

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

REPORTS NO. 50-456/95011(DRS); NO. 50-457/95011(DRS)

FACILITY

Braidwood Station

LICENSEE

Braidwood Station
Commonwealth Edison Company
R.R. #1, Box 84
Braceville, IL 60407


DATES

July 17 through August 21, 1995

INSPECTOR

E. Cobey, Reactor Inspector

APPROVED BY



M. Jordan, Chief
Operational Programs Section

8/28/95
Date

AREAS INSPECTED

A special, reactive safety inspection to review the circumstances surrounding the installation of an unauthorized temporary alteration to the 211 battery exhaust ventilation system.

RESULTS

Four apparent violations were identified involving: 1) failure to perform an operability assessment for the 125-Volt D.C. bus, fed from battery 211, when the battery exhaust ventilation system, a safety related support system, was inoperable; 2) failure to provide an adequate annunciator response procedure which would have ensured that the hydrogen concentration in the battery area would not have exceeded the design limit for hydrogen; 3) failure to follow an annunciator response procedure; and 4) failure to perform a safety evaluation to demonstrate that a change to the facility would not have resulted in an unreviewed safety question.

1.0 Summary of Events

On July 21, 1995, while performing a walkdown of the 125-Volt D.C. system, a NRC inspector noted that a portable fan had been chained to one of the 211 battery room's two fire dampers exhausting air from the battery room. This fan was labeled with an equipment in use tag and had a scheduled removal date of "in the future." The licensee was immediately notified and they initiated the immediate corrective actions described in section 3.1 of this report. Subsequent investigation revealed the following:

- On July 10, 1995, an Action Request, #950037095, was written due to the battery room 211 exhaust fan running at the high differential pressure trip setpoint. It was approved and assigned a B03 priority on July 11, 1995, which resulted in it being placed on a nine week work schedule.
- On July 19, 1995, the battery room 211 exhaust fan tripped on high differential pressure and a portable fan was installed to provide an alternate means of ventilation. However, the licensee failed to recognize that the installation of the portable fan constituted a change to the configuration of the plant by altering the air flow throughout the battery room, which could have resulted in an unreviewed safety question. Specifically, the battery exhaust ventilation system as described in the facility's Updated Safety Analysis Report, was a safety-related, safety category I system that includes as part of its safety design basis the requirement to maintain the battery area hydrogen concentration to less than two percent.

In addition, the licensee failed to recognize or question the impact of the inoperable battery exhaust ventilation system on the operability of the 125-Volt D.C. system; therefore, the licensee failed to perform a formal operability assessment in accordance with BwAP 330-10, "Operability Assessment Process," which incorporates the guidance contained in Generic Letter 91-18.

- On July 22, 1995, the battery room 211 exhaust fan was returned to service.

During follow-up inspection of the licensee's corrective actions, the NRC inspector noted that the 211 battery exhaust fan had a long history of tripping on high differential pressure dating back to at least 1988. The most recent example of this fan being inoperable was during the period of November 22 through December 2, 1994. In the past the licensee was primarily concerned with maintaining the temperature of the battery area within acceptable limits; and since ambient temperature during the November 1994 time frame was not a concern, the battery area was not sampled for H_2/O_2 concentration nor was a means of temporary ventilation established in accordance with the requirements of the Control Room Annunciator Response Procedure, BwAR 2VX01J-1-A6, "Battery Room 211 Exhaust Fan 2VE03C Diff Press High."

In response to the NRC questioning the operability of the 125-Volt D.C. bus, when its support systems were not available, the licensee provided

a calculation on August 3, 1995. This calculation was performed to verify that the existing battery exhaust ventilation system was adequate for the proposed modification of the stations 125-Volt D.C. batteries and was completed on February 7, 1994. This calculation contained an assumption that the hydrogen would build up in the room in a homogeneous manner. Utilizing this assumption, the calculation concluded that it would take 15.32 days for hydrogen concentration to uniformly reach the design limit of two percent while the battery was on float charge and 11.46 hours while on a boost charge. When this assumption was discussed with the licensee, they indicated that this was an acceptable assumption in lieu of there being no standard methodology for this calculation. This assumption is valid with the exhaust ventilation system in operation; however, with the exhaust ventilation system inoperable it was considered nonconservative.

2.0 Root Causes

The inspectors identified the following causes that may have contributed to this event:

- The licensee's staff, specifically the operations staff on shift during these time periods and the system engineer, did not recognize the design basis of the battery exhaust ventilation system or question its impact on the operability of the 125-Volt D.C. system. As a result of this:
 - A formal operability assessment was not performed in accordance with BwAP 330-10, "Operability Assessment Process," which incorporates the guidance contained in Generic Letter 91-18.
 - The requirements of the Control Room Annunciator Response Procedure, BWAR 2VX01J-1-A6, "Battery Room 211 Exhaust Fan 2VE03C Diff Press High," were not accomplished during the period of November 22 through December 2, 1994. Specifically, this procedure required either a H₂/O₂ concentration sample in the battery room be performed and/or an alternate means of ventilation be established. Failure of the licensee to accomplish this procedure appears to be due to the operations staff only being concerned with battery room temperature which was not an issue during this time frame.
- The licensee's staff did not recognize that the installation of the portable fan chained to one of the battery room's two fire dampers constituted a change to the configuration of the plant which could have resulted in an unreviewed safety question.
- The licensee's staff was not sensitive to the significant increase in core damage frequency associated with battery 211 being potentially inoperable due to the required support systems being incapable of performing their required functions.

- The system engineer was not familiar with the recurring nature of the material condition deficiencies associated with the 211 battery room exhaust ventilation system.
- The licensee's staff was not sensitive to the safety significance of the battery exhaust ventilation system or recognize its impact on the 125-Volt D.C. system when work requests associated with restoring the system to an operable status were assigned relatively low, B03, priority.
- The Control Room Annunciator Response Procedure, BwAR 2VX01J-1-A6, Revision 5, "Battery Room 211 Exhaust Fan 2VE03C Diff Press High," was not adequate to ensure that the design limit of hydrogen in the battery area would not be exceeded; in that, this procedure did not require hydrogen monitoring or specify a sampling frequency.

3.0 Licensee Corrective Actions

3.1 Immediate Corrective Actions

- On July 21, 1995, the licensee obtained a H₂/O₂ sample in the 211 battery room. This sample was obtained by walking around the inside perimeter of the room with a portable instrument.
- On July 21, 1995, the licensee removed the previously installed portable fan.
- On July 21, 1995, the licensee changed the priority of the previously generated work request, #950059609, from a B03 priority to a B01 priority and returned the battery exhaust ventilation system to operation within one day.
- On July 21, 1995, the licensee initiated a Problem Identification Form (PIF); however, the PIF was reviewed on August 2, 1995, and other than indicating that an unauthorized temporary alteration had been installed, it was incomplete. In addition, it indicated that there were no immediate corrective actions.

3.2 Follow-up Corrective Actions

- In response to the NRC's operability concern, on August 3, 1995, the licensee provided an operability determination based on a calculation that assumed hydrogen concentration would build up homogeneously throughout the room. Utilizing this assumption, the licensee concluded that it would take 15.32 days for hydrogen to reach the design limit of two percent with the battery on float charge and 11.46 hours with the battery on boost charge.
- On August 10, 1995, the licensee performed a test of the air flow throughout the 211 battery room with the exhaust ventilation system secured. They measured 60 CFM air flow in the reverse direction; however, the motive force for this air flow and its reliability are unknown. The measured value of 60 CFM is much

greater than the minimum required 3.72 cfm; however, it was in the reverse direction.

- On August 10, 1995, the licensee revised their annunciator response procedure to require that a shiftly H₂/O₂ concentration sample be taken, that a temporary alteration to provide ventilation be established, and that an operability determination be conducted.
- On August 17, 1995, the licensee initiated a programmatic walkdown of systems to identify any other unauthorized temporary alterations to the facility. The estimated completion date is August 25, 1995.
- The licensee plans to conduct a special test procedure, SPP-95-042, "U-2 DIV 21 MEER 211 Battery Room Hydrogen Concentration Test," to determine the rate at which hydrogen will accumulate in the battery area with the battery exhaust ventilation system secured.

4.0 Violations

The following apparent violations were identified:

- 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

BwAP 330-10, "Operability Assessment Process," requires, in part, that an operability assessment be performed when any system, structure, or component (SSC), which supports any SSC explicitly subject to the facility's Technical Specifications or Updated Safety Analysis Report in order to perform their specified safety function(s), involves a loss of quality or functional capability.

Contrary to the above, from November 22 through December 2, 1994, and July 19 through July 22, 1995, an operability assessment was not performed when the battery 211 exhaust ventilation system was inoperable, a system which supports the 125-Volt D.C. Bus 211 which was subject to the facility's Technical Specifications.

- 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, as of August 4, 1995, the Control Room Annunciator Response Procedure, BwAR 2VX01J-1-A6, Revision 5, "Battery Room 211 Exhaust Fan 2VE03C Diff Press

High," was not adequate to ensure that the design limit of hydrogen in the battery area would not be exceeded; in that, this procedure allowed the Shift Engineer the discretion to not perform hydrogen monitoring and it did not specify a sampling frequency.

- Technical Specification 6.8.1, requires, in part, that written procedures be established, implemented, and maintained covering those activities referenced in Appendix A, of Regulatory Guide 1.33.

Regulatory Guide 1.33, Appendix A, requires, in part, that Abnormal, Offnormal, or Alarm Conditions be covered by written procedures.

The Control Room Annunciator Response Procedure, BwAR 2VX01J-1-A6, "Battery Room 211 Exhaust Fan 2VE03C Diff Press High," requires, in part, that with the battery exhaust ventilation system secured and at the Shift Engineer's discretion either perform a H₂/O₂ concentration sample in the battery room and/or provide an alternate means of ventilation.

Contrary to the above, from November 22 through December 2, 1994, the 211 battery exhaust ventilation system was inoperable; and, the licensee did not monitor the 211 battery room for H₂/O₂ concentration or provide for an alternate means of ventilation.

- 10 CFR Part 50.59, "Changes, Tests, and Experiments," requires, in part, that the licensee shall maintain records of changes in the facility and that these records must include a written safety evaluation which provides the basis for the determination that the change does not involve an unreviewed safety question.

Contrary to the above, on July 19, 1995, the licensee changed the configuration of the 211 battery room ventilation system by installing a portable fan and did not perform the required safety evaluation to demonstrate that the change would not result in an unreviewed safety question.

5.0 Safety Significance

The battery exhaust ventilation system, which was a safety related support system for the associated 125-Volt D.C. station battery, was required to maintain hydrogen concentration in the battery area to less than the design limit of two percent. Battery 211 was one of two 125-Volt D.C. batteries for unit 2; however, battery 211 and 212 did not contain identical loading. The loss of D.C. bus 211 was considered an initiating event for an accident sequence which was the third highest contributor to core damage frequency. In addition, the licensee's PRA analysis indicated that with battery 211 out of service the core damage frequency was increased by a factor of 14.

6.0 Management Debriefing

The inspectors met with licensee representatives (denoted in Section 7.0) after the inspection on August 21, 1995, to discuss the scope and findings of the inspection. During the exit meeting, the inspectors discussed the documents and processes reviewed by the inspectors during the conduct of this inspection and the likely informational content of the inspection report. Licensee representatives did not identify any such documents or processes as proprietary.

7.0 Persons Contacted

Commonwealth Edison Company

- *K. Strahm, Vice President, PWR
- *T. Tulon, Station Manager
- *D. Cooper, Operations Manager
- *B. Kerr, Site Engineering and Construction Manager
- *J. Meister, Assistant Site Engineering and Construction Manager
- *D. Miller, Technical Services Superintendent
- *D. Skoza, Engineering Superintendent
- *B. McCue, Support Services Director
- *R. Flessner, Site Quality Verification Director
- *B. Byers, Work Control Superintendent
- *L. Weber, Shift Operations Supervisor
- *E. Adams, System Engineering
- *J. Lewand, Regulatory Assurance - NRC Coordinator
- *E. Roche, Site Vice President Executive Assistant
- J. Bergner, Site Engineering
- J. Gosnell, System Engineering
- R. Decker, System Engineering
- K. Nichols, System Engineering

U. S. Nuclear Regulatory Commission

- *M. Jordan, Chief, Operational Programs Section
- *E. Cobey, Reactor Inspector
- *E. Duncan, Resident Inspector
- *M. Kunowski, Resident Inspector

*Denotes those present during the exit meeting on August 21, 1995.

ADDRESSES: Send comments to: The Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555. ATTN: Docketing and Service Branch.

Hand deliver comments to: One White Flint North, 11555 Rockville Pike, Rockville, MD between 7:45 a.m. to 4:15 p.m., Federal workdays.

Copies of comments may be examined at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC

FOR FURTHER INFORMATION CONTACT: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555 (301-504-3741).

SUPPLEMENTARY INFORMATION:

Background

The NRC's current policy on enforcement conferences is addressed in Section V of the latest revision to the "General Statement of Policy and Procedure for Enforcement Actions," (Enforcement Policy) 10 CFR part 2, appendix C that was published on February 18, 1992 (57 FR 5791). The Enforcement Policy states that, "enforcement conferences will not normally be open to the public." However, the Commission has decided to implement a trial program to determine whether to maintain the current policy with regard to enforcement conferences or to adopt a new policy that would allow most enforcement conferences to be open to attendance by all members of the public.

Policy Statement

Position

The NRC is implementing a two-year trial program to allow public observation of selected enforcement conferences. The NRC will monitor the program and determine whether to establish a permanent policy for conducting open enforcement conferences based on an assessment of the following criteria:

- (1) Whether the fact that the conference was open impacted the NRC's ability to conduct a meaningful conference and/or implement the NRC's enforcement program;
- (2) Whether the open conference impacted the licensee's participation in the conference;
- (3) Whether the NRC expended a significant amount of resources in making the conference public; and
- (4) The extent of public interest in opening the enforcement conference.

Two-Year Trial Program for Conducting Open Enforcement Conferences; Policy Statement

AGENCY: Nuclear Regulatory Commission.

ACTION: Policy statement.

SUMMARY: The Nuclear Regulatory Commission (NRC) is issuing this policy statement on the implementation of a two-year trial program to allow selected enforcement conferences to be open to attendance by all members of the general public. This policy statement describes the two-year trial program and informs the public of how to get information on upcoming open enforcement conferences.

DATES: This trial program is effective on July 10, 1992, while comments on the program are being received. Submit comments on or before the completion of the trial program scheduled for July 11, 1992. Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only for comments received on or before this date.

I. Criteria For Selecting Open Enforcement Conferences

Enforcement conferences will not be open to the public if the enforcement action being contemplated—

- (1) Would be taken against an individual, or if the action, though not taken against an individual, turns on whether an individual has committed wrongdoing;
- (2) Involves significant personnel failures where the NRC has requested that the individual(s) involved be present at the conference;
- (3) Is based on the findings of an NRC Office of Investigations (OI) report; or
- (4) Involves safeguards information, Privacy Act information, or other information which could be considered proprietary.

Enforcement conferences involving medical misadministrations or overexposures will be open assuming the conference can be conducted without disclosing the exposed individual's name. In addition, enforcement conferences will not be open to the public if the conference will be conducted by telephone or the conference will be conducted at a relatively small licensee's facility. Finally, with the approval of the Executive Director for Operations, enforcement conferences will not be open to the public in special cases where good cause has been shown after balancing the benefit of public observation against the potential impact on the agency's enforcement action in a particular case.

The NRC will strive to conduct open enforcement conferences during the two-year trial program in accordance with the following three goals:

- (1) Approximately 25 percent of all eligible enforcement conferences conducted by the NRC will be open for public observation;
- (2) At least one open enforcement conference will be conducted in each of the regional offices; and
- (3) Open enforcement conferences will be conducted with a variety of the types of licensees.

To avoid potential bias in the selection process and to attempt to meet the three goals stated above, every fourth eligible enforcement conference involving one of three categories of licensees will normally be open to the public during the trial program. However, in cases where there is an ongoing adjudicatory proceeding with one or more intervenors, enforcement conferences involving issues related to the subject matter of the ongoing adjudication may also be opened. For the purposes of this trial program, the

three categories of licensees will be commercial operating reactors, hospitals, and other licensees, which will consist of the remaining types of licensees.

II. Announcing Open Enforcement Conferences

As soon as it is determined that an enforcement conference will be open to public observation, the NRC will orally notify the licensee that the enforcement conference will be open to public observation as part of the agency's trial program and send the licensee a copy of this Federal Register notice that outlines the program. Licensees will be asked to estimate the number of participants it will bring to the enforcement conference so that the NRC can schedule an appropriately sized conference room. The NRC will also notify appropriate State liaison officers that an enforcement conference has been scheduled and that it is open to public observation.

The NRC intends to announce open enforcement conferences to the public normally at least 10 working days in advance of the enforcement conference through the following mechanisms:

- (1) Notices posted in the Public Document Room;
- (2) Toll-free telephone messages; and
- (3) Toll-free electronic bulletin board messages.

Pending establishment of the toll-free message systems, the public may call (301) 483-4732 to obtain a recording of upcoming open enforcement conferences. The NRC will issue another Federal Register notice after the toll-free message systems are established.

To assist the NRC in making appropriate arrangements to support public observation of enforcement conferences, individuals interested in attending a particular enforcement conference should notify the individual identified in the meeting notice announcing the open enforcement conference no later than five business days prior to the enforcement conference.

III. Conduct of Open Enforcement Conferences

In accordance with current practice, enforcement conferences will continue to normally be held at the NRC regional offices. Members of the public will be allowed access to the NRC regional offices to attend open enforcement conferences in accordance with the "Standard Operating Procedures For Providing Security Support For NRC Hearings And Meetings" published November 1, 1991 (56 FR 58251). These procedures provide that visitors may be

subject to personnel screening, that signs, banners, posters, etc., not larger than 18" be permitted, and that disruptive persons may be removed.

Each regional office will continue to conduct the enforcement conference proceedings in accordance with regional practice. The enforcement conference will continue to be a meeting between the NRC and the licensee. While the enforcement conference is open for public observation, it is not open for public participation.

Persons attending open enforcement conferences are reminded that (1) the apparent violations discussed at open enforcement conferences are subject to further review and may be subject to change prior to any resulting enforcement action and (2) the statements of views or expressions of opinion made by NRC employees at open enforcement conferences or the lack thereof, are not intended to represent final determinations or beliefs.

In addition to providing comments on the agency's trial program in accordance with the guidance in this notice, persons attending open enforcement conferences will be provided an opportunity to submit written comments anonymously to the regional office. These comments will subsequently be forwarded to the Director of the Office of Enforcement for review and consideration.

Dated at Rockville, MD, this 7th day of July 1992.

For the Nuclear Regulatory Commission,
Samuel J. Child,

Secretary of the Commission.

[FR Doc. 92-16233 Filed 7-9-92; 8:45 a.m.]

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31754

Corrections

Federal Register

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NUCLEAR REGULATORY COMMISSION

Two-Year Trial Program for Conducting Open Enforcement Conferences; Policy Statement

Correction

In notice document 92-16233 beginning on page 30762 in the issue of Friday, July 10, 1992, on page 30762, in the second column, under DATES, beginning in the fifth line, "July 11, 1992" should read "July 11, 1994".

BULLETIN CODE 1992-01-8

Two-Year Trial Program for Conducting Open Enforcement Conferences; Continuation of Trial Program

AGENCY: Nuclear Regulatory Commission.

ACTION: Supplement to Policy Statement; Continuation of Trial Program.

SUMMARY: The Nuclear Regulatory Commission (NRC) is issuing a supplement to its two-year trial program for conducting open enforcement conferences. The purpose of this supplement is to inform the public of the NRC's continuation of the trial program until the commission acts upon the NRC staff's recommendations regarding open enforcement conferences.

FOR FURTHER INFORMATION CONTACT: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555 (301-504-2741).

SUPPLEMENTARY INFORMATION: The Commission published a policy statement on the implementation of a two-year trial program to allow selected enforcement conferences to be open to public observation on July 10, 1992 (57 FR 30762). The purpose of the trial program was to determine whether to maintain the current policy stated in Section V of the "General Statement of Policy and Procedure for Enforcement Action," (Enforcement Policy) 10 CFR Part 2, Appendix C that, "enforcement conferences will not normally be open to the public," or to adopt a new policy that would allow most enforcement conferences to be open to attendance by all members of the public. Comments were required to be provided to the Commission on or before the completion date of the trial program. A correction to the original notice was issued on July 17, 1992 (57 FR 31754) to correctly identify the scheduled completion of the trial program as July 11, 1994.

On May 13, 1994, the Executive Director for Operations directed a reexamination of the NRC enforcement program by a Review Team of senior NRC staff. As part of this comprehensive review of the Enforcement Policy, the NRC intends to consider the issue of whether the Commission should establish open enforcement conferences as the normal practice. In the interim, the NRC is continuing the open enforcement conference trial program pending the outcome of the Enforcement Policy Review. The Review Team intends to complete its review of the Enforcement Policy in early 1995.

As part of its review of the Enforcement Policy, the NRC intends to issue a Federal Register notice soliciting public comments to assist the Review Team. This notice will include soliciting comments on the issue of open enforcement conferences.

Dated at Rockville, MD, this 13th day of July 1994.

For the Nuclear Regulatory Commission.

James Lieberman,

Director, Office of Enforcement.

(FR Doc. 94-17500 Filed 7-18-94; 8:45 am)

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