

ILLINOIS POWER

CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727-0678, TELEPHONE (217) 935-8881

May 17, 1991

Docket No. 50-461

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

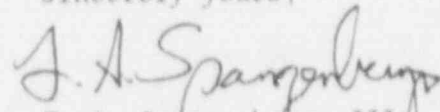
Subject: Response to the Notice of Violation and Open Items in NRC
Inspection Report 50-461/91006, dated April 19, 1991

Dear Mr. Davis:

This letter provides the Illinois Power Company (IP) response to the Notice of Violation and Open Items in NRC Inspection Report 50-461/91006. The Notice of Violation discusses two examples of failure to adequately implement the Verification and Validation (V&V) program requirements. Attachment A contains the response to the Notice of Violation 50-461/91006-03 and Attachment B addresses Open Items 50-461/91006-01, 02, 04 and 05.

IP believes that this response resolves the concerns identified in the Notice of Violation and the Open Items.

Sincerely yours,



F. A. Spangenberg, III
Manager, Licensing and Safety

JVS/alh

Attachments

cc: NRC Clinton Licensing Project Manager
NRC Resident Office
Illinois Department of Nuclear Safety

MAY 22 1991

9105300143 910517
PDR ADOCK 05000461
Q FDR

11
1E01

Attachment A

Response to Notice of Violation
in Inspection Report 50-461/91006

A. The Notice of Violation states in part:

"... the V&V effort performed in May 1990 for the implementation of the BWR Owners Group Emergency Procedure Guidelines Revision 4 was not accomplished in accordance with the V&V Program Manuals, in that:

- a. The verification did not ensure that the Plant Specific Technical Guideline (PSTG) steps had been accurately translated to the EOP Flowcharts (using the Writers Guide), as required by Verification Checklist A."

1. Background/Cause of Violation

In December 1988, a plan was developed to upgrade the Clinton Power Station (CPS) Emergency Operating Procedures (EOPs) to the Boiling Water Reactor Owner's Group (BWROG), Rev. 4, Emergency Procedure Guidelines (EPG) Flowchart design. The previous revisions had been in text format. The change to a flowchart-based procedure presented new and unique programmatic requirements for CPS. Working closely with industry experts, CPS department representatives conducted the Flowchart Validation and Verification (V&V) process in a manner which was deemed to be correct. Intensive effort was placed on ensuring that deviations between the BWROG EPGs and the Plant Specific Technical Guidelines (PSTG) were adequately documented. This area had been deficient in a previous EOP inspection. With the text-based EOPs, a deviation document describing differences between PSTG steps and EOPs was not required.

Some deviations from the PSTG and the Writer's Guide are expected during development of the final Flowchart product. In fact, NUREGs and lessons learned in the EOP program specifically caution the procedure writer from using the guidelines as exact blueprints for the Flowcharts. CPS actively developed the Flowcharts to function efficiently in the Main Control Room (MCR) environment, while adhering to the technical intent of the PSTG and the Writer's Guide.

Extensive documentation was developed during the two-year Flowchart upgrade process which showed the intent and reasoning for the development of each individual Flowchart step. This documentation was never consolidated into one unique location, and at times was not controlled. The scattered placement of this information, and the time involved to research and justify each apparent PSTG/Writer's Guide to EOP

Attachment A (continued)

Flowchart deviation, gives the appearance of an inadequate verification process. CPS can show verification adequacy for individual concerns; however, the Flowchart verification lacks the long-term cohesiveness required for continued upgrade and revisions.

II. Corrective Action Taken and Results Achieved

CPS reviewed the individual comments identified in the Inspection Report and the original verification with technical experts and EOP procedure writers to determine if any technical issues existed. The review indicated that for each item addressed in the inspection report, adequate justification for deviating from the PSTG/Writer's Guide existed, and that the technical basis of the BWROG EPG Rev. 4 and the PSTG was maintained. This review was completed on April 11, 1991. The primary problem noted during the assessment was the lack of an auditable deviation document which would provide the necessary long-term documentation of the justification.

III. Corrective Actions Taken to Avoid Further Violations

- a) To ensure no additional unjustified deviations exist, a verification addressing PSTG step translations to the EOP Flowcharts (using the Writer's Guide) will be performed in accordance with the CPS EOP V&V program requirements.
- b) CPS will develop a PSTG to EOP Flowchart deviation document. This document will be a controlled document subject to the CPS EOP program requirements.

IV. Date When Full Compliance Will Be Achieved

- a) The PSTG to EOP Flowchart verification will be completed by July 31, 1991.
- b) The PSTG/EOP Flowchart deviation document will be completed and implemented with the revised EOP Flowcharts by April 15, 1992.

Attachment A (continued)

B. The Notice of Violation states in part:

"... the V&V effort performed in May 1990 for the implementation of the BWR Owners Group Emergency Procedure Guidelines Revision 4 was not accomplished in accordance with the V&V Program Manuals, in that:

- b. The validation of the EOP support procedures was not conducted, as required by the Validation Program Manual."

I. Background/Cause of This Violation

With the implementation of BWROG Rev. 4 guidelines, the support procedure concept emerged. The current Nuclear Regulatory Commission (NRC) guidelines on support procedure requirements state in the lessons learned that the support procedures should be validated to ensure that they are usable and operationally correct. CPS V&V guidelines currently focus on the Flowcharts themselves, and do not adequately address the support procedures. While the Flowcharts are designed to provide operator direction in response to symptoms, support procedures provide specific operational guidance in response to an event.

The development effort focused on the EOP Flowcharts, and the 441X series support procedures. With a lack of a defined EOP support procedure V&V program, credit was taken for the 441X series by use of the validation efforts performed during their development and operator training. Inadequate documentation of these efforts contributed to this violation. The 3000 series procedures (CPS operating procedures) remained essentially unchanged from the previous Rev. 3 EOPs, and changes made were a direct result of the Flowchart V&V comments. CPS had already identified the need to translate the specific 3000 series EOP-related steps into 441X series procedures during the initial Flowchart development.

The root cause for the support procedure V&V discrepancies is a misinterpretation and misapplication of the type and extent of V&V required for support procedures to apply to EOP requirements.

II. Corrective Action Taken and Results Achieved

Known safety significant deficiencies were corrected by immediate procedure revisions as documented in the inspection report. These revisions were completed on March 18, 1991. CPS recognizes that no formal V&V program exists for EOP support procedures, and that reliance on the existing procedure implementation program does not satisfy the intent of the EOP V&V program.

The remaining discrepancies identified in the Inspection Report are considered to be procedure enhancements rather than technical deficiencies and will be addressed as part of the scheduled EOP support procedure revisions. The proposed rewrite of 3000 series procedures, creation of a support procedure Writer's Guide, and the 100% validation will serve to ensure no other safety significant deficiencies exist within the EOP support procedures.

III. Corrective Action to Avoid Further Violations

An EOP support procedure validation program will be developed, and a 100% validation of EOP support procedures will be performed.

IV. Full Compliance Date

The EOP support procedure validation program will be completed by August 31, 1991.

Existing EOP Support Procedures (441X series) will be validated by September 20, 1991.

All new and revised EOP Support Procedures will be validated by December 15, 1991.

Attachment B

Response to the Open Items
in Inspection Report 50-461/91006

Open Item 461/91006-01:

The desktop reviews and walkdowns of selected actions in the EOPs and support procedures identified numerous deficiencies in the procedures which could cause time delays and/or confusion in performance of EOP-related actions. Many of the deficiencies were a result of inadequate V&V. The Team also identified safety significant deficiencies in CPS Procedure No. 4411.06 for containment venting, which were immediately resolved by the licensee.

IP Response:

Noted deficiencies identified in the EOPs and support procedures will be addressed during the rewrite of the EOP support procedures, and the implementation of the EOP support procedure validation program. EOP Flowchart deficiencies will be addressed during the implementation of the corrective action to Violation 461/91006-03a (DRS).

Completion of this activity is scheduled for April 15, 1992. This date is based on the numerous activities which under the EOP program support the ultimate issuance of revised Flowcharts and support procedures. The following items are being monitored by IP as milestones in the EOP upgrade effort: support procedure Writer's Guide, support procedure validation program, implementation of a new validation program on existing support procedures, rewrite of 3000 series procedures to new guidelines, validation of all new and revised 441X series support procedures, Operations training and assessments on support procedures.

Open Item 461/91006-02a:

The V&V Programs were generally adequate in stated requirements; however, sufficient guidance was not presented to ensure successful completion of V&V for the EOPs and support procedures.

IP Response:

Resolution of Violation 461/91006-03a & b, coupled with improved guidance to the EOP program manuals, will ensure sufficient guidance exists for successful completion of future EOP V&V.

A revision to CPS Procedure No. 1005.09, "Emergency Operating Procedure Program and Preparation," to reflect new guidelines will be completed by September 30, 1991.

Upgrades to the CPS EOP V&V manuals will be completed by December 31, 1991, and will be simultaneously implemented with the revised Flowcharts by April 15, 1992.

Attachment B (continued)

Open Item 461/91006-02b:

The licensee failed to adequately implement the V&V program requirements; errors were identified in the EOP Flowcharts.

GPS Response:

Identified errors noted on the EOP Flowcharts will be addressed in conjunction with the corrective action taken under Open Item 461/91006-01(DRS).

EOP Flowchart errors will be corrected during the next Flowchart revision by April 15, 1992.

Open Item 461/91006-02c (DRS):

The licensee failed to adequately implement the V&V program requirements; parameters and references specified in the EOP Flowcharts were not compatible with available instrumentation and procedures.

IP Response:

Identified parameter/instrumentation discrepancies will be addressed, and the Safety Parameter Display System (SPDS) will be upgraded to reflect the new EOP parameters. Improvements to SPDS are being completed under Field Alteration CXP015.

All identified concerns will be resolved by April 15, 1992.

Open Item 461/91006-02d:

The formal V&V was performed on Draft B of the EOP Flowcharts. The V&V resulted in significant changes which were incorporated into Draft C. No formal V&V was performed on Draft C; however, this draft was used for operator training. The implemented Revision 20 EOP Flowcharts were not significantly different from Draft C. No formal V&V, or assessment to determine if further V&V was necessary, was conducted for the Revision 20 EOPs.

IP Response:

IP completed an evaluation of the changes to EOP Flowcharts between the Draft B V&V and the Revision 20 final product. The conclusion of this evaluation was that the EOP Flowcharts did not require an additional formal V&V, and that the intent of the assessment process had been satisfied. The intent and process employed during the EPG Rev. 4 implementation to satisfy assessment criteria have been documented and filed with the original V&V documentation.

Attachment B (continued)

An EOP revision assessment evaluation was completed and documented on an April 18, 1991, letter to P. D. Yocum, Director-Plant Operations from T. J. Landin, EOP Coordinator. No additional action is required.

Open Item 461/91006-04:

While technical justification and documentation for PSTG deviations from the EPGs were generally adequate, deviations from the PSTGs to the EOP Flowcharts were not documented or justified.

IP Response:

In conjunction with the actions being taken to address Violation 3a, Open Items 2a, 5a and 5b, a controlled PSTG to EOP Flowchart deviation document will be developed.

The PSTG/EOP Flowchart deviation document will be completed and implemented with the revised EOP Flowcharts by April 15, 1992.

Open Item 461/91006-05a:

The human factors review concluded that the Writer's Guide was generally adequate; however, more restrictive guidance would ensure consistency in the EOPs.

IP Response:

Human factors concerns noted in the Inspection Report relating to more restrictive guidance in the Writer's Guide will be addressed during the development of the PSTG/EOP deviation document.

Revisions to the EOP Flowchart Writer's Guide will be completed by December 31, 1991, and will be implemented with the revised Flowcharts by April 15, 1992.

Open Item 461/91006-05b:

A broad range of inconsistencies between the Writer's Guide and the EOPs was identified.

IP Response:

Resolution of Violation 3a and Open Items 4 and 5a provide sufficient corrective action for the identified inconsistencies.

A revision to the EOP Flowchart Writer's Guide will be completed by December 31, 1991.

The PSTG/EOP Flowchart deviation document will be completed and implemented with the revised EOP Flowcharts by April 15, 1992.

Attachment B (continued)

Open Item 461/91006-05c:

The quality of the ECP support procedures (especially the 3000 series) was less than that of EOPs. Guidance was lacking in regard to format, organization, level of detail, etc. Because the support procedures are an integral part of the EOP network, more restrictive guidance (for both the 441X and 3000 series) would be necessary to ensure consistency and quality equivalent to that of the EOPs.

IP Response:

An EOP support procedure Writer's Guide will be developed concurrently with the upgrade of 3000 series procedure EOP actions into specific 441X series EOP support procedures. This action will be complete by July 31, 1991.