

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/86026(DRSS); 50-457/86021(DRSS)

Docket Nos. 50-456; 50-457

Licenses No. CPPR-132; CPPR-133

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Braidwood Station, Units 1 and 2

Inspection at: Braidwood Site, Braidwood, IL

Inspection Conducted: July 21-25, 1986

Inspector: C. F. Gilt

[Signature]

8/13/86
Date

Approved By: L. R. Greger, Chief

[Signature]

Facilities Radiation Protection
Section

8/13/86
Date

Inspection Summary

Inspection on July 21-25, 1986 (Reports No. 50-456/86026(DRSS);
50-457/86021(DRSS))

Areas Inspected: Routine, announced inspection of the preoperational radiation protection program regarding the status of certain TMI Action Plan and HVAC open and unresolved items.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

- *R. Aker, Rad/Chem Supervisor
 - *J. Anspaugh, Health Physicist
 - J. Bailey, System Test Engineer
 - *E. Banks, Field Service Engineer-NUCON
 - P. Barnes, Regulatory Assurance Supervisor
 - *A. D'Antonio, Regulatory Assurance
 - *L. Davis, Assistant Superintendent T.S.
 - *J. Dierbeck, Project HVAC Supervisor
 - D. Flens, HVAC Project Engineer-S&L
 - E. Fitzpatrick, Station Manager
 - *J. Jasnosz, Regulatory Assurance
 - S. Johnson, PCD Mechanical System Coordinator
 - *L. Kline, Regulatory Assurance
 - R. Kyrovac, Quality Assurance Supervisor
 - *P. Lau, Regulatory Assurance
 - K. Ley, QA Engineering Associate
 - *W. Lloyd, Jr., Rad/Chem Technician
 - *W. Mammoser, Project Engineer
 - T. O'Brien, Technical Staff Engineer
 - P. Parks, Licensing Engineer
 - *S. Planjery, HVAC Project Supervisor-S&L
 - *H. Pontonius, Licensing Engineer
 - R. Richard, HVAC Group Leader
 - D. Schacht, PCD Field Engineer
 - *E. Shamlin, Lead Rad/Chem Foreman
 - *T. Simpkin, Regulatory Assurance
 - *S. Stevenson, NSHP Field Service Health Physicist
 - *S. Stimac, PFE Mechanical Field Engineer
- J. Hayes, NRC/NRR
W. Kropp, NRC Senior Resident Inspector (Construction)
*R. Westberg, NRC Reactor Inspector (Electrical)

The inspector also contacted other applicant employees and contractors including regulatory assurance, radiation protection, startup, and engineering personnel.

*Denotes those present at the exit meeting on July 25, 1986.

2. General

This inspection which began at 10:00 a.m. on July 21, 1986, was conducted to review the status of certain TMI Action Plan and HVAC open and unresolved items. Tours of the licensee's facility were made during the inspection.

3. Applicant Action on Previous Inspection Findings

(Closed) Open Item (456/84024-02; 457/84023-02): Instrument rack drain system potential contamination problems. The inspector verified that the installation of hard-piped instrument rack leakoff drain lines in the Unit 1 containment was complete and punch lists were adequately tracking installation completion in the Unit 2 containment and the auxiliary building. This matter is considered closed.

(Open) Open Item (456/86002-06; 457/86002-06): Complete compliance and action plan reports for NUREG-0737 Items II.B.3 and II.F.1 (Attachments 1, 2, and 3). See Section 4.a.

(Closed) Open Item (456/86002-07; 457/86002-07): Complete installation, procedures, and training on use of the PASS per NUREG-0737, Item II.B.3. See Section 4.b.

(Open) Open Item (456/86002-08; 457/86002-08): Complete installation, calibration, procedures, and training on the use of the post-accident effluent noble gas monitors per NUREG-0737, Item II.F.1, Attachment 1. See Section 4.c.

(Open) Open Item (456/86002-09; 457/86002-09): Complete installation, procedures, and training on the use of the post-accident effluent sampling system per NUREG-0737, Item II.F.1, Attachment 2. See Section 4.d.

(Open) Open Item (456/86002-10; 457/86002-10): Complete installation, calibration, procedures, and training on the use of the containment high-range radiation monitors per NUREG-0737, Item II.F.1, Attachment 3. See Section 4.e.

(Closed) Open Item (456/86002-11; 457/86002-11): Complete the ANSI/ASME N510 acceptance test program. See Section 5.a.

(Closed) Open Item (456/86002-12A; 457/86002-12A): Lab test spinster carbon adsorber and replace it if it fails. See Section 5.b.

(Closed) Open Item (456/86002-12B; 457/86002-12B): Complete compliance and action plan reports for ANSI N510 acceptance test program and other HVAC potential problem areas. See Section 5.c.

(Closed) Unresolved Item (456/86002-13; 457/86002-13): Evaluate FSAR commitments on use of silicone sealant on HVAC systems and resolve the issue with NRR. See Section 5.d.

(Closed) Open Item (456/86002-14; 457/86002-14): Correct the offgas exhaust system filter housing drain system installation. See Section 5.e.

(Closed) Open Item (456/86002-15; 457/86002-15): Complete review of procedures to ensure proper administrative control of filter housing drain line isolation valves and to revise procedures, as appropriate. See Section 5.f.

(Closed) Open Item (456/86002-16; 457/86002-16): Demonstrate filter housing drain line isolation valve air leak-tightness as part of the preop test program. See Section 5.g.

(Closed) Open Item (456/86002-17; 457/86002-17): Verify air leak-tightness of filter housing drain line water check valves. See Section 5.h.

(Closed) Open Item (456/86002-18; 457/86002-18): Evaluate means of preventing fire protection system leakage from damaging air cleaning system filters. See Section 5.i.

4. Status of Certain TMI Action Plan Items

The inspector reviewed the status of the post-accident sampling system, high-range noble gas effluent monitors, accident range iodine and particulate effluent sampling system, and containment high-range radiation monitors, NUREG-0737 Items II.B.3 and II.F.1 (Attachments 1, 2, and 3), respectively.

a. Compliance Documentation

As discussed in Inspection Reports No. 50-456/86002; No. 50-457/86002, the applicant agreed to prepare documents to track commitment compliance for NUREG-0737 Items II.B.3 and II.F.1 (Attachments 1, 2, and 3). These documents are internal reports available for NRC review. They provide a detailed (line-by-line) identification of each commitment associated with the previously listed NUREG-0737 items, ascertain compliance, identify any corrective measures needed or variance requests required, and identify actions needed to document compliance. The applicant assigned specific compliance action items to individuals for those tasks needed to comply with NUREG-0737 commitments and to document compliance.

The applicant has made significant progress towards obtaining or developing compliance documentation to demonstrate that the systems procured and installed are technically adequate to meet the licensee's commitments to NUREG-0737 Items II.B.3 and II.F.1 (Attachments 1, 2, and 3). The inspector successfully resolved 80% of the approximately 120 compliance action items with the applicant. This matter remains open pending applicant completion and NRC review of the remaining 23 compliance action items.

b. NUREG-0737 Item II.B.3, Post-Accident Sampling System

Section E.21 of Appendix E to the FSAR describes the Post-Accident Sampling System (PASS) for reactor coolant and containment atmosphere.

The system is a modified Sentry High Radiation Sampling System (HRSS) consisting of three subsystems: the Liquid Sample Panel (LSP), the chemical analysis panel (CAP) which is attached to the LSP, and the Containment Atmosphere Sample Panel (CASP).

Section E.21 of Appendix E to the FSAR makes the commitment that the system will be installed and become operational on each unit prior to initial criticality. The applicant's progress towards meeting this commitment was reviewed by the inspector. The PASS is installed and the initial preoperational tests are nearly complete, although numerous component deficiencies require resolution and five subsystem retests have been scheduled. System turnover to operations is expected by August 31, 1986. The inspector selectively reviewed portions of relevant procedures, no significant problems were noted. Although some procedures are undergoing minor revisions, the applicant appears to have adequate procedures to properly operate the PASS and analyze the associated samples.

The inspector reviewed the status of the commitment compliance documentation for the PASS. All 48 of the PASS compliance action plan items have been completed and the licensee appears able to adequately demonstrate compliance with FSAR commitments to NUREG-0737, Item II.B.3. The satisfactory demonstration of the PASS for primary coolant and containment atmosphere sampling are being tracked by Open Items No. 456/86021-12; 457/86019-12 and No. 456/86021-13; 457/86019-13, respectively. Completion of PASS training is being tracked by Open Item No. 456/84003-01; 457/84003-01. This matter is considered closed.

c. NUREG-0737 Item II.F.1.1, High Range Noble Gas Effluent Monitors

Section E.30.1 of Appendix E to the FSAR describes the post-accident high range noble gas effluent monitoring systems. The system consists of a General Atomic Wide Range Gas Monitor (GA WRGM) for the auxiliary building vent, and area monitors (compensated for loss of low energy gamma radiation) mounted external to each of the four main steam lines upstream of the safety and relief valves.

The inspector reviewed the status of the high range noble gas effluent monitors and their commitment compliance documentation. The monitors are expected to be turned over to the system test engineer by August 1, 1986. Preoperational testing, calibration, and procedures are expected to be completed by mid-August. Nine of the 29 compliance action plan items have not been completed, thus the applicant does not presently appear able to adequately demonstrate compliance with FSAR commitments to NUREG-0737, Item II.F.1, Attachment 1. Completion of RCT training, including the operation of these monitors, is being tracked by Open Item No. 456/84003-01; 457/84003-01. This matter remains open pending completion of compliance documentation, installation, calibration, and procedures.

d. NUREG-0737 Item II.F.1.2, Sampling and Analysis of Iodine and Particulate Effluents

Section E.30.2 of Appendix E to the FSAR describes the post-accident effluent sampling system and the analysis of iodine and particulate effluent samples. The iodine and particulate sampling system is a part of the General Atomic system described above for Item II.F.1.1 and provides for obtaining grab samples from the auxiliary building vent. The sample media will be analyzed in the station's counting rooms by gamma ray spectrometers which utilize Ge (Li) detectors.

The inspector reviewed the status of the accident range iodine and particulate effluent sampling system. The sampling system is expected to be turned over to the system engineer by August 1, 1986. Preoperational testing and procedures are expected to be completed by mid-August. Eight of the 30 compliance action plan items have not been completed, thus the applicant does not presently appear able to adequately demonstrate compliance with FSAR commitments to NUREG-0737, Item II.F.1, Attachment 2. Completion of RCT training, including the operation of this system and sample analysis equipment is being tracked by Open Item No. 456/84003-01; 457/84003-01.

Inspection Reports No. 50-456/86002; 50-457/86002 listed two system modifications which appear necessary before the post-accident effluent sampling system may be considered acceptable. Although the applicant is presently adequately modifying the sample line configuration, the second apparently necessary system modification has not been addressed by the applicant. During this inspection, the inspector informed the applicant of an incident which occurred recently at the Callaway County Nuclear Station in which it was discovered that when the alert noble gas setpoint is tested, the sample line is isolated, yet the system flow meter continues to register an apparent sample flow rate (Callaway LER 86-011-00 and Inspection Report No. 50-483/86014). It appears that a third modification of the applicant's sampling system may be necessary. This matter remains open pending completion of compliance documentation, installation, necessary system modifications, and procedures.

e. NUREG-0737 Item II.F.1, Attachment 3, Containment High-Range Radiation Monitor

Section E.30.3 of Appendix E to the FSAR describes the Containment High-Range Radiation Monitors, contains commitments to install Containment High-Range Radiation Monitors as specified by Table II.F.1-3 of NUREG-0737, and provides a plant drawing indicating the location of the monitors. The monitoring system consists of General Atomic Company RD-23 high range radiation detectors, Model RM-80 microprocessors, and RM-23 remote display units. Detectors 1RE-ARO20 and 1RE-ARO21 are located in the Unit 1 containment at elevation 514' 8" at Azimuths 90° and 277°, respectively. Detectors 2RE-ARO20 and 2RE-ARO21 are located in the

Unit 2 containment at elevation 514' 8" at Azimuths 90° and 263°, respectively. Appropriate procedures have been revised to ensure that the polar crane will not be inadvertently parked such the the monitors would be significantly shielded.

The inspector reviewed the status of the containment high-range radiation monitors and their commitment compliance documentation. The monitors are expected to be turned over to the system test engineer by August 1, 1986. Preoperational testing, calibration, and procedures are expected to be completed by mid-August. Five of the 14 compliance action plan items have not been completed, thus the applicant does not presently appear able to adequately demonstrate compliance with FSAR commitments to NUREG-0737, Item II.F.1, Attachment 3. This matter remains open pending completion of compliance documentation, installation, calibration, training, and procedures

5. Status of Certain HVAC Filtration System Items

In March 1986, the inspector selectively reviewed the applicant's HVAC filtration systems regarding compliance with certain commitments and regulations (Inspection Reports No. 50-456/86002; 50-457/86002). In addition, the inspector met with applicant representatives to: (1) determine the status of the ANSI/ASME N510 acceptance test program; (2) inform them of the types of documents which should be available onsite for NRC inspector review; (3) discuss programmatic deficiencies discovered recently at other Near Term Operating License (NTOL) plants; and (4) request that spinster carbon be laboratory retested, an ANSI/ASME N510 acceptance test compliance analysis be prepared, and the use of silicone sealant on HVAC ductwork and filter housings be evaluated. As a result of this inspection, 18 open/unresolved items were generated (Items No. 456/86002-11 through 19 and No. 457/86002-11 through 19). The HVAC related open/unresolved items have been properly addressed and documentation was adequate for closure determination. The review of this documentation and plant tour findings are presented in the nine subsections which follow.

a. The ANSI/ASME N510 Acceptance Test Program

The inspector reviewed the status of the ANSI/ASME N510 acceptance test program, the acceptance test criteria matrix, and selected completed test reports. All procedures for this test program have been approved and issued for use. The inspector reviewed selected portions of relevant procedures; no significant problems were noted. The following systems are scheduled to have N510 testing completed before fuel load: Laundry/Laboratory HVAC (VL), Offgas System (OG), Radwaste Building HVAC (VW), Miscellaneous Tank Vent Filter System (VF), Primary Containment HVAC (VP), Primary Containment Purge System (VQ), Technical Support Center HVAC (VV), Control Room HVAC (VC), and Volume Reduction System (VR). The following systems have been scheduled to have N510 testing completed after fuel load: the Auxiliary Building HVAC (VA) accessible, non-accessible, and fuel handling area systems.

Only the N510 pressure tests for the OG, VL/Laboratory, VP, and VW systems have been completed; none of the in-place filter tests have been completed. The inspector reviewed selected portions of the N510 test reports; no significant problems were noted. The test reports indicate the procedures are apparently followed properly, comments are complete and relevant, and any deficiencies noted are properly entered on the appropriate deficiency tracking system and resolved in a timely manner. The inspector reviewed the acceptance test matrix and selected calculational bases; no significant problems were noted. The inspector also reviewed applicant documentation that the scope of the ANSI/ASME N510 acceptance test program has been adequately submitted on the docket for NRR review; no significant problems were noted. The completion of the HVAC acceptance test program for Unit 1 is being tracked by Open Item Nos. 456/86000-29 and 456/86000-30.

b. Spinster Carbon

On July 16, 1986, Pullman Sheet Metal Works, Inc. (PSM) QA issued a letter to the PSM Braidwood project manager that charcoal filter assemblies stored for more than one year were not to be released for installation without written authorization from the applicant indicating that an acceptable "spinster" carbon test had been performed. During a plant tour, the inspector verified that all spinster carbon absorber requiring retest has been tagged with hold cards. This carbon will be laboratory retested per NUCON Procedure 22. The inspector verified that this procedure had been approved for use at Braidwood and that representative batch samples would be collected; no significant problems were noted by the inspector, although the applicant noted that the charcoal vendor had initially filled all the test canisters with carbon from one batch rather than samples from all eight batches in a particular lot. The laboratory retest will be at 30°C and 95% relative humidity; acceptance criteria is 1% penetration for methyl iodine. The spinster carbon retests are expected to be completed by September 1, 1986. The applicant intends to discard any carbon that fails retest unless a special variance is granted by NRR. This matter is considered closed.

c. ANSI/ASME N510 Compliance Documentation

The applicant has completed an ANSI/ASME N510-1980 line-by-line commitment and compliance analysis report. In general, the report is well organized, cross-references are adequate, and engineering justification statements appear technically sound. The significant variances to the specifications of ANSI/ASME N510-1980 appear to be adequately addressed in amendments to the FSAR with some exceptions. Minor variances appear to have adequate engineering justification. A review of the applicant's FSAR commitments to regulatory positions stated in Regulatory Guides 1.52 and 1.140

revealed that the applicant has taken a number of exceptions to regulatory positions without stating those variances in the FSAR. To correct this oversight, the applicant intends to prepare an internal variance report to record exceptions to Regulatory Guides 1.52 and 1.140 and include relevant variances in future FSAR amendments, as appropriate. The inspector reviewed selected portions of applicant vendor quality assurance program audits, acceptance test inspector qualification records, and filter qualification records; no significant problems were noted. This matter is considered closed.

d. Use of Silicone Sealant on HVAC Ductwork

In a letter from Miosi to Denton dated July 2, 1986, the applicant informed NRR of the use of silicone sealant on HVAC ductwork. The silicone sealant is used primary to seal mechanical lock type longitudinal duct seams and other locations listed in Attachment A-1 to the referenced letter. The applicant requested NRR to grant variances from Regulatory Positions 3.n and 5.c of Regulatory Guide 1.52 and Regulatory Positions 3.f and 5.c of Regulatory Guide 1.140. These regulatory positions prohibit the use of silicone sealant, or any other temporary patching material, on ESF and non-ESF HVAC ductwork. This issue will be resolved by NRR. For the purpose of Region III tracking, this matter is considered closed.

e. Offgas Exhaust Filter Housing Drain System

During a March 1986 plant tour, the inspector noted that the offgas exhaust filter housing had three drain lines which tied into a common header with a water check valve before each cross-tie (Inspection Reports No. 50-456/86002; No. 50-457/86002). This design violates the criterion of individual line valving as specified in the applicant's commitment to Regulatory Position 3.e of Regulatory Guide 1.140, Revision 0 (October 1978) as stated in Appendix A to the FSAR. This same drain line configuration was also found unacceptable at Byron as documented in Inspection Reports No. 50-454/84033; No. 50-445/84026 (Open Items No. 454/84033-01; No. 455/84026-01). At Byron, the offgas exhaust filter housing drain line valving was rearranged such that the check valves were installed in individual drain lines before the common header cross-ties (Section 3 of the Inspection Report No. 50-454/84066; No. 50-455/84044). This matter was discussed at the exit meeting on March 5, 1986 (Inspection Report No. 50-456/86002; No. 50-457/86002). During a plant tour on July 22, 1986, the inspector verified that the Braidwood offgas exhaust filter housing drain line valving configuration has been rearranged to match the acceptable Byron configuration. This matter is considered closed.

f. Filter Housing Drain Line Isolation Valve Administrative Controls

The TSC emergency makeup air cleaning system has a positive pressure filter housing which has manual isolation valves installed in individual drain lines to prevent filter bypass. In order for these valves to serve their intended function, the position (open or closed) of HVAC filter housing drain line isolation valves must be procedurally controlled to ensure that these valves are closed during filter operation to preclude filter bypass. The isolation valve are verified as sealed closed during the performance of monthly fire protection surveillance procedure BWOS 7.10.1.1.C-1. The operation of the TSC charcoal filter deluge system is delineated in operating procedure BWOP FP-36. During the review of these procedures, the inspector noted several errors and omissions in BWOP FP-36 which the applicant agreed to correct when the procedures are standardized in September 1986. The matter is considered closed.

g. Filter Housing Drain Line Isolation Valve Leakage Determination

Even if proper administrative control is established to ensure that filter housing drain line isolation valves are closed during filtration train operation, filter bypass via the drain lines is not precluded unless the isolation valves are leak tight. The applicant should verify air leak tightness for all filter housing drain line isolation valves as part of the preoperational test program. This matter was discussed at the exit meeting on March 5, 1986 (Inspection Reports No. 50-456/86002; No. 50-457/86002).

In a letter from Miosi to Denton dated July 2, 1986, the applicant requested that NRR grant an exception to the applicant's initial commitment to perform a housing leak test for the post-LOCA purge unit. For other N510 HVAC filter housings, the applicant will demonstrate isolation valve and water check valve air leak-tightness by performing housing and mounting frame tests per NUCON Procedures 12 CE 734/02 and 03, respectively. These procedures are being revised to require the verification that drain line isolation valves are closed and water check valves are installed before testing may begin. The procedures are also being revised to prohibit taping over housing drain holes. This matter is considered closed.

h. Filter Housing Drain Line Water Check Valves

During an August 1984 plant tour of the station HVAC filter housings, the inspector noted there were check valves installed in each of the drain lines to prevent water backup into the negative pressure housings. At the exit meeting on August 23, 1984, (Inspection Reports No. 50-456/84024; No. 50-457/84023), the inspector requested that the applicant obtain adequate documentation on the filter housing drain line water check valves installed at Braidwood, if different that those used at Byron, to determine if they are suitable for their intended purpose (Open Items No. 456/84024-01; No. 457/84023-01).

The applicant has addressed the other aspects of these open items, but not this specific issue. Leakage tests at Byron verified that the standard make and model filter housing drain line water check valves at that facility provides and adequate air-tight barrier for the negative pressure filter housings (Section 3 of Inspection Reports No. 50-454/84066; No. 50-455/84044, Open Items No. 454/84033-01; No. 455/84026-01). Because the water check valves at Braidwood are apparently of a different make and model than those used at Byron, it appears necessary for the applicant to verify air-leak tightness for all filter housing drain line water check valves as part of the Braidwood preoperational test program. This matter was discussed at the exit meeting on March 5, 1986 (Inspection Reports No. 50-456/86002; No. 50-457/86002).

In a letter from Miosi to Denton dated July 2, 1986, the applicant requested that NRR grant an exception to the applicant's initial commitment to perform a housing leak test for the post-LOCA purge unit. For other N510 HVAC filter housings, the applicant will demonstrate isolation valve and water check valve air leak-tightness by performing housing and mounting frame tests per NUCON Procedures 12 CE 734/02 and 03, respectively. These procedures are being revised to require the verification that drain line isolation valves are closed and water check valves are installed before testing may begin. The procedures are also being revised to prohibit taping over housing drain holes. This matter is considered closed.

i. Fire Protection System Potential Leakage Problems

During a previous inspection (Inspection Reports No. 50-456/86002; 50-457/86002), the inspector briefed applicant representatives on problems other nuclear power plants have had with filter damage due to fire protection system leakage, and system modifications those plants implemented to preclude recurrence. During the associated plant tour, the inspector noted that the filter housing fire protection deluge systems are of a design similar to those which reportedly have led to instances of filter damage due to valve leakage problems at other nuclear power plants. The inspector informed the applicant of an incident at Hatch, Unit 1 (LER 85-018-00, INPO SER 34-85, and IE Information Notice No. 85-85) where inadvertently flooded ductwork leaked water onto an Analog Transmitter Trip System (ATTS) panel. This introduced moisture into the ATTS panel which, in turn, resulted in the malfunction of a safety relief valve and the High Pressure Coolant Injection System. The inspector discussed with the applicant how several other licensees and applicants have responded to the Hatch Plant incident by design modifications, administrative procedures, and revision of fire preplans. In addition to the internal response to IE Information Notice No. 85-85, the inspector requested that the applicant perform a review of the charcoal filter fire protection isolation provisions to ensure that there are adequate

provisions to prevent leakage through the Fire Protection System from wetting filter charcoal. This matter was discussed at the exit meeting on March 5, 1986.

The applicant has generated Engineering Change Notices (ECNs) to modify the station's HVAC filter housing fire protection water deluge system valving arrangement from one valve under pressure (which when opened initiates deluge flow) to a system with two closed valves in series with an open low-point drain line isolation valve between them (which requires the operation of the three valves to initiate deluge flow). The ECNs are expected to be completed by August 15, 1986. Although the new valving configuration should greatly reduce the potential for inadvertently wetting the charcoal, it does provide a potential filter bypass pathway through the drain line and the inboard isolation valve. The air leak-tightness of the new design will be demonstrated during the filter housing and mounting frame tests. The associated N510 acceptance test procedures are being revised to require verification of proper fire protection system valve arrangement before testing begins. The revised procedures are expected to be approved by August 15, 1986.

The inspector reviewed the applicant's internal response to INPO Significant Event Report (SER) 34-85, "Water Leakage Into a Control Room Panel Due to the Inadvertent Actuation of the Control Room Heating, Ventilation, and Air Conditioning (HVAC) Deluge System," and IE Information Notices 83-41, "Actuation of Fire Suppression System Causing Inoperability of Safety-Related Equipment," and 85-85, "Systems Interaction Event Resulting in Reactor System Safety Relief Valve Opening Following a Fire Protection Deluge System Malfunction"; no significant problems were noted. The applicant intends to revise the charcoal filter deluge system operation procedures to include precautions against overfilling the housings and instructions to notify radwaste personnel concerning the potential for overloading the liquid radwaste system. The revisions are expected to be approved when procedures are standardized in September 1986.

The inspector also noted that the Control Room Makeup Air System filter housing drains have a screen over the inlet to prevent filter media or other material from entering onto the drains. The drain lines are located about four inches above the bottom of the housing and are run horizontally out the side of the housing. This arrangement and the periodic procedural surveillances of the filter housings greatly reduce the potential for accumulation of debris in the drain piping. This matter is considered closed.

6. Exit Meeting

The inspector met with the applicant representatives (denoted in Section 1) at the conclusion of the inspection on July 25, 1986.

The scope and findings of the inspection were summarized. The inspector also discussed the likely information content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The applicant identified no such documents/processes as proprietary.