inspectors, other NRC personnel in attendance are noted below.

- L. Barrett, Deputy Program Director, NRC TMI Program Office
- R. Bellamy, Chief, Technical Support Section, NRC TMI Program Office
- A. Fasano, Chief, Three Mile Island Section, Projects Branch No. 2
- M. Shanbaky, Senior Radiation Specialist, Three Mile Island Section