INTERIM ACTION LETTER

ITEM 7 Independence and separation between Kaiser Construction and Kaiser QA/QC

RESPONSE

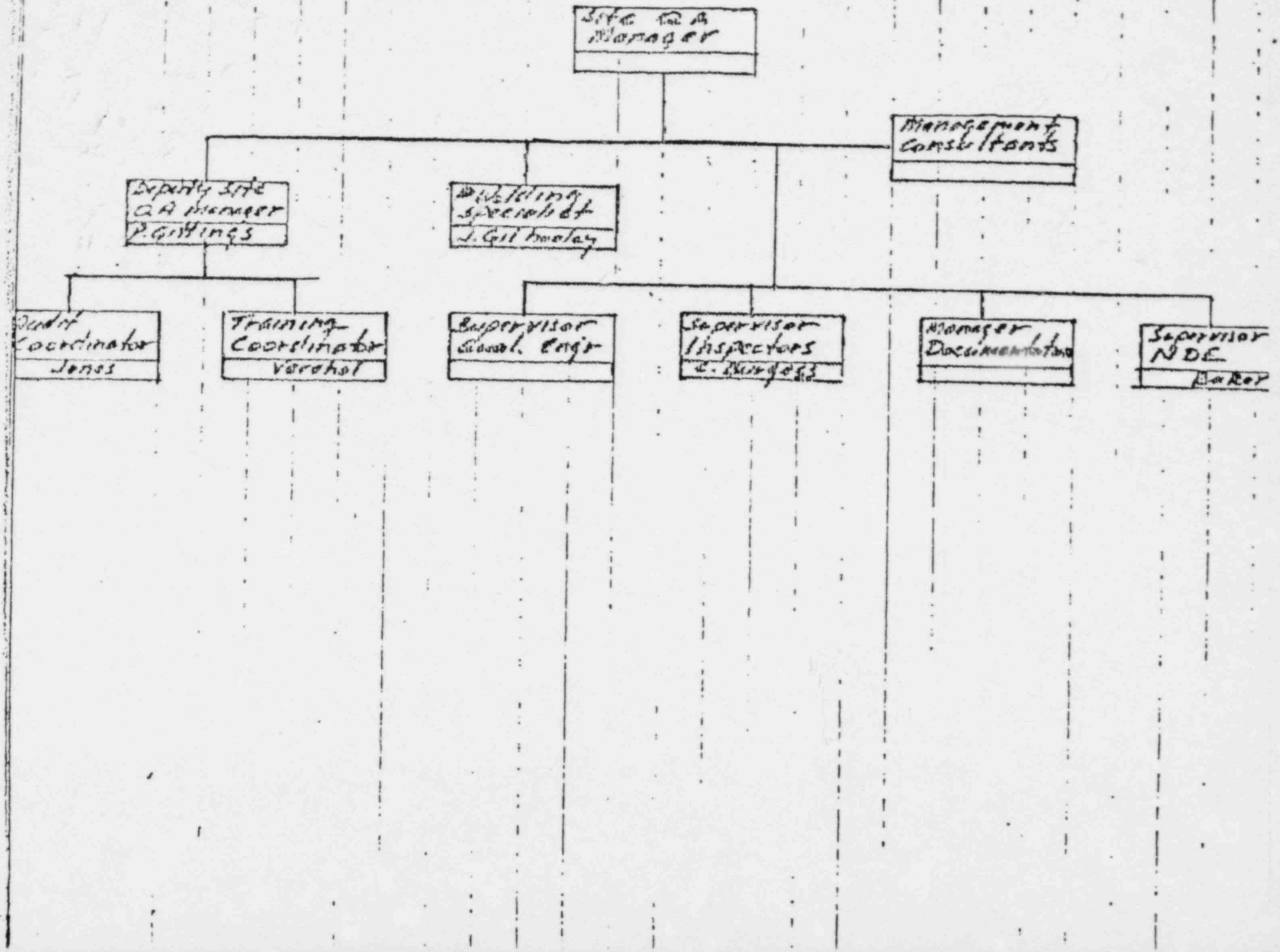
Kaiser Engineers Inc. (KEI Co.) has restructured its Corporate Organization as of 4/1/81. (See attached chart). A significant change is that the Manager of Corporate Quality Assurance now reports directly to the President. This change reinforces the independence and separation of QA/QC from Construction.

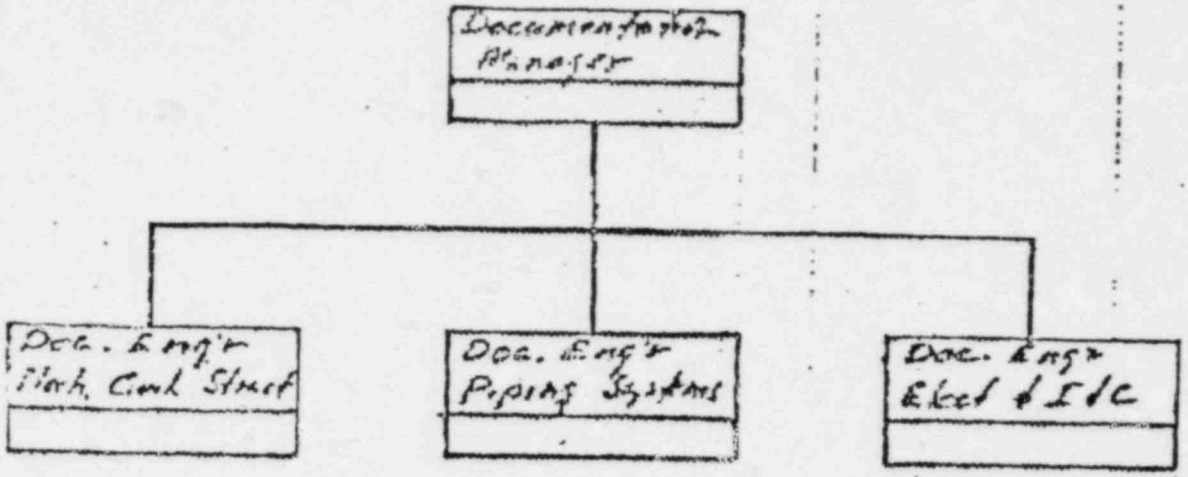
The site QA/QC organization is being restructured in accordance with the attached chart to strengthen the management and supervision of QA/QC activities. A Manager of documentation position has been added to manage all quality related documents. He will be supported by 3 Document Engineers in the diciplline areas, each of these engineers will be supported by a staff of engineers, technicians and clerks as required to review adequacy and accuracy of past documents and assemble required documents to confirm that the actual installation of equipment and materials conforms to the engineers drawings and specifications and NRC requirements. The Document Engineers will also be responsible for review and adequacy of documents covering ongoing construction activities prior to entry into the central document center.

The QA/ QC Site Manager will be supported by an outside management consultant specialized in QA/QC.

QA/QC procedures are presently being reviewed to ensure that QA/QC requirements are clearly indicated. All (FCP) Field Construction Procedures presently included in (QACMI) Quality Assurance-Construction Methods Instruction are being removed and specific QA/QC requirements are being substituted for these FCPs.

DRAFT


Site QA Manager
Management Consultants
Deputy Site QA Manager
P. Giffings
Welding Specialist
J. Gilmorley
Audit Coordinator
Jones
Training Coordinator
Verchot
Supervisor Qual. Engr
Supervisor Inspectors
Manager Documentation
Supervisor NDE


Documentation Manager
Doc. Engr Mech. Civil Struct
Doc. Engr Piping Systems
Doc. Engr Elect & I&C

The following personnel will be attending the discussions held on 4/30/81 at 9:30 a.m. in the Glen Ellyn office. The purpose of the discussion is to establish possible resolutions to the radiography technique problems (shimming of the penetrameter) related to the Zimmer ~~prefabric~~ prefabricated piping.

CG&E

Denny Waymire, Manager of Engineering
Bill Schwers, Manager of QA
Barney Culver, Manager of Construction
Dave Frederick, Mechanical Engineer

Nutech -- CG&E Consultants

Roger Reedy - Chairman ASME
Dave Titcairn

Pullman Kellogg

Al Bair, Manager of QA (Level III RT)
Tom Daniels, Level III RT
Ed Gerwyan, ASME committee Member

Hartford Steam Boiler

Don Young - Supervisor of Zimmer ANI

or Gene Feigles

NES (Nuclear Engineer Services)

Lou Ludwig, Lvl III RT

Bob Burns

S&L

Jim Rudins, Lvl III RT

Murty Schuster, QC for Zimmer

National Board

Dick Jaeger

State of Ohio

Don Miller

Region IV

Harold Reynolds

A-49
48

7/28/81

Barrett, Streeter, Warnick, Davis

POSITION ON "UNAPPROVED VENDORS"

Attached are relevant sections of investigation reports dealing with concerns expressed by Mr. Victor Griffin in 1976. One of his concerns dealt with materials purchased from "unapproved vendors". Investigation indicated that some materials (not components) had been purchased to Class II requirements, although documentation sufficient to meet Class I requirements was also provided. In some instances, these Class II materials were upgraded to Class I and utilized in the plant. The findings of reports 76-02 and 77-03 indicate that we considered this an acceptable practice, and the media (and public) were advised of our position.

It appears that the item of noncompliance issued in Section 7.1 of report 80-13 may represent a different conclusion on a similar situation, unless a beam is considered as a "component" rather than a material.

I believe that Mr. Griffin, and others, may question this apparent difference, and we should have an answer developed.

James E. Foster

8207300155

RPT 50-358/76-02

REPORT DETAILS

Section I

Prepared by E. W. K. Lee
Engineering Inspector

T. E. Vandel
Assigned Project Inspector

Persons Contacted

The following persons, in addition to the individuals listed under the Management Interview section of this report, were contacted during the course of the inspection.

Kaiser Engineers Incorporated (KEI)

D. Williams, Vice President Power
C. Gray, Project Manager
C. Yohe, Inspection Supervisor
C. Makowsky, Supervisor-Site Document Center
H. Millard, Chief Material Coordinator

Results of Inspection

1. Class II Materials Installed In Class I Area

The inspector reviewed the following documents relative to materials purchased as Class II (non-essential) and installed in Class I (essential) area and determined that they have proper documents and met the applicable standards. The inspector also established that the use of those materials was authorized by the KEI QA Manager:

a. KEI stores Issue No. 08477, dated November 6, 1975, for five (5) pieces of 8' x 17' x 40' W. Flange to be installed in the Reactor Building for hanging cable pans. The heat number of the material is H09075 and Material Certification from U. S. Steel Corporation indicated ASTM A-36 specification was met.

b. KEI stores Issue No. 08532, dated November 11, 1975, for one (1) piece of 1" x 6" x 20' flat bar to be installed in the auxiliary building for hanging cable pans. The heat number of the material is 40239 and material certification from Northwestern Steel and Wire Company indicated ASTM-A-36 specification was met.

RPT 50-358/76-02

c. KEI stores Issue No. 08691, dated November 20, 1975, for 2 pieces of 7/8" x 20' round bar to be installed in the Reactor Building as anchor bolts. The heat numbers of the material is BP326 and material certification from Burlington Steel Company indicated ASTM-A36 specification was met.

2. Quality Assurance Program Review

The quality assurance program in effect for the Zimmer facility was reviewed by the inspector and discussed with CG&E and KEI personnel for the following areas.

a. CG&E Quality Assurance Program

Section 7 of the CG&E QA manual was reviewed regarding: (1) Selection of Source (Paragraph 7.3) and Source Evaluation (Paragraph 7.2) for Non-GE procured items, (2) Source Inspection (Paragraph 7.5) for Non-GE procured items, and (3) Receiving Inspection (Paragraph 7.6) for Non-KEI Procured Items.

It was determined that adequate measures are established in the manual to comply with the 10 CFR Part 50, Appendix B, Criterion VII requirements for (1) source evaluation and selection, (2) inspection at the vendor source, and (3) examination of products upon delivery.

b. KEI Quality Assurance Program

The KEI quality assurance manual contains adequate measures for material control in Quality Assurance Procedure (QAP) number 7 and 9 to assure that only properly qualified and accepted material are allowed to be used or installed as required by 10 CFR Part 50, Appendix B, Criterion XV. The KEI Site Quality Assurance Manager stated that additional provisions are included in QAP No. 1 regarding specific assignments of responsibilities for the site Quality Assurance Manager. He said that Paragraph 4 of the Procedure states that the site Quality Assurance Manager has the responsibility and authority to accept or reject any or all work, material, components, parts, etc. He added that under this authority he has reviewed material that has been upgraded in quality status and accepted that upgraded status when it was considered to be acceptable.

3. Components Review

Selected Safety related components were reviewed for quality documentation and establishment of quality acceptability. Following is the results of the review:

The following is a partial list of unapproved vendors from whom we have received Class I material or Class II subsequently upgraded to Class I.

Manufacturer	Address	Product
Connors Steel Corp.	Birmingham, Ala.	Plate, Bar, Shapes
U.S. Steel Corp.	Homestead, Pa.	Plate, Bar, Shapes
North Western Steel & Wire	Sterling, Ill.	Plate, Bar, Shapes
U.S. Steel	Gary, Ind.	Plate, Bar, Shapes
Calumet Steel	Chicago Hts, Ill.	Plate, Bar, Shapes
U.S. Steel (Youngstown Works)	McDonald, Ohio	Plate, Bar, Shapes
Tennessee Forging	Newport, Ark. & Harriman, Tenn.	Plate, Bar, Shapes
Atlantic Steel Co.	Atlanta, Ga.	Plate, Bar, Shapes
Acimet Mfg. Co.		Nuts
Yamato Steel Works, Ltd. (Japan)		Plate
Youngstown Sheet & Tube		Plate
Werkszeugnis (Germany)		Plate
Weirton Steel Division		Angle
U.S. Steel	Fairless Works	Plate
U.S. Steel	Clairton Works	Angle
U.S. Steel	South Works	Beams

Tennessee Forge - Harriman, Tennessee

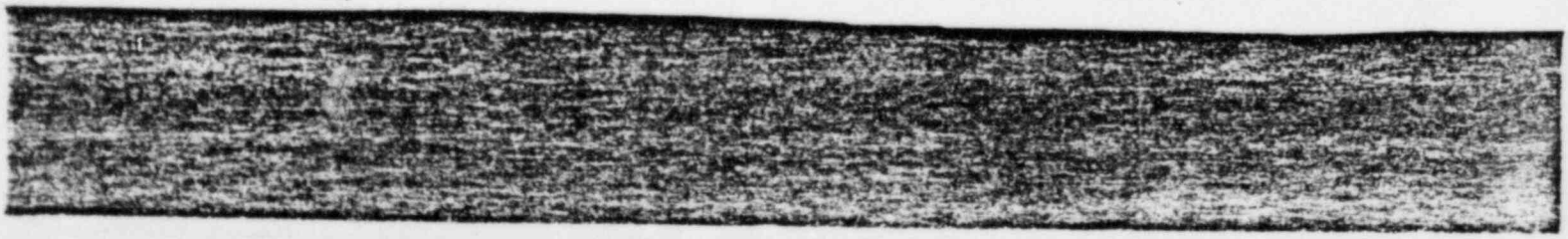
Calumet Steel - Chicago Heights, Ill.

U. S. Steel - Homestead, Penn.

All these suppliers have furnished Class II steel which has been subsequently up-graded to Class I on your signature.

MEMO, V.C. GRIFFIN TO W.J. FRIEDRICH

DATE. SEPT 22, 1975.



Rpt 50-358/77-03

The comment reflects an in-house disagreement on the interpretation of a specification, rather than any noncompliance with NRC regulations, and no further investigation into the comment is required.

19. Comment Received By NRC

During the interview with NRC investigators, Individual "I" indicated that welder's qualification tests, performed at a welding school, were accepted in lieu of a qualification test being performed at the plant site.

Finding

This comment indicates possible noncompliance with NRC regulations and requires inspection in the area of welder's qualification testing.

20. Interview with Individual "C"

Material referred from the GAO to the NRC for investigation indicated that Individual "C" had been interviewed by representatives of the GAO, although no comments were referenced to him. As Individual "C" had made allegations which were the subject of a prior NRC investigation, Individual "C" was interviewed to insure that he had no information which had not been previously disclosed and investigated.

Individual "C", interviewed by the NRC investigators on February 25, 1977, indicated that he had no information which had not been disclosed to the NRC in the previous investigation, but that he was not satisfied with the results of that investigation (which found no noncompliance with NRC regulations on the part of Cincinnati Gas and Electric Company).

Individual "C" stated that although he had no prior nuclear experience, he had more than twenty years QA experience, and had many years experience in doing source inspections and QA audits for the aerospace industry. He said that he was employed by Kaiser Engineering in October, 1972 as a QA inspector, and his early duties were the inspection and audit of vender's QA programs. In late 1973, he indicated, Kaiser gradually stopped approving trips to do source QA inspections, and finally stopped the practice altogether.

Individual "C" said that all General Electric components which were received at the Zimmer site were accompanied by documents which proved source inspection. Since CG&E source inspections were no longer being done, venders of some of the materials (materials are unfabricated articles such as steel plate, as opposed to components, which are in fabricated form) had not been source inspected. Individual "C" indicated that he regarded those venders who had not been subject to a source inspection as being "unapproved venders."

NRC 50-358/77-03

Frequently, Individual "C" stated, materials would be purchased as Class II materials and later upgraded to Class I materials when it was necessary to use them in Class I installations. Individual "C" indicated that he considered this upgrading of materials as improper and that he would not personally sign the paperwork that upgraded such material. A partial listing of venders who had supplied such Class II materials which were subsequently upgraded to Class I materials had been made up during his employment with Kaiser Engineering, he said, and should still be in their files at the plant site. Individual "L" would know about this list, and should be contacted, Individual "C" stated.

Individual "C" indicated that he was aware that NRC had previously investigated his concerns and found no noncompliance with NRC regulations. He said that CG&E had made no secret of the way they were operating, and had made it clear that they intended to continue with their present procedures.

The investigators advised Individual "C" that he had not presented them with any information not investigated in the previous investigation (IE Inspection Report No. 050-358/76-02) which found that CG&E was not in noncompliance with any NRC regulations, and that his concerns reflected a philosophy of quality assurance which was not reflected in NRC regulations. Individual "C" indicated that this was understood, but that he felt that the NRC regulations should be changed.

21. Discussion with Individual "L"

Individual "L", who had been referred to by Individual "C" was contacted by telephone, and he indicated that the investigators should contact his supervisor, Individual "M".

22. Discussion with Individual "M"

Individual "M" was questioned concerning the purchasing of materials for plant construction and the procedures for upgrading materials from Class II to Class I. Individual "M" stated that plant construction materials were often purchased without knowledge of their ultimate use in the plant. As an example, he stated that a piece of steel plate could be used in a Class II or Class I location, and the same piece of plate would meet the specifications for either location. As a result, he said, materials are usually bought from a distributer as Class II materials, but documentation of the specifications of the materials is requested at the same time (these would come from the manufacturer). Individual "M" stated that if the material was then required for use in a Class I location, the documentation received with the material was used as justification for upgrading the material to Class I material. He also

RPT 50-358/77-03

indicated that if the documentation received with the materials proved insufficient to justify upgrading the material, a "user's test" could be performed by an independent testing company, and the test results could be used to justify upgrading the material tested.

Individual "M" stated that he was not familiar with the "list of unapproved venders" referred to by Individual "C" but that he would have the files checked for any such list. The list was subsequently provided to the NRC investigators. The list was reviewed and found to contain no information which alters the conclusions of the prior NRC investigation into CG&E purchasing practices. No noncompliance with NRC regulations was indicated, and no further investigation into this area is necessary.

Piping A-50 49
Investigation 80-09

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUL 2 1980

Docket No. 50-358

Cincinnati Gas and Electric
Company
ATTN: Mr. Earl A. Borgmann
Vice President, Engineering
Services and Electric
Production
139 East 4th Street
Cincinnati, OH 45201

Gentlemen:

This refers to the investigation conducted by Messrs. G. A. Phillip, K. D. Ward and T. E. Vandel of this office on April 7-9 and 30, May 1-2 and 20, 1980, of activities at the Wm. H. Zimmer Nuclear Power Station authorized by Construction Permit No. CPPR-88 and to the discussion of our findings with Mr. B. K. Culver and others at the conclusion of the onsite portion of the investigation on May 2, 1980.

This investigation related to allegations concerning installed safety-related piping. The enclosed copy of our investigation report identifies areas examined during the investigation. Within these areas, the investigation consisted of an examination of pertinent records and procedures, independent evaluations and interviews with personnel.

During this investigation, certain of your activities appeared to be in noncompliance with NRC requirements, as described in the attached Appendix A.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within thirty days of your receipt of this notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC's Public Document Room, except as follows. If the enclosures contain information that you or your contractors believe to be proprietary, you must apply in writing to this office, within five days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

8008140463

We will gladly discuss any question you have concerning this investigation.

Sincerely,

James G. Keppler
Director

Enclosures:
1. Appendix A, Notice of Violation
2. IE Inspection Report No. 50-358/80-09

cc w/encls:
Mr. J. R. Schott, Plant Superintendent
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
Harold W. Kohn, Power Siting Commission
Citizens Against a Radioactive Environment
Helen W. Evans, State of Ohio

OFFICE	RIII	RIII	RIII	RIII	RIII	RIII
SURNAME	Phillip/cw Ward	Vandel Barrett	Knop	Fiorelli	Norelius	Keppler
DATE	6/30/80					7/2

Appendix A

NOTICE OF VIOLATION

Cincinnati Gas and Electric Company

Docket No. 50-358

Based on the results of the NRC Investigation conducted on April 7-9 and 30, May 1-2 and 20, 1980, it appears that certain of your activities were not conducted in full compliance with NRC requirements as noted below. This item is an infraction.

10 CFR Part 50, Appendix B Criterion XV, states in part that "Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation."

a. The Henry J. Kaiser Co. Zimmer Quality Assurance Manual in Quality Assurance Procedure (QAP) No. 16 requires in part that "All nonconforming items will be segregated, where possible, from acceptable items, clearly identified with the applicable Hold or Deficiency Tag and documented on the Nonconformance Report." It additionally requires that "Upon Verification that all work on the item is complete and acceptable, the nonconformance report (NR) is signed off in Section 13 by the Inspector."

Contrary to the above, 5 piping spools identified by NRE-1911 Rev. 2 were released from segregation even though the Inspector had signed off section 13 with a notation of specific exceptions to acceptability of the material by identifying another NR controlling the material. This release was achieved through unauthorized removal of the noted exceptions on the NR.

b. The Henry J. Kaiser Co. Zimmer Quality Assurance Manual in Quality Assurance Procedure (QAP) No. 16 requires in part that ". . . material is clearly identified as nonconforming and is segregated, when possible. Due to size limitations physical segregation may be impractical. In such instances tagging, marking, or other means of identification is acceptable." Additionally QAP 15 requires that "A 'Hold' tag is placed on the item . . . It is used in conjunction with a 'Nonconformance Report'."

Contrary to the above, 3 piping spools identified in NR E-2020 as nonconforming and required to be cleared by additional tests, not only had been released from the warehouse, but in addition had been installed without any "hold" tag being placed on the material.

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-358/80-09

Docket No. 50-358 License No. CPPR-88

Licensee: Cincinnati Gas and Electric Company
139 East 4th Street
Cincinnati, OH 45201

Facility: Wm. H. Zimmer Nuclear Power Station

Investigation At: Moscow, OH
Chicago, IL

Dates of Investigation: April 7-9 and 30, May 1-2 and 20, 1980

Investigators: G. A. Phillip — 7/1/80 Date

K. D. Ward — 7/2/80 Date

T. E. Vandel — 7-2-80 Date

Reviewed By: for E. Norelius, Assistant to the Director — 7-2-80 Date

R. C. Knop, Chief, Construction Projects Section 1 — 7/3/80 Date

Investigation Summary: Investigation on April 7-9 and 30, May 1-2 and 20, 1980 (Report No. 50-358/80-09)
Areas Investigated: Because of allegations made primarily relating to the adequacy of piping welds, performed a review of records and procedures,

8008140468

made independent evaluations and conducted interviews of personnel. The investigation involved 94 investigation hours by three investigators. Results: Of four allegations, one, which related to the installation of pre-fabricated piping having defective welds, was partially substantiated in that the pipes were installed before questions regarding their acceptability were resolved. One item of noncompliance, an infraction, was identified: (1) 10 CFR 50, Appendix B, Criterion XV, release of material from segregation and failure to use hold tags.

REASON FOR INVESTIGATION

On February 28, 1980, an individual who contacted the NRC by telephone made allegations regarding the Wm. H. Zimmer Nuclear Power Station. One of these allegations was that piping having defective welds had been installed in a safety-related system.

SUMMARY OF FACTS

Following the receipt of allegations by telephone on February 28, 1980, arrangements were made to interview the alleger to obtain more detailed information. During an interview on March 3, 1980, the individual made several allegations, three of which involved matters under the jurisdiction of the NRC. By letter dated March 11, 1980, the alleger was advised that an investigation would be conducted regarding those allegations which were as follows:

1. Defective welds in safety-related systems have been accepted, among them were welds CY606, HR42 and K811.
2. Five defective welds were identified in prefabriacted piping but the pipes were accepted and installed in a safety-related system.
3. The manner in which safety-related installed piping was flushed was inadequate and a scheduled six-week flush was reduced to two weeks.

Allegation No. 1 was not substantiated.

Allegation No. 2 was partially substantiated in that three of five identified pipes had been installed in the main steam relief system before questions as to their acceptability had been resolved. Two items of noncompliance were identified in this regard. It was also determined that at the time of the investigation a nonconforming report requiring disposition remained open concerning the acceptability of the three pipes. During the investigation additional examinations were made of the pipes and they were determined to be acceptable.

Regarding Allegation No. 3, it was determined through contact with the primary source of the information upon which the allegation was based, that he had left the site in November 1978 and problems in this area had been identified and resolved through NRC inspections conducted between November 1978 and the receipt of the allegations in March 1980.

Following completion of the investigation at the Zimmer site, the alleger contacted Region III and alleged he had evidence of a criminal

conspiracy and that the welds on the three above-mentioned pipes had been cut out and repaired during the course of the investigation and this information was withheld from the NRC. The basis for these allegations, which consisted of recordings of three telephone conversations, was obtained from the alleger during an interview on May 8, 1980. No information or evidence was obtained to confirm these allegations during the interview or during subsequent investigation.

One item of noncompliance, an infraction, was identified during this investigation.

DETAILS

1. Persons Contacted

Cincinnati Gas and Electric Company (CG&E)

*B. K. Culver, Project Manager
*W. W. Schwiers, QA Manager
*R. L. Wood, QA Engineer
*D. C. Kramer, QA and S Engineer
S. Swain, Construction Manager
*J. F. Weissenberg, QA and S Engineer

Kaiser Engineers, Inc. (KEI)

*R. Marshall, Project Superintendent
*E. V. Knox, QA Manager
K. R. Baumgarten. QA Manager
R. M. Dorr, Construction Engineer
A. Pallon, Welding/NDE QA Engineer
F. Oltz, Analysis and Procedures Supervisor, QA
J. Deerwester, Supplier QA
D. Haag, QA Inspector

Peabody Testing Services (Peabody)

Ernest Aldredge, President
Charles Wood, Manager, Cincinnati Office (via telephone)
Wayne Draffon, Supervisor (via telephone)
Alan Sellars, Field Supervisor
D. Burdsal, Level II Inspector

Nuclear Energy Services, Inc. (NES)

R. Bott, NDE Supervisor
R. A. Zieber, NDE Inspector

2. Introduction

On February 28, 1980, the Office of Inspection and Enforcement NRC Headquarters advised Region III of a telephone conversation with an individual who made allegations concerning activities at the Wm. H. Zimmer Nuclear Power Plant Construction site, and requested that the individual be contacted. Later the same day during a telephone conversation with Region III, and during an interview on March 3, 1980, the individual made several allegations.

The individual stated that he had been employed by a private detective agency, and the licensee, CG&E, through his employer, had engaged him to work under cover at the Zimmer site to investigate time card padding by site personnel. His investigation effort began on December 10, 1979 and ended on January 4, 1980. In addition to information regarding worker time card padding, he obtained information regarding other activities which was the basis for several allegations, some of which related to matters under the jurisdiction of the NRC.

The individual stated he had earlier brought his information to the FBI. He indicated he was uncertain as to what action, if any, would be taken by that agency.

The individual stated he had documentation relating to his allegations in the form of weekly reports he had prepared and tapes of several of his conversations with site personnel. During the interview on March 3, 1980, the individual played those parts of the tapes which he said contained pertinent information and made available copies of his reports.

3. Allegations

Based on the information obtained through the interview with the alleger, a review of the taped conversations and his investigative reports, three allegations involving activities under NRC jurisdiction were developed. By letter dated March 11, 1980, the alleger was advised that an investigation of these allegations would be conducted. A copy of this letter with the alleger's identification deleted is attached to this report as Exhibit A. These allegations and information regarding them obtained during the investigation are set forth below.

Allegation 1: Defective welds in safety-related systems have been accepted, among them were welds CY606, HR42 and K811.

The identification of the specific welds in this allegation was obtained from a review of the tape the alleger had made surreptitiously of his conversations with site personnel. According to the information obtained by the alleger, weld CY606 was buried in concrete between the Radwaste Building and the Containment Building. He said it was his understanding that they dug it up to repair it, but he was uncertain whether this was done.

Regarding weld HR42, the alleger said that he had informed CG&E that this weld was defective. He said he had heard that another testing firm had been hired as a consultant, and this firm had confirmed the weld was defective. He also said it was his understanding that this defect was reported to the NRC.

Regarding weld K811, the alleger said he was informed that this weld had "an insert fault" and that KEI had ordered that it be accepted.

The alleger stated that Peabody Testing Services (Peabody), also referred to as Magnaflux, personnel had informed him that some welds that Peabody, the nondestructive testing contractor, had rejected as faulty were subsequently accepted by KEI, the site construction management contractor. He said that a Peabody employee had records identifying the welds rejected by Peabody which were subsequently accepted by KEI. He indicated that by way of explanation, CG&E had informed him that the interpretation of the film obtained through radiographic examinations of welds is a judgment call. The appearance of an item on a radiographic film may be judged to be a defect by one individual and not by another and KEI could overrule Peabody.

Finding:

On April 7, 1980, the Peabody field supervisor was interviewed. He stated that he had no records showing the welds Peabody had initially rejected which were subsequently declared acceptable by KEI. He indicated that, although he was aware that this had occurred, he did not know how often and he could not provide any specific instances. He also stated that the results of radiographic examinations are recorded on reader sheets. The radiographic film and the original reader sheets are turned over to KEI. He said Peabody only had carbon copies of the reader sheets.

As a means of further evaluating whether KEI was accepting welds identified as defective by Peabody, a safety-related system, the High Pressure Core Spray System, was selected and all reader sheets pertaining to it were reviewed. Of 99 welds in the system which were radiographed, two instances were noted in which Peabody had checked the reject column and KEI had lined that check out and had checked the accept column. The radiographs of these two welds were reviewed by an NRC inspector who is a certified NDE Level III. He concurred that the welds were acceptable. Conversely, it was noted that in several instances, between five and ten, the original accept check mark entered by Peabody had been lined through and a reject check had been entered by KEI.

Regarding the subject of welds and radiographs of them, an NRC inspection conducted on November 8-9, and December 12-13, 1978 (Report No. 50-358/78-30) identified several discrepancies in radiographic techniques and reports. During a subsequent inspection on September 18-20, and December 11-12, 1979 (Report No. 50-358/79-17) several more discrepancies were identified. CG&E then hired NES to rereview radiographs and reports of all welds which had been accepted for turnover prior to operation. This review began in October 1979 and was completed in early April 1980. The review included 2,390 radiographed welds. Of those, 958 had report discrepancies, 543 had some technique problems and 14 welds were found to be unacceptable because of defects.

The KEI Project Superintendent advised on May 1, 1980, the 14 welds were being re-examined and resolution regarding them had not been completed. He stated that one of the 14 welds found to be unacceptable was the subject of a nonconformance report and, therefore, had not been accepted for turnover. This weld, he said, should not have been included in the NES review. Another weld had been cut out of the pipe for examination and it was determined that, although it appeared to have a defect on the radiographic film, it was, in fact, an acceptable weld.

Regarding weld No. K811, a review of records showed it was welded on November 9, 1977, but because an Authorized Nuclear Inspector hold point was missed at the fitup, the weld was cut out and replaced by weld No. K916. The missed hold point was documented by Nonconformance Report (NR) No. E-2138R1. This NR indicates that the disposition was to cut out and replace the weld. It was determined that weld No. K916 had not yet received final acceptance.

Regarding weld No. RH42, records indicated this weld was first radiographed on August 9, 1976, and found to have unacceptable porosity and slag in the areas of 36-48. The areas were repaired and a reradiograph performed on August 10, 1976 found it to be acceptable. A review was made of the radiographs for weld quality, techniques, and report accuracy by an NES Level II radiographer on January 25, 1980 as part of the above-mentioned re-review initiated after the 1978-79 NRC inspections. The NES Level II radiographer found some discrepancies which have not been resolved, and the weld has not been given final acceptance.

Regarding weld No. CY606, a review of records showed this weld was first radiographed on July 15, 1976 and found to have incomplete fusion and penetration in the areas of 0-13 and 13-16. The areas were repaired and the weld re-radiographed on June 8, 1977 and found to be acceptable. A review was made of the radiographs for weld quality, techniques and report accuracy by an NES Level III radiographer on October 12, 1979 as a result of the NRC inspection conducted in 1978. The Level III found some discrepancies which have not been resolved and the weld has not received final acceptance.

Allegation 2: The manner in which safety-related installed piping was flushed was inadequate and a scheduled six-week flush was reduced to two weeks.

The alleger provided information that a site employee informed him on December 27, 1979, that another individual who had been employed as a general foreman at the site had objected to the flushing procedures used. He had also objected when a particular flush that should have taken six weeks was cut to two weeks. On one occasion the individual had demonstrated the flushing was inadequate by pounding on a pipe which released sediment and slag during the flush. The identity of the former general foreman was provided by the alleger.

Finding: On April 7, 1980, the former general foreman was contacted and interviewed. This individual said he had worked at the Zimmer site from June 1973 until November 1978. In 1978 he was the general foreman of the flush group.

Regarding the six-week versus two-week flush, the individual indicated it had been anticipated six weeks would be needed to prepare for and flush one of the systems. He, however, was able to accomplish a satisfactory flush in two weeks. He indicated that the shorter time did not mean the flush was not done according to the requirements. Rather, it was a case of he and his men being able to accomplish a job in less time than expected.

This individual stated that in his opinion the welding done on the critical systems, such as the main steam lines and in the reactor building, was good. He said, however, that several problems were encountered in the flushing activities while he was at the site but he was unable to provide information regarding any specific requirements that were not met.

NRC inspections conducted subsequent to the departure of this individual from the site included an examination of flushing activities and some specific problems were identified. On the basis of one of these inspections, conducted January 3-6 and 8, 1979 (Report No. 50-358/79-01), one item of noncompliance and one deviation were identified. The noncompliance related to a failure to close a valve during a flush and an inadequate procedure to assure boundary valves are closed. The deviation was that the procedure did not require tagging of boundary valves. A second inspection conducted February 27-28, March 1-2, 19-23, and April 9-11, 1979 (Report No. 50-358/79-06) resulted in one item of noncompliance regarding flushing activities. This related to a failure to maintain control of flushing waters resulting in the flooding of equipment in a system which had been turned over for preoperational testing.

The individual indicated a matter of concern to him was that a hydrotest of the reactor containment was successfully performed, but after the test some instrument lines were cut out which invalidated the hydrotest. He indicated he was uncertain as to whether CG&E would attempt to use this test as meeting test requirements or whether the NRC was aware the test had been invalidated by the subsequent modifications.

On April 8, 1980, the NRC Resident Inspector advised that he as well as CG&E were aware that the initial hydrotest was not valid because of the subsequent modification of the instrument lines. He stated that another hydrotest was tentatively scheduled to be performed during the summer of 1980.

In view of the above, further investigation at the site in the area of flushing activities was not pursued.

Allegation 3: Five defective welds were identified in prefabricated piping, but the pipe was accepted and installed in a safety-related system.

Through a review of reports written by the alleger and the tapes of conversations with site personnel as well as information supplied through interview on March 3, 1980, the following information was obtained regarding this allegation.

During the NRC hearings in November 1979, a question was raised concerning an accident which involved the dropping of fuel rods. A former site employee had provided information to attorneys who were opposed to the licensing of the plant which was the basis for raising this question. A miscommunication between the former employee and the attorneys occurred, however. The question about an accident should have referred to piping being dropped from a tractor trailer rather than fuel being dropped.

The alleger advised that in about October 1979, a trailer load of pipes fabricated at the Kellogg Company, located in Pennsylvania, arrived at the site in the middle of the night. Since personnel and proper equipment were not available to unload it properly a member of CG&E management issued instructions to push the pipe from the truck onto the ground.

When the pipes were found on the ground the following day, it was decided that the pipes would have to be inspected by x-ray to determine whether they had been damaged. Peabody was instructed to x-ray (radiograph) the pipes and 5 to 8 faulty welds were identified. Since Peabody had been instructed to check the pipes but not the welds, and since the welds had been tested and found to be acceptable before shipment by Kellogg, the pipes were approved by KEI Quality Assurance. These pipes were installed in the Main Steam Relief System, a safety-related system.

Finding: A bill of lading dated June 29, 1979 showed that Pullman Power Products, a division of Pullman, Inc., Williamsport, Pennsylvania, formerly known as M. W. Kellogg Company, released to the Daily Express Company five pieces of pipe assembly I/S, weighing 6,700 pounds, for delivery to the CG&E Zimmer site on Monday, July 2, 1979. A packing slip accompanying the shipment listed the following pieces:

IMS08BB12-6B
IMS09BA12-1AH
IMS08BA12-5BH
IMS11B12-7BH
IMS10BA12-ICH

A KEI receiving stamp shows it was received on July 3, 1979. Copies of the bill of lading and the packing slip were obtained and are attached to the report as Exhibits B and C, respectively.

Each of these pipes (spool pieces) were for the Main Steam Safety Relief Valve discharge and were carbon steel pipe assemblies approximately 15' 7 5/8" long, 12 3/4" in diameter and having a wall thickness of .687".

On hand at the Zimmer site were QA documentation packages for each of these 5 spool pieces received from Pullman. A copy of one package was obtained and is attached to this report as Exhibit D.

On July 5, 1979, Nonconformance Report (NR) No. E-1911 was prepared indicating "Spools were rolled off of truck onto ground and striking other spools" and listing the above identification numbers. The issuance of this NR had the effect of placing these pipe spools in a hold status in the KEI warehouse. On July 10, 1979, the KEI Construction Engineer entered the following disposition on this NR "Rework. (1) Perform liquid penetrant test on all welds; (2) perform visual inspection of weld and preps. Accept on basis of inspection (1) and (2). Should any pipe spool fail due to inspections (1) and (2) a separate Nonconformance will be issued." A KEI QA engineer concurred in this disposition on the same date. A copy of NR E-1911 is attached to this report as Exhibit E.

NR E-1911 was voided and superseded by NR E-1911 Rev. 1 on the same date, July 10, 1979. KEI and CG&E personnel advised that the disposition shown on NR E-1911 was reconsidered because they wished to avoid removing the paint from the welds which would be necessary before a liquid penetrant examination could be performed. NR E-1911 Rev. 1 changed the first item of the disposition to: "Perform RT examination of all welds." A copy of NR E-1911 Rev. 1 is attached to this report as Exhibit F.

A QA Surveillance Report dated July 23, 1979, addressed to a CG&E QA engineer signed by the KEI NDE QA engineer, showed that on three spool pieces, weld X4 had rejectable indications, and requested to be advised concerning the dispositioning of these rejections. The CG&E QA engineer stated that to the best of his recollection, he did nothing in response to this request and could not recall having discussed the matter with anyone. A copy of this Surveillance Report is attached to this report as Exhibit G.

CG&E and KEI personnel stated all five spool pieces were radiographed on an "information only" basis but only the films for those three Referred to in the Surveillance Report were retained. The X4 weld is a weld which joins a solid cap to one end of the spool piece. Radiography is not the appropriate technique employed to examine a weld of this kind since the gamma rays must pass through the cap (about 12' of metal) as well as the weld. The KEI Construction Engineer said the radiographs were done with the thought that they might show surface damage, even though it was recognized the quality of the film would not be good and it was recognized that the film would not meet any code standards.

NR E-1911 Rev. 1 was voided and superseded by NR E-1911 Rev. 2 on July 31, 1979. The disposition shown on the latter was to perform RT examinations of all "butt-welds" and to perform visual examinations of all "fillet-welds."

A QA Surveillance Report dated August 8, 1979 showed that all five spool pieces were visually examined and were found acceptable. A copy of this Surveillance Report is attached to this report as Exhibit H.

Since two spool pieces had shown no indication of damage through radiographic examination and visual examination another NR, No. E-1997, dated August 9, 1979, was prepared as a mechanism to remove those two spool pieces from a hold condition but to retain an open NR on the other three. NR E-1911 Rev. 2 was closed by KEI QA on August 9, 1979, with the notation "Exceptions on → See NR E-1997." A copy of the NR E-1911 Rev. 2 is attached as Exhibit I.

NR E-1997 showed that the spool pieces IMSO9BA12-1AH and IMSO8BA12-5BH were acceptable. On August 13, 1979 the KEI Construction Engineer placed a notation on NR E-1997 "CG&E to disposition." The KEI Construction Engineer stated that this was appropriate since CG&E has responsibility for off-site vendor supplied items. On August 19, 1979 the CG&E Construction Engineer added the disposition "Accept-As-Is" and described the reasons for this disposition. A copy of NR E-1997 is attached to this report as Exhibit J.

Quality Assurance Instruction, QACMI No. G-4, Nonconforming Material Control, requires that NRs dispositioned "Accept-As-Is" be signed by the Material Review Board before they are closed out. NR E-1977 was closed out on October 17, 1979 with a comment added by the Sargent & Lundy (S&L) board member to the effect that "Welds rejected by radiograph are covered by NCR E-2020." A copy of the closed NR E-1997 is attached to this report as Exhibit K.

NR E-2020 showed the same information as NR E-1997, but at the time of the investigation, E-2020 had not been closed out. A copy of NR E-2020 is attached to this report as Exhibit L.

A review of records at the warehouse showed that the three spool pieces, which were the subject of the open NR had been released to construction for installation as follows:

Item	Issue Date
IMS11B12-7BH	9/18/79
IMS10BA12-1CH	9/24/79
IMSO8BB12-6B	9/28/79

On April 8, 1980, it was established that these spool pieces had been installed and no "Hold" tag or "Deficiency" tag had been placed on them. This is in noncompliance 10 CFR 50, Appendix B, Criterion XV, and KEI Quality Assurance Procedure No. 15.

It was ascertained that the spool pieces had been released from the warehouse on the basis of a later version of NR E-1911 Rev. 2 on which the above-mentioned notation referencing NR E-1997 had been lined through on September 14, 1979. A copy of this version of NR E-1911 Rev. 2 is attached to this report as Exhibit M.

It was determined that the QA Document Control Supervisor had lined out the notation. He indicated that he had heard that NR E-1997 was being voided so he felt there was no point in it being cross-referenced any longer on NR E-1911 Rev. 2. The supplier QA man in the warehouse indicated to him that some pressure was being felt from construction to get the spool pieces released. The Document Control Supervisor informed the warehouse that NR E-1911 Rev. 2 had been closed out and it was all right to release the spool pieces. He said this was done on the assumption that what was considered to be a paper problem would be cleared up. The Document Control Supervisor as well as other site personnel indicated the acceptability of the spool pieces was regarded as a paper problem rather than a real problem. It was indicated that the probability of actual damage to pipes of that size and wall thickness due to mishandling upon delivery was extremely remote. NRC agrees extremely remote.

The supplier QA man advised that the spool pieces were released from the warehouse on the basis of the version of NR E-1911 Rev. 2 which had the reference to NR E-1977 lined through (Exhibit M). He indicated that the Document Control Supervisor was instructed to line through the notation by a CG&E official. The latter individual, however, denied any recollection of having given that instruction. The improper close out of NR E-1911 Rev. 2, which resulted in the release of spool pieces for installation before their acceptability had been established is in noncompliance with 10 CFR 50, Appendix B, Criterion XV, and KEI Quality Assurance Procedure No. 16. (80-[illegible] 09-02

On April 23, 1980, Deficiency Tags were placed on the spool pieces and during the period April 25-28, 1980, Peabody personnel performed magnetic particle and ultrasonic inspections of the welds in question. The reports of these inspections were reviewed and the Peabody inspectors performing these examinations were interviewed on May 1, 1980. The Peabody personnel stated that they had concluded on the basis of these examinations that the spool pieces were acceptable. It was also ascertained that on April 28, 1980, Pullman personnel visited the Zimmer site and also performed ultrasonic inspections of the welds. On the basis of these examinations, Pullman provided a statement to CG&E that these welds were acceptable. Peabody personnel advised that they had observed the examinations performed by Pullman and they agreed with the results.

Only the 3

did we look at the Pullman report.

Clarify statement in new report, that only visual inspection was necessary ∴ UT + MT did not have to be performed on the 3 originally accepted pieces

4. Additional Allegations

During telephone contacts with the NRC on May 5 and 7, 1980, the alleger stated that he had evidence of criminal actions relating to the spool pieces which were the subject of Allegation No. 3 above. He stated that he had evidence that between the two visits to the Zimmer site by the NRC investigations team on April 7-9 and April 30-May 1-2, the welds had been cut out and/or repaired. This he alleged, was the reason that the welds were judged to be acceptable during the second visit. He also stated he had evidence that pressure was exerted upon Peabody personnel to withhold information from the NRC in connection with the investigation.

On May 8, 1980, the alleger was interviewed jointly by NRC and FBI personnel. During this interview the alleger provided for review a tape recording of three telephone conversations he had had with Peabody personnel. After listening to the three conversations, the FBI representative indicated that they did not appear to him to be evidence of criminality. The tape was furnished to the NRC for further review and follow up.

The first conversation, according to the alleger, took place on May 5, 1980 with a supervisor in the Peabody, Cincinnati office. At one point during this conversation the supervisor said: "They cut some of those welds out." The alleger responded: "You mean since the NRC had begun their investigation?" The supervisor then said: "Oh, yes, they did that the next Monday." Later in the conversation, the supervisor said: "I do know they started repairing some welds."

On May 20, 1980, the supervisor who had made the above statements, was interviewed by telephone. He stated that he had no first-hand knowledge of activities at the Zimmer site and that his comments to the alleger were based upon his conversations with another Peabody employee. This second individual visits the Zimmer site and may have acquired the information himself, or through conversations with another Peabody individual who does work at the site. He stated he did not know whether the information he received concerning the repairs of welds related to the three spool pieces or to some other pipes.

The second Peabody employee was also interviewed by telephone on May 20, 1980. He advised that the welds that were repaired were some which had been identified as bad during the NES audit. He said to his knowledge no repairs had been made on any 12" pipe welds. He added that he had reviewed the results of the ultrasonic examinations performed on the 12" pipes and he had concluded the welds are acceptable.

Attachments: Exhibits A through M

List of Exhibits

A - Ltr dtd 3/11/80 NRC to Alleger
B - Bill of Lading
C - Packing List
D - QA Documentation Package
E - NR E-1911
F - NR E-1911 Rev. 1
G - Surveillance Report dtd 7/23/79
H - Surveillance Report dtd 8/8/79
I - NR E-1911 Rev. 2
J - NR E-1997
K - NR E-1997 (closed)
L - NR E-2020
M - NR E-1911 Rev. 2 (closed)

MAR 1 1 1980

Dear

This refers to the meeting between you, Mr. L. Williams of the NRC Headquarters Office, and me on March 3, 1980.

On the basis of the information you provided we plan to conduct an investigation at the Wm. H. Zimmer Nuclear Power Plant regarding the following alleged matters:

1. Defective welds in safety-related systems have been accepted, among them were welds CY 606, MR 42 and K 811.

2. Five defective welds were identified in pre-fabricated piping but the pipe was accepted and installed in a safety-related system.

3. The manner in which safety-related installed piping was flushed was inadequate and a scheduled 6-week flush was reduced to 2 weeks.

You will be informed of our findings following completion of our investigation.

Sincerely,

C. A. Phillip
Investigation Specialist

Exhibit A
Page 1 of 1

Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended Aug. 1, 1930 and June 15, 1

SHIPPING ORDER

Must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

Shipper's No. 350

Agent's No. ______

DAILY EXPRESS Company

RECEIVED, Subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

At WILLIAMSPORT, PA 17701 — JUN 2

From PULLMAN POWER PRODUCTS • DIVISION OF PULLMAN INCORPORATED

Consigned to CINCINNATI GAS AND ELECTRIC COMPANY
COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY
THE DAYTON POWER AND LIGHT COMPANY

(Mail or street address of consignee—For purposes of notification) ATTN: MR. E. A. BORGMANN
ZIMMER POWER STATION - ROUTE 52

Destination NEAR MOSCOW — State of OH 45153 — County of ______

Route DAILY EXPRESS (TO BE DELIVERED MONDAY 7-2-79)

Delivering Carrier ______ Car Initial MILLER 44 TRAILER No. 41563

No. Packages	Description of Articles, Special Marks, and Exceptions	*Weight (Subject to Correction)	Class or Rate	Check Col.
	PULLMAN POWER PRODUCTS JOB 7935			
5	PIECES PIPE ASSEMBLY I/S	6,700 lbs		
	CO #2171			
	PACKING LIST AND PULLMAN POWER PRODUCTS, QUALITY CONTROL CERTIFICATE ATTACHED TO ACCOMPANY SHIPMENT.			
	PIPE OR TUBING, WROUGHT, IRON OR STEEL ID OVER 3 INCHES NOI 7 GAUGE OR THICKER			

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Co

If charges are to be prepaid, write or stamp here, "To be Prepaid." TO BE PREPAID

Received $ ______ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per ______

Charges advanced: $ ______

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."

Note.—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ______ per ______

PULLMAN POWER PRODUCTS Shipper
DIVISION OF PULLMAN INCORPORATED G. W. STRYKER

Per ______ Per ______

Permanent Post-office address of Shipper. POST OFFICE BOX 3308, WILLIAMSPORT, PA 17701

The fibre boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Consolidated Freight Classification.

Exhibit B
Page 1 of 1

NOTICE OF SHIPMENT

PACKING SLIP

Pullman Power Products
Division of Pullman Incorporated
P. O. Box 3308 Reach Road
Williamsport Pennsylvania 17701

CONSIGNED TO:

CINCINNATI GAS AND ELECTRIC COMPANY
COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY
THE DAYTON POWER AND LIGHT COMPANY
ATTN: MR. E. A. BORGMANN
ZIMMER POWER STATION
ROUTE 52, NEAR MOSCOW, OH 45153

71-29-04

OUR JOB NO.	OUR ORDER NO.
7935	
CUSTOMER'S ORDER NO.	**REQUISITION NO.**
2171	
SHIPMENT NO.	**PAGE NO.**
236-W	

DATE ISSUED	DATE SHIPPED	SHIPPED BY	SHIPPED FROM
	6-29-79	Pullman Power Products	WILLIAMSPORT, PA 17701
CHARGES	**VIA**		**CONSIGNED AS**
PREPAID	Daily Express (To be Delivered Monday 7/2/79)		5 PIECES C/S PIPE ASSEMBLY
TOTAL WGT.	**MARKS**		Total Wt = 6,700 lbs

PIECE NUMBER	'F' NO.	PIECE NUMBER	'F' NO.
(✓) 1-MS08BB 12-6B	3874		
(✓) 1-MS09BA12-1AH	3878		
(✓) 1-MS08BA 12-5BH	3886		
(✓) 1-MS11B12-7BH	3888		
(✓) 1-MS10BA 12-1CH	3889		

717-323-9991
~~[illegible]~~
JOHN COLEMAN
~~ROBERT SCHATT~~

CONTACTED JOHN COLEMAN 8:20 A.M.
HE WILL CALL BACK WITH DAILY EXP. NUMBER

RECEIVED
KAISER ENGINEERS INC.
DATE 7-3-79
NR. NO. 55938
P.O. NO. 2171
CHK'D. BY [signature]

WM. H. ZIMMER NUCLEAR POWER STATION - UNIT 1

PIPING QA DOCUMENTATION CHECKLIST

Subassembly Packages

1. Spool No. IMS08B81Z-GB Sheet No. F-3874 Rev. 1 Class 3 Sheet 1 of 2
2. System MS C.G.&E. System No. N/A

	3. Document Identification	Pipe or Fitting Mark No. SA	1	7				A						Weld No.
4.	CMTR		OK	OK				OK						
5.	Weld History Record	OK												
6.	RT Inspection Report		N →					OK						
7.	LP Examination Record		N →					N						
8.	MT Examination Record		N →					OK						
9.	Nameplate Rubbing	OK												
10.	Code Data Report	OK	N →					N						
11.	Inspection Report	OK												
12.	Radiographs Reviewed		N →					See mailgram						
13.	HEAT TREAT	OK	N →					N						
14.														

15. Doc. review R. L. Wood Co. GG+E Date 8/14/79
16. Rad. review J. STATHAM Co. NES Date 6/29/79

WM. H. ZIMMER NUCLEAR POWER STATION - UNIT 1

PIPING QA DOCUME ION CHECKLIST

Subassembly Packages

1. Spool No. IMS08BB12-6B Sheet No. F-3912 Rev. 4 Class 3 Sheet 2 of 2
2. System MS C.G.&E. System No. N/A

3. Document Identification	Pipe or Fitting Mark No. SA	1	2	3	4	5	Weld No. U	V	W	X	Y	Z
4. CMTR		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
5. Weld History Record	OK											
6. RT Inspection Report		N →					OK	N ←				→
7. LP Examination Record		N →									OK	OK
8. MT Examination Record		N →						OK	OK	OK	OK	OK
9. Nameplate Rubbing	N											
10. Code Data Report	N ←											
11. Inspection Report	N											
12. Radiographs Reviewed		N →						see mailgram				
13. UT REPORT	N →									OK	OK	OK
14.												

15. Doc. review R. L. Woods Co. GG&E Date 8/14/79
16. Rad. review J. STATHAM Co. NES Date 6/29/79

MAILGRAM SERVICE CENTER
MIDDLETOWN, VA. 22645

Mailgram

1-011181A180002 06/29/79 TLX PUL POW WIP CINA
004 PD WILLIAMSPORT PA JUNE 29 1979

CINCINNATI GAS AND ELECTRIC COMPANY
ATTENTION MR W W SCHWIERS - PRINCIPLE Q A ENGINEER
POST OFFICE BOX 962
CINCINNATI OHIO 45201

DOCUMENTATION PACKAGES AND RADIOGRAPH PACKAGES HAVE BEEN REVIEWED AND ARE COMPLETE FOR PHASE 2 PIPING SUBASSEMBLY

JOB NO 7935 CLASS 3

MARK NO	F-SHEET	REVISION NO
08BB12-6B	3874	1
1MS09BA12-1AH	3878	1
1MS08BA12-5BH	3886	1
1MS011B12-7BH	3888	1
1MS10BA12-1CH	3889	2

J STATHAM NES

11:48 EST

MGMCOMP MGM

QUALITY ASSURANCE & STANDARDS SECTION		
DATE:		
ROUTE TO:		INITIAL:
	W.W.S	WWS
	CAB	
	PGD	
	RPE	
	JWH	
	DCK	
	JFW	
✓		RW
QA:		

05-20-2996 07 T-491 T-49[illegible]

DWG NO.	IMS08FR12-6B H1 6R	7935	F-3874
SYSTEM	1 RPV STEAM SAFETY RELIEF VALVE DISCH	JOB NO.	SHEET NO.
REF. DWGS.	M-400 SHEET 12 R-L		

INSPECTION	EST. WT	BEVEL ENDS	CLEAN	FAB. SPEC
CUST	1310#	STD EXCEPT AS NOTED.	GRIT BLAST I.D.	3.5 Loc

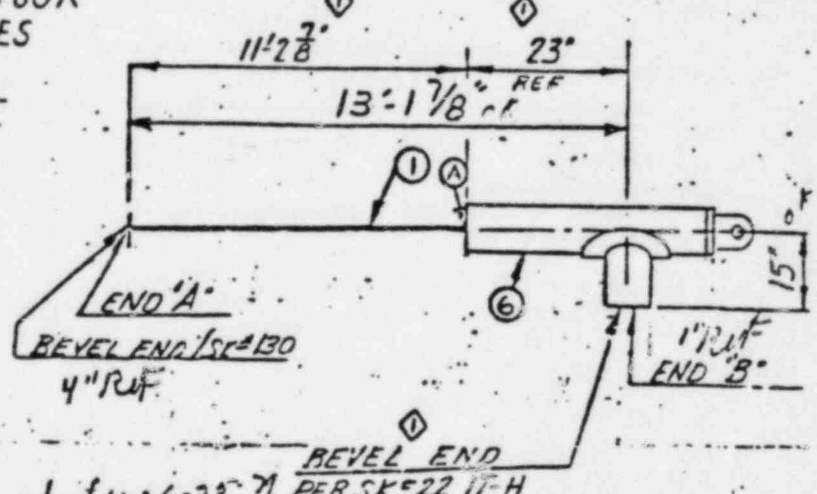
—NOTES—

1. ASME CODE PLATE DATA

   PULLMAN POWER PRODUCTS — NPT — SERIAL No. IMS08FR12-6B — CLASS 2 — 19__

2. QUALITY ASSURANCE REQ'D.-LEVEL I.
3. PREHEAT 50° F. MIN.
4. RADIOGRAPH ALL BUTT WELDS
5. SHOP TO MEASURE I.D. OF FIELD ENDS A & B AT FOUR (4) LOCATIONS 45 DEGREES APART AND RECORD.
6. FIELD END BEVELS TO BE PROTECTED WITH DEOXY-ALUMINITE
7. O.D. TO BE CLEANED AND PAINTED WITH CARBO-ZINC NO. 11 P.O. 57-CHANGE "J"
8. All Shop Butt Welds to be K-Insert Welds

Pullman Power Products [illegible] QA — J. Miller



Chkd 6-25-79 Schutte

STATUS
MAT'L HOLD NOTHING DONE

WM. H. ZIMMER NUCLEAR POWER STATION UNIT
THE CINCINNATI GAS & ELECTRIC COMPANY
COLUMBUS & SOUTHERN OHIO ELECTRIC COMPA
THE DAYTON POWER AND LIGHT COMPANY
CONTRACT No. H-2255 PURCHASE ORDER No. 2

REV.	DATE	BY	DESCRIPTION
1	5-2-80	JS	THIS REV LIFTS STATUS, DELETED ITEMS 2 THRU 5, ADDED ITEMS 6 & 7, REV'D DIMS & WELD PER DWG REV L

12" PIPE ASSEMBLY — COLOR CODE: ____ SPOTS-BAND

Pullman Power Products

DRAWN	CHK'D	APPR'D
CAC 5-1-79	[illegible]	[illegible]

CARB STEEL ASSY. MATERIAL — PRICING DETAIL

ITEM	QUAN.	DESCRIPTION	SPEC.	SOURCE	UNIT	TOTAL	DIS'C.	NET
1	1	12" S/130 SMLS. PIPE E-E = 11'-2 7/8"	SA106 B	[illegible]	HT-31857			
~~2~~	~~1~~	~~[illegible] WELDOLET (FEMD) [illegible] PER SK 22 [illegible] END [illegible] PER SK 22 EXCEPT [illegible] = 9.834 [illegible]~~						
~~3~~	~~1~~	~~[illegible] CONC WELDED~~						
~~4~~	~~1~~	~~11.335" O.D. CONS. K-INSERT~~	~~C.S.~~					
~~5~~	~~1~~	~~[illegible] O.D. CONS. K-INSERT~~	~~C.S.~~					
6	1	12" X10 SUB-ASS'Y (IMS08FR12-6B-1)	CS	F-3906	SEE ATTACHED F-SHEET			
7	1	11.449" OD CONS K-INSERT	CS	S 27-28		WFM-149		

QUAN.	SIZE	DESCRIPTION	PRICE PER PIECE
		LABOR	TOTAL PRICE THIS SHEET

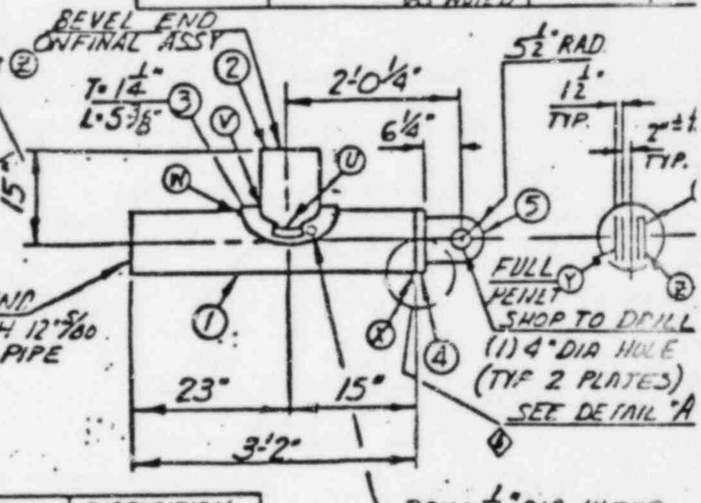
MARK NO. J-7435	7735	F-37
SYSTEM / MAIN STM SAFETY RELIEF VALVE DISCH		SHEET
REF. DWGS. M-400 SHT-12 REV-L		

	INSP CERT	LEVEL CODE	CLEAN	
		IT 4 EXCEPT AS NOTED		

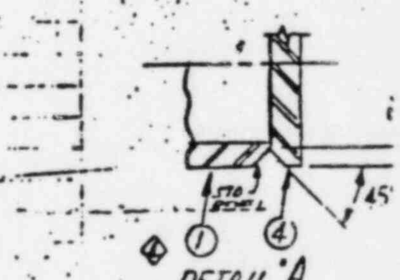
NOTES
1 ASME SECT III CLASS 3
2. QUALITY ASSURANCE REQ'D LEV.
3. RADIOGRAPH WELD (U)
4 MAGNAFLUX ALL WELDS
5 ULTRASONIC TEST WELDS (W)(X)(Y)(Z)
6.

STRESS 1150 ± 50 °F	
HEAT *	°/HR
HOLD 7 1/4	HRS
FURNACE COOL TO	
**	°F THEN IN
STILL AIR	
MIN PREHEAT 300°F	

* TO 600°F THEN 175°F/H TO STRESS TEMP.
** 220°F/HR TO 600° THEN IN STILL AIR.



SUB-ASS'Y NO.	QUAN	DISPOSITION
~~MS0RRB12-6B-1~~	1	F-3874 IT-6
~~MS0RBD12-4BH-1~~	1	F-3665 IT #6



DETAIL "A"

REV.	DATE	BY	DESCRIPTION
4	5/20/77	JR	NOTE # 5 DELETED WELD V. ADDED DETAIL A
3	5-21-76	JS	RELEASED HOLD/UST TEST DATED 5 2PM NOTE
2	5/18/76	JS	IT # 4 WAS SA-285-C IT # 5 WAS GR-B
1	5/10/76	JJ	SOURCE OF IT # 5 WAS PO 200

12" PIPE ASSEMBLY
COLOR CODE:
SPOTS-BAND

DRAWN	CHK'D.	APPR'D.
JS 3-7-76		5-76

Pullman Power

MATERIAL — CARB STEEL ASS'Y

ITEM	QUAN.	DESCRIPTION	SPEC.	SOURCE	UNIT	TOTAL	DISC.
1	1	12" 5/100 SMLS PIPE E·E = 3'-2" EA	SA106-B 7135 ES20	PO-201 IT-N1073		HT- N93560	
2	1	10" 5/40 SMLS PIPE C·E = 15" EA	SA-106-B	76-38-13		HT- 26367	
3	L	REINF. PAD (MAKE FROM 14" 7/140 PIPE E·E 21 1/2")	SA-106-B 7135 ES20	PO-201 IT-N1894		HT- N19350	
4	1	12 3/4" DIA X 3" THK PLATE (MIS)	SA-515-70	PO-200 IT-N1891		HT- 181	
5	2	11 3/4" X 11" X 1 1/2" THK PLATE (MAKE IN SHOP)	SA-508 GR-A	PO-200 IT-N1897		HT C8069	

QUAN.	SIZE	DESCRIPTION	PRICE PER PIECE
		LABOR	TOTAL PRICE THIS SHEET

Exhibit D

FORM NPP-1 DATA REPORT FOR FABRICATED [illegible] PIPING SUBASSEMBLIES*
(As Required by the Provisions of [illegible] Code Rules)

1. Fabricated by PULLMAN POWER PRODUCTS, WILLI[illegible] [illegible], PA. (Name and Address of Fabricator) JOB No. 7935

2. Fabricated for Cinn. G. & E. Co. (Agent) Cin[illegible] Ohio (Name and Address) Order No. 2171

3. Owner ** 4. Location of Plant Wm. H. Zimmer Nuclear Unit #1 Rt. 52 near Moscow, Ohio

5. Piping System Identification #1 MAIN STEAM SAFETY RELIEF VALVE DISCH. (Brief description of intended use, main coolant, etc.)

(a) Drawing No. F-3874 Prepared by PULLMAN POWER PRODUCTS

(b) National Board No.

6. The material, design, construction, and workmanship complies with ASME Code Section III, Class 3

Edition 1971, Addenda Date 1972 Winter, Case No. N/A

Remarks: Manufacturers' Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report NONE (Name of Part — item number, Manufacturer's name, and identifying stamp)

7. Shop Hydrostatic Test None psi.

8. Description of piping inspected 12" PIPE ASS'BLY. MK.# 1MS08BB12-6B (include — mark no. — material spec. — nom. pipe size — schedule or thickness — length — fittings — flanges, etc.)

CONSISTING OF:

ONE (1) 12" S/80 SMLS. PIPE	SA106 B
ONE (1) 12" S/100 SMLS PIPE	SA106 B
ONE (1) 10" S/40 SMLS PIPE	SA106 B
ONE (1) REINF. PAD	SA106 B
ONE (1) 12 3/4" DIA x 3" THK PLATE	SA515-70
TWO (2) 11 3/4" x 11" x 1 1/2" THK PLATE	SA588 GRA

APPROX. LENGTH: 15'-7 5/8"

We certify that the statements made in this report are correct and that the fabrication of the described piping conforms with the requirements of SECTION III of the ASME BOILER AND PRESSURE VESSEL CODE.

Date 6/27/79 Signed PULLMAN POWER PRODUCTS (Fabricator) By George McKay

Certificate of Authorization Expires October 27, 1981 Certificate of Authorization No. N1251

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of PA and employed by *HSBI & Ins. Co. Hartford, CT have inspected the piping described in this Data Report on 6-2[illegible] 1979, and state that to the best of my knowledge and belief, the Manufacturer has constructed this piping in accordance with the applicable Subsections of ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer make any warranty, expressed or implied, concerning the piping in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 6-27, 1979 *Hartford Steam Boiler Insp. & Ins. Co.

[signature] (Inspector) Commissions PA Commission 2?6? (National Board, State, Province and No.)

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½" x 11", (2) information in items [illegible], 2 and 5 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 6, "Remarks".

[illegible] is obtainable from the ASME, 345 E. 47th St., New York, N.Y. 10017

**OWNER: The Cincinnati Gas & Electric Company
Columbus & Southern Ohio Electric Company
The Dayton Power and Light Company
(Cincinnati is Agent for Columbus and Dayton)

85-70-227

PULLMAN KELLOGG

WILLIAMSPORT, PA.

WELD HISTORY RECORD

F-3874

12 5/80
SIZE - SCHEDULE - MIN. WALL

C/S SA-106-B
BASE MATERIAL - TYPE - IDENT.

JOB NO. N - 7935/~~7936~~

ASSEMBLY MARK NO. 1M508BB12-6

PREPARED BY C. Rosato

CUSTOMER APPROVED - KELLOGG WELD PROCEDURES/CODE

(Code 4Z) P1-K1-F4-SMAW-29-2G (Note A)
(Code 5Z) P1-K1-F4-SMAW-29-5G (Note A)
(Code 6Z) P1-K1-F6-SAW-29-1G (Note A)
(Code 126Z) P1-OB-ATTACHMENTS-6G (Note A & B)
(Code 19Z) P1-OB-F6-SAW-32-1G (Note A &
(Code 7Z) P1-BR-F4-SMAW-12-2G
(Code 8Z) P1-BR-F4-SMAW-12-5G
(Code 9Z) P1-BR-F6-SAW-7-1G

Note A: Mechanical Test includes Charpy V-Notch Test at (minus) -20° F.
Note B: Open Butt Procedure permitted for nozzles, fillets, and non-pressure attachmen welds only (unless otherwise noted on the spool detail sheet).

WELD IDENT.	WELD PROCED. CODE NO.	WELDER SYMBOL	CONS. INSERT TYPE	CONS. INSERT HEAT NUMBER	FILLER METAL TYPE	FILLER METAL SIZE	FILLER METAL HEAT OR LOT NO.	CODE	PRE-HEAT °F.	MAX. INTER. PASS TEMP °F.	VISUAL	ROOT PASS LP	ROOT PASS MP	FINAL WELD RT	FINAL WELD LP	FINAL WELD MP	FURN. CHART NO.
X	126Z & 6Z	AV CE			E7016 7018 RACO 126 Flux	1/16 1/32 3/32 860	F5757 026078 E5709 lot 64J	144 165 146	126Z & 6Z	126Z & 6Z	CL QC					✓	7/3 4/5
A	6Z	AT CE	12" C/S	37898131 77-28	E7016 7018 L61 Flux	1/16 1/32 3/32 860	F5757 026078 64H 64J	144 165 162	6Z	6Z	[illegible]			✓		✓	↓
T/A	126Z	CM	/		7018	3/32	026078	165								✓	

I CERTIFY THAT THIS RECORD AND THE FINAL RADIOGRAPHIC REPORTS HAVE BEEN REVIEWED BY Pullman Kellogg ... - QUALITY ASSURANCE DEPARTMENT, AND FOUND TO BE ACCEPTABLE IN ACCORDANCE WITH THE GOVERNING SPECIFICATIONS.

Revision 1: Deleted Code 22, 25, and 26
Added Code 19Z
Added Suffix "Z"

Q.C. MANAGER A. Bairdgon

DATE 6/22/79

85-70-227

Pullman Power Products

WILLIAMSPORT, PA.

WELD HISTORY RECORD

F-3906
FOR F-3874

12" / 100
SIZE - SCHEDULE - MIN. WALL

CS SA106-B
BASE MATERIAL - TYPE - IDENT.

JOB NO. N - 7935/7936

ASSEMBLY MARK NO. J-7935

PREPARED BY Louis C.

CUSTOMER APPROVED - KELLOGG WELD PROCEDURES/CODE

(Code 4Z) P1-K1-F4-SMAW-29-2G (Note A)
(Code 5Z) P1-K1-F4-SMAW-29-5G (Note A)
(Code 6Z) P1-K1-F6-SAW-29-1G (Note A)
(Code 126Z) P1-OB-ATTACHMENTS-6G (Note A & B)
(Code 19Z) P1-OB-F6-SAW-32-1G (Note A
(Code 7Z) P1-BR-F4-SMAW-12-2G
(Code 8Z) P1-BR-F4-SMAW-12-5G
(Code 9Z) P1-BR-F6-SAW-7-1G

Note A: Mechanical Test includes Charpy V-Notch Test at (minus) -20° F.
Note B: Open Butt Procedure permitted for nozzles, fillets, and non-pressure attachme: welds only (unless otherwise noted on the spool detail sheet).

WELD IDENT.	WELD PROCED. CODE NO.	WELDER SYMBOL	CONS. INSERT TYPE	CONS. INSERT HEAT NUMBER	FILLER METAL TYPE	FILLER METAL SIZE	FILLER METAL HEAT OR LOT NO.	FILLER METAL CODE	PRE-HEAT °F.	MAX. INTER. PASS TEMP °F.	VISUAL	ROOT PASS LP	ROOT PASS MP	FINAL WELD RT	FINAL WELD LP	FINAL WELD MP	FURN. CHART NO.
4	126Z	CS BY			E7015-L 7018 7018	1/16 3/32 1/8	F5757 026678 026879	144 165 161	126Z	126Z	QC QC			✓			3 4 5
Y	126Z	BT BY			E7015-L 7018 7018 7018	1/16 3/32 1/8 5/32	F5757 026678 026874 026867	144 165 161 163	126Z	126Z	Andre				✓	✓	3 4 5
Z	126Z	BY BT			E7015-L 7018 7018 7018	1/16 3/32 1/8 5/32	F5757 026678 026874 026867	144 165 161 163	126Z	126Z	Andre				✓	✓	
V	8Z	AI BC HM			7018 7018 7018 7018	3/32 1/8 5/32 3/16	026678 026874 026867 026822	165 161 163 152	8Z	8Z	Andre					✓	
W	8Z	AI BC HM			7018 7018 7018 7018	3/32 1/8 5/32 3/16	026678 026874 026867 026822	165 161 163 152	8Z	8Z	Andre					✓	

I CERTIFY THAT THIS RECORD AND THE FINAL RADIOGRAPHIC REPORTS HAVE BEEN REVIEWED BY Pullman Kellogg ... - QUALITY ASSURANCE DEPARTMENT, AND FOUND TO BE ACCEPTABLE IN ACCORDANCE WITH THE GOVERNING SPECIFICATIONS.

Revision 1: Deleted Code 22, 25, and 26
Added Code 19Z
Added Suffix "Z"

Q.C. MANAGER A. Bairlgm

DATE 6/27/79

PS-70-227

Pullman Power Products
Division of Pullman Incorporated

WELD HISTORY RECORD

HANGER LUGS 1½"
SIZE - SCHEDULE - MIN. WALL

C/S
BASE MATERIAL - TYPE - IDENT.

JOB NO. N-

ASSEMBLY MARK NO. A-032812-G5-

PREPARED BY

CUSTOMER APPROVED - PULLMAN POWER PRODUCTS WELD PROCEDURES/CODE

Rep Y-2 R-1 PER U.T REPORT 6-6-79
126Z P1-0B-ATTACHMENTS-6G
6-6-79
Rep Y-R-2 6-8-79

WELD IDENT.	WELD PROCED. CODE NO.	WELDER SYMBOL	CONS. INSERT TYPE	CONS. INSERT HEAT NUMBER	FILLER METAL TYPE	FILLER METAL SIZE	FILLER METAL HEAT OR LOT NO.	FILLER METAL CODE	PROC. FOR PRE-HEAT °F.	PROC. FOR MAX. INTER. PASS TEMP °F.	VISUAL	SS STEEL FERRITE CONTROL		WE SI
Y R-1	126Z	TY			7011	3/32	026078	165	126Z	126Z	ACCEPT			Y
					7018	1/8	026074	161						
					7018	5/32	026067	163						
Y R-1	126Z	TY			7011	3/32	026078		126Z	126Z	ACCEPT			7018
					7018	1/8	026074							
					7018	5/32	026067							
Y R-2	126Z	SG			7018	3/32	026078		126Z	126Z	ACCEPT			Y
					7018	1/8	026074							
					7018	5/32	026067							

I CERTIFY THAT THIS RECORD AND THE FINAL RADIOGRAPHIC REPORTS HAVE BEEN REVIEWED BY PULLMAN POWER PRODUCTS - QUALITY ASSURANCE DEPARTMENT, AND FOUND TO BE ACCEPTABLE IN ACCORDANCE WITH THE GOVERNING SPECIFICATIONS.

Q.A. MANAGER A. Bairlgm

DATE 6/22/79

91-03-14

Exhibit D - Pa[illegible] of 23

JOB NO. 1935 SHOP ☑ FIELD ☐

Pullman Power Products
Division of Pullman Incorporated

PAGE 1 OF [illegible]

MARK NO. 1-MS-08BB12-6B-1

F-NO. 3874

RADIOGRAPHIC INSPECTION REPORT

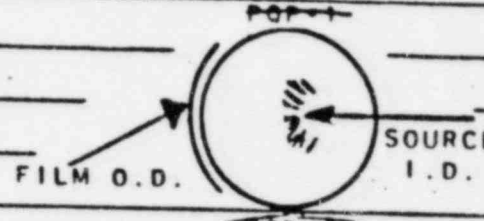
DATE 6/19/79

CUSTOMER				DESCRIPTION			MATERIAL SPEC.
CINN. GAS + ELEC.				WELDED PIPE ASSEMBLY			C/S
MATERIAL THK.	WELD THK.	MATERIAL DIAM.	ACCEPTANCE CRITERIA	GOVERNING SPECIFICATION		TYPE SEAM	
.687"	.718"	12 3/4"	ES-414	ES-414		CIRCUMFERENTIAL ~~LONGITUDINAL~~	
SOURCE	SOURCE SIZE	CURIES	FOCAL DIST.	TIME	FILM TYPE	PB SCREENS	FILM SIZE	VIEWING
IR-192	100X040	33	12 7/8"	3 1/4 MIN.	AA	.010	4 1/2 X 17	SINGLE ☑ DOUBLE ☐
X-RAY	KV.	MA.	FOCAL DIST.	TIME	FOCAL SPOT SIZE	FILM PROCESSING	RADIOGRAPHER	
						AUTOMATIC	HOSTETTER LEVEL I	

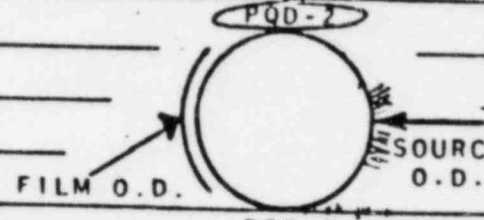
WELD IDENTIFICATION	FILM INTERVAL NUMBER	PENETRAMETER	SHIM THICK	ACCEPT.	REJECT	SLAG	POROSITY	CRACK	LACK OF PEN.	LACK FUSION	UNDERCUT	SURFACE	OTHER	FILM ARTIFACT	PROCESSING	W/C	RAD. INTERP. LEVEL II	REMARKS
A	1 - 2	12	1/32	✓													JRE	
|	2 - 3	|	|	✓										✓			|	
|	3 - 4	|	|	✓														
|	4 - 1	|	|	✓														

PROJECTOR NO. 18

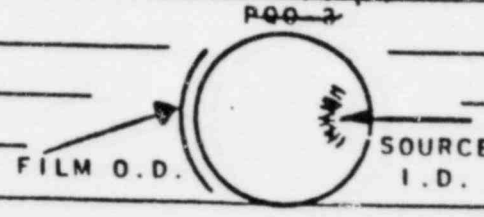
~~POD-1~~

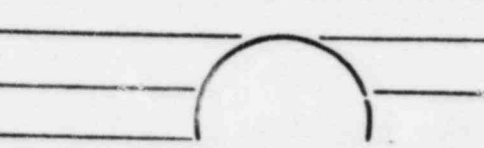


POD-2



~~POD-3~~





VOZZLE

71-83-14

Pullman Power Products
Division of Pullman Incorporated

JOB NO. 7935 SHOP ☑ FIELD ☐

MARK NO. 1-MS-088812-GB-1

F-NO. 3906

RADIOGRAPHIC INSPECTION REPORT

DATE 6/6/79

CUSTOMER	DESCRIPTION	MATERIAL SPEC.
CINN. GAS & ELEC.	WELDED PIPE ASSEMBLY	C/S

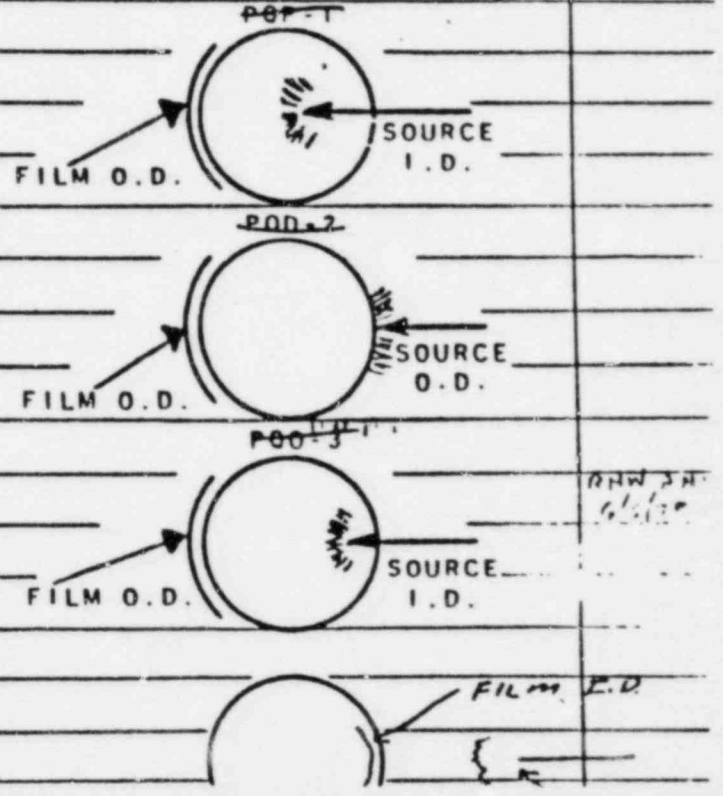
MATERIAL THK.	WELD THK.	MATERIAL DIAM.	ACCEPTANCE CRITERIA	GOVERNING SPECIFICATION	TYPE SEAM
.365"	.365" - .490"	10 3/4"	ES-416	ES-416	CIRCUMFERENTIAL ~~LONGITUDINAL~~

SOURCE	SOURCE SIZE	CURIES	FOCAL DIST.	TIME	FILM TYPE		PB SCREENS	FILM SIZE	VIEWING
IR-192	100x040	37	12½"	3⅓ MIN.	M		.010	4½x10	SINGLE ☑ DOUBLE ☐

X-RAY	KV.	MA.	FOCAL DIST.	TIME	FOCAL SPOT SIZE	FILM PROCESSING	RADIOGRAPHER
						AUTOMATIC	BRESAZ LEVEL II

WELD IDENTIFICATION	FILM INTERVAL NUMBER	PENETRAMETER	SHIM THICK	ACCEPT.	REJECT	SLAG	POROSITY	CRACK	LACK OF PEN.	LACK FUSION	UNDERCUT	SURFACE	OTHER	FILM ARTIFACT	PROCESSING	W/C	RAD. INTERP. LEVEL II	REMARKS
U	1 - 2	10-12	1/4"	/			/									/	JRE	
	2 - 3			/		/										/		
	3 - 4			/														
	4 - 5			/										/				
	5 - 6			/														
	6 - 7			/			/									/		
	7 - 8			/														
	8 - 9			/										/				
	9 - 10			/											/			
	10 - 11			/											/			
	11 - 12			/														
	12 - 1			/										/				

PROJECTOR NO. 18



Pullman Power Products
Division of Pullman Incorporated

MAGNETIC PARTICLE INSPECTION RECORD

JOB NO. 7935 DATE 6/26/79

PIECE NO. L-MS-OE BB 12-6B "F" NO. 3874
C/S

MATERIAL

EXAMINATION PROCEDURE ES 405 REV 4

ACCEPTANCE CRITERIA ES 405 REV 4

EQUIPMENT MANUFACTURER MAGNAFLUX

EQUIPMENT MODEL NO. KRH-2B

PARTICLE COLOR GRAY

AMPERAGE 625

PROD. SPACING 6"

RECORD OF EXAMINATION RESULTS

Welds A, V, W, X, Y, Z and 1" adjacent base material and attachment areas on hangers.

accept

NAME OF INSPECTOR Gary D La.

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR

SNT-TC-1A LEVEL

05-82-37

Pullman Power Products
Division of Pullman Incorporated

ULTRASONIC FLAW DETECTION RECORD

JOB NO. 7936 DATE 6/6/79

PIECE NO. 1MS08BB12-6B-1 "F" NO. 3906

MATERIAL C/STL

EXAMINATION PROCEDURE NO. IX-37

ACCEPTANCE CRITERIA IX-37

EQUIPMENT MODEL NO. KRAUTKRAMER- USIP-11

TRANSDUCER 2.25 Mhz- STRAIGHT BEAM

COUPLANT #20 oil

CALIBRATION DATA Drilled oil - TEST PLATE.

DESCRIPTION OF INSPECTION TECNIQUE MANUAL SEARCH - 100% COVERAGE - STRAIGHT BEAM

RECORD OF EXAMINATION RESULTS

R-1

WELD (Z) & (Y) REJECT.

No fusion along Length of weld.

NAME OF INSPECTOR Ronald R. Delker

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

6/7/79

REPAIRS made by Back gouging. - RE-welding - Re-U.T.

WELDS Y & Z COMPLETE.

WELD Z. OK - ACCEPT

WELD -Y- REJECT.

SLAG, POROSITY, ETC. ENTIRE WELD

NAME OF INSPECTOR Ronald R. Delker

SNT-TC-1A LEVEL II

03-83-35

Pullman Power Products

LIQUID PENETRANT INSPECTION RECORD

JOB NO. 7935 DATE 6/6/79

PIECE NO. 1-MS-08 BB-12-6B-1 "F" NO. 3906

MATERIAL C/S

EXAMINATION PROCEDURE ES 404 REV 5

ACCEPTANCE CRITERIA ES 404 REV 5

BRAND NAME AND TYPE OF:		BATCH NO. OF:	
PENETRANT	TURCO DY CHECK #2	PENETRANT	81297R
CLEANER	TURCO DY CHECK #3	CLEANER	B088
DEVELOPER	TURCO DY CHECK NAD	DEVELOPER	I 198

CHEMICAL ANALYSIS CERTIFICATION OF TEST COMPONENTS AVAILABLE.

RECORD OF EXAMINATION RESULTS

REPAIR CAVITY ON WELDS 1 & 2 AND ADJACENT BASE MATERIAL ACCEPT

NAME OF INSPECTOR Gary D. Larson

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR _____

SNT-TC-1A LEVEL _____

Pullman Power Products

LIQUID PENETRANT INSPECTION RECORD

JOB NO. 7935 DATE 6/8/79

PIECE NO. 1-MS-08BB12-6B-1 "F" NO. 3906

MATERIAL C/S

EXAMINATION PROCEDURE ES 403 Rev. 5

ACCEPTANCE CRITERIA ES 403 Rev. 5

BRAND NAME AND TYPE OF:		BATCH NO. OF:	
PENETRANT	Dy chek #2	PENETRANT	X1287R
CLEANER	Dy chek #3	CLEANER	B088
DEVELOPER	Dy chek NAD	DEVELOPER	F198

CHEMICAL ANALYSIS CERTIFICATION OF TEST COMPONENTS AVAILABLE.

RECORD OF EXAMINATION RESULTS

(back side)

Weld Y, ^ cavity. - Accept.

NAME OF INSPECTOR Charles Smith

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR _____

SNT-TC-1A LEVEL _____

03-82-37

Pullman Power Products

ULTRASONIC FLAW DETECTION RECORD

JOB NO. 7935 DATE 6/9/79

PIECE NO. 1MSOSBB12-6B-1 "F" NO. 3906

MATERIAL C-STL

EXAMINATION PROCEDURE NO. IX-37

ACCEPTANCE CRITERIA IX-37

EQUIPMENT MODEL NO. KRAUTKRAMER - USIP-11

TRANSDUCER 2.25 MHz - STRAIGHT BEAM.

COUPLANT #20 OIL

CALIBRATION DATA DRILLED HOLE - TEST PLATE.

DESCRIPTION OF INSPECTION TECNIQUE MANUAL SEARCH - 100% COVERAGE.

RECORD OF EXAMINATION RESULTS

R-2.

WELD Y - ENTIRE WELD REPAIRED by BACK gouging, RE-WELDED. - RE-U.T. ENTIRE WELD.

ACCEPT.

NAME OF INSPECTOR Ronald R. Dekker

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR

SNT-TC-1A LEVEL

AS-A2-37

Pullman Power Products

ULTRASONIC FLAW DETECTION RECORD

JOB NO. 7935 DATE 6/9/79

PIECE NO. IMSOBBI2 - 68-1 "F" NO. 3906

MATERIAL C/STL

EXAMINATION PROCEDURE NO. IX-37

ACCEPTANCE CRITERIA IX-37

EQUIPMENT MODEL NO. KRAUTKRAMER - USIP-11

TRANSDUCER 45° - 2.25 MHz - 1/2" x 1/2"

COUPLANT #20 OIL

CALIBRATION DATA DRILLED HOLE - TEST PLATE.

DESCRIPTION OF INSPECTION TECNIQUE MANUAL SEARCH - 100% COVERAGE.

RECORD OF EXAMINATION RESULTS

HANGER ASSY.

WELDS (1) & (2) - COMPLETE.

ACCEPT.

NAME OF INSPECTOR Ronald R. Delker

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR _____

SNT-TC-1A LEVEL _____

05-02-37

Pullman Power Products

ULTRASONIC FLAW DETECTION RECORD

JOB NO. 7935 DATE 6/14/79

PIECE NO. 1-M508BB12-66-1 "F" NO. 3906 for F-3874

MATERIAL 4STL

EXAMINATION PROCEDURE NO. 1X-37

ACCEPTANCE CRITERIA 1X-37

EQUIPMENT MODEL NO. USIP-11 KRAUTKRAMER

TRANSDUCER 2.25 Mhz - STRAIGHT BEAM

COUPLANT #20 oil

CALIBRATION DATA TEST Pc.

DESCRIPTION OF INSPECTION TECNIQUE MANUAL SEARCH - 100% COVERAGE.

RECORD OF EXAMINATION RESULTS

MANUAL SEARCH with STRAIGHT BEAM ON IT */ from weld (X) TO 4" Adjacent BASE MATERIAL.

ACCEPT

NAME OF INSPECTOR Ronald R. Dalke

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR

SNT-TC-1A LEVEL

05-82-37

Pullman Power Products

ULTRASONIC FLAW DETECTION RECORD

JOB NO. 7935 DATE 6/14/79

PIECE NO. 1-MS08BB12-6B-1 "F" NO. 3906 FOR F-3874

MATERIAL C/STL

EXAMINATION PROCEDURE NO. IX-37

ACCEPTANCE CRITERIA IX-37

EQUIPMENT MODEL NO. USIP-11 - KRAUTKRAMER

TRANSDUCER 45° & 60° - 1/2" x 1/2" - 2.25 Mhz.

COUPLANT #20 oil

CALIBRATION DATA Drilled hole - TEST PLATE.

DESCRIPTION OF INSPECTION TECNIQUE MANUAL SEARCH - 100% COVERAGE ON PIPE SIDE

RECORD OF EXAMINATION RESULTS

WELD (X), 45° & 60° SEARCH FROM PIPE SIDE (IT #1) ONLY -

ACCEPT.

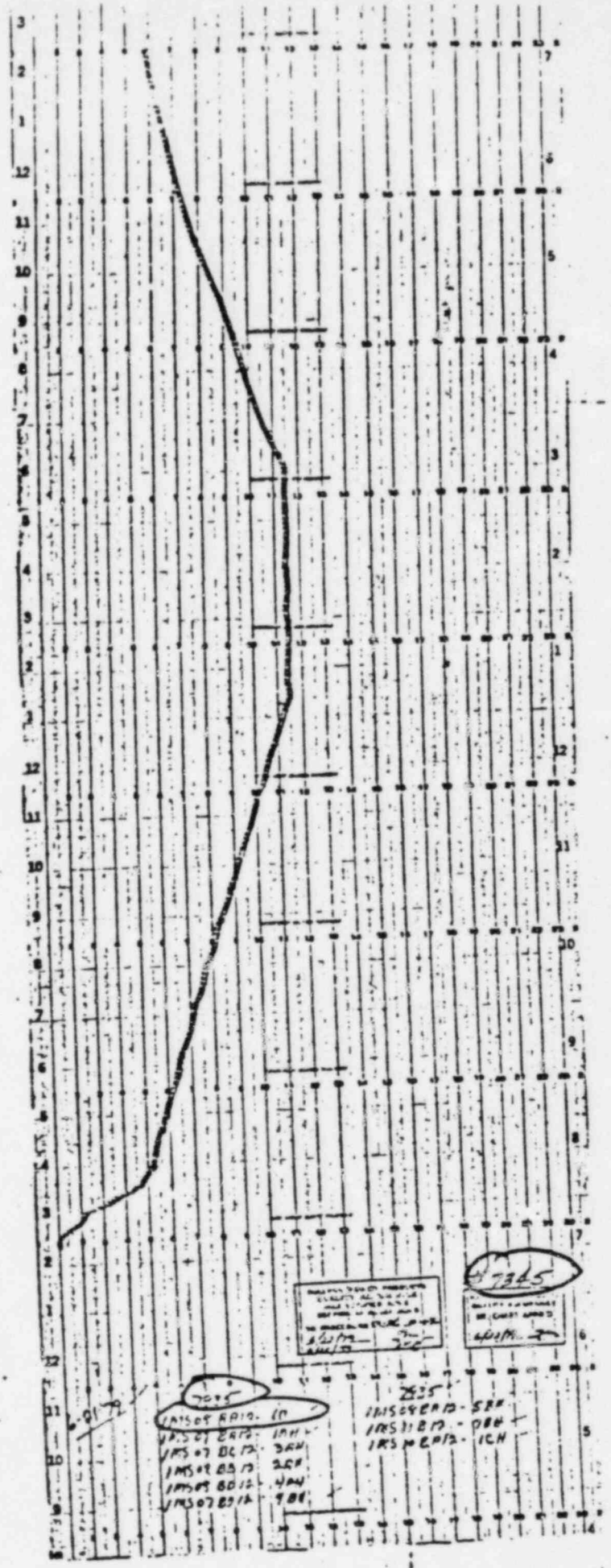
NAME OF INSPECTOR Ronald R. Dalke

SNT-TC-1A LEVEL II

RECORD OF RE-EXAMINATION

NAME OF INSPECTOR _____

SNT-TC-1A LEVEL _____

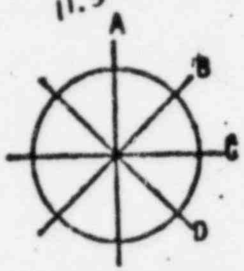


19-11-77

MARK NO.	JOB NO.	SHEET NO.
1MS08DD12-6D	7935	F-3874

JOB NO.	SHEET NO.	REV.
7935	SK-22-2114	0

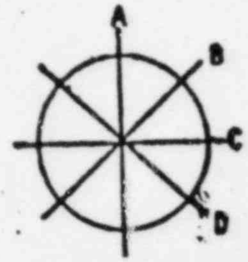
601
11.507 +10



END A
MICS. OM-3 IMI-19
MEAS. BY DRH
DATE 6-25-79

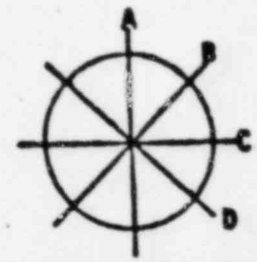
LOC.	BORE	WALL THK	LIP THK
A	11.510	.636	.120
B	11.508	.621	.119
C	11.509	.636	.120
D	11.509	.640	.120

round up ring in place



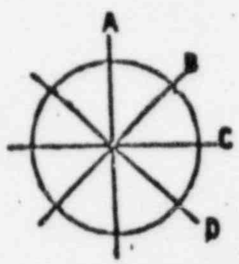
END B
MICS. OM-3 IMI-19
MEAS. BY DRH
DATE 6-25-79

LOC.	BORE	WALL THK	LIP THK
A	10.072	.348	.115
B	10.073	.380	.117
C	10.072	.355	.110
D	10.76	.342	.105



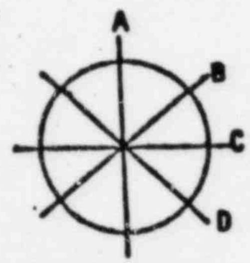
END
MICS.
MEAS. BY
DATE

LOC.	BORE	WALL THK	LIP THK
A	.	.	.
B	.	.	.
C	.	.	.
D	.	.	.



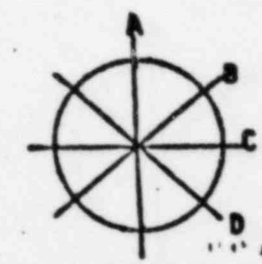
END
MICS.
MEAS. BY
DATE

LOC.	BORE	WALL THK	LIP THK
A	.	.	.
B	.	.	.
C	.	.	.
D	.	.	.



END
MICS.
MEAS. BY
DATE

LOC.	BORE	WALL THK	LIP THK
A	.	.	.
B	.	.	.
C	.	.	.
D	.	.	.



END
MICS.
MEAS. BY
DATE

LOC.	BORE	WALL THK	LIP THK
A	.	.	.
B	.	.	.
C	.	.	.
D	.	.	.

7935 F-3874

85-03-30

PROC. X

VISUAL INSPECTION
FINAL INSPECTION CHECKLIST

JOB NO. 7935

PIECE NO. 1M508BB12-6B

F-SHEET NO. 3874

CHECK POINTS		YES	NO	N.A.	COMMENTS
ALL PRIOR OPERATIONS HAVE BEEN PERFORMED AND APPROVED AND SIGNED OFF ON THE TRAVELER.		✓			
SPECIFIED MATERIALS HAVE BEEN INSTALLED IN THE PIPING SUB-ASSEMBLY.		✓			
ALL STAMPING DISPLAYED ON THE PIPING SUB-ASSEMBLY IS ACCURATE AND CORRESPONDS WITH THE INFORMATION PRESENTED ON THE FABRICATION SHEET.		✓			
FINAL DIMENSIONAL EXAMINATION HAS BEEN PERFORMED AND THE DIMENSIONAL INFORMATION HAS BEEN RECORDED ON THE FABRICATION SHEET.		✓			
CLEANING HAS BEEN PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING SPECIFICATION.		✓			
WELDER SYMBOLS AND RADIOGRAPHIC POINT LOCATIONS HAVE BEEN ACCURATELY APPLIED AND ARE COMPLETE.		✓			
CONTOUR, FINISH, AND HEIGHT OF WELD CROWN COMPLIES WITH THE REQUIREMENTS OF THE GOVERNING SPECIFICATION.		✓			
ALL ACCESSIBLE INSIDE WELD BEADS HAVE COMPLETE JOINT PENETRATION AND ARE FREE FROM UNDERCUTTING.		✓			
FIELD WELD END PREPS ARE MACHINED TO THE CONFIGURATION AND TOLERANCES DICTATED ON THE MACHINING SKETCH.		✓			
PIPING SUB-ASSEMBLY IS FREE FROM DAMAGE, EXCESSIVE PITTING, AND UNACCEPTABLE SURFACE DEFECTS.		✓			
ASSEMBLY HAS BEEN INSPECTED AND APPROVED BY THE AUTHORIZED INSPECTOR AND/OR THE CUSTOMERS SURVEILLANCE REPRESENTATIVE.		✓			
THE APPROPRIATE CODE STAMP HAS BEEN APPLIED.		✓			
ASSEMBLY HAS BEEN CAPPED, PAINTED, AND IDENTIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING SPECIFICATION.		✓			

6-26-79

INSPECTED BY Donald L Hatch

APPROVED Donald L Hatch

DATE 6-29-79

MR 53 VSR

NO. E-1911 NONCONFORMANCE REPORT PAGE ____ OF ____

SYSTEM	ITEM/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:	
S...	PIPE SPOOLS	CGEC 2171	PULLMAN POWER.	
... NO.	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME
SEW 118	J. DEERWESTER	7-5-79	H-2255	YES ✓ NO

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
REQUIREMENTS		
MATERIAL TO BE UNLEASED		①
WITH APPROVED EQUIPMENT		PERFORM LIQUID PENETR.
		TEST ON ALL welds.
FAULT:		②
SPOOLS WERE ROLLED OFF		Perform Visual inspect.
OF TRUCK ON TO GROUND		OF weld end preps.
AND STRIKING OTHER SPOOLS.		
		Accept on basis of
SPOOL #'S	Rework.	inspection items ①&②
1MS 08 BB12-6B		
1MS 09 BA 12-1AH		should any pipe spool
1MS 08 BA 12-5BH		fail due to inspection:
1MS 11 B12 -7BH		①&② A seperate
1MS 10 BA12-1CH		non-conformance will
		be issued.

SEE REV-1 7-?-79 ?

VOID

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT REPAIR DISPOSITIONS)

NA		NA		NA		[signature] 7-10-...
S&L	DATE	CG&E SPONSOR ENGR	DATE	CG&E Q.A.&S.	DATE	KEI CONSTRUCTION ENGR. DATE
						[signature] 7-...
						KEI QAE

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

INSPECTOR/ENGINEER DATE

14. CAUSE	15. CORRECTIVE ACTION
pipe spools were dropped from carriers truck bed to ground. This occurred after regular working hours and as the result of a mis-interpretation of instructions given to truck driver.	no corrective action req'd.

Exhibit E
Page 1 of 1

KEI FORM

KAMAN [illegible]
[illegible] STATION

NONCONFORMANCE REPORT

NO I-1911 Rev 1 PAGE ___ OF ___

1. [illegible] INSTALLATION NO.	2. [illegible] INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER CONTRACTOR NAME:	
See below	Pipe Spools	CG&E 2171	Pullman Power	
5. INSPECTION PLAN NO.:	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME
CAW 118	J. [illegible]ester	7/5/79	H-2255	YES ☒ NO ☐

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
Requirement: Material to be unloaded with approved equipment		(1) Perform RT examination of all welds.
Fault: Spools were rolled off of truck on to ground and striking other spools.	Rework.	(2) Perform visual examination of weld end preps.
Spool Numbers: 1MS 05BB12-6B; 1MS 09BA12-1AB; 1MS 05BA12-5BB; 1MS 11B12-7BB; ~~1MS [illegible]~~		Accept on basis of inspection items (1) & (2). Should any pipe spool fail due to the inspection (1) & (2) a separate non-conformance will be issued.

VOID

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS)

SEE REV. 2 7-31-79 [initials]

[signature] 7-10-7[illegible] KEI CONSTRUCTION ENGR. DATE

NA	NA	NA	R. Turner 7-1[illegible]
S&L DATE	CG&E SPONSOR ENGR DATE	CG&E Q.A.&S. DATE	KEI QAE

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

INSPECTOR/ENGINEER DATE

14. CAUSE

Pipe spools were droped from carriers truck bed to ground. This occured after regular working hours and as the result of a mis-interpretation of instructions given to truck drivers

15. CORRECTIVE ACTION

no corrective action req'D.

Exhibit F - Page 1 of 1

KAMAN FIELD (7), CG&E (4), S&L (1), A.I. (1), QA FILES (ORIG.) 3540 HJKCO FORM N[illegible]

Organization: CYGNA

Reference: CACM-014

___ Deficiency/Deviation ___ Clarification ___ Calibration/Test Record

___ Audit/Follow-up ___ Subcontractor Surveillance ___ Surveillance Information

GENERAL OBSERVATIONS/DESCRIPTION:

SYSTEM Main Steam

NR E-1911 R-2 Required RT of Kellogg Spool pieces.

Spool piece MS-08-BB-12-6B WELD No X- had rejectable Surface indications. MS-10BA-12-CH-X-4

Spool piece MS-11-B-12-7BH had a lack of Fusion Rejectable indications. Please advise as about Dispositioning Those Rejections.

Report Prepared By: ACPallon Date 7/23/79

If Deficiency is Nonconforming in Nature, List:

1. Reference Drawing, Spec. or Std. _____

2. Specific Location _____

CORRECTIVE ACTION STATEMENT

_____

Corrective Action Verified By: _____ Date _____

Organization: CG&E 21

Reference: QACMI-C

_ Deficiency/Deviation ___Clarification ___ Calibration/Test Recor

X Audit/Follow-up ___Subcontractor Surveillance ___Surveillance Informati

GENERAL OBSERVATIONS/DESCRIPTION:

SYSTEM MS

VISUAL INSPECTED ALL FILLET WELDS ON SP. PIECES NUMBERED IMS08BB12-6B. IMS09BA12 IMS08BA12-5BH. IMS11B12-7BH AND IMS10BA12-1CH AS PER NRE-1911 REV 2 AND FOUND VISUALLY ACCEPTABLE WITH NO APPARENT CRACKS

Report Prepared By: G McCann Date 8-8-79

If Deficiency is Nonconforming in Nature, List:

1. Reference Drawing, Spec. or Std: N/R E-1911

2. Specific Location Sand Blast & Paint Shop

CORRECTIVE ACTION STATEMENT

No Corrective Action Required

Corrective Action Verified By: N/A Date 8-8-79

Exhibit H - Page 1 of 1

KAISER ENGINEERS, INC.
WM. H. ZIMMER POWER STATION

NONCONFORMANCE REPORT

NO. E-1911 Rev 2 PAGE OF

1. INSTALLATION NO.	2. DWG/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:	
below	Pipe Spools	CG&E 2171	Pullman Power	
5. INSPECTION PLAN NO.:	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME
QAW 118	J. Deerwester	7-5-79	H-2255-	YES ☒ NO ☐

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
REQUIREMENT:		(1) Perform RT Examination of all "Butt-Welds"
Material to be unloaded with approved equipment		
FAULT:		(2) Perform Visual examination of all "Fillet-Welds" & document findings on a S.R. Report.
Spools were rolled off of truck on to ground and striking other spools	Rework	
Spool Numbers-		Accept on Basis of inspection results Items (1) & (2)
1MS 08HB12-6B		
1MS 09HA12-1AH		
1MS 08HA12-5BH		Should any pipe spool fail due to the inspections (1) & (2), a separate Non conformance Report will be issued.
1MS 11H12-7BH		
1MS 10HA12-1CH		

NR CLOSED DATE 8-9-79

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS)

R. ... 7-31-79
KEI CONSTRUCTION ENGR. DATE

N/A	N/A	N/A	R. ... 7/31/79
DATE	CG&E SPONSOR ENGR DATE	CG&E Q.A.&S. DATE	KEI QAE DATE

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

Accepted Exceptions → See NR E-1997 — A. ... 8/9/79
INSPECTOR/ENGINEER DATE

14. CAUSE

Pipe Spools were dropped from carriers truck bed to ground. This occurred after regular working hours and as the result of a misinterpretation of instructions given to truck drivers

15. CORRECTIVE ACTION

No corrective action required.

Exhibit I - Page 1 of 1

KAISER ENGINEERS, INC.
WM. H. ZIMMER POWER STATION

NO. E-1997

NONCONFORMANCE REPORT

PAGE 1 OF 1

1. INSTALLATION NO.	2. DWG/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:	
see Below	Pipe Spools	CG&E 2171	Pullman Power	
5. INSPECTION PLAN NO.:	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME
	A. Pallon	8-9-79	H2255	YES ☐ NO ☐

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
REQUIREMENT: Material unloaded with approved equipment.		CG&E Tech Disposition R.M. Dow 8-13-79
Fault: Spools were rolled off truck on to ground and striking other spools as per E-1911 Rev.2	Accept-as-is	Welds rejected by radiograph were not required to be radiographed, but were required to be 100% Ultrasonic tested and 100% Magnetic Particle tested per M400 Sh 12 Rev 1
Disposition 2 all fillet welds visually inspected accepted as per SR 2251		Accept on basis of acceptance of welds by Pullman Power Products, Authorized Nuclear Inspector and NES Personnel
Disposition 1 completed all butt radiographed (1MS 08BB 12-6B had rejectable surface indication-open) (1MS 11B12 7BH had rejectable lack of fusion-open) (1MS 10BA12 1CH had reject- lack of fusion-open) (1MS09BA-12 1AH- Acceptable Butt & Filets-Closed) (1MS08BA-12 5BH-Acceptable Butt & Fillet-Closed)		[signature] 8/19

NR CLOSED
DATE 10-17-79

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS)

[signature] 8-14-79
KEI CONSTRUCTION ENGR. DATE

S&L	DATE	CG&E SPONSOR ENGR	DATE	CG&E Q.A.&S.	DATE	KEI QAE

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

INSPECTOR/ENGINEER DATE

14. CAUSE	15. CORRECTIVE ACTION
Suppliers Carrier misunderstood instructions concerning off loading of pipe spools.	Corrective actions has been Taken By carrier concerning this incident.

Exhibit J - Page 1 of 1

KAISER FIELD (7), CG&E (4), S&L (1), A.I. (1), QA FILES (ORIG.)

CN 3670

KEI FORM NO.
Rev.

8-16-79 E-1111

KAISER ENGINEERS, INC.

WM. H. ZIMMER POWER STATION

NONCONFORMANCE REPORT

NO. E-1997 PAGE 1 OF 1

1. DWG/INSTALLATION NO.	2. DWG/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:
See Below	Pipe Spools	CG&E 2171	Pullman Power
5. INSPECTION PLAN NO.:	6. INSPECTOR: A. Pallon	7. DATE: 8-9-79	8. SPECIFICATION NO. H2255 / ASME YES ☒ NO ☐

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
REQUIREMENT: Material unloaded with approved equipment.		CG&E To Disposition R.M. Dorr 8-13-79
Fault: Spools were rolled off truck on to ground and striking other spools as per NCR E-1911 Rev.2 Disposition 2 all fillet welds visually inspected accepted as per R 2251 Class C Disposition 1 completed all butt radiographed (1MS 08BB 12-6B had rejectable surface indication-open) 1MS 11B12 7BH had rejectable lack of fusion open) (1MS 10BA12 1CH had rejectable lack of fusion-open) (1MS09BA-12 1AH- Acceptable Butt & Filets-Closed) 1MS08BA-12 5BH-Acceptable Butt & Fillet-closed)	Accept-as-is	Welds rejected by radiograph were not required to be radiographed, but were required to be 100% Ultrasonic tested and 100% Magnetic Particle tested per M400 sh 12 Rev M. Accept on basis of acceptance of welds by Pullman Power Products, Authorized Nuclear Inspector and NES Personnel. Welds rejected by radiograph are covered by NCR E-2020. The disposition of Welds 1MS09BA-12-1AH and 1MS08BA-12-5BH is acceptable. [signature] 7/11/79

NCR CLOSED DATE 10-17-79

REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS) Approved with comment LB 10/18/79 HSB

R.M. Dorr 8-14-79 KEI CONSTRUCTION ENGR. DATE

J.M. Clause 10/9/79	[signature] 10-12-79	R.F. Wood 10/10/79	R. T[...] 10/17/79
S&L DATE	CG&E SPONSOR ENGR DATE	CG&E Q.A.&S. DATE	KEI QAE DATE

REPAIR/REWORK COMPLETE AND ACCEPTABLE

INSPECTOR/ENGINEER DATE

14. CAUSE	15. CORRECTIVE ACTION
Suppliers Carrier misunderstood instructions concerning of loading of pipe spools.	Corrective action has been taken by carrier concerning this incident.

Exhibit K - Page 1 of 1

CN 36.70

KAISER ENGINEERS, INC.
WM. H. ZIMMER POWER STATION

NONCONFORMANCE REPORT

NO. E 2020 PAGE ______ OF ______

1. INSTALLATION NO.	2. DWG/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:	
[illegible]	[illegible] Spools	[illegible] 2171	Pullman Power	
5. INSPECTION PLAN NO.:	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME YES ☐ NO ☐
[illegible]	A.C. [illegible]	[illegible]	H-2155	

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
[illegible]: Main Steam		[illegible]
[illegible]: All welds to be acceptable for ASME Section 3		[illegible]
[illegible]: NR E-1911 R.2 requires RT all Butt Weld (Step 1). VT all Fillet Welds, on SR. [illegible]		[illegible]
[illegible]: Spools were rolled off truck on to ground and striking other spools.		[illegible]
[illegible]		[illegible]
[illegible]	Accept as is	[illegible]
[illegible] SLH		[illegible]
[illegible]		[illegible]
[illegible]-12 SL - RT Reject		[illegible]
[illegible] - RT Reject		[illegible]
[illegible]-12 1CH - RT Reject		[illegible]
(See attached RT Reports & SR.)		

[signature], [illegible]
KEI CONSTRUCTION ENGR. DATE

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS)

S&L DATE | CG&E SPONSOR ENGR DATE | CG&E Q.A.&S. DATE | KEI QAE

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

INSPECTOR/ENGINEER DATE

14. CAUSE

Supplier [illegible] mis-understood instructions [illegible] of [illegible] of piping spools.

15. CORRECTIVE ACTION

Corrective action has been taken by [illegible] [illegible]

Exhibit L - Page 1 of 1

KEI FORM NC

10

KAISER ENGINEERS, INC.

WM. H. ZIMMER POWER STATION

NONCONFORMANCE REPORT

NO. E-1911 Rev 2 PAGE ____ OF ____

1. DWG/INSTALLATION NO.	2. DWG/INSTALLATION NAME:	3. PO/CONTRACT NO.	4. SUPPLIER/CONTRACTOR NAME:	
below	Pipe Spools	CG&E 2171	Pullman Power	
5. INSPECTION PLAN NO.:	6. INSPECTOR:	7. DATE:	8. SPECIFICATION NO.	ASME
QAW 118	J. Deerwester	7-5-79	H-2255	YES ☒ NO ☐

9. DESCRIPTION OF NONCONFORMANCE	10. DISPOSITION	11. DISPOSITION INSTRUCTIONS/JUSTIFICATION
REQUIREMENT:		
Material to be unloaded with approved equipment		① Perform RT examination of all "Butt-Welds"
FAULT:		② Perform Visual examination of all "Fillet-Welds" & document findings on a S.R. Report.
Spools were rolled off of truck on to ground and striking other spools	Rework	
Spool Numbers- 1MS 08BB12-6B, 1MS 09BA12-1AH, 1MS 08BA12-5BH, 1MS 11B12-7BH, 1MS 10BA12-1CH		Accept on Basis of Inspection Results Items ① & ②
		Should any pipe spool fail due to the inspections ① & ②, a separate non conformance ~~[illegible]~~ Report will be issued.

NR CLOSED
DATE 8-9-79

12. REVIEW BOARD (REQUIRED ON ALL ACCEPT/REPAIR DISPOSITIONS)

N/A	N/A	N/A	[signature] 7-31-79
S&L DATE	CG&E SPONSOR ENGR DATE	CG&E Q.A.&S. DATE	KEI CONSTRUCTION ENGR. DATE
			R. [signature] 7/31/[illegible]
			KEI QAS

13. REPAIR/REWORK COMPLETE AND ACCEPTABLE

Closed ~~[illegible]~~ → See NR ~~E-1999~~ [illegible] 9-14-79 — A C[signature] 8/9/79

INSPECTOR/ENGINEER DATE

14. CAUSE

Pipe Spools were dropped from carriers truck bed to ground. This occurred after regular working hours and as the result of a mis-interpretation of instructions given to truck drivers

15. CORRECTIVE ACTION

No corrective action required.