

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No.: 50-455/85025

Docket No.: 50-455

License No.: CPPR-131

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Byron Station, Unit 2

Inspection at: Byron Station, Byron, IL

Inspection Conducted: July 16 - September 16, 1985

Inspectors: J. M. Hinds, Jr.
K. A. Connaughton

Approved By: *W. L. Forney*
W. L. Forney, Chief
Reactor Projects Section 1A

9/25/85
Date

Inspection Summary

Inspection on July 16 - September 16, 1985 (Report No. 50-455/85025(DRP))

Areas Inspected: Routine, unannounced safety inspection by the resident inspectors of licensee action on IE Bulletins; 10 CFR Part 21 reports; preoperational test result evaluation verification; system flush procedure review; system flushing activity; housekeeping/care and preservation of safety related equipment; allegations (2); and other activities. The inspection consisted of 114 inspector-hours onsite by 2 NRC inspectors including 24 inspector-hours during off-shifts.

Results: Of the eight areas inspected no violations or deviations were identified, and no issues were identified which might indicate potential public health and safety concerns.

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DETAILS

1. Persons Contacted

Commonwealth Edison Company

T. Maiman, Manager of Projects
V. I. Schlosser, Byron Project Manager
*R. Tuetken, Byron Startup Superintendent
R. Querio, Byron Station Manager
G. Sorensen, Byron Project Construction Manager
*F. Hornbeak, Unit 2 Technical Staff Supervisor
*R. Klingler, Project Quality Control Supervisor
*J. Woldridge, Quality Assurance Supervisor
J. Binder, Project Electrical Supervisor
D. Pyatt, Project Construction
D. Kruger, Technical Staff
*J. Langan, Technical Staff
P. Anthony, Technical Staff
*E. Martin, Quality Assurance Superintendent

The inspectors also contacted and interviewed other licensee and contractor personnel during the course of this inspection.

*Denotes those present during the exit interview on September 16, 1985.

2. Inspection and Enforcement Bulletins (IEBs) (92703)

(Open) IEB 81-02: "Failure of gate type valves to close against differential pressure". The licensee's file response does not include verification of completion of modification to all valves identified in CEC letter Swartz to NRC-Keppler dated July 8, 1981. This bulletin will remain open pending receipt of verification of completion of the remaining required modifications.

3. 10 CFR Part 21 Reports (92716)

(Closed) Part 21 Report (455/84-01-PP): Environmental qualification of viton seals used in post-LOCA Hydrogen recombiners manufactured by Rockwell International. The licensee has received and installed the qualified replacement seals specified by the vendor. Installation of the seals was completed after receipt of all required certification documents. The inspector verified by review of material receipt reports, mechanical joint process sheets and job traveler packages that the affected viton seals identified in this Part 21 report have been replaced.

4. Preoperational Test Result Evaluation Verification (70329)

The inspector reviewed flushing documentation for completed flushes to verify that the completed flushing procedures, results, evaluations, records of temporary alterations, equipment closures and outstanding deficient conditions were included in accordance with the Byron Flushing Manual and that all required reviews and approvals had been obtained. Documentation reviewed covered the following system flushes:

Feedwater System Flush	2.034.52
Diesel Generator 2B Lube Oil	5.022.53
Service Air, Diesel Generator 2B Starting	5.070.54

No violations or deviations were identified.

5. System Flushing Procedure Review (70333)

The inspector reviewed Byron Unit 2 Flush Procedure 2.018.53, "Chemical and Volume Control System," Revision 0, dated December 28, 1984, against the requirements of the licensee's quality assurance manual, the Byron Flushing Manual, and ANSI N45.2.1, "Cleaning of Fluid Systems and Associated Components During the Construction Phase of Nuclear Power Plants," dated 1973 as endorsed and supplemented by NRC Regulatory Guide 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Watercooled Nuclear Power Plants," Revision 0, dated March 7, 1973.

Specifically, the inspector verified that the subject procedure had received required reviews and approvals including reviews against 10 CFR 50.59 considerations; specified prerequisites; properly specified system cleanliness requirements, including influent and effluent water quality; included marked up piping and instrumentation diagrams (P&IDs) to delineate flush paths and sample points and; provided for documented verifications of installation and removal of temporary system alterations.

No violations or deviations were identified.

6. System Flushing Activities (70433)

The inspector reviewed the Byron Flushing Manual, Revision 5, dated May 7, 1984. This document included specific guidance concerning the development, review and approval of system flushing procedures, system flush performance, flushing medium chemistry requirements, approved solvents for chemical cleaning, flushing and chemical cleaning acceptance criteria, flush results evaluation and approval, flush documentation requirements and post-flush controls for maintaining cleanliness. The inspector determined that this document was consistent with the guidance provided in ANSI N45.2.1, "Cleaning of Fluid Systems and Associated Components During the Construction Phase of Nuclear Power Plants," dated 1973 as endorsed and supplemented by NRC Regulatory 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Watercooled Nuclear Power Plants," Revision 0, dated March 7, 1973.

The inspector interviewed licensee operating and technical staff personnel during the performance of Chemical Volume Control System Flush 2.018.52 to verify that procedures including marked-up Piping and Instrumentation Drawings (P&IDs) showing the boundaries and flowpaths for the flush were available and in use as prescribed by the Byron Flushing Manual. The inspector walked-down the portion of the Chemical Volume Control System being flushed to verify configuration, including temporary piping was in accordance with the controlling flush procedure.

No violations or deviations were identified.

7. Housekeeping/Care and Preservation of Safety Related Components (92706)

The inspectors conducted plant tours of Unit 2 between July 16 and September 16, 1985. Areas of the Unit 2 plant observed during the tours included the containment, fuel handling and storage areas, auxiliary building areas including the Unit 2 portion of the control room, and the turbine building. Areas were inspected for work in progress, state of cleanliness, overall housekeeping, state of fire protection equipment and methods being employed, and the care and preservation of safety-related components and equipment. The inspectors paid particular attention to areas identified to the licensee during the previous inspection period as requiring increased attention to establish and maintain levels of cleanliness commensurate with the current stage of Unit 2 construction. The inspectors determined that licensee actions continued to be effective in the previously identified areas.

No violations or deviations were identified.

8. Allegations Concerning Control of Rebar Cutting and Control of Quality Records by Hatfield Electric Company (HECo) (RIII-85-A-0060) (99014)

- a. Allegation: Quality control inspection documentation cannot be found for many items. When these exceptions are identified to CECo at the time of equipment turnover, the items are accepted and the quality control inspection documentation is not reestablished. Findings: When this allegation was received by the inspector on June 3, 1985, the inspector asked the alleger for specific instances where the alleged practice had occurred including affected equipment identification, dates of occurrence and any other details which would substantiate the allegation. The alleger stated that he could not recall any such information.

Due to the non-specific nature of this allegation, the inspector requested and received a historical overview of HECo's system of quality records. This overview included: a listing of all required record types by HECo form number; a breakdown as to which records required supporting inspections to be performed prior to record closeout along with identification of supporting inspections and; a chronology, broken down by HECo procedure, defining the scope of various inspection types and the manner in which they were documented.

Based upon this overview the inspector determined that inspection and documentation requirements had evolved considerably over time since HECo began work on the Byron project in 1976. Therefore one would not expect that current documentation requirements would be met for all items. For example, conduit and conduit support documentation had changed both in form and scope. Originally, inspection was done on a sampling basis by drawing areas and was documented on different inspection report forms than those which are currently in use and required for 100% of current conduit and

conduit support installations. Both methods were part of a qualified quality assurance program.

These variations, over time, were acknowledged when defining those quality records required to be retained and turned over to CECo upon completion of construction. The primary source for determining which records had to be accounted for at the time of turnover were the HECo inspection report logs which contained unique, sequentially issued numbers for each inspection type.

The inspector examined the document turnover process to ascertain how required documents were accounted for by the licensee, how missing records were dispositioned and, the current status of document turnover. Specifically, the inspector interviewed licensee personnel and was informed that the CECo QA organization performed a review of specification, codes and standards to determine what documentation was required. This information was then reconciled with HECo's system of quality records to identify record types and quantity of each to be turned over. Criteria for record completeness were also developed by the licensee and provided to HECo.

HECo submitted records to the licensee in a number of transmittals. Each transmittal coversheet provided an index of sequentially listed inspection report numbers included in the transmittal. The licensee reviewed each transmittal to verify that all records identified on the index were included. The licensee also reviewed a 10% sample of the records included in the transmittal to verify document completeness in accordance with the previously established criteria.

Records which were not immediately retrievable for inclusion in a particular transmittal were identified by HECo as "exceptions." The exceptions were being tracked by HECo until either the document was subsequently found or until completion of record turnover. Those exceptions which remained upon completion of document turnover were to be converted to Nonconformance Reports (NCRs), evaluated and dispositioned in accordance with HECo and licensee procedures.

In response to inspector questions concerning the handling of identified exceptions, the licensee revised Site Quality Instruction (SQI)-22, "Review and Turnover of On-Site Documentation" on June 27, 1985. This revision expanded the scope of the licensee's documentation review to include independent tracking and followup of exceptions. This expanded review provided additional assurance that upon completion of turnover, all records unaccounted for will be identified and subject to appropriate disposition.

At the time of this inspection, no HECo quality records had undergone final acceptance by the licensee. Acceptance by the licensee is not required for acceptance of the work or operability. HECo review and transmittal of records had occurred and exceptions had been identified. Some exceptions had been dispositioned by subsequent retrieval of the records. Remaining exceptions had not yet been dispositioned using the procedures. Licensee procedures

have been reviewed and are considered adequate for the handling of HECQ quality records.

This allegation is considered closed.

- b. Allegation: Conduit Installation Reports (CIRs) do not exist for certain installations. HECQ QC had requested that production establish this documentation but that production refused to do so.

Findings: CIRs are production documents, not quality control records, which were not required by procedure until March 15, 1984, when HECQ Procedure No. 20, "Class 1 Exposed Conduit Installation," Revision 14 was issued. Conduit installation reports (HECQ Form No. HP 204) were generated by HECQ production upon completion of construction and after preliminary inspections of the installations. CIRs were a prerequisite for cable installation in conduit runs and served as a means of informing the QC organization that the conduit runs were ready for formal QC inspection. QC inspections could thus take place before or after cable installation. For conduit installations completed prior to March 15, 1984, and for which cables had yet to be installed, the current procedure was invoked requiring generation of CIRs as a prerequisite to cable installation.

Prior to March 15, 1984, formal QC inspections of conduit runs were required to be complete and acceptable as a prerequisite to cable installation. The absence of CIRs for conduit installed prior to this date did not therefore adversely impact the scheduling and performance of QC inspections.

The portion of the allegation concerning production's refusal to establish CIRs did not detail the circumstances surrounding this refusal. The inspector interviewed HECQ QA/QC management and supervisory inspection personnel to determine if they were aware of any of the alleged instances. They replied that they were not but offered that perhaps there were instances where QC inspectors in the field had asked craft personnel to perform certain tasks and were told that they could not comply unless so instructed by production supervision. The normal path for resolving any such conflicts would be to bring the matters to the attention of QA/QC supervisory and management personnel.

This allegation is considered closed.

- c. Allegation: HECQ procedure No. 21, "Core Hole Requests and Inspection" requires that where drawings indicate that rebar cutting is not allowed, and where rebar is cut, a nonconformance report (NCR) be generated. QC inspectors are restrained from writing NCRs in many such instances.

Findings: Based upon discussions with the alleged following receipt of this allegation the inspector learned that the allegation was based upon second hand information. The alleged could not provide details as to specific instances where the alleged practice had

occurred. The alleged also would or could not identify the individuals directly involved in the alleged practice.

The control of rebar cutting during core hole drilling concrete expansion anchor installations was previously reviewed and documented in NRC inspection report (455/85006(DRP)). This review included HECO and other contractors. The controls were found to be adequate, however, implementation was subject to only a limited review.

Based upon the lack of specific information provided in support of this allegation, the inspector reviewed approximately 175 Facility Change Requests specifying core holes to be drilled and corresponding Core Hole Reports (CHRs) which documented in-process QC inspections of cored holes by HECO for all core holes drilled since January 1, 1985. At the time of inspection the QC inspectors annotated the CHRs to indicate whether or not rebar cutting was allowed. All CHRs reviewed were correctly annotated in this regard. The QC inspectors also indicated whether or not rebar cutting had occurred. In all instances where rebar cutting had occurred and was not allowed, an NCR was issued and the NCR number specified on the CHR.

This allegation is considered closed.

No violations or deviations were identified.

9. Allegation Concerning Suspected Drug Use (99014)

Allegation: On August 26, 1985, the licensee notified the Senior Resident Inspector of an allegation received related to suspected drug use. This allegation was received in the form of an anonymous phone call from a concerned citizen to an Employee Assistance Program (EAP) coordinator at the Rock River Division offices. The caller identified an employee at Byron Station whom the alleged had reason to believe may be using drugs. The employee named in this allegation was a non-management, non-licensed administrative employee whose duties and assignments do not involve safety related work. The caller agreed to supply additional information as required to support CECO's investigation of the allegation.

Findings: In keeping with the licensee's drug awareness program on August 26, 1985, the individual was relieved of all duties at the Byron Station, his photo identification security badge and access key-card was revoked and he was immediately removed from the payroll pending the outcome of chemical testing for drugs.

On August 29, 1985, the individual was tested by observed specimen urinalysis for drug use by a CECO physician at the licensee's Rockford medical facilities. The results of this test were positive and the individual was maintained in a suspended status subject to further testing.

On September 4, 1985, the individual was again tested by observed sample urinalysis for drug use by a CECco physician at the licensee's Chicago medical facilities. The results of this test were negative.

On September 5, 1985, the senior CECco physician reviewed this case and based on recommendations of a Chicago Office EAP supervisor and the negative urinalysis results declared the individual fit for duty.

On September 6, 1985, the individual was readmitted to the site, rebadged, and interviewed by a board consisting of station managers, supervisors, and union representatives. The individual was advised of his probationary status, required to participate in six months counseling with Rockford EAP personnel and is subject to random spot check urinalysis testing for drug use.

Failure on the part of the individual to complete the counseling program, pass urinalysis tests or live up to other CECco performance requirements would result in termination without further cause. This allegation is considered closed.

No violations or deviations were identified.

10. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. An open item disclosed during the inspection is discussed in Paragraph 2.

11. Exit interview (30703)

The inspectors met with licensee representatives denoted in Paragraph 1 at the conclusion of the inspection on September 16, 1985. The inspectors summarized the purpose and scope of the inspection and the findings. The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents/processes as proprietary.