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May 15, 1996

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Reply to a Notice of Violation from Materiel Condition Inspection Report Number
50-456/457/96006
Braidwood Nuclear Power Station Units 1 and 2
NRC Docket Numbers 50-456, 50-457

References: 1) G. E. Grant letter to K. Kaup dated April 17, 1996, transmitting Notice of Violation
from Materiel Condition Inspection Report 50-456/457/96006

Enclosed is Commonwealth Edison Company's (ComEd) response to the Notice of Violation (NOV) which was transmitted with the letter identified in Reference 1. The NOV cited one Severity Level IV Violation requiring a written response. In addition, it was also requested that the actions to be taken to ensure rework is properly characterized and post maintenance verifications are properly implemented be included in this response.

The following commitments to the NRC are included in Attachment 1:

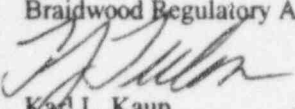
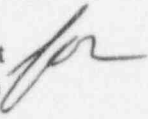
- A plan established to correct problems associated to the preventive maintenance database will be followed. This plan includes:
 - Revise BwAP 1400-2, "Predefine Parameter Change Procedure," by May 31, 1996,
 - Clean up the preventive maintenance database, targeting items that are greater than 25% overdue, by May 31, 1996,
 - Build models/templates for all applicable predefines by June 15, 1996, with priority on the preventive maintenance items that are greater than 25% overdue,
 - Schedule preventive maintenance items that are greater than 25% overdue in available work windows by June 30, 1996,
 - Any remaining items overdue by greater than 25% that could not be incorporated in a work window by June 30, 1996, will be included in the work schedule by July 8, 1996.
- Department Preventive Maintenance Coordinators will be trained on the requirements in BwAP 1400-2, "Predefine Parameter Change Procedure," by July 31, 1996.
- Continue with the effort to audit deficiency tags that are hanging in the field to verify that they have existing action requests or work requests in the Electronic Work Control System (EWCS). These reviews are to be completed by August 31, 1996.
- In addition, the following actions will be taken in response to the deficiency tag concern (unless specified, the actions will be completed by August 31, 1996):
 - The expectations for the removal of deficiency tags will be tailored with Maintenance personnel,
 - Deficiency tag expectations will be discussed in Maintenance Supervisor's Regular Planning Meetings (RPMs),
 - Maintenance Supervisors will be trained on removing field tags for completed work,

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- Line maintenance department heads will spot check completed jobs through July 31, 1996, to ensure the deficiency tag requirements are met,
- BwAP 1600-1, "Action/Work Request Processing Procedure," will be revised to reflect that Work Control will assume responsibility for verifying that field tags are removed for cancelled work tasks.
- The Station will continue with the Improvement Initiative Plans and procedure adherence trend investigation.

Attachment 2 provides the information requested regarding the actions to be taken to ensure rework is properly characterized and post maintenance verifications are properly implemented, including any changes being deemed necessary to quality control activities.

If your staff has any questions or comments concerning this letter, please refer them to Terrence Simpkin, Braidwood Regulatory Assurance Supervisor, at (815) 458-2801, extension 2980.


Karl L. Kaup
Site Vice President
Braidwood Station 

Attachment

cc: H.J. Miller, NRC Regional Administrator -RIII
R. R. Assa, Project Manager - NRR
C. J. Phillips, Senior Resident Inspector
F. Niziolek, Division of Engineering, Office of Nuclear Safety -IDNS

ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

VIOLATION (50-456/457/96006-01):

10CFR50, Appendix B, Criterion V, requires in part that activities affecting quality 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.

- a. BwAP 1250-2, Revision 3, "Problem Identification and Investigation Procedure," required, in part, that if a nonconforming problem was identified, however minor, a problem identification form (PIF) was to be initiated, to address the concern.

Contrary to the above, PIFs were not initiated on February 16 and 17, 1996, for identified problems encountered during replacement of condensate pump 1CD05PB impeller, such as wrong impeller dimensions and a damaged motor bearing (Violation 50-456/96006-01a).

- b. BwAP 100-9, Revision 2, "Personnel Qualification Position Holders and Signature Alternates," designated specific individuals who had management signature authority.

Contrary to the above, as of February 28, 1996, numerous rework PIFs were signed by a maintenance individual as the "immediate supervisor" without having management signature authority (Violation 50-456/96006-01b).

- c. BwAP 1400-2, Revision 7, "Predefine Parameter Change Procedure," required that form BwAP 1400-2T1 be completed when deferrals were made to the predefined fields in the Electronic Work Management System (EWMS) database. Form BwAP 1400-2T1, "EWMS Predefine Change Form," contained a section to be completed for PM deferrals including engineering evaluation/reason for allowing the PM task to pass its due date.

Contrary to the above, as of March 1, 1996, the licensee did not complete BwAP 1400-2T1 forms for all 400 overdue preventive maintenance (PM) tasks nor was the licensee able to provide engineering justification for the deferrals (Violation 50-456/96006-01c).

- d. BwAP 1600-1, Revision 27E1, "Action/Work Request Processing Procedure," required, in part, that when maintenance work was completed in the field, deficiency tags were to be removed by the maintenance staff during work package closeout. In addition, the system engineer was to ensure that deficiency tags were removed for cancelled Action or Work Requests.

Contrary to the above, during the week of February 12, 1996, several examples were identified where work had been either completed or cancelled, but the deficiency tags associated with the

ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

VIOLATION (50-456/457/96006-01) (continued):

action requests (ARs) had not been removed. Examples include AR 950030458 (deficiency tag 157130), AR 950040324 (deficiency tag 185911), and AR 950034786 (deficiency tag 191442) (Violation 50-456/96006-01d).

This is a Severity Level IV violation.

REASON FOR THE VIOLATION:

- a) Problem Identification Forms (PIFs) were not promptly initiated upon the discovery of the deficiencies associated with a condensate pump impeller. Multiple work groups were involved with this task, yet no worker took the initiative to write the PIFs.
- b) The individual who signed the numerous rework PIFs as the "immediate supervisor" believed he had the appropriate signature authority to sign PIFs. However, this individual did not have the appropriate authority.
- c) Personnel were not following BwAP 1400-2, "Predefine Parameter Change Procedure," because they were not familiar with the BwAP 1400-2T1 form that is to be completed when deferrals are made to the predefined fields in the Electronic Work Management System (EWMS) database.

The three examples listed where action requests were either completed or cancelled, yet the deficiency tags were not removed, had unique reasons for why the deficiency tags had not been removed. Common factors related to the examples are specified below. These factors are attributed to insufficient training and awareness as well as problems with deficiency tags being hung in the wrong locations. The factors include:

- Deficiency tags are not being consistently filled out as required per BwAP 1600-1, "Action/Work Request Processing Procedure." The originators do not always identify on the AR that a deficiency tag has been hung in the field.
- When action requests are cancelled, the deficiency tags are not being removed from the field. When action requests are combined into existing work requests, the deficiency tags are not consistently transferred to the existing work request.
- When work is completed in the field, the deficiency tags are not being removed at the completion of the job.
- The status of deficiency tags in the field is suspect. There may not be an existing action request/work request in the system for a tag found in the field.

ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:

Although PIFs were not promptly initiated, PIFs were subsequently written on February 29, 1996, to identify both the impeller and bearing issues. A PIF was also written to document the failure to promptly initiate PIFs upon discovery of a nonconformance. The individuals involved were counseled in regard to their lack of action in this event.

The individual who believed he had the appropriate signature authority to sign the rework PIFs as the "immediate supervisor" was counseled on the issue. At the time, this maintenance individual was reviewing data on potential rework events and generating PIFs to track and trend rework. These PIFs did not require an immediate Station response and were written for administrative purposes only.

Braidwood has done an assessment of how preventive maintenance items are tracked and trended and has developed a plan to ensure that appropriate actions are taken, including engineering evaluations, to raise the level of confidence that delayed preventive maintenance items are adequately addressed. In addition, the details of this plan and the importance of following the "Predefine Parameter Change Procedure" have been communicated to the Department Preventive Maintenance Coordinators.

The plan that has been established to correct the problem associated with the preventive maintenance (PM) database includes the following:

- Revise BwAP 1400-2, "Predefine Parameter Change Procedure," to change the requirement for when a BwAP 1400-2T1 form is to be completed. The procedure has required a form to be completed when a preventive maintenance predefine is to be changed, and this form also included a deferral section. The revision will no longer utilize this form to document deferrals. Rather, the main procedure text will include the requirements for deferrals, including the need for an engineering review. It will require an engineering review to be completed when a preventive maintenance item is overdue by greater than 25% or if it is known that an item will exceed that time period. This revision will be completed by May 31, 1996.
- Clean up the database, targeting preventive maintenance items that are greater than 25% overdue, by May 31, 1996 (this involves determining if the item is still necessary, if the correct frequency is indicated, if the item has been completed yet not updated, or if a change has been submitted and not updated),
- Build models/templates for all applicable predefines by June 15, 1996, with priority on the preventive maintenance items that are greater than 25% overdue (these templates will facilitate work scheduling),
- Schedule preventive maintenance items that are greater than 25% overdue in available work windows by June 30, 1996,
- Any remaining items overdue by greater than 25% that could not be incorporated into a work window by June 30, 1996, will be included in the work schedule by July 8, 1996,

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REPLY TO NOTICE OF VIOLATION

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED (continued):

- Engineering will disposition the list of preventive maintenance items that are greater than 25% past due by December 31, 1996.

The expectations for removing deficiency tags has been communicated to Braidwood personnel using the Station newsletter. In addition, actions have been taken to remove deficiency tags which are no longer valid. The Station has started an audit of deficiency tags that are hanging in the field to verify that they have existing action requests or work requests in the Electronic Work Control System (EWCS). These efforts have focused on Unit 2 since that unit was most recently in an outage condition. Many systems/areas associated with Unit 2 have been reviewed and all tags hanging in those areas are valid, with an existing action request in EWCS. Similar reviews of Unit 1 and Unit 0 systems will be performed. These reviews are to be completed by August 31, 1996.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS:

The expectation to initiate PIFs is a topic in the Maintenance portion of the Reinforcement #4 Session scheduled for May 17, 1996.

PIFs initiated on rework are now being approved by an individual with the proper authority.

Department Preventive Maintenance Coordinators will be trained on the new revision of BwAP 1400-2, "Predefine Parameter Change Procedure," by July 31, 1996. This training will enhance their awareness of the requirements specified in the procedure and will also focus on the importance of completing engineering evaluations when PM deferrals are done.

To prevent recurrence of the problems associated with the deficiency tags, additional corrective actions will be taken. These actions are to be completed by August 31, 1996, and include the following:

- The expectations for the removal of deficiency tags will be tailgated with Maintenance personnel,
- Deficiency tag expectations will be discussed in Maintenance Supervisor's Regular Planning Meetings (RPMs),
- Maintenance Supervisors will be trained on removing field tags for completed work,
- Line maintenance department heads will spot check completed jobs through July 31, 1996, to ensure the deficiency tag requirements are met,
- BwAP 1600-1, "Action/Work Request Processing Procedure," will be revised to reflect that Work Control will assume responsibility for verifying that field tags are removed for cancelled work tasks.

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CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

(continued):

In addition to the above actions, the Station is focusing its attention on the problems associated with procedure adherence. Currently, a trend investigation is ongoing to evaluate this area. In addition, one of the Station's Improvement Initiatives is targeting human performance issues, an area which is closely related to procedure adherence problems. The Station believes that the plans generated from these efforts will have a positive impact in resolving procedure adherence concerns.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance has been achieved for the items related to the condensate impeller, signature authority for the rework PIFs, and the deficiency tags. Compliance was achieved when the appropriate PIFs were written on the problems associated with the replacement of the IB condensate impeller, the maintenance individual stopped approving rework PIFs, and the deficiency tags were removed for the identified cases. Full compliance for the overdue preventive maintenance issue will be achieved when the revised BwAP 1400-2 is implemented.

ATTACHMENT 2

In addition to responding to the violation, it was also requested that the actions to be taken to ensure rework is properly characterized and post maintenance verifications are properly implemented, including any changes being deemed necessary to quality control activities, be included in this response.

This weakness related to the fact that maintenance rework was not clearly defined and tracked. As a result, the extent of rework and root causes for the rework were not clearly communicated.

Braidwood Station has developed Maintenance Memo 100-35, "Rework Program". This memo was approved on 4/29/96 and is presently being implemented. It defines rework and delineates responsibilities for initiating Problem Identification Forms (PIFs) when potential rework is discovered. The memo also includes the requirement for Quality Control deficiencies to be documented during field inspections using PIFs. PIFs are also to be used for failed Post Maintenance Verification tests which meet the rework definition. In addition to the examples specified, it is a Station expectation for PIFs to be generated for other deficient conditions, including improperly conducted Post Maintenance Verification tests.