

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos: 50-454/84-19(DPRP); 50-455/84-14(DPRP)

Docket Nos: 50-454 and 50-455

License Nos: CPPR-130; CPPR-131

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

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Station, Byron, IL

Inspectors: J. M. Hinds, Jr. *RC Huq for* 5-10-84
Date

K. A. Connaughton *RC Huq for* 5-10-84
Date

R. Lerch *RC Huq for* 5-10-84
Date

Approved By: D. W. Hayes, Chief *RC Huq for* 5-10-84
Projects Section 1B Date

Inspection Summary

Inspection on March 1 through April 30, 1984 (Report Nos. 50-454/84-19;
50-455/84-14(DPRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors and project inspector of Licensee actions on previous inspection findings, SER Items, IE Bulletins, IE Circulars, Emergency Operating Procedures, Safety Committee Activities, Preoperational Test Results, Plant Tours/Housekeeping, and Allegations. The inspection involved a total of 392 inspector-hours onsite by three NRC inspectors including 35 inspector-hours during offshifts.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Commonwealth Edison Company

- V. I. Schlosser, Project Manager
- R. Tuetkin, Startup Coordinator
- *R. Querio, Station Superintendent
- M. Loehman, Project Construction Assistant Superintendent
- R. Klingler, Project Construction Quality Control Supervisor
- *R. Ward, Assistant Superintendent, Administrative & Support Services
- *H. Studtmann, Quality Assurance General Supervisor
- L. Sues, Assistant Superintendent, Maintenance
- *W. Burkamper, Quality Assurance Supervisor, Operating
- T. Joyce, Operating Shift Oversight Superintendent
- *D. St. Clair, Technical Staff Supervisor
- F. Hornbeak, Technical Staff Supervisor
- W. Dean, Assistant Technical Staff Supervisor, Licensing
- *E. Grennan, Licensing Staff
- J. Poche, Licensing Staff
- S. Devine, Electrical Group Leader, Technical Staff
- B. Milner, Primary Group Leader, Technical Staff
- *K. Hansing, Quality Assurance Site Superintendent
- S. Altmayer, Quality Assurance Auditor
- L. Woldridge, Quality Assurance Lead Auditor
- *L. Johnson, Quality Assurance Engineer

Johnson Controls, Inc.

- B. Shah, Quality Assurance Manager
- S. Pearson, Lead Quality Control Inspector

Westinghouse

- J. Daily, Training Engineer

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 April 30, 1984.

2. Licensee Action on Previous Inspection Findings

- a. (Closed) Open Item (454/82-15-04; 455/82-10-04): "Delineation of Scope and Dissemination of Standing and Daily Orders". The inspector reviewed Byron Administrative Procedures (BAP's) 300-3, "Daily Order Book", Revision 4, dated April 20, 1984, and 1500-1, "Standing Operating Orders", Revision 4, dated April 4, 1984. BAP 300-3 had been revised to prohibit the use of Daily Orders as a substitute for either permanent or temporary plant procedures. The inspector considers limitations on the scope of Standing and Daily Orders to be adequately specified by procedure. BAP 1500-1 had been revised to require that copies of new and cancelled Standing Orders be

distributed to the Operating, Maintenance and Administrative and Support Services Assistant Superintendents. These individuals were then required to review the Standing Orders for impact on activities of departments under their direction and to disseminate the Standing Orders, as necessary, in a timely manner. The current requirements of BAP 300-3 and BAP 1500-1 provide adequate assurances that affected personnel are notified of Standing and Daily Orders in a timely manner. This item is considered closed.

- b. (Closed) Open Item (454/83-18-03; 455/83-15-03): "FSAR Amendments Required for Nonconformances Dispositioned "Use-As-Is". By letter dated September 26, 1983, from D. L. Farrar to J. G. Keppler, the Licensee provided the results of a re-review of 125 Nonconformance Reports (NCR's) previously dispositioned "use-as-is". The purpose of the review was to demonstrate the adequacy of design control procedures to assure that FSAR amendments were made, where necessary, as a result of NCR's being so dispositioned. Based upon this review the Licensee determined that, without exception, FSAR amendments were made as required. During this inspection, the inspector independently reviewed the following NCR's which were randomly selected from the population of NCR's re-reviewed by the Licensee:

NCR No.

F-80
F-91
F-203
F-240
F-308
F-362
F-410
F-420
F-520
F-524
F-601
F-606
F-702
F-707
F-800
F-809

The inspector determined that the nonconforming conditions described in the above listed NCR's and dispositioned "use-as-is" did not violate current FSAR commitments. This item is considered closed.

- c. (Closed) Open Item (454/83-21-01; 455/83-16-01): "Discrepancy Reports (DR's) Not Annotated on Cable Pan Hanger Inspection Checklists". This matter was previously identified by an allegation received on August 16, 1982. Investigation of this allegation and resolution of this issue was documented in NRC Inspection Report Nos. 50-454/82-17; 50-455/82-12. The inspection report provided the following discussion:

"The allegor stated that the Pan Hanger Installation Checklist does not have space to record the NCR's/DR's on the checklist.

The inspector reviewed the installation checklists in use by Hatfield and it was observed that the checklists had a space marked Corrective Action and/or Comments where an NCR or DR number could be entered by the QC inspector. As a general rule, Hatfield procedures do not require NCR/DR numbers be annotated on inspection checklists. The inspector informed the allegor that although it was a good idea, there was no regulatory requirements that required the Licensee or contractors to list the subject document numbers on the checklist. The NRC's basic requirement is that the applicable documents for a given item be retrievable. During a review of NCR's, DR's, FCR's, weld travelers, inspection checklist, etc., the inspector observed that the applicable item number (hanger, pan, conduit, equipment, etc.) was annotated on the various documents thereby making them retrievable if properly filed."

To further facilitate cross referencing inspection documentation and corrective action documentation, a computer-based data management system has been employed. Quality documentation is indexed on this system in a manner which allows sorting Inspection Reports, DR's and NCR's by drawing area. A simple manual search of documents for any given drawing area can then be performed to identify those pertaining to a particular item. This item is considered closed.

- d. (Closed) Open Item (454/84-15-01; 455/84-11-01): "Overtime Policy for Personnel Performing Safety Related Activities". The inspector reviewed Byron Administrative Procedure (BAP) 100-7 "Overtime Guidelines for Personnel That Perform Safety Related Functions", Revision 2, dated April 12, 1984. The procedure has been revised to include additional requirements for reporting the use of overtime to corporate management and to specify corrective action when overtime is necessary for periods exceeding three months. These requirements were previously contained in Byron Operating Department Administrative Procedure BAP 300-2, "Shift Manning and Overtime Policy", Revision 4, dated August 28, 1983. BAP 300-2 has been revised to delete overtime policy requirements. The Operating Department as well as all other departments will adhere to the requirements currently contained in BAP 100-7. This item is considered closed.
- e. (Closed) Open Item (454/84-15-04; 455/84-11-04): "Maintenance Procedure Governing Torque Switch Settings for Motor Operated Valves". The inspector reviewed Byron Electrical Maintenance Procedures BHP 4200-39, "Setting Torque Switches on Limitorque Valve Operators", Revision 1, dated April 12, 1984, and BHP 4299-A4, "Torque Switch Settings of Motor Operated Valves," Revision 0, dated April 20, 1984. These approved procedures properly specify the use of torque switch minimum settings provided by the valve manufacturers in lieu of lower settings provided by limitorque, the valve operator manufacturer. Deviations from the initial torque switch settings on

safety related valves will be treated as a "setpoint change" and require prior review and approval in accordance with 10 CFR 50.59. This item is considered closed.

- f. (Closed) Unresolved Item (454/84-15-06(DPRP); 455/84-11-06(DPRP)): "Containers Processed Indicated a Negative or Zero Pressure". This item pertained to new fuel shipping containers being utilized in the shipments of new fuel to the Byron Station Unit 1 for the initial core load. In response to concerns related to new fuel shipping container pressurization, Westinghouse provided memo 84CB*-6-011 dated March 28, 1984. The Westinghouse Nuclear Fuel Division new fuel shipping containers were routinely pressurized for domestic shipments until the mid nineteen sixties. Pressurization of the new fuel containers was discontinued when experience showed that non-pressurized containers with their shells and seals were adequate for all environments encountered and that pressurization did not provide a significant additional benefit. With respect to Westinghouse document F-4 "Site Removal of Fuel Assemblies from Shipping Containers and Handling of Shipping Containers, Rev. 7", this document is in the process of being updated to include pictures of new fuel containers that reflects the current methodology. No specific time has been established for final issuance of the F-4 document. This item is considered closed.
- g. (Closed) Open Item (454/83-26-01(DPRP); 455/83-19-01(DPRP)): "No Quality Assurance (QA) Audits or Surveillances Have Been Conducted to Verify Reinspection Program is Effectively Implemented as of 6/10/83". The inspector requested and the Licensee supplied the following audit and surveillance report information:

<u>Audit/ Surveillance Report No.</u>	<u>Dates</u>	<u>Findings</u>	<u>Observations</u>	<u>Audit Close- out Report or Status</u>
6-83-66	6/21/83 - 7/06/83	1.A		Closed 5189
		1.B		Closed 52021R.1
		1.C		Closed 4939
		1.D		Closed 5197
			1.A.	Closed 5188
			1.B.	Closed 5210
			2.	Closed 5211
			3.	Closed 4939
			4.	Closed 5199
			5.A.	Closed 5187
		5.B.	Closed 4948	
		6.	Closed 5196	
		7.	Closed 5199 and 5287	
		8.	Closed 5210	
6-83-124	8/24/83 - 9/1/83	1.		Closed 5275
		2.		Closed 5274
			1.	Closed 5276

<u>Audit/ Surveillance Report No.</u>	<u>Dates</u>	<u>Findings</u>	<u>Observations</u>	<u>Audit Close out Report or Status</u>
6-83-93	11/14/83 - 11/17/83	1. 1.		Closed 5795 Closed 5607
5682	1/21/84	1.		Closed 5682
5700	1/23/84	1.		Closed 5700

The inspector reviewed the Commonwealth Edison Company (CECo) Quality Assurance Manual Audit and Surveillance Reports listed above. Based on the nature and status of the findings and observations it was determined that Project Construction Department QA oversight of the Byron Reinspection Program was in place and being effectively implemented during the period of June 21, 1983 to January 23, 1984. This item is considered closed.

3. Licensee Action On Commitments Identified In The Byron Safety Evaluation Report (SER)

- a. (Closed) SER Open Item (454/83-00-02(DPRP)): "Addition Of An Outer Screen At The Containment Recirculation Sump, SER Section 6.2.2." The inspector reviewed the latest revisions of drawings S-904, S-905, S-995, S-996 and S-1065 which detail the screen installation. The inspector visually examined the completed screen installation for Unit 1, however, the screen was not installed in Unit 2. Therefore, this item is closed for Unit 1 only.
- b. (Closed) SER Open Item (454/83-00-04(DPRP)): "New Containment Isolation Valves on the Hydrogen Recombiner Redundant Supply and Return Lines Outside Containment, SER Section 6.2.4." The inspector reviewed the system Piping and Instrument Diagram, M-47, Rev. M, and portions of preop test 2.26.10 and verified that the required containment isolation valves were included in the system design and tested to verify automatic closure on receipt of a Phase A containment isolation signal. The installed valves and the control room switches and valve position indicators were physically verified. The Class 1E emergency power source(s) for the isolation valves and hydrogen recombiners is not as described in SER Section 6.2.5, however, the deviations have been reported in a letter dated February 22, 1984, to the Office of Nuclear Reactor Regulation and are acceptable. This will be reflected in a supplement to the SER. The Licensee reported that the Unit 2 valves are not installed. This item is closed for Unit 1 only.
- c. (Closed) SER Open Item (454/83-00-05(DPRP)): "Chill Water Return Lines Containment Isolation Valves (Inside Containment), SER Section 6.2.4." The inspector reviewed the latest revisions of drawing M-568, Sheets 3, 4, 7 and 8, and observed the installed valves, 1W0056A and B. Positive valve position indication and remote-manual control switches were also verified in the control room. A Phase A isolation signal test is included in Test 2.26.10.

Installation is not complete in Unit 2, so this item is closed for Unit 1 only.

- d. (Open) SER Open Item (454/83-00-06(DPRP)): "Upgrading of Essential Service Water Lines To and From Reactor Containment Fan Coolers and Addition of a Debris Screen in the Miniflow Purge System Supply Duct, SER Section 6.2.4." The inspector reviewed the current revision of Drawing M-601, Sheet 1, for the debris screen addition. The screen is a grid of metal bars welded inside a duct spoolpiece. Inspection of the Unit 1 duct verified the installation of the spoolpiece. This part of the item is closed for Unit 1 only. Confirmation of system upgrading will be undertaken in a later inspection. This item is open pending this inspection.
- e. (Open) SER Open Item (454/83-00-11(DPRP)): "Tornado-Missile Protection For Diesel Generator Exhaust Stacks, SER Section 3.5.2." Inspection of current revisions of drawings M-556-7, M-556-9, M 50-1 and M 130-1 confirmed that the drawings were issued to modify the diesel generator stacks by adding a blow-out flange duct. Visual inspection verified that these ducts were installed. Blow-out flanges had been removed and a lower set pressure flange is under consideration based on exhaust pressure measurements taken during diesel generator testing. This item remains open pending Licensee resolution of this matter.
- f. (Closed) SER Open Item (454/83-00-18; 455/83-00-18(DPRP)): "Installation of Standby Condensate Cleanup System, SER Section 10.4.6." The inspector reviewed the current revisions of Byron Piping and Instrument Diagram M-39, "Condensate", sheets 4 and 5 which schematically illustrated the Condensate Polishing System included in the Byron design in accordance with the Licensee's commitment documented in the Byron SER. Based on discussions with Licensee personnel the inspector developed the following chronology for the design, construction and testing of the Byron Unit 1 and Unit 2 common Condensate Polishing System:

Design Complete/Construction Started	May 1982
Construction Complete/Turnover for Test	October 1983
System Demonstration Started	October 1983
System Demonstration Scheduled Completion	May 1984
Release for Operations Expected	May/June 1984

Based upon the completion of system construction and the foregoing schedule for release to operations, the system will be available well in advance of Byron Unit 1 power operation. This item is considered closed.

- g. (Closed) SER Open Item (454/83-00-23(DPRP)): "Hydraulic Operators for Steam Generators for Steam Generator PORV's, SER Section 7.4.2.3." The inspector physically verified that the four Steam Generator PORV's provided for in the Byron design have been installed. Redundant Class 1E power sources were provided for control and actuation (2 PORV's per division). Preoperational testing of the PORV's is being conducted in accordance with

preoperational test 2.51.11, "Main Steam (Safety Related - PORV's)". This item is considered closed.

4. Inspection and Enforcement Bulletins (IEB's)

- a. (Closed) IEB (454/80-15-BB; 455/80-15-BB): "Possible Loss of Emergency Notification System (ENS) With Loss of Offsite Power". The Licensee's response file indicated that the IEB states 5 concerns. Concerns 2 and 4, related to potential modifications and conditional 24 hour NRC notification, have been satisfied by the fact that the Byron Station's ENS is connected to a safeguards instrumentation bus connected to the Security Diesel Generator to provide reliable back-up power. Concern 1 dealt with a direct inspection of the ENS power source. This inspection revealed that the Byron Station ENS can be powered from either of the sources identified in the enclosures to the bulletin and when powered from the plant telephone system the supplying MCC (Security System MCC-033W3, OAP1JE) is automatically transferred, upon loss of offsite power, to a diesel generator thereby assuring operability during a loss of offsite power. Concern 3 dealt with a test to verify that all extension of the ENS at Byron remain fully operable on loss of offsite power. The test, CQ-15-20, was conducted as a functional pre-operational test and recorded in the CQ-15.20. Sequence of Events Log. Concern 5 specified an administrative control procedure to require a one hour NRC Operations Center notification when one or more ENS extensions are found inoperable. Byron Procedure, BZP-500 was issued to address this concern and stated the one hour notification requirement. This bulletin is considered closed.
- b. (Closed) IEB (454/82-03-BB; 455/82-03-BB): "Stress Corrosion Cracking In Large-Diameter Stainless Steel Recirculation System Piping BWR Plants". The Licensee's response file indicated that Commonwealth Edison Company (CECo) had participated in a meeting as documented in the "Meeting Minutes Regarding Possible NRC Actions Concerning Nuclear Plants Previously Inspected Under IE Bulletins 82-03 and 83-02 BWR IGSCC - October 21, 1983." The CECO Nuclear Stations referenced in the meeting minutes included Dresden, Quad Cities and LaSalle, all BWRs. No reference to the Byron Station or any other CECO PWR was identified, therefore this IEB is not applicable to the Byron Station. This bulletin is considered closed.
- c. (Closed) IEB (454/83-04-BB; 455/83-04-BB): "Failure of The Undervoltage Trip Function Of Reactor Trip Breakers". The Licensee's response file indicated that the bulletin stated five areas of concern. Concern 1 required surveillance tests of the undervoltage trip functions. The required testing was accomplished during pre-operational test RP 68.13 with results satisfactory. Concern 2 dealt with review of the maintenance program for conformance to the latest manufacturer's recommendation and actual implementation of the program. The approved Electrical Maintenance Procedure BHP-4200-15 addresses preventative maintenance and conforms to the latest vendor recommendations. Additionally, BAP-1260-1 governs the distribution, review, and implementation of Westinghouse Technical Bulletins and Vendor Advisories. Concern 3 required notification to all licensed

operators of the documented failure-to-trip events and to review applicable emergency operating procedures with each operator upon arrival on shift. The ATWS procedure (BFR-S1) includes the symptoms of a fail-to-trip condition and is required in the initial license training program. Additionally, the licensed operators are required to commit the immediate actions to memory per BAP 300-22, Conduct of Operations. Concern 4 required providing a description of all RPS breaker malfunctions not previously reported to the NRC and report of any failures as a result of testing required by this bulletin. No Byron Station breaker failures of this nature have been identified to date. Concern 5 required verification that procurement, testing and maintenance activities treat the RPS breaker and the UV devices as safety related and report verification to the NRC. Administrative Procedure BAP 400-6 implements this requirement. This bulletin is considered closed.

- d. (Closed) IEB (454/83-08-BB; 455/83-08-BB): "Electrical Circuit Breakers With An Undervoltage Trip Feature (UVTF) In Use In Safety-Related Applications Other Than The Reactor Trip System". The Licensee's response file indicated that Byron Station does not utilize any circuit breakers with a UVTF in any safety related applications outside the Reactor Trip System. Therefore, the concerns of the bulletin are not applicable to Byron Station. This bulletin is considered closed.

5. Inspection and Enforcement Circular (IEC's)

(Closed) IEC (454/77-16-CC; 455/77-16-CC): "Emergency Diesel Generator Electrical Trip Lockout Features". The inspector reviewed the Licensee's file response dated July 6, 1983, which stated that all electrical trip bypass functions would be verified by preoperational test. The inspector also reviewed Preoperational Test Procedure 2.22.10, R-168, Revision 2, which governed the subject testing. All required electrical trip bypasses were included with two exceptions. Crosstie Bus phase overcurrent and ground overcurrent trip bypasses are being added by modification to the diesel generator output breaker trip logic. These functions will be tested upon completion of the subject modification. This circular is considered closed.

6. Emergency Operating Procedures Review

a. General

Byron Unit 1 Emergency Operating Procedures (EOP's) have been written based upon the Westinghouse Owners Group (WOG) Generic Technical Guidelines, Revision 0. The generic WOG's were developed to comply with Item I.C.1 of the TMI Action Plan as clarified in NUREG 0737. Based upon discussions with the NRC Byron Licensing Project Manager, the inspector determined that the NRC staff has approved the Licensee's plans to base EOPs initially on the Revision 0 WOGs and to upgrade them to the Revision 1 WOGs by December 31, 1984. Upgrading the EOPs in accordance with this schedule will be made a License Condition. The procedures reviewed by the inspector were therefore

based upon the Revision 0 WOG's. The inspector's review included: The WOG's for selected EOP's, Procedure Change Sheets for the selected EOP's which identified deviations from the WOG's due to plant specific considerations, the Byron Emergency/Abnormal/Critical Safety Function Procedure Writers Guide and, an index of correlations required for the selected EOP's. The following EOP's were selected for review:

1 BEP-0	"Reactor Trip or Safety Injections", Revision 1
1 BEP-ES-0.1	"Reactor Trip Recovery
1 BEP-ES-0.2A	"Natural Circulation With No Accident In Progress"
1 BEP-1	"Loss of Coolant"
1 BEP-2	"Loss of Secondary Coolant", Revision 1
1 BEP-3	"Steam Generator Tube Rupture", Revision 1

Inspector comments and questions resulting from this review were provided to the Licensee. Issues which have yet to be resolved are discussed in paragraph b. and c. below. No items of noncompliance were identified.

b. Verification and Validation

The inspector asked Licensee personnel whether or not procedure walkthroughs have been performed in sufficient depth to verify that all local operator actions (e.g. local manual valve stroking) prescribed by the procedures can be accomplished under anticipated plant conditions and to identify any needed operating aids to accomplish such actions (e.g. operating platforms, chain operators, etc.). Licensee personnel indicated that all local actions contained in the current EOP's had not been specifically evaluated in this manner but that Verification and Validation efforts for EOP's to be written to the Revision 1 WOGs will include these types of evaluations. This matter remains open pending further review of the Licensee's actions. (454/84-19-01; 455/84-14-01)

c. Operating Instructions and Training for Local Actions

Based upon discussions with Licensee personnel the inspector was concerned that local operations prescribed in EOP's may require additional training of operators. An example provided by the inspector was manual stroking of MOV's which require that the motor operator be disengaged prior to stroking. The Licensee plans to evaluate training already provided to operating personnel and provide additional training, as necessary, to ensure that operating personnel possess the requisite knowledge to perform local actions prescribed in the EOP's. This matter remains open pending further review of the Licensee's actions. (454/84-19-02; 455/84-14-02)

7. Safety Committee Activity - Onsite Review Program

The inspector reviewed the following Byron Administrative Procedures (BAP's) which collectively describe the onsite review program.

<u>Procedure No.</u>	<u>Title</u>	<u>Revision/Date</u>
BAP 1210-1	"On-Site Review Functions"	1/ 10/20/82
BAP 1210-2	"Selection of Personnel to Participate in the On-Site Review and Investigative Functions"	0/ 4/16/82
BAP 1210-3	"Certification of Participants to ANSI Recognized Discipline Standards"	0/ 4/16/82
BAP 1210-T1	"On-Site Review Activity Report"	1/ 10/20/82
BAP 1210-T2	"Discipline Qualifications for Byron Station Onsite Review and Investigative Function Activity"	4/ 3/26/84
BAP 1210-T3	"Certification of Participants to ANSI Recognized Discipline Standards"	0/ 4/16/82
BAP 1210-T4	"Onsite Review Signature Requirements"	1/ 11/23/82

The inspector verified that these procedures included: A description of responsibilities and authorities for conducting onsite reviews; review group membership, including measures for establishing individuals' area(s) of qualification and required areas of qualification to be represented for various review activities; requirements for maintaining and distributing minutes and records of review group activities and provisions for followup action to resolve identified deficiencies. The inspector noted that interfaces with the Offsite Review and Investigative Function is not described in these procedures. Technical Specification 6.3.2.b.7 of the Proof and Review Copy dated December, 1983, provided that the Onsite Review and Investigative Function perform special reviews at the request of the Supervisor of the Offsite Review and Investigative Function. The inspector informed the Licensee that the applicable procedure (BAP 1210-1) should be revised to reflect this interface. The inspector reviewed the procedures to determine whether or not the areas of review required by Chapter 13 of the Byron FSAR and Section 6 of the Byron Technical Specifications were included. With regards to Chapter 13 of the FSAR, the procedures were satisfactory. With regards to the Technical Specifications, the following items requiring onsite review were not included in the procedures:

<u>Technical Specification No.</u>	<u>Items To Be Reviewed</u>
6.3.2.b 1) (2)	All programs required by Specification 6.2 and changes thereto.
6.3.2.b 10)	Review of Unit operations to detect potential hazards to nuclear safety.

Technical Specification No.

Items To Be Reviewed

- | | |
|-------------|---|
| 6.3.2.b 11) | Review of accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluation recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Division Vice President and Manager - Nuclear Stations and the Supervisor of the Offsite Nuclear Review and Investigative Function. |
| 6.3.2.b 12) | Review of changes to the Process Control Program, the Offsite Dose Calculation Manual and the Radwaste Treatment Systems. |

The inspector informed the Licensee of the procedural omissions concerning interface with the Offsite Review and Investigative Function and the above listed Technical Specification items.

This matter remains unresolved pending review of Licensee actions (454/84-19-03; 455/84-14-03). No items of noncompliance were identified.

8. Preoperational Test Results Review

a. Preoperational Test 2.17.10, "Containment Spray"

Inspector review of this preoperational test was previously documented in NRC Inspection Reports (50-454/84-15; 50-455/84-11 (DPRP)) and (50-454/84-16(DE)). Open item (454/84-15-05; 455/84-11-05(DPRP)) was written because Licensee and inspector reviews of the subject test results were not complete. Example of noncompliance (454/84-16-01a) was subsequently issued concerning a failure to adequately document the test results analysis of containment spray pump performance. Subsequently the Licensee has performed further evaluations of the original test as well as evaluations of five retests performed to resolve test deficiencies. The inspector has reviewed the five retest procedures and results, the Licensee's Test Review Board Evaluations and the Licensee's Project Engineering Interim Evaluations. The inspector did not identify any concerns in addition to those identified by Licensee reviews conducted to date. The specific Licensee identified items which must be resolved are contained in a letter dated April 12, 1984 from G. T. Klopp to R. E. Querio. Inspector reviews of test deficiencies and their resolution will be conducted in a future inspection. Open item (454/84-15-05; 455/84-11-05) will remain open pending completion of Licensee and inspector reviews.

b. Preoperational Test 2.63.12, Retest R-91

The inspector reviewed the retest R-91 procedure and results. This retest was written to verify the programmed pressurizer PORVs

actuation setpoint as a function of reactor coolant system temperature until the Cold Overpressurization Mitigation Interlock is instated. The inspector noted that the wide range reactor coolant system pressure instrument loops utilized to determine the PORV actuation setpoint had a specified tolerance of $\pm 3\%$ of full scale (0-3000 psig) or ± 90 psig. Technical Specification Figure 3.4-4 specifies the maximum allowable PORV setpoint as a function of Reactor Coolant System Temperature. The Westinghouse-provided "Precautions, Limitations and Setpoints (PSLS)" document specifies the setpoint program to be established. This program provides setpoints that, at any given Reactor Coolant System pressure, are lower than the maximum allowable setpoint specified in the Technical Specification. The margin between Technical Specification and the PLS setpoint values at low temperatures (from 70°F to approximately 240°F) is less than the possible 90 psig instrument error. Further inspector review will be performed to determine the acceptability of the programmed setpoint as well as instrument calibration and test procedures in light of the Technical Specification values. This is an unresolved item further pending review (454/84-19-04; 455/84-14-04).

9. Plant Tours/Housekeeping

The inspectors conducted plant tours on March 16, 19, April 3, 11, 16, 18, 19, 23, 24, 26, and 29, 1984. The areas of the plant observed during the tours included Units 1 and 2 containments, fuel handling and storage areas, auxiliary building areas including the control room, Unit 1 remote shutdown control panel, residual heat removal heat exchangers, centrifugal charging pump, positive displacement charging pump, safety injection pump cubicles, diesel generators A & B rooms, diesel fuel oil storage tanks A-D cubicles, steam pipe tunnels, and safety valve rooms. Areas were inspected for work in progress, state of cleanliness resulting from lagging work, overall housekeeping, state of fire protection equipment and methods being employed, and the care and preservation of safety related components and equipment. The inspectors were accompanied by Licensee's personnel on portions of the tours for the purpose of identifying areas where additional housekeeping efforts should be concentrated to bring the overall cleanliness state of Unit 1 spaces up to par with the current state of construction. Inspector concerns were related to the Licensee and additional housekeeping crews have been assigned to the areas identified. No items of noncompliance were identified.

10. Allegations

a. Nuclear Power Services (NPS)

Allegation: On December 29, 1983, an individual contacted the Resident Inspectors' Office by telephone and alleged that a Quality Assurance (QA) Engineer/auditor for NPS had been intimidated by a NPS production supervisor while conducting an onsite audit. The allogger stated that when the auditor verbally informed a production supervisor of an "observation" concerning drawing control, the production supervisor stated that if he did not like the particular practice in question that they could "...step outside and settle the

issue". The allegor indicated that the auditor had subsequently left NPS but provided the inspector with the auditors current address and phone number.

Findings: On February 2, 1984, the former QA auditor alleged to have been intimidated was contacted. The individual acknowledged the threatening remark made by the production supervisor but stated that he did not take the threat seriously. He stated that he had been an auditor for several years and in no way did the threat influence his audit findings. He added that he had reported the matter to his supervisor. He also stated that to his knowledge NPS had not filled his job since he left and that the NRC may want to assure itself that NPS activities both at Byron and Chicago offices are being audited. On February 3, 1984, Mr. W. Shewski, the Licensee's Corporate Quality Assurance Manager, was informed of the auditor's comment though the auditor was not identified. On March 29, 1984, the allegor contacted the Resident Inspectors' Office and asked about the status of the NRC investigation into this allegation. The allegor was provided the forgoing information. The allegor stated that he was satisfied with the NRC investigation effort and agreed with the finding that the alleged incident did not intimidate the auditor nor alter his audit findings. The allegor confirmed the auditor's statement that he had not been replaced. On April 27, 1984, the resident inspectors contacted the Licensee's Byron Site Quality Assurance Superintendent and asked what actions had been taken to assure that internal audits of NPS continued to be conducted. He informed the inspector that audits were performed by two individuals from NPS's corporate offices approximately 5 or 6 days per month and that on April 30, 1984, a new full-time auditor replaced the auditor alleged to have been intimidated. To the extent that a remark was made that could have been interpreted as a genuine threat, the allegation was substantiated. However, based upon the interview with the auditor to whom the remark was directed, the remark was merely rhetoric. The notion that the auditor was intimidated was unsubstantiated. This allegation is considered closed.

b. Johnson Controls Incorporated (JCI)

- (1) Background Information: On February 14, 1984, a Level II Quality Control (QC) inspector for Johnson Controls Incorporated (JCI), came to the Resident Inspector's Office to discuss several concerns relative to the administration of the JCI Quality Assurance Program. The individual had previously contacted Commonwealth Edison Company (CECo) personnel and expressed his desire to talk to an NRC representative. CECo personnel were cooperative and had arranged the interview. No Licensee or JCI personnel were present.
- (2) Allegation: Three quality control inspectors for JCI are being used to perform inspections outside their area(s) of certification.

Findings: The inspectors reviewed certification records for the allegor as well as two other QC inspectors specifically alleged

to have conducted QC inspections outside of their areas of certification and at the direction of the JCI QA Manager and Lead QC inspector. After establishing their areas of certification, the inspectors examined the following final documentation packages: 1VD-JB (File 6, book 21), 2VD-JA (File 6, book 11) and 2VD-JB (file 6, book 2). The inspectors noted several instances where inspection reports contained in the final documentation packages appeared to have been filled out (i.e. data recorded and accept/reject status indicated) by a QC inspector not specifically certified to the area of inspection. In every case, however, each item on the report requiring an accept/reject determination, was countersigned and dated by a properly certified individual. The inspectors interviewed the JCI QA Manager and Lead QC inspector to ascertain under what circumstances inspection reports were completed in the manner just described. The inspectors were informed that for the purposes of on-the-job training, Level II inspector candidates for a given area of certification were instructed to perform certain inspections within that area and to complete the inspection documentation. For in-process inspections (e.g. instrument sensing line leak tests), the inspector candidates were accompanied by a properly certified inspector and directly supervised during the inspection. For other types of inspections, the inspector candidate would perform the inspection, complete the documentation and turn it in to the QA Manager or Lead Inspector. A properly certified inspector was then assigned to reinspect the items inspected by the inspector candidate to assess the correctness of the inspection results. Concurrence with the results was then indicated on the inspection record. For the latter types of inspections, inspection reports were completed in this same manner for one other purpose in addition to on-the-job training. Only two individuals were certified for certain types of inspections. According to the QA Manager and Lead Inspector, inspectors not certified for these types of inspections were, from time to time, assigned to perform "preliminary" inspections. The purpose of these preliminary inspections was to assess the readiness of items for final inspection. If the item was complete an inspection report was completed by the inspector. Again, a properly certified inspector was subsequently assigned to reinspect the items and indicate concurrence with the inspection results by countersignature. Preliminary inspections were instituted because the two individuals uniquely certified to perform these inspections spent a considerable amount of time preparing to conduct inspections only to find that the items were not ready to be inspected. It was felt that their time and expertise would be better utilized if it could be established by preliminary inspection that the items were complete and ready for final inspection. The inspectors were not concerned with the practice of having an uncertified individual assess the readiness of items for inspection but felt that detailed data taking and completion of inspection reports prior to final inspection by a certified inspector was neither warranted nor desirable.

The inspectors expressed concern that this practice may increase the likelihood that an item is accepted on the basis of inspection by an uncertified individual. In response to the inspector's concern and in response to an audit conducted by the Licensee's site quality assurance group documented in Commonwealth Edison Company Audit Report No. 6-84-302, the practice of having the uncertified inspector completing the inspection documentation has been discontinued. As was the case with NRC inspector reviews, this audit did not identify any instances where an item had been accepted solely on the basis of these "preliminary" inspections. Additionally, six QC inspectors, including the alleged, were interviewed on this matter. All six inspectors expressed an understanding that the countersignatures on inspection reports were provided to indicate that the item(s) had been final inspected by a properly certified Level II inspector. Two of the individuals, one of them the alleged, stated that they had performed preliminary inspections that they "knew" (not saying how they knew) were not to have been final inspected by a certified inspector. A review of inspection documentation for the suspect systems over the time frame provided by these two individuals did not identify any such cases. In summary, NRC investigation and Licensee review did not identify any instances of its having been final inspected and accepted by uncertified or improperly certified individuals. This allegation was unsubstantiated and is considered closed.

- (3) Allegation: Quality Assurance records are being postdated at the instruction of JCI QA/QC supervision.

Findings: As originally understood by the inspector, dates were being provided on quality control inspection reports which did not correspond to the actual date of inspection. When asked, the alleged stated that he was not aware of any instances where this practice resulted in required inspections not having been performed. Documents reviewed during investigation of the allegation discussed in Paragraph b (1) above did not reveal any inconsistencies between dates on multiple documents pertaining to a single QA/QC inspection activity. Interviews with JCI QA/QC supervision disclosed that the only instances in which dates contained on documents did not correspond to the date the document was prepared involved the transcription of data from one piece of paper to another. For example, if a field drawing became torn and tattered to the point that it may have become unuseable, information, including dates handwritten on the drawing, were transcribed to a clean and untattered copy of the same drawing. It should be stated that the field drawings are not primary quality documents and are not used to support acceptance of completed work. Another example involved inspection reports that had coffee spilled on them. Where possible (i.e. data was still legible) the original inspector was asked to copy the data onto a new inspection data form, including the dates contained on the original inspection report. The NRC inspector subsequently contacted the alleged and

informed the alleged of these findings and asked the alleged if the allegation specifically referred to the transcription of data as just described. The alleged stated that this was the case and that he didn't think it was right. The NRC inspector informed the alleged that transcription of quality records to assure continued legibility and reproducibility did not violate NRC requirements as long as the individual transcribing the record was certified to generate the original documentation. The NRC inspector informed JCI QA/QC supervision that in the future, transcriptions of original documents should be so identified by annotation on the document. This allegation is considered closed.

- (4) Allegation: An individual (name provided) appeared to the alleged to be experiencing difficulty in completing a written test for certification as a Level II quality control inspector. The QA Manager administering the test escorted the individual to his office to finish the test. Subsequently the alleged went to the QA Manager's office. The individual experiencing difficulty with the test was observed by the alleged in the QA Manager's office. The QA Manager asked the alleged to leave and stated that he would let the alleged know when he could return. The alleged later learned that the individual had passed the certification test. The alleged believed the individual had been "coached" by the QA supervisor.

Findings: The inspector reviewed all written examinations taken by the individual in question as well as other documents contained in his certification package. His documented education and experience far exceeded that required by the Licensee and ANSI N45.2.6 for a Level II welding/solder joint inspector. There was no evidence of alteration of answers on the test papers. The individual achieved passing scores on all tests. Based on information provided by the alleged, the particular test in question was administered on January 14, 1983, and was entitled, "General Level II Hanger, Tube Track, Tubing Torque Qualification". The individual scored 85.7 points out of a possible 100 points (85%). The inspector contacted the individual in question and asked him to recount, to the best of his recollection, the circumstances under which he was tested. He informed the inspector that he started and finished the test in the same office, the test was collected by the QA Manager and graded. Later, the QA Manager met privately with the individual to discuss the test results and to go over missed test questions to clear up any misunderstanding. When asked pointedly if he had been coached he emphatically stated that he had not and that he felt the tests were relatively simple. He stated that, though he could not remember clearly, he may have asked the QA Manager for clarification of test questions during the test. The inspector interviewed the QA Manager alleged to have coached the individual. The QA Manager corroborated the statements of the individual and added that he did not hesitate to flunk QC inspector candidates and offered as evidence the fact that several QC inspectors did not pass a certification exam

pertaining to several types of inspections. The allegor was subsequently contacted to get more specific information on exactly what he observed as the basis for this allegation. The allegor stated that he did not closely examine the individuals test paper prior to the alleged "coaching session". The allegor did not hear any conversation between the QA Manager and the tested individual in the QA Manager's office. The allegor did not see the test paper in the QA Manager's office. The allegor was informed that without further evidence the allegation could not be substantiated. The allegor provided the names of three individuals (hereafter referred to as individuals "A", "B" and "C"), who he stated were present during the administration of the certification test and who shared his belief that the individual had been "coached" by the QA Manager. Individual "A" was contacted by the inspector and stated that he had not observed anything that would have led him to believe the individual was coached. He strongly expressed the opinion that the QA Manager was of high integrity and that he would never engage in such an impropriety. He did acknowledge, however, that the individual in question may have asked for and received clarification of test questions. Individual "B" was contacted and stated that while he did not recall the sequence of events in any detail, the tested individual had informed him that the QA Manager had "helped him out" on several questions. Individual "B" inferred from this that the QA Manager had provided the tested individual with answers. The inspector asked individual "B" if he could distinguish whether being "helped out" involved the clarification of exam questions or being provided with the answers. Individual "B" stated that with properly worded requests for clarification, the tested individual may have received the answers to questions. In any event, individual "B" understood the tested individual to say that he had been provided answers. The inspector contacted individual "C" who stated that he shared the allegor's suspicion that the tested individual may have been coached but pointed out that he could not prove it. He stated that he had observed the tested individual leave his seat with test in hand on two occasions during the test. The individual was observed to go to the Assistant QA Manager's office on one occasion and to the QA Manager's office on another occasion. Each time the tested individual returned to his seat and continued to take the test. Individual "C" stated that he did not know what exchange the tested individual had with the two supervisors. Individual "C" stated that he felt that, as written, the test questions were often unclear and that it was not at all uncommon for inspectors to request clarification from supervision. Individual "C" stated that based upon his review of some of the tested individual's work, he felt the tested individual performed satisfactorily in his areas of certification. The inspector recontacted the tested individual to determine whether or not he agreed with any of the factual statements provided by Individuals "A", "B" and "C". The tested individual denied having told anyone that he had been provided answers to the test as stated by individual "B". The tested individual denied

having left his seat during the test as stated by the allegor and individual "C". The tested individual stated that he did recall going to the Assistant QA Manager's office on the day of the test but that he did so after the test was completed and handed in for grading.

The statements by the allegor and individual "C", though differing in certain details, provided a basis for suspicion that the tested individual was coached but were not adequate in the absence of any tangible evidence to support a finding of fact that the tested individual was coached. The statements of individual "B" were not corroborated by any of the other individuals interviewed nor by any tangible evidence. The statements by the QA Manager, the tested individual and individual "C" deny any substance to the allegation. This allegation is considered closed.

11. 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. Open items disclosed during the inspection are discussed in Paragraphs 6.b, 6.c, and 8.a.

12. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraphs 7 and 8.b.

13. Exit Interview

The inspectors met with Licensee representatives denoted in Paragraph 1 at the conclusion of the inspection on April 30, 1984. The inspectors summarized the purpose and the scope of the inspection and the findings.