

ILLINOIS POWER COMPANY



1605-L
U-10036

CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

March 21, 1983

Docket No. 50-461

Mr. James G. Keppler
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Potential Deficiency 82-08
10CFR50.55(e)
Distribution Control for
Instrument Data Sheets

Dear Mr. Keppler:

On September 2, 1982, Illinois Power notified Mr. R. Knop, NRC Region III, (Ref: IP Memorandum Y-13906, 1605-L, dated September 2, 1982) of a potentially reportable deficiency concerning the lack of distribution control for instrument data sheets in use at Clinton Power Station (CPS). This initial notification was followed by two (2) interim reports (Ref: IP letter U-0560, D. P. Hall to J. G. Keppler, 1605-L, dated October 1, 1982, and IP letter U-10012, D. P. Hall to J. G. Keppler, 1605-L, dated December 4, 1982). Our investigation into this matter continues, and this letter represents an interim report per 10CFR50.55(e).

STATEMENT OF POTENTIALLY REPORTABLE DEFICIENCY

As a result of an Illinois Power Quality Assurance Special Surveillance (Y-13104, 4138-L, dated September 3, 1982), it was determined that the method of controlling the distribution of instrument data sheets was inadequate. This condition potentially allows for incorrect revisions of data sheets to be used during instrument procurement, receipt inspection, installation, and calibration activities, which could result in errors in documentation and instrument requirements.

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INVESTIGATION RESULTS/BACKGROUND

As a result of a Baldwin Associates (IP contractor) Quality Assurance Internal Audit (I-214) of instrumentation work, an audit finding was initiated that addressed a problem with certain temperature switches. These switches, although manufactured and purchased as safety-related under purchase specification K-2911, were receipt inspected as non-safety related and were being requisitioned for installation in safety related systems. This discrepancy is documented on, and is being dispositioned by, Nonconformance Report 6977.

During investigation of this problem, it was further identified that the instrument data sheets originally issued by Sargent & Lundy (CPS Architect - Engineer) as part of specification K-2911 have not been kept current with subsequent revisions of the data sheets. Several cases were identified where revised instrument data sheets changed safety/seismic classification of instruments. This problem was documented in a Baldwin Associates Corrective Action Request (CAR 094 dated June 4, 1982). An Illinois Power Quality Assurance Special Surveillance was performed in July, 1982 to evaluate the adequacy of document control for instrument data sheets. This surveillance found a lack of, or incorrect revisions of instrument data sheets in procurement specifications which could allow for errors in documentation and instrument requirements.

Investigation into the control of data sheets has found that instrument data sheets are issued by Sargent & Lundy (S&L) to the Baldwin Associates (BA) Document Control Center for insertion into instrument data sheet books. BA then distributes these sheets to individual bookholders utilizing a transmittal letter; however the books were not treated as controlled copies. Additionally, it was found that the latest revision of instrument data sheets were not always incorporated into the purchase specifications. Only those revisions that impacted the instrument vendor's scope were transmitted by Sargent & Lundy to the vendor. If no such impact existed, the data sheets were sent to individual book holders via the BA Document Control Center. The above conditions resulted in discrepancies between the data sheet revisions found in the purchase specification, and the instrument data sheet books distributed by the BA Document Control Center and held by individual book holders.

A review of the effects of utilizing improperly controlled instrument data sheets is substantially complete, and includes the effects on procurement, receipt inspection, installation and calibration of instruments under safety-related procurement specifications K-2801, K-2928, K-2911 and various bills of material contained in K-2882. The results and status of the review are as follows:

1. The investigation of instrument data sheets transmitted by letter from Sargent & Lundy to General Electric (CPS

NSSS contractor) for procurement under K-2801 is complete. This investigation found discrepancies between the revisions of data sheets that are filed in the BA Document Control Center and those transmitted to General Electric on nineteen (19) data sheets. The difference in data sheets is a result of the S&L transmittal letters not being controlled and requiring receipt confirmation. However, the difference in data sheet information was corrected through the standard design drawing review cycle in which S&L reviews and approves drawings released for manufacturing. It was determined that although the discrepancy existed, there was no adverse impact on the procurement and receipt inspection of the affected instruments and that the correct instruments were supplied to CPS.

2. The investigation of instrument data sheets furnished by Sargent & Lundy and utilized by Baldwin Associates for procurement of instruments under K-2882, (BA Phase II Piping, Misc. Equipment and Equipment Erection) bills of material 008, 009, 010, 023, and 024, found discrepancies between the revision of data sheets that are filed in the BA Document Control Center and those posted in the procurement specification on forty-nine (49) data sheets. The difference in revision of data sheets is a result of the data sheets being revised for minor editorial revisions or to note that they were "released for construction", and did not revise instrument requirements. Each case was evaluated and was found not to have an impact on the procurement and receipt inspection of the instruments.
3. Investigation of instrument data sheets furnished by Sargent & Lundy for procurement of instruments under K-2928 (Radiation Monitoring Equipment) found no discrepancies between the revision of data sheets filed in the BA Document Control Center and those used for procurement. All items procured by this specification were procured and receipt inspected to data sheets of revision "A", and no changes have been made to the data sheets since they were procured.
4. Investigation of instrument data sheets furnished by Sargent & Lundy for procurement of instruments under K-2911 (MCC Powers - HVAC Controls) found discrepancies between thirty three (33) data sheets used for procurement and the latest revisions presently required for procurement. Review of the data sheets in question revealed that a total of forty-three (43) instruments were affected by the discrepancy between data sheets, tabulated as follows:
 - a. thirty-three (33) non-nuclear safety related instruments were purchased to the incorrect

revision of data sheet and require rework or replacement. There is no interaction of these instruments with safety related functions.

- b. ten (10) instruments (solenoid valves), were purchased to data sheets classified as non-1E, that had subsequently been revised to 1E. The revisions were not identified during the procurement process and non-1E solenoids were supplied to CPS.

The root cause for the ten (10) instruments being procured to outdated data sheets was the method of transmitting data sheets from Sargent & Lundy to the HVAC Controls Contractor, MCC Powers Co. (K-2911 specification), by letter instead of controlled distribution methods. Illinois Power is presently evaluating the utilization of the incorrect instruments at CPS and the potential impact on the safety of operation of CPS had the error gone undetected.

Investigation into the use of instrument data sheets for installation and inspection found that instrument data sheets are not used during installation by Baldwin Associates or MCC Powers Co. Therefore, the installation and associated installation documentation of instruments has not been affected as a result of inadequate controls on the distribution of instrument data sheets.

Investigation into the use of instrument data sheets for calibration found that Illinois Power Company's Startup organization calibrates those plant instruments at CPS that require calibration. A review was performed of Startup's copy of the instrument data sheet book, and discrepancies were identified between this book and the master instrument data sheet book maintained in the Document Control Center. These discrepancies occurred as a result of uncontrolled distribution of instrument data sheets to the book holders. Each discrepancy was reviewed by IP Startup to determine the potential effect on the calibration of the instrument, and no adverse impact was identified.

An investigation was also made to determine if other instrument related documents exist that lack distribution control. The investigation revealed that Instrument Set Point Logs are distributed in the same manner as instrument data sheets. These documents have not yet been used for instrument calibration activities at CPS, therefore no adverse impact on plant hardware or documentation has occurred as a result of this problem. Similarly, Relay Setting Sheets were also not being issued and controlled properly. As these sheets have been used to set safety-related relays, an investigation into the use of these uncontrolled documents was performed. This investigation found that all relays previously set on safety related busses utilizing uncontrolled setting sheets coincide with the correct settings specified on the now-controlled documents.

CORRECTIVE ACTION

Corrective actions have been, or are in the process of being taken to correct the problems identified above, and to prevent recurrence, as follows:

1. Instrument Data Sheet Books issued to individual bookholders have been collected and re-issued as "Controlled Copies."
2. Discrepancies between the master instrument data sheet book and those books held by the individual bookholders have been identified and noted in each book. These books are being corrected and brought up-to-date as Sargent & Lundy issues revised data sheets to Baldwin Associates for distribution. The index sheet for the individual instrument data sheet books will also be corrected and distributed to the bookholders.
3. A computer information system for the instrument data sheets for latest revision has been established by the Baldwin Associates Document Control Center.
4. The Instrument Setpoint Log sheets have been recalled and re-issued as "Controlled Copies."
5. Sargent & Lundy has revised their methods of issuing instrument data sheets. These methods include:
 - a. The issuance of revised data sheets by formal amendments or engineering change documents to the purchase specifications/bills of material, when the purchase specifications/bills of material are active.
 - b. After receipt inspection of the instruments (i.e. procurement specification no longer active) revised data sheets will continue to be transmitted by S&L to the Baldwin Associates Document Control Center for controlled distribution to bookholders.
 - c. For instruments provided and installed under contract K-2911, the specification instrument data sheets will be maintained current until the specific system turnover, after which, revised data sheets will be transmitted by S&L to the Baldwin Associates Document Control Center for controlled distribution to bookholders.

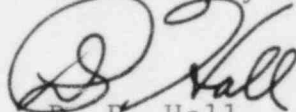
6. An Engineering Change Notice (ECN 3243) superseding ECN 3204, has been issued to incorporate into contract K-2911, the latest revisions of instrument data sheets as of October 25, 1982. Additional ECNs have been issued since that date to keep the specification current.
7. The Relay Setting Sheets have been recalled and re-issued as "Controlled Copies."
8. MCC Powers is presently writing nonconformances reports to obtain dispositions for the ten (10) safety-related instruments (solenoid valves) that were purchased incorrectly under K-2911.

SAFETY IMPLICATIONS/SIGNIFICANCE

Investigation has identified where ten (10) incorrect safety-related instruments were purchased as a result of inadequate distribution control of instrument data sheets. These ten instruments are presently being evaluated to determine the significance on plant safety, had the errors gone undetected. In parallel to this effort, nonconformance reports are being generated to document and obtain disposition of each incorrect instrument. It is anticipated that approximately sixty (60) days will be necessary to complete this portion of investigation, determine reportability, and to file our final report by May 10, 1983.

We trust that this interim letter provides you sufficient information to perform a general assessment of this potential reportable deficiency and overall approach to resolution of the problem.

Sincerely yours,



D. P. Hall
Vice President

cc: H. H. Livermore, NRC Resident Inspector
Director, Office of I&E, Washington, DC 20555
Illinois Department of Nuclear Safety
Manager-Quality Assurance
INPO Records Center