U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-315/86035(DRP); 50-316/86035(DRP)

Docket Nos. 50-315; 50-316 Licenses No. DPR-58; DPR-74

Licensee: American Electric Power Service Corporation
Indiana and Michigan Electric Company
1 Riverside Plaza
Columbus, OH 43216

Facility Name: Donald C. Cook Nuclear Power Plant, Units 1 and 2

Inspection At: Donald C. Cook Site, Bridgman, Michigan

Inspection Conducted: September 9 through November 3, 1986

Inspectors: B. L. Jorgensen
J. K. Heller

Approved By: B. L. Burgess, Chief
Projects Section 2A

12/3/86
Date

Inspection Summary

Inspection on September 9 through November 3, 1986 (Reports No. 50-315/86035(DRP); No. 50-316/86035(DRP))
Areas Inspected: Routine unannounced inspection by the resident inspectors of licensee actions on previously identified items; operational safety verification; maintenance; surveillance; reportable events; modifications; Information Notices; and independent inspection activities, including allegation review.
Results: No violations or deviations were identified in any of the areas inspected.

DETAILS

1. Persons Contacted

W. Smith, Jr., Plant Manager
*A. Blind, Assistant Plant Manager, Administration
*J. Rutkowski, Assistant Plant Manager, Production
*L. Gibson, Assistant Plant Manager, Technical Support
B. Svensson, Licensing Activity Coordinator
*T. Kriesel, Technical Superintendent, Physical Sciences
*K. Baker, Operations Superintendent
*E. Morse, Quality Control Superintendent
T. Beilman, I&C/Planning Superintendent
J. Allard, Maintenance Superintendent
T. Postlewait, Technical Superintendent, Engineering
C. Ross, Computer Sciences Superintendent
M. Horvath, Quality Assurance Supervisor
C. Murphy, Operations, Production Supervisor
R. Clendenning, Radiation Protection Supervisor
P. Jacques, Fire Protection Coordinator
M. Terry, Administrative Compliance Coordinator, QC
R. Piehl, Administrative Compliance Coordinator, Maintenance
G. Arent, Administrative Compliance Coordinator, Operations
R. Russell, Administrative Compliance Coordinator, Planning
J. Rischling, Administrative Compliance Coordinator, QC

The inspector also contacted a number of other licensee and contract employees and informally interviewed operations, maintenance, and technical personnel.

*Denotes personnel attending Management Interview November 7, 1986

2. Licensee Actions on Previously Identified Items

a. (Closed) Violation, Severity Level IV (315/85016-02): failure to follow requirements of Request for Change (RFC) 01-2764 on installing new battery rack and batteries. The issue involved failure either to meet tolerances or to stop work pending specified reviews. The licensee response (AEP:NRC:0945) dated August 28, 1985 described corrective and preventive actions. The effectiveness of these measures was observed in reviews of additional RFC packages examined during this inspection as documented in Paragraph 7 below. The current review specifically included another battery and rack replacement (RFC 02-2791).

b. (Closed) Open Item (315/85041-01; 316/85041-01): provision of appropriate operating procedures for new radiation monitoring system in control rooms. Procedure (Unit 1) **1 OHP 4030 STP.014 "Containment Purge and Exhaust Isolation System Operability Test"

and the analogous Unit 2 procedure were both revised effective June 12, 1986 to clarify operator interaction with the system for testing purposes. The only other interaction involves alarm response via procedure 12 OHP 4030.139 Parts .001 through .024. These were also revised and instructions associated with the obsolete panel were deleted. Operators now have little responsibility for this equipment except in association with the radiation protection group which has lead responsibility.

c. (Closed) Violation, Severity Level IV (315/85041-03; 316/85041-03): inadequate control of activity potentially affecting safety-related equipment. The inadequately controlled activity involved scaffold erection over safety equipment required operable. The licensee's letter (AEP:NRC:0978) dated March 12, 1986 described corrective and preventive actions, primarily involving a Plant Manager's Standing Order (PMSO) to control the activity. Proper implementation has been routinely verified in the plant.

d. (Closed) Violation, Severity Level IV (316/86004-02): failure to properly complete required compensatory measures for an inoperable radiation monitor/sampler. The licensee's letter (AEP:NRC:0986) dated April 24, 1986 described the plans for corrective and preventive action. These included procedure revisions which created a new Procedure No. PMI-4031 (event-initiated compensatory surveillance) and corresponding training scheduled to be completed by August 15, 1986. In regards to training, the inspector concurred to an extension of the completion date to September 15, 1986. The new PMI-4031 and associated training in its use were thereafter completed as agreed upon.

No violations, deviations, open item or unresolved items were identified.

3. Operational Safety Verification

During the inspection period, the inspector observed control room operation including manning, shift turnover, approved procedures and Limiting Condition for Operation (LCO) adherence, and also reviewed applicable logs and conducted discussions with control room operators. Observations of the control room monitors, indicators, and recorders were made to verify the operability of emergency systems, radiation monitoring systems, and nuclear and reactor protection systems, as applicable. Reviews of surveillance, equipment condition, and tagout logs were conducted. Proper return to service of selected components was verified. Tours of the auxiliary building, turbine building, and screenhouse were made to observe accessible equipment conditions, including fluid leaks, potential fire hazards, and control of activities in progress. In addition, routine facility tours with the Plant Manager were conducted.

Unit 1 operated at a nominal 90-percent power level throughout the inspection period, except for a brief power reduction as discussed in a. below.

Unit 2 operated at a nominal 80-percent power level throughout the inspection period, except for brief power reductions as discussed in a. and b. below.

a. On October 22, 1986 both D. C. Cook Units were declared in their respective Technical Specification 3.0.3 requiring initiation of shutdown at 12:36 p.m. EDT. The declaration was based on a Condition Report received by the Shift Supervisor documenting a QA Audit finding concerning Limitorque valves recently disassembled for Environmental Qualification inspections. The valves had been re-assembled and declared operable without the procedurally required Engineering Division approval of "stock" gaskets used in the re-assembly. Declaring the subject valves inoperable (two in Unit 1, four in Unit 2) placed each Unit outside normal LCO conditions and, via Technical Specification 3.0.3, required shutdown.

   Consultation with the Engineering organization at the Corporate Office subsequently established that the gaskets used were correct and did not degrade environmental qualification. The respective shutdowns were terminated about 1:40 p.m. and both Units returned to previous power levels, with all valves considered operable.

b. At 1:44 p.m. EDT on October 24, 1986 the licensee determined that surveillance testing was not current on degraded bus voltage relays associated with two safety 4 KV buses in Unit 2 identified as buses T21A and T21D. The relays were declared inoperable pending satisfactory completion of the overdue testing. With relays from both buses considered inoperable, the Unit entered Technical Specification 3.0.3, requiring commencement of a shutdown within one hour, and notification of NRC per 10 CFR 50.72. Both were initiated as required.

   At 2:54 p.m., two of three relays associated with bus T21D were tested satisfactorily and declared operable, and the third relay was in "trip" for its test. Concurrent testing of associated relays for bus T21A resulted in restoration of two of three relays at 2:59 p.m. with the third relay in "trip" for testing. Technical Specifications for the buses were met and the shutdown was terminated and power restored to pre-event level.

   Ultimately, if conditions placing a Unit under Specification 3.0.3 are not corrected, that Unit would have to achieve HOT STANDBY within seven hours. No procedure has been developed specifying shutdown rate or approach (i.e., ramp down or by steps), and this was discussed with several members of the Operations staff. All described a common and consistent understanding concerning the intended approach, which would involve removal of about 10-percent load the first hour, followed by a decision (based on probability of correcting the adverse condition) to either proceed with a ramp down at a normal shutdown rate or to hold for up to about four hours such that the Unit could still be shut down at a comfortable rate and

comply with time limitations. The inspector concluded this approach was acceptable. The cause of the missed surveillance which led to Item b. above will be examined further in a follow up to the anticipated Licensee Event Report on the subject. Item a. was essentially a false alarm and the matter is considered closed.

c. On September 23, 1986 the licensee notified NRC that continuing reviews of an aborted critical approach on Unit 1 on July 7, 1986 had raised questions regarding the assumptions/constants associated with Boron-10 depletion over the life cycle. An ENS notification was made by the licensee when it had been concluded that the shutdown margin may have been exceeded earlier in plant/core life. Subsequent review determined no such violation had actually occurred.

Boron-10 depletion effects a change in Shutdown Margin (SDM). The SDM for Modes 3, 4, and 5 is represented by a series of curves relating the required boron concentration to fuel burnup for different RCS temperatures. These curves are based on data from the Nuclear Design Report assuming a nominal Boron-10 fraction of approximately 20-percent. Though the concentration of boric acid may be sufficiently high, depletion of Boron-10 during extended periods of power operation will not provide the necessary SDM and this potential loss of SDM cannot be accurately referred from the let down curve.

Calculations from the Corporate Office indicate that the SDM has not been challenged in the past, and steps to assure sufficient SDM in the future are being taken. These steps will include adding a conservatism to the SDM curves to cover boron depletion as well as a provision for boric acid recycling. NRC follow up of this open item will be conducted by Region III specialists in core physics (Open Item No. 315/86035-01; No. 316/86035-01).

d. On October 22, 1986 the licensee reported that monthly valve stroking of the LPSI pump discharge cross-tie valves and the LPSI pump outlet valves made both trains inoperable. The LPSI pumps (two per Unit) share injection piping and when the pump discharge cross-tie or outlet valves are closed the pumps are only capable of injection into two cold legs versus four cold legs. This problem was identified in a follow up review of maintenance activities (reported via 50.72 on September 9, 1986) on the HPSI cross-tie valves. This situation with the HPSI cross-tie valves is discussed further in Paragraph 4 below, as it was identified by inspector reviews in the maintenance area. Both LPSI and HPSI have been placed under appropriate administrative controls pending long-term resolution on proper means to perform required testing and any necessary maintenance. Further review concerning LPSI will be done in evaluation of the associated Licensee Event Report LER No. 315/86021-00, applicable to both Units.

e. The licensee continued auxiliary building decontamination and repair efforts and pursuant to discussions from the previous inspection period, a systematic approach is being developed for the repair projects that address hundreds of suspected minor leaks on valves, instruments or other fittings. During this inspection, decontamination efforts involved frequent use of a hydro-lasing unit in various equipment areas. On at least one occasion, electrical circuits in the vicinity were apparently wetted by water or mist from this process, and some short and ground indications resulted. The inspector asked the licensee to determine if the affected circuits were designed to be unaffected by a water or spray environment and an investigation of this matter is underway. This is an open item pending completion of the licensee review (Open Item No. 315/86035-02; No. 316/86035-02).

f. During one auxiliary building tour, the inspector found a malfunctioning local "frisker" instrument and advised Radiation Protection supervision. The instrument was replaced.

g. On October 24, 1986 the licensee identified via Condition Report review that a wide-range pressurizer level instrument at the Unit 1 alternate hot shutdown panel had been isolated for an extended period (about three months), due to a slow reference leg fluid loss that required an adjustment every few days. The instrument would be used in implementing plant safe-shutdown procedures in the unlikely event the main control room controls were lost due to fire. Maintaining safe shutdown capability is a requirement of 10 CFR 50 Appendix R. Pending a further review and determination on the consequences of having the subject instrument isolated, the licensee advised NRC Region III, the resident inspector and the NRR Licensing Project Manager. A decision was made to restore the instrument to operability, which was accomplished within about three hours. Subsequent licensee investigation showed that appropriate personnel (operators) were aware of the instrument isolation, that resources were continuously available via 24-hour instrument group coverage to restore the instrument at need, and that the absence of the instrument appeared unlikely to prevent safe shutdown as other (admittedly less desirable) means of obtaining adequate indication or information existed. Further discussions conducted on October 29, 1986 between the licensee and NRC representatives concerning these and other findings concluded that, lacking Technical Specifications on the instrument (which have been proposed but not yet approved), it did not appear any violation resulted from extended isolation of the instrument. The resident inspector will review the matter further considering administrative control processes which appear to be implicated in allowing this undesirable situation to develop. This is considered an open item (Open Item No. 315/86035-03).

Three open items and no violations, deviations or unresolved items were identified.

4. Maintenance

Station maintenance activities of safety-related systems and components listed below were reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with Technical Specifications.

The following items were considered during this review: the Limiting Conditions for Operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures; and post maintenance testing was performed as applicable.

The following maintenance activities were reviewed or observed.

Observed:

Job Order 70577	Repair of Unit 2 high demand fire pump.

Reviewed:

a.	Job Order 34494 and 48676	Repair of water leaks for valve 2-ICM-265
b.	Job Order 34493	Repair of water leaks for valve 2-ICM-260
c.	Job Order 45416	Repair B & C leakage for the Unit 2 "W" RHR Isolation Valve
d.	Job Order 70113	Repair body-to-bonnet leakage for 2-IMO-270

While reviewing the repair of the body-to-bonnet leak for 2-IMO-270 (one of two series valves in the safety injection pump discharge cross-tie line) the inspector found that valve 2-IMO-275 (located in series with valve 2-IMO-270) and SI-111N (located in the North safety injection pump discharge line) were closed to facilitate the repair. This was documented in Clearance Permit 204472. As a result of the configuration, the North safety injection pump was inoperable and the South safety injection pump was capable of flow to only two cold legs versus four cold legs. The configuration violated requirements of Technical Specification 3.5.2 to maintain an operable flow path for at least one train. As a result, a special inspection was conducted to review the matter, which is documented in a separate inspection report (I.E. Reports No. 50-315/86042(DRP); No. 50-316/86042(DRP)).

The inspector had investigated the repair of 2-IMO-270 in following a Condition Report concerning failure of the valve to stroke properly on completion of the repair. The root cause was determined to be failure of the motor operator to re-engage after the hand wheel had been used to assure a good firm seat before the work was begun. The design should allow spring return engagement of the motor, which did not occur in this case. This specific problem was quickly identified and corrected, but the inspector was concerned other hand wheel operations might occur which

would unknowingly leave the motor disconnected. This was discussed with several operators, who all were aware of written constraints in Operations Standing Order OSO.025, "Limitorque Valve Operators", requiring a physical exercise of the valve with the motor after any use of the hand wheel.

No violations, deviations, unresolved items, or open items were identified.

5. Surveillance

The inspector reviewed Technical Specifications required surveillance testing as described below and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that Limiting Conditions for Operation were met, that removal and restoration of the affected components were properly accomplished, that test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The following were observed or reviewed:

a.	**1 THP 4030 STP.042	"Steam Generator Safety Relief/PORV Loops 2 & 3 Monitor MRA-1700 Surveillance Test."
b.	**1 THP 6030 IMP.131	"Power Range Nuclear Instrument Calibration N-41, N-42, N-43, N-44" (observed N-41 only).
c.	**1 THP 4030 STP.005	"Overtemperature and Overpower Protection Set II Surveillance Test."
d.	**1 OHP 4030 STP.027CD	"CD Diesel Generator Operability Test (Train A)."

Item c. was a post-maintenance operability test using the routine surveillance procedure for the single channel affected by the maintenance. A R/E converter No. ITY-421A had required replacement.

Item d. involved an operability verification on emergency diesel generator 1CD as required prior to removing emergency diesel generator 1 AB from service under clearance to perform preventive maintenance.

No violations, deviation, unresolved items or open items were identified.

6. Reportable Events

The inspector reviewed the following Licensee Event Reports (LERs) by means of direct observation, discussions with licensee personnel, and review of records. The review addressed compliance to reporting requirements and, as applicable, accomplishment of immediate corrective

action. If indicated "closed", the review showed appropriate corrective action to prevent recurrence had been accomplished in accordance with applicable requirements, or a generic issue was developed which will be tracked for further examination as an Unresolved Item or Open Item.

a. (Closed) LER 315/85041-LL, Revision 0: Valve failure due to "inadequately terminated lead". A surveillance test identified the discrepancy, which was corrected immediately. New procedural requirements effective July 1, 1986 mandate independent verification for all handling of leads, either lifting or landing.

b. (Closed) LER 315/85046-LL, Revision 0: Loss of residual heat removal from partial loss of instrument power. An approximate two minute interruption of flow resulted from loss of power to two instrument channels. Channel 3 tripped due to an "inadequately terminated lead". Corrective action to prevent this type problem is discussed at a. immediately above. Channel 4 was lost momentarily when an operator erroneously tripped and reset the associated breaker, thinking it had tripped along with the channel 3 breaker. Instructions concerning verification of intended actions and avoidance of unnecessary actions were issued.

c. (Closed) LER 315/85058-LL, Revision 0, Revision 1, and Revision 2: Inoperable auxiliary feedwater pumps. With the Unit in MODE 3, the in-service motor driven auxiliary feedwater pump tripped due to low suction pressure while the turbine driven pump was considered inoperable for testing. The turbine driven pump test was found to have caused the low suction pressure indication when a faulty governor caused turbine speed oscillations. This combined with partially plugged screening in the sensing line to the suction pressure instruments to create a "sensed" low suction pressure. The system was restored by cleaning the screening and repairing the governor. A Task Force was formed to evaluate long-term actions since it was felt the current design could be subject to the common mode failure of a suction pressure system transient capable of automatically tripping all three auxiliary feedwater pumps in the Unit. The automatic trip was disabled subsequent to a safety evaluation which considered other means to protect the pumps from loss of suction while avoiding the potential common mode problem. This has entailed special instructions to operators and conversion of the output of the existing sensors to an "alarm" function. A licensee commitment (via letter dated December 11, 1979) to install the automatic low suction pressure trips has been amended, based on communication with the Office of Nuclear Reactor Regulation, to whom the original commitment was made. The licensee is continuing to pursue relief from the commitment with an intent to make the current provisions permanent.

d. (Closed) LER 316/81012-LL, Revision 0: Cracks in divider barrier seal. The seal had experienced repetitive cracking problems, so the material was changed from UniRoyal 3807 to UniRoyal 41300 and repetitive failures have ceased.

e. (Closed) LER 316/82083-LL, Revision 0: An LCO action statement was entered to permit isolation and repair of a valve with a steam leak through the packing. Applicable time limits were complied with. Events of this type no longer require reporting.

f. (Closed) LER 316/82105-LL, Revision 0: An unmonitored release of about 200 gallons, containing an estimated 3.49 micro Curies, occurred following steam generator sludge lancing. The lancing lines were connected for flushing in a way which bypassed the installed release monitor. Procedure specificity was improved to clarify the required configuration.

No violations, deviations, unresolved items or open items were identified.

7. Design Changes and Modifications

The inspector reviewed selected design change control procedures and Request For Change (RFC) packages to verify: that changes were made in accordance with 10 CFR 50.59; that they were reviewed in accordance with Technical Specifications and the established Quality Assurance program; and, that the changes were conducted in accordance with written procedures which included appropriate inspections, tests and acceptance values or standards. Associated test records were reviewed to verify acceptable performance of modified equipment. The inspector verified applicable procedures and drawings were changed to reflect the modifications, and design change records were being maintained as described in 10 CFR 50.59 and the QA program.

a. Procedures

(1) PMI-5010 "Maintenance, Repair and Modification Policy", Revision 3, August 20, 1979.

(2) PMI-5040 "Design Change Control Program", Revision 7, February 3, 1986.

As evident from the revision dates, Procedure PMI-5010 has not undergone any significant recent revision. This is a relatively brief policy level document outlining the considerations involved in conducting well controlled activities. The implementing procedure, PMI-5040 was substantially revised in early 1986 to incorporate accumulated procedure change sheets and to address items identified via QA auditing and during routine biennial reviews. The inspector compared the new Revision 7 to the previous Revision along with reviewing Revision 7 as a stand alone control procedure. The new revision appears to be an improved control document with respect to addressing interfaces among groups; controlling variances identified during the work process; pre and post-installation walkdowns; return to service testing; and dissemination of information for updating of drawings, procedures, labels, checklists, etc..

b. RFC Packages

(1) RFC 12-2808: Replacement of Unit 2 Control Room Instrument Distribution (CRID) Inverters and Installation of Temperature Data Loggers. The CRID inverters in both Units had experienced repeated overheating failures in their power supplies over the life of the plant, causing several reactor trips. The replacement inverters feature 7.5 KVa capacity versus the the previous 5.0 KVa; they have a "bumpless" transfer feature between power supplies; and they have both a higher ambient temperature rating and forced air cooling design. Several "deviations" occurred during performance of this RFC, essentially all concerning anchor bolt or grouting adjustments in the field or authorization for cuts of re-bar during core bores. Each deviation was properly dispositioned (i.e., work stopped and deviation identified, reviewed and approved) before proceeding. Quality Assurance and Quality Control surveillances were well documented. Each audit identified minor problems which were properly dispositioned. In the case of the QA audit, the immediate hardware discrepancy was corrected on the spot, but little evidence existed indicating a generic review would address procedure non-adherence as the root cause for anchor bolt installation problems (an unnumbered Condition Report form was found).

The inspector followed up with QA and learned a Condition Report was issued for this, numbered 02-05-86-0557, which satisfied the concern for a more generic review.

(2) RFC 02-2791: Replacement of Unit 2 CD Battery and Rack. Each of the site station batteries (two per Unit) has reached end-of-life over about the last two years, and the 2CD battery which was the subject of this RFC was the last to be replaced. The document package was a good, clean assemblage of necessary records, reflecting prior experience in performing the same modification before. Again, both QA and QC surveillance activities noted problems and documented them. Both organizations found uncontrolled drawings or sketches in the work packages, which were corrected before proceeding, as was an uncontrolled field instruction sheet for torque values. The NRC inspector noted a consultant inspection of the installed new battery documented a specific gravity measurement of 1.226 for cell No. 90. This information was not acquired for the official acceptance test, and it does not appear to have been used as a receipt verification of vendor compliance to the Purchase Order specification of 1.220 plus/minus 0.005 for specific gravity. Several deviations were documented for which work was stopped pending review and authorization to proceed.

(3) RFC 12-4064: Replacement of Automatic Timers for Battery Chargers. This modification was processed as an "emergency" RFC to replace Cramer brand timers with Raychron brand on an

"as fail" basis. The "emergency" classification appeared to be an administrative manipulation to shorten the generally long lead times for prior review and authorization processes at the Corporate Office. A window of opportunity existed during the Unit 2 1986 refueling outage which plant personnel wished to use to their advantage. The mandatory minimum advance authorizations were obtained, including a Safety Review Memo dated April 15, 1986 which concluded that no 10 CFR 50.59 "unreviewed safety question" existed. This memo, however, classified the modification as an "in-kind replacement" on the basis of a recommendation by the battery manufacturer (Exide) regarding the Raychrom timer. The Raychron timers were installed on all four Unit 2 chargers and on one Unit 1 charger. Subsequently, a Condition Report (No. 12-09-86-1086) questioned the seismic qualification of the new timers and they had to be "jumpered" out of their respective circuits. They do not serve a safety function, and are used only occasionally to automatically time the equalize charging cycles for their associated battery. At the conclusion of this inspection, the devices remained isolated pending a final determination on their acceptability. Based on conversations with the licensee, it is anticipated that a supplement to open LER 86025, expected to be completed by December 12, 1986, will address the battery timer seismic qualification issue. It should be noted that, with replacement of the original station batteries in recent years (see b.(2) above) there are no longer any Exide brand batteries in service, and this should have been recognized prior to an inquiry to Exide for a recommendation as to replacement parts. The subject RFC package was also incomplete at the time of inspection, lacking Attachments 5 and 9 (pre- and post-installation walkdown sheets) from PMI-5040, and copies of Purchase Orders. This RFC was selected for review by the inspector to address attention to the question of whether the licensee installed the parts intended; contrary to spare and replacement parts control requirements. The inspector concluded the intended parts were installed. It remains to be determined whether those parts are acceptable.

Other recent Condition Reports address additional licensee-identified discrepancies in the conduct of modifications activities. These have been provided to NRC Region III for appropriate attention by specialist inspectors.

No violations, deviations, unresolved items or open items were identified.

8. IE Information Notices

This inspection included a periodic review of the licensee's program for receipt, screening, assignment, tracking and action as appropriate for NRC I.E. Information Notices and I.E. Bulletins issued for information. The purpose of the inspection was to verify, for randomly selected documents, that they had been checked for applicability to the D. C. Cook plant, distributed to the appropriate technical and/or response elements at the plant and, when applicable, appropriate actions were taken.

IE Information Notice 86-02 "Failure of Valve Operator Motor During Environmental Qualification Testing" (File AEP:NRC:09416) - subject motors are present at D. C. Cook plant (total 8 valves per Unit) but face less harsh conditions for a shorter time than the valves which failed, and are qualified to the actual expected conditions and duration they may be exposed to.

IE Information Notice 86-10 "Safety Parameter Display System Malfunctions" (File AEP:NRC:09434) - multiple plant departments addressed various aspects of this Notice. Action to assure proper integration of the system into routine and emergency plant operations were deemed appropriate and were initiated.

IE Information Notice 86-15 "Loss of Offsite Power Caused by Problems in Fiber Optics System" (File AEP:NRC:09448) - review showed no impact from this item at the D. C. Cook plant.

IE Information Notice 86-21 "Recognition of American Society of Mechanical Engineers Accreditation Program for N Stamp Holders" (File AEP:NRC:09466) - no impact for D. C. Cook plant.

IE Information Notice 86-27 "Access Control at Nuclear Facilities" (File AEP:NRC:09476) - subject items already addressed by Security Plant PIP separately documented in AEP:NRC:0846R.

IE Information Notice 86-30 "Design Limitations of Gaseous Effluent Monitoring Systems" (File AEP:NRC:09480) - subject matters impact on D. C. Cook plant. The attributes of interest were incorporated in an existing contract with a consultant performing studies and calibration on the subject monitors. Weekly progress reporting and a final report are required. Final decisions are pending results of these activities.

IE Information Notice 86-37 "Degradation of Station Batteries" (File AEP:NRC:09485) - subject has generic implications relating to proper monitoring of battery aging. All station batteries at D. C. Cook are monitored for the subject indications of degradation and have, in fact, all been replaced within about the past two years.

IE Information Notice 86-39 "Failures of RHR Pump Motors and Pump Internals" (File AEP:NRC:09487) - subject pumps are not installed at D. C. Cook plant. Design similarities of subject pumps to Cook RHR and CTS pumps stimulated review by AEPSC Mechanical Engineering Division of susceptibility of these pumps to the identified problems. The evaluation concluded the D.C. Cook pumps are not susceptible.

IE Information Notice 86-45 "Potential Falsification of Test Reports on Flanges Manufactured by Golden Gate Forge and Flange, Inc." ((File AEP:NRC:00997A) - subject problem originally identified via Part 21 Report of Consolidated Pipe and Valve Supply Company as a supplier to D. C. Cook plant. Pursuant to the Part 21 Report, applicable reviews and testjng have been conducted, establishing acceptability of the installed components.

IE Information Notice 86-46 "Improper Cleaning and Decontamination of Respiratory Protection Equipment" (File AEP:NRC:09497) - evaluations are complete for one of two types of respirators and continue for the other.

Overall, the licensee was found to be implementing controls for handling of the documents of interest which properly address assignment of responsibility for review, communication and decision making on needed actions, and documentation of the process which ensures traceability. Timeliness of response and action are determined and assigned on a case by case basis. Frequently, both the plant and the corporate office are involved and may work in parallel on items.

At the request of NRC Region III, two additional items (not randomly selected) were reviewed.

IE Information Notice 86-53 "Improper Installation of Heat Shrinkable Tubing" (File AEP:NRC:09501) - evaluations were incomplete at the time of this inspection. Reviews were underway among plant maintenance and maintenance engineering, construction, and the Corporate Office. A current evaluation completion due date of December 1, 1986 is established. This item is an example of parallel evaluations with a schedule established (and subject to revision) by the licensee.

IE Information Notice 86-72 "Failure of 17-7 pH Stainless Steel Springs in Valcor Valves due to Hydrogen Embrittlement" (File AEP:NRC:09519) - reviews could not identify any Valcor valves purchased or stocked for D.C. Cook, nor does the facility data base identify any valves at the plant manufactured by Valcor. No further actions are planned.

For the items of specific interest to Region III, the requested information was provided as summarized above.

No violations, deviations, unresolved items or open items were identified.

9. Miscellaneous Inspection Activities

a. Seismic Monitoring Instrumentation

Pursuant to a request from Region III to support the Office of Inspection and Enforcement in developing improved inspection and information on seismic monitoring systems, the inspector reviewed the subject system design, Technical Specifications, surveillance, preventive maintenance, and failure history. The information of interest was provided as requested. No particular problem areas were identified.

b. Auxiliary Feedwater

Pursuant to a request from Region III concerning steam driven auxiliary feedwater system equipment and design, the inspector reviewed the system information necessary and provided the information of interest. No problem areas were identified.

c. Barton Pressure Switches

Pursuant to a request from Region III concerning applications (if any) of Barton Model No. 288A differential pressure transmitters, the inspector obtained the desired information via the licensee's equipment data base and so advised Region III. A number of the specified instruments are in service both in safety systems and in balance of plant systems.

d. Allegation

An anonymous letter was received by NRC in Washington D.C. which contained a two part allegation. The first contention was that NRC inspections would be more effective if they were unannounced. The second contention was that the "Master Drawing Index" is not kept up to the correct drawing revision. Guidance regarding the first contention is provided by NRC policy which mandates that all inspections are unannounced; however, in the interest of economy and efficiency, Regional Management may authorize the performance of announced inspections.

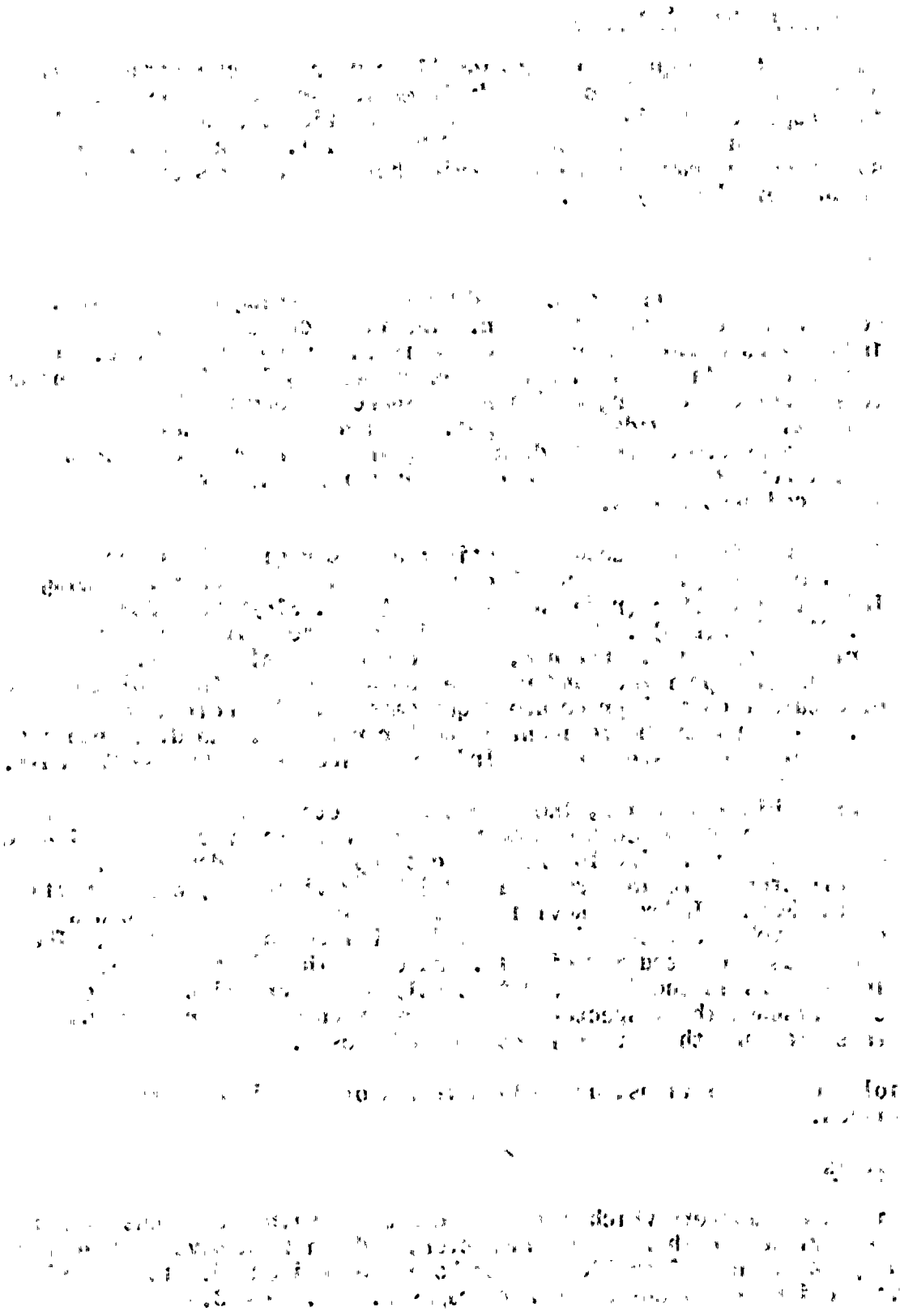
In regards to the second contention; an NRC Region III inspector examined a sample of about 25 drawings against the Master Drawing Index in late 1985 (reference IE Reports No. 315/85033(DRS); No. 316/85033(DRS)). No discrepancies were identified in this earlier inspection. Further, the licensee's Quality Assurance organization performed and reported on an audit of the implementation of document control procedure requirements in QA Audit Report No. 86-27, which the resident inspector reviewed. No discrepancies concerning the Master Drawing Index were identified by the QA Audit.

During this inspection, the inspector selected a random sample of 25 drawings and compared the drawing revision to the revision indicated on the Master Drawing Index. One discrepancy was identified. Architectural drawing Number 12-4001-20 (Revision 20) was identified in the Master Index as Revision 19. Receipt of Revision 20 was dated October 31, 1986 just a few days before the inspection. The error was corrected immediately. Based on the finding of two inspections in the last year that only one error existed in some 50 comparisons, the inspector had no further questions or concerns in this area and the matter is considered closed.

No violations, deviations, unresolved items, or open items 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. Open items disclosed during the inspection are discussed in Paragraphs 3.c, 3.e and 3.g.



11. Management Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on November 7, 1986 to discuss the scope and findings of the inspection report. In addition, the inspector asked those in attendance whether they considered any of the items discussed to contain information exempt from disclosure. No items were identified.