



**Commonwealth Edison**

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May 12, 1988

Mr. A. Bert Davis  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

SUBJECT: Braidwood Station Units 1 and 2  
Response to Inspection Reports Nos.  
50-456/88011 and 50-457/88013  
NRC Docket Nos. 50-456 and 50-457

REFERENCE: (a) E. G. Greenman letter to C. Reed dated April 14, 1988

Dear Mr. Davis:

This letter is in response to the inspection conducted by Messrs. T. M. Tongue and T. E. Taylor on March 14 through 25, 1988, of activities at Braidwood Station. Reference (a) indicated that certain activities appeared to be in violation of NRC requirements. The Commonwealth Edison Company response to the Notice of Violation is provided as Enclosure 1.

Additionally, Reference (a) requested that we provide a discussion of management actions taken relative to our out of service program. This is included as Enclosure 2.

If you have any further questions on this matter, please direct them to this office.

Very truly yours,

H. E. Bliss  
Nuclear Licensing Manager

Enclosure

cc: NRC Resident Inspector - Braidwood  
NRC Document Control Desk

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ENCLOSURE 1

COMMONWEALTH EDISON COMPANY  
RESPONSE TO INSPECTION REPORT 456/88011; 457/88013

VIOLATION: (456/88011-01; 457/88013-01)

Technical Specification (TS) 3.0.3 requires that when a Limiting Condition for Operation (LCO) is not met, except as provided in the associated action requirements, within one hour action shall be initiated to place the unit in a mode in which the specification does not apply by placing the unit in at least Hot Standby (Mode 3) within the next six hours; in at least Hot Shutdown (Mode 4) within the following six hours; and in at least Cold Shutdown (Mode 5) within the subsequent 24 hours.

Technical Specification 3.7.7 requires that three independent non-accessible area exhaust filter plenums be operable while in Modes 1, 2, 3, and 4. The action statement for 3.7.7 allows only one non-accessible area exhaust filter plenum to be inoperable at a time.

Contrary to the above, from 9:13 a.m. to 11:30 p.m. on December 18, 1987, with Unit 1 in Mode 1, and from 2 a.m. to 9:45 a.m. on March 13, 1988, with Unit 2 in Mode 3, two non-accessible area exhaust filter plenums were rendered inoperable. With two non-accessible area exhaust filter plenums inoperable, in excess of the action requirements of Technical Specification 3.7.7, action was not initiated within one hour on December 18, 1987, to place Unit 1 in Mode 3 within the next six hours, and Mode 4 within the following six hours; and on March 13, 1988, to place Unit 2 in Mode 4 within the next six hours.

RESPONSE:

Commonwealth Edison acknowledges that of the two cited occasions, the limiting condition for operation of Technical Specifications 3.7.7 and 3.0.3 were exceeded.

The December 18, 1987 event was caused by the failure of operating personnel to adequately verify system status prior to authorizing an out-of-service in that the in-service plenum was removed from service prior to placing the standby plenum in-service. Contributing to this event was a misapplication of supplementary guidance relative to Technical Specification 3.7.7.

The March 13, 1988 event was caused by an administrative and management deficiency in that the personnel assigned the task of determining and verifying the isolation points for the control power to the auxiliary building ventilation (VA) system lacked the expertise and adequate reference material required to perform the function. This particular evolution was thought to be straight forward, but in actuality required a detailed knowledge of the control power distribution for the VA system.

In the first instance, the violation was a direct result of a cognitive failure on the part of the operating personnel. In the latter case, the operating personnel were asked to perform a task that they had insufficient resources available to successfully accomplish. The only similarity between the two events revolves around the fact that the Auxiliary Building Ventilation System was impacted by these events.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:

For the December 18, 1987 event, immediate corrective action was taken to align the standby plenum for operation. This activity was accomplished by simply opening the inlet isolation damper. This event has been reviewed with the appropriate shift operating personnel who had been involved.

For the March 13, 1988 event, immediate corrective action was to expeditiously restore power to the non-accessible plenum thus restoring full system capability. This event has been reviewed with the appropriate shift operating personnel who had been involved and was discussed with each operating shift.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATION:

The December 18, 1987 event will be included in the Licensed Operator Requalification Program. The Station Control Room Engineers (SCRE) will receive training on the basis and application of the supplementary guidance on Technical Specification 3.7.7. Additionally, similar events experienced at Byron Station will be reviewed.

The March 13, 1988 event will be further reviewed with the shift operating personnel. A guidance document on the 120 Volt Control Power System is under development which will identify equipment powered from each point in the 120 volt distribution system (i.e. identification of what equipment will be deenergized if a specific breaker/relay/fuse is removed from service).

DATE OF FULL COMPLIANCE:

The training of current SCRE's will be conducted during the next requalification program cycle to be completed in December 1988.

The 120 Volt Control Power System guidance document is being developed in stages. The ESF portion of the 120 Volt system is expected to be completed by the end of July, 1988. The non-ESF portion is expected to be completed by the end of December, 1988.

## ENCLOSURE 2

Reference (a) requested that we address, separate from the response to the Notice of Violation, actions we are taking to prevent further violations related to our out of service (OOS) program.

Subsequent to the Operational Readiness Inspection on Unit 2 in mid-February 1988 several OOS procedure changes were implemented. These changes included:

- Allowance for clearing the OOS prior to completion of work request testing (this eliminated a major reason for temporary lifts).
- Added temporary lift position to the temporary lift form.
- Added second check by a qualified reviewer for determination of out of service and return to service positions on safety-related systems.
- Operability will be tracked by caution cards.

Additional guidance was also provided to the operating staff relative to the OOS program and equipment status which includes:

- Equipment is to be routinely returned to service in accordance with the system lineup (operable status).
- Operability can be tracked by the degraded equipment computer tracking system and/or mode change checklists.

These procedural changes were implemented in Revision 5 dated February 26, 1988, of procedure BWAP 330-1 "Station Equipment Out-Of-Service Procedure". Direction was issued to the Operating staff on compliance with the revised program.

Some positive effects have been realized from these changes. The volume of temporary lifts was reduced to near zero. Equipment status became more clear to the operators. Also, proper alignments were assured by double check of the out of service/return to service positions.

Aside from the procedural changes already in place, we have continued the review of our out of service program. This includes a complete review of the Byron program, a review of feedback from the recent Braidwood Unit 1 outage and a review of INPO Good Practices. This review will result in additional recommended changes/enhancements to the out of service program which are expected to be implemented by the middle of June 1988.

After a period of implementation, following any June 1988 OOS program changes, Braidwood intends to have its program reviewed by an outside agency. Specifically, INPO will be invited to conduct an "Assist Visit" to review the overall effectiveness of the OOS program.

Braidwood believes the OOS program changes already effected tighten the overall control of the program. The basic program is sound and is expected to serve as an effective administrative control.