

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
COMMONWEALTH EDISON COMPANY) Docket Nos. 50-454
) 50-455
(Byron Station, Units 1 and 2))

TESTIMONY OF NRC STAFF ON ALLEGATIONS RESOLVED BASED
(IN PART OR IN WHOLE) ON THE REINSPECTION PROGRAM
OR OTHERWISE RELEVANT TO THE REINSPECTION PROGRAM

Q1. Would each of the panel members please reintroduce themselves by stating their names, employment affiliation, and professional qualifications.

A1. (Mr. Hayes). My name is D. W. Hayes. I am employed by the U.S. Nuclear Regulatory Commission as Chief of a Reactor Projects Section in the Region III Office. A copy of my professional qualifications is attached.

(Mr. Connaughton) My name is K. A. Connaughton. I am employed by the U.S. Nuclear Regulatory Commission as Resident Inspector in the Region III Office. A copy of my professional qualifications is attached to the Testimony of NRC Staff to Remand Issues With Respect to the Reinspection Program.

Q2. Could each of the panel members describe their responsibilities with respect to the Byron plant?

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A2. (Mr. Hayes). I have project responsibility as a Section Chief for the Byron Plant. My duties as the Project Section Chief are to assure the accomplishment of the inspection program requirements for the Byron Plant. I have also been personally involved in the inspection of allegations received regarding Byron.

(Mr. Connaughton) I have been the assigned Resident Inspector (RI) for the Byron Station since August 1982. My duties are to perform inspections of construction and preoperational test activities at the Byron Station, Units 1 and 2. I report to the Senior Resident Inspector (SRI) assigned to Byron.

Q3. Could you briefly describe the contents of this testimony?

A3. (Mr. Hayes) The testimony which follows discusses the extent to which the staff relied upon the Byron reinspection program to resolve worker allegations uninvestigated at the close of the evidentiary record in August 1983. The testimony also addresses any other allegations received by the Staff of potential significance to the reinspection program.

The testimony is accompanied by four attachments. Attachments A through D contain excerpts from Inspection Reports 50-454/83-39, 84-02, 83-07, 83-49.

Q4. In what way were the Byron reinspection results relied upon by the staff to dispose of allegations, particularly in relation to Hatfield welding?

A4. (Mr. Hayes). The Byron reinspection program was relied upon to resolve two allegations and supplemented the resolution of three others. The remainder of the 23 allegations assigned to Region III and uninvestigated at the close of the hearing in August 1983 were resolved independent of the reinspection program.

Of the two resolved by the reinspection program, one concerned welding by Hatfield (i.e., "weld undercut is a widespread and serious problem"). This allegation was received in November 1982 and is documented with its resolution in Inspection Report 454/83-39 pages 41 and 42 (See Attachment A). As stated there, third party inspections and independent NRC inspection of Hatfield welds led to the conclusion that there were few cases of undercut in excess of American Welding Society (AWS) code limits and that these were mostly border-line cases. The allegation was not, therefore, substantiated.

The other allegation, discussed in Inspection Report 454/84-02, page 15, item W (See Attachment B) concerned quality control inspector certification. The allegation, which was received in August 1982, stated that based on the allegor's review of certification records of eight quality control inspectors the allegor considered two individuals to be unqualified. The allegor did not identify the two individuals. At the time the allegation was received, corrective actions in response

to noncompliance item 454/82-05-19; 455/82-04-19 were not yet complete. The allegation was therefore considered substantiated. The issue raised by the allegation has, however, been resolved by the reinspection program's extensive examination of the work of QC inspectors at the Byron site.

The three allegations where data from the reinspection program were reviewed to supplement their resolution all concerned Hatfield welding. These are documented in Inspection Report 454/83-39, pages 44, 47, and 48-49, items d, f and h. (See Attachment C).

The first allegation stated that approximately 90% of certain Hatfield hangers covered with fireproofing which were inspected because weld travelers were missing were found to be rejectable. This allegation was disproven by the results of inspections conducted to resolve Nonconformance Report (NR) No. 407. Furthermore, the reinspection program provided additional confirmation of this finding wherein welds covered with fireproofing were reinspected. There were no welds identified that required repair.

The second allegation claimed that there was a high enough reject rate for Hatfield hanger welds to have warranted removal of fireproofing to reinspect additional welds. This allegation was considered substantiated in part, but was resolved in the Reinspection Program by the removal of all of the fireproofing in the areas identified by

the allegor and the reinspection of all of the connections. Of the 300 connections, one was found to be unacceptable.

The third allegation stated that some Hatfield welds which had been covered with fireproofing had only been tack-welded (i.e., incomplete welds) and that Discrepancy Reports should have been written when inspections determined that documentation did not exist of completed welds. This allegation was resolved on two bases: 1) the welds referred to by the allegor were completed and subject to inspection and 2) the reinspection program looked at approximately 5,500 welds which had been fireproofed and found only two tack-welds. The staff further noted that Discrepancy Reports would have been required only if the items in question had been accepted by quality control inspectors (QC) and that it appeared that the allegedly tack-welded items had not yet been accepted by QC at the time of the allegation. On these bases, the staff closed the allegation.

Q5. Do any particular allegations inspected by the staff have independent and important relevance to the Byron reinspection program?

(Prehearing Conference Order, p. 9).

A5. (Mr. Hayes). The NRC did receive several allegations concerning training and certification of quality control inspectors at Hatfield. Some of these allegations could raise questions regarding the effectiveness of the upgraded certification program for QC inspectors. One such allegation (involving the certification of one individual) was substantiated. Appropriate corrective actions were taken with regard to this individual.

The individual was recertified in accordance with the June 9, 1982 CECO memorandum and his recertification was acceptable to the staff. (See Inspection Reports 50-454/83-07, pages 7-8, item 3, and 50-454/83-49, page 4, item f, which are Attachments D-1 and D-2 to this testimony).

The staff has not identified any other allegations which are of significance to the reinspection program.

PROFESSIONAL QUALIFICATIONS

OF

D. W. HAYES

REGION III, UNITED STATES NUCLEAR REGULATORY COMMISSION

Mr. Hayes is Chief, Reactor Project Section 1B, Division of Project and Resident Programs, NRC, Region III, Glen Ellyn, Illinois. Mr. Hayes is responsible for supervision of six reactor inspectors in the conduct of a prescribed inspection program at nuclear power facilities under construction within the State of Illinois.

Mr. Hayes attended Illinois Institute of Technology under the Navy V-12 and ROTC programs, majoring in Electrical Engineering.

Prior Work History

Mr. Hayes has been in his present or similar positions since September, 1973. From August 1970 until September 1973, he was assigned and performed the duties of a reactor inspector, Division of Compliance, Region III, U.S. Atomic Energy Commission (Office of Inspection and Enforcement, United States Nuclear Regulatory Commission). Mr. Hayes has conducted, or participated in over 100 inspections of reactor facilities under construction, including special investigative inspections at North Anna Nuclear Power Facility, Midland Power Facility, Marble Hill, the South Texas Project and Clinton.

Prior to his employment with the Atomic Energy Commission, Mr. Hayes worked for the Battelle Northwest Laboratory from January 1965 until August 1970, as a Senior Research Engineer and as a Control Engineer. In addition, from 1948 until January 1965, Mr. Hayes was employed by the General Electric Company in various positions relating to nuclear energy, including Reactor Engineer, Maintenance Manager, Supervisor, Planning and Scheduling and Maintenance Foreman, Multicraft Crews.

From Inspection Report 454/83-39

- . Purchase Orders
- . Component Drawings
- . Material Receiving Reports
- . Quality Release Forms
- . ASME Data Forms
- . Certificates of Conformance
- . QA Checklists
- . Vendor Surveillance Reports
- . Audit Reports
- . QA Evaluation Reports
- . Qualification Records for 10 Welders

c. Safety Related Components - Review of Quality Documents

The inspector reviewed the following documents as they pertain to safety related components and determined that they conform to the QA program as described in Chapter 17 of the facility SAR.

- . 2702 NSSS Specification
- . QA Manuals:
 - Commonwealth Edison
 - Hunter
- . Westinghouse Technical Manuals
- . L2781 Rigging and Lifting Specification
- . Equipment Installation Process Sheets
- . Procedure No. 3.102, Material Procurement
- . Procedure No. 3.602, Material Receiving and Inspection
- . Procedure No. 3.801, Storage of Components and Materials
- . Procedure No. 5.201, Welding Procedure Qualification
- . Procedure No. 50, Welding Procedure
- . Procedure No. 5.502, Grinding Supports
- . Procedure No. 4.001, Bolted Connections
- . Procedure No. 118 and 119, Load Testing Cranes
- . Procedure No. 120, Crane Erection
- . Procedure Nos. 101, 109, 113 and 117, Transport and Setting of Steam Generators and Pressurizer

No items of noncompliance or deviations were identified.

7. Allegations

On November 23, 1982, Level II Quality Control Inspectors employed by Pittsburgh Testing Laboratory detailed to Hatfield Electric Company contacted the Resident Inspector's Office and stated the following allegations:

(a) Allegation

Weld undercut is a widespread and serious problem.

NRC Findings

Undercut is a groove melted into the base metal adjacent to the toe or root of the weld and left unfilled by weld metal. The allegor was referring specifically to welding performed by Hatfield Electric Company involving cable trays, hangers and associated structural elements. The applicable American Welding Society (AWS) Codes specify maximum permissible undercut as a function of structural member thickness or 1/32", whichever is less. The allegor characterized weld undercut as a "serious" problem in the context of AWS Code compliance. The reinspection program established in response to the noncompliance item identified as 454/82-05-19; 455/82-04-19, and which is currently underway identified instances of undercut resulting in weld rejection and requiring rework/repair to achieve AWS Code compliance. The inspector visually examined a nonrandom sample consisting of 204 Hatfield welds (see paragraph D.1.(b)) including 138 welds that were determined not to have unacceptable undercut by the contractor, 21 welds that were determined to be unacceptable by both the contractor and the third party and 45 welds that were determined to be unacceptable by the contractor and later determined to be acceptable by the third party. The inspector found the reinspections to be overly critical in the evaluation of undercut with most rejected welds being border-line cases. The inspector was informed that in some cases the original reinspections were performed without the use of gages to measure undercut. If gages were not used, it would have been extremely difficult to determine undercut which was close to, but not in excess of, 1/32" as being acceptable. The third party was reinspecting all of the unacceptable welds found in the reinspection program by the contractor. The third party inspections were identifying most of the overcalls. Weld undercut could not be substantiated as being a widespread and serious problem because of the few, mostly border-line, cases of undercut in excess of AWS code limits being identified.

The weld applications involved in electrical installation at Byron Station are such that in most cases, undercut would have to greatly exceed AWS Code limits to compromise the structural adequacy of the installations. This allegation could not be substantiated and is considered closed.

b. Allegation

Some hangers do not have weld travelers for the auxiliary steel.

NRC Findings

The allegation concerns lack of documentation (either lost or destroyed) of quality control inspections for certain welds. Weld card travelers are issued to welders prior to welding on a given item. The traveler is used to document the welding activity and quality control inspection of the completed welds. When a weld traveler is illegible, lost, or destroyed, a new weld traveler is initiated to re-establish and document the quality of an item. The item (weld) must be reinspected. As a result of nonconformance

From Inspection Report 454/84-02

- HECO Engineering reviews the DR and recalculates the maximum allowable pulling tension based on the "as built" configuration of the conduit rather than the minimum (the actual bend radius is generally larger than the minimum allowed).
- If the actual pulling tension exceeds the recalculated maximum then a nonconformance report (NCR) is issued and sent to CECO/S&L for resolution.

A cursory review of the NCR log for the period February 24, 1982 through January 12, 1984 indicated that at least 25 NCRs concerning over tensioning of cables had occurred. Fourteen of these were still open as of January 14, 1984. Most of the NCRs had been issued in 1983 subsequent to receipt of the allegation.

The DR log was also reviewed but did not contain enough detail to identify a DR concerning cable over tensioning.

Discussions with cognizant Hatfield QC personnel indicated that the number of over tensioned cables was not unusual considering the several thousand cables being installed and that when over tensioning did occur it was documented and properly resolved.

Documentation relative to the broken instrument cable was not located but only a cursory review was performed.

This item remains open pending further and more detailed review of the records, discussions with other QC inspectors and electrical craftsmen and verification of corrective action on: (1) cables identified on DRs and NCRs as over tensioned, and (2) cables installed prior to when installed tension measurements were required. (50-454/84-02-03; 50-455/84-02-03)

(w) Allegation

Alleger claimed to have reviewed the qualification records of the Hatfield and Pittsburgh Testing electrical inspectors. Alleger considered only about six of eight Level II inspectors to be qualified for the position they hold. As an example, the lead inspectors had background in civil, not electrical, inspection.

Finding

This allegation is true but the item was previously identified during the team inspection at Byron Station and is being tracked as an item of noncompliance, No. 454/82-05-19; 455/82-05-19. Also see NRC Inspection Report No. 50-454/82-17; 50-455/82-12, Item 3.b.(1) on Pages 4 and 5.

From Inspection Report 454/83-39

were all certified. QC hold points for perheat verification and temperature stick logs were not required by AWS. Based upon the inspector's review of the welding procedures, unacceptable welds would not have been attributable to deficient weld procedures. This allegation could not be substantiated and is considered closed.

d. Allegation

For certain hangers covered with fireproofing insulation and for which weld travelers were missing, the insulation was removed and welds reinspected. A reject rate of approximately 90% has been established for these welds.

NRC Findings

The allegation in this area identified welds which were subject to corrective action and reinspection. These welds therefore do not have potential safety significance. Weld card travelers are issued to welders prior to welding on a given item. The traveler is used to document the welding activity and quality control inspection of the completed welds. When a weld traveler is illegible, lost, or destroyed, a new weld traveler is initiated to re-establish and document the quality of an item. The item (weld) must be reinspected. As a result of Noncomformance Report (NR) No. 407, dated February 11, 1982, (cable pan hanger inspection was inadequate corrective action, reinspection of all cable pan hangers) 137 hangers have had the fireproofing insulation removed and inspected. Three hangers have been found to be unacceptable, and one hanger did not have a weld traveler. Hatfield is in the process of identifying each hanger that does not have a complete inspection, or some type of documentation, by reviewing printouts on hangers with weld travelers referencing S&L Drawings to determine which hangers have no documentation as being inspected. The inspector was informed that NR No. 407 will be closed prior to fuel load.

If there is no record or documentation for a hanger it will be inspected. If there is minimum documentation on a hanger, it will not be inspected at this time. All the documentation will be evaluated, depending on the type of documentation, to determine if the hanger is inspected or not at a later date. CECO has an open QA Audit No. 6-83-124 on the above item. Additionally, as part of the reinspection program established in response to noncompliance item identified as 454/82-05-19; 455/82-04-19, welds covered with fireproofing will be reinspected even though weld travelers exist to document the quality of these welds. A reject rate of approximately 90% could not be substantiated.

e. Allegation

A "Unit Surveillance Walkdown" of a system (not specified) performed by Pittsburgh Testing Laboratory and CECO resulted in a 38% weld rejection rate.

From Inspection Report 454/83-39

This allegation was substantiated, but made after the reinspection program had started. This allegation is considered closed.

f. Allegation

In drawing area 03051 or 13051 (426' level) 64 hangers were to be checked. Of the 36 or 37 hangers with all welds accessible, 14 had bad connections. The inaccessible connections had to be accepted on the strength of the weld cards. Authorization to remove insulation to inspect welds was denied.

NRC Findings

The allegation details a reinspection effort conducted by the allegor. Though it is not clear from the allegation as it is stated, the allegor apparently felt the weld connection detail reject rate was high enough to warrant the removal of fireproofing to reinspect additional welds. The allegor states that 14 of 36 or 37 hangers had bad connections (individual welds). The allegor identified welds found rejectable were subject to corrective action. Whether or not the removal of fireproofing to reinspect additional welds was warranted in the instance referred to by the allegor is not clear. As stated in the discussion of the allegation in this area, weld connection details covered by fireproofing are included in the reinspection program established in response to the noncompliance item identified as 454/82-05-19; 455/82-04-19. The licensee had all the fireproofing removed in drawing areas 03051 and 13051 and approximately 300 connections were inspected (all weld connection details). One was found to be unacceptable.

During the pan hanger program (June 1982 to January 1983), it was the policy of Hatfield QA/QC department to accept cable pan hanger connections that were fireproofed with a traveler card number that had been accepted by a weld inspector. If there was no weld inspection in the file for the specified hanger, the fireproofing was to be removed and the required inspection performed and documented. As of January 1983, the policy was changed. Welds are not accepted on the strength of traveler cards only. This allegation was substantiated in part and is now considered closed.

g. Allegation

Panels in Unit 1 containment supplied by Systems Controls Corporation have welds that are not to code (AWS) in that they are undersized (3/8" vs 5/8").

NRC Findings

The allegation in this area concerns undersize welds on panels supplied by System Controls Corporation (SCC). The problem of various deficiencies with panels supplied by SCC was identified December 1979 and January in 1980 the first local instrument control panels were shipped from SCC to the Byron site. CEC initially waived final inspection of the panels at SCC and conducted a receipt inspection of

From Inspection Report 454/83-39

the panels when they arrived at the site but did not include a review of workmanship due to the lack of a dimensional drawing accompanying the panels upon arrival on site. This led the receipt inspector to "N/A" that step in the inspection report. RIII received allegations on February 11, 1980, via a telephone call, that local instrument panels from SCC may have nonconforming welds. Site QA personnel inspected and identified nonconforming welds on panels which had passed receipt inspection by site receipt inspectors. CECO administered NCRs F-474 and F-484, February 1980. The NCRs were closed by the licensee on October 21, 1980, based on repairs and inspections of the panels. The seventh and final licensee status report on this subject was sent to Region III on March 25, 1982 and no further response was required. The inspector reviewed the following drawings of panels in Unit 1 containment supplied by Systems Controls Corporation, and found that the only weld sizes involved for Class 1, 4 and 8 foot panels were 3/16" and 1/8" welds.

Drawing No. 6577-W5, Rev. 0, Welding Details (5 details)
Drawing No. 6577-M-1 PL 50J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 52J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 66J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 67J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 71J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 75J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 54J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 55J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 56J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 57J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 60JA, Rev. 3, Construction
Drawing No. 6577-M-1 PL 60JB, Rev. 4, Construction
Drawing No. 6577-M-1 PL 60JC, Rev. 3, Construction
Drawing No. 6577-M-1 PL 60JD, Rev. 3, Construction
Drawing No. 6577-M-1 PL 61JA, Rev. 3, Construction
Drawing No. 6577-M-1 PL 61JB, Rev. 4, Construction
Drawing No. 6577-M-1 PL 61JC, Rev. 3, Construction
Drawing No. 6577-M-1 PL 61JD, Rev. 3, Construction
Drawing No. 6577-M-1 PL 69J, Rev. 3, Construction
Drawing No. 6577-M-1 PL 70J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 72J, Rev. 5, Construction
Drawing No. 6577-M-1 PL 74J, Rev. 4, Construction
Drawing No. 6577-M-1 PL 76J, Rev. 3, Construction

The 3/8" vs 5/8" welds could not be substantiated. The only welding Hatfield performed on the panels was the termination of the electrical connections. This allegation is considered closed.

(h) Allegation

Some welds that have been covered with fire proofing are only tack-welded. When found, a traveler is written without a Discrepancy Report being written.

From Inspection Report 454/83-39

NRC Findings

The allegation concerns incomplete welds being covered by fireproofing insulation. Since welding was not completed, weld travelers indicating weld completion and quality control inspection did not exist. To complete the connection and establish and document the quality of the welds, fireproofing was removed. Detection of such welds was accomplished when assembling the required documentation for the item as is required prior to release to the CECO. Ideally, coordination of fireproofing activities with cable tray hanger installation would have precluded such occurrences. The welds referred to by the allegor were completed and subject to inspection. The allegor felt that Discrepancy Reports should have been written. Had the items been previously accepted, a Discrepancy Report should have been written, but this apparently was not the case. Fireproofing an incomplete and/or uninspected item, while not a good practice, does not result in the item being accepted because, in order to satisfy quality control documentation requirements, the item must be complete, inspected and found acceptable. As part of the reinspection program established in response to the noncompliance item identified as 454/82-05-19; 455/82-04-19, certain welds covered with fireproofing are being reinspected even though weld travelers exist to document the quality of the welds. As a result of the reinspection program, approximately 5,500 welds have had fireproofing removed by Hatfield. Two welds were found to be tack welded. The fireproofing was removed to find welds that seven inspectors had inspected for their first 90 days of inspection in accordance with the reinspection program. These welds were to be fillets and were located in the auxiliary building. The safety significance of this allegation is minimal when considering the mechanism in place, particularly the system of quality documentation, to assure detection of incomplete or uninspected items. This allegation is considered closed.

i. Allegation

An inspection by an allegor revealed a weld not to plan. The welder indicated on the traveler was neither onsite, nor issued weld rod on the date indicated on the traveler. A person asked the allegor to change the date on the traveler. The allegor stated that he would not.

NRC Findings

The allegation concerns an apparent discrepancy between the date on a weld traveler and other documents which indicate that the welder identified on the traveler was not on site on that date. When a weld traveler was lost, a new weld traveler was initiated to re-establish and document the quality of affected items. The item(s) (welds) must be reinspected. Since the original record was lost, it was impossible to determine the date on which the weld was made. The welders identification, however, could be obtained since it was marked or stamped on the item.

From Inspection Report 454/83-07

- (2) Allegation 8-19-82-1 C.1 - It was alleged that an individual had been hired by HEC Co as a Quality Control Inspector after only a short period of employment with another service group at Byron Station. In addition certain HEC Co managers had stated that this individual was qualified and working as a Level II inspector. These HEC Co managers were purported to have suggested that other QC inspectors write letters to formally upgrade the subject individual to the Level II position.

This concern is of a subjective nature and lacks sufficient detail to be evaluated without additional specific information in terms of time frame and colleague involvement. This item is closed. The second portion of this item, that the subject individual "was unqualified in the level I position," and "could not read drawings or welding symbols" is being tracked as open item 82-05-19 and will be examined in a subsequent inspection.

- (3) Allegation 11-30-82-IV.B - It was alleged that "Tom Wells is a level II inspector. Prior experience was as a carpenter."

The inspectors reviewed the qualification and certification packages for seven HEC Co QC inspectors including Tom Wells. The review of Mr. Wells' certification indicated that HEC Co was taking credit for "three and one half years nuclear power experience" to qualify him as a level II Quality Control Inspector. The information in Mr. Wells' file was incomplete in the descriptions of duties and responsibilities and did not provide sufficient data to support the claim of three and one-half years nuclear experience. Mr. Wells was interviewed for the purpose of establishing duties, responsibilities, training, certification and qualification for the period of 1973 through the present. Based on the information provided by Mr. Wells in the interview a resume of his experience was prepared. A review of this resume revealed that Mr. Wells' total combined related equivalent inspection experience, prior to certification as a level II QC inspector by HEC Co, consisted of a period of 5 months and 7 days as a HEC Co level I QC inspector.

The inspector also noted that the licensee stated in the Stiede to Keppler memo dated November 5, 1982, "The minimum features and methodologies to be verified in our review at Byron were established in a June 9, 1982 directive." The memo continues "Our review of qualification records is expected to be complete by December 31, 1982. Any required retraining/requalification/recertification is to be completed by February 1, 1983.

Contrary to the above, although the program outlined in the June 9, 1982 memo is in fact in place, Mr. Wells was still

From Inspection Report 454/83-07

certified as a HECO level II QC inspector and continuing to perform safety related inspection functions as of February 17, 1983.

Therefore, this failure to establish the requisite related experience in equivalent inspection for level II certification is considered to be a violation of 10 CFR, Appendix B, Criterion II and ANSI N45.2.6-1978 and is considered to be an item of noncompliance as described in the Appendix to the report transmittal letter (454/83-07-01; 455/83-03-01).

- (4) Allegation 1-18-83-II.C - This allegation concerned the use of DV-24 connections where plan calls for a DV-22 connection. This concern is now no longer an issue since the alleged stated that he had subsequently seen a memo from Sargent and Lundy which allowed this substitution. Based on the apparent withdrawal of this concern, this item is closed.
- (5) Allegation 1-18-83-II.D - The alleged's previously stated position regarding lack of QA/QC review of rework authorization prior to initiation of rework was not really a concern regarding lack of QA/QC but rather an opinion that QA/QC review prior to initiating rework might reduce costs. Based on the nature and content of this opinion, this item is closed.

6. Plant Tour

The inspector walked through various areas of the site including Units 1 and 2 containment, auxiliary building, and turbine building to observe operations and activities in progress, to inspect the general state of cleanliness, housekeeping and adherence to fire protection rules.

No apparent items of noncompliance or deviations were observed.

7. Exit Meeting

The inspector met with licensee representatives identified in Paragraph 1 at an exit meeting at the conclusion of the inspection on February 17, 1983. The inspector summarized the purpose, scope, and findings of the inspection. The licensee's representatives acknowledged the findings reported herein.

From Inspection Report 454/83-49

- d. (Closed) Noncompliance 454/82-24-01c; 455/82-18-01c - "Failure to Ensure Access to Stored Items."

The Applicant's response indicated that the layout in warehouse #3 was reorganized to facilitate easy access to stored items and scheduled surveillances would be performed to verify access according to BSI #27. The inspector verified by touring warehouse #3 that by the reorganization performed does provide ready access for inspection or maintenance without excessive handling. Review of BSI #27, Exhibit B, Item A.5, Items stored, etc., dated March 21, 1983 indicated this item was acceptable.

This item is considered "CLOSED".

- e. (Closed) Noncompliance 454/82-24-01d; 455/82-18-01d - "Failure to Control Hazardous Materials."

The inspector verified that hazardous materials are being properly segregated in warehouse #3 as required and that surveillances specified in the Applicant's response were being performed as specified in BSI #27. A review of BSI #27, Exhibit B, Item A.10 "flammables not stored near safety related items", showed the item to be acceptable.

This item is considered "CLOSED".

- f. (Closed) Noncompliance 454/83-07-01; 455/83-03-01 - "HECo Utilizing a Level II QC Inspector Who Did Not Meet Minimum Related Equivalent Inspector Experience."

Applicant's response indicated that subject inspector's Level II certification was rescinded on February 18, 1983. In subsequent discussion related to the Applicant's response the time frame and methodology for re-certification was determined to be re-examination of the first three months of the subject inspector's work as a Level I plus the first 30 days of his work as a Level II. Based on providing evidence of acceptable performance for both these periods, the subject inspector would be re-certified to perform safety related inspection activities in the areas for which he was certified.

The inspector reviewed reinspection results for the subject inspector as provided in the raw data input for the 82-05-19 reinspection report for his Level I performance and HECO QA memo #76 for his Level II performance. The results of the Level I performance provided a 97.1% acceptance rate for Visual Weld Inspections and the Level II performance data provided a minimum acceptance rate of 94.01%. Both acceptance rates exceed the 90% established requirement for acceptance.

Subject to satisfactory evaluation and acceptance of the 82-05-19 reinspection program, this item is considered "CLOSED".