



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OFFICE OF INSPECTOR
AND AUDITOR

Date 16 July 1981

Jim

Art

Attached for your review is the

Review of Welding Records Report/Interview

concerning the IE Zimmer (Applegate)

investigation.

John

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PDR FOIA
BAUSER84-415 PDR

C3/131
Review of Welding Records

On February 19, 1981, OIA requested IE's senior resident inspector at Zimmer, Tom Daniels, to provide copies of the complete weld packages for welds CY-606, RH-42, and K-811. Shortly afterward, upon receipt of these packages, OIA reviewed each document to determine whether any of the welds had been reworked or replaced and whether any had previously been accepted. OIA found that each of these welds had previously been accepted and that two of them were subsequently cut out and replaced.

The IE report described the history of weld RH-42 and indicated its current status as being included in an ongoing radiograph review. Contrary to this, OIA learned from the available weld documentation that on March 21, 1981, Kaiser officials ordered weld RH-42 cut out; by April 14, 1981, the weld was removed and Kaiser personnel were working on its replacement. This rework occurred during the period of the IE investigation (the investigators were on site April 7-9 and April 30-May 2, 1981).

C3/11C
The IE report stated that weld K-811 was welded on November 9, 1977. OIA discovered that this date related to another weld (K-516) and that weld K-811 was actually welded on January 30, 1979. The IE report correctly stated that weld K-811 was cut out and replaced by weld (K-916) in accordance with the disposition specified in NR #E-2138 R1 (Revision 1); however, OIA compared the original of this NR (E-2138) stamped "VOID" with Revision 1 and found three items of note.

First, although the original NR identified that both welds (K-811 and K-516) had "hold points" scheduled for inspection by the Authorized Nuclear Inspector (ANI) Revision 1 of the NR deleted any reference to weld K-516. OIA subsequently reviewed the weld package for weld K-516 which disclosed that the inspection documentation (KE-1 #A-16922) contained a "waiver" of the hold point by the ANI dated November 9, 1977. The initials of the ANI and the disposition of the missed hold point indicate that NR E-2138 may have mistakenly identified the weld as having a

missed hold point. However, interview of the inspector assigned to review documents disclosed that he believed the information contained on the original NR dated October 11, 1979, was accurate. The inspector also could not explain why the information relating to weld K-516 was deleted from Revision 1 and advised that he had not written (typed) the revision of the NR.

Second, the original NR carries a disposition of "accept as is" which contradicts Revision 1's disposition of "cut out and replace weld."

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Third, Revision 1 was not written by the same inspector as indicated above, yet the inspectors' name and original date are contained on the revision. This was verified by interview of the former supervisor of Document Control who advised that the procedures, formerly utilized by Kaiser QA, had been to "type" the revised NR with all of the same information (including name of the original inspector) which completed the top and left hand side of the form. Revision 1, therefore, was written sometime after the date of the original and presumably after the date of the "voiding" (December 14, 1979). The result of this action, however, gives the appearance that not only did the original inspector write the revision, but also that the decision to cut out weld K-811 was made on October 11, 1979, prior to Applegate's employment at the site, when, in fact, the voiding of the NR and the actual removal and replacement of the weld did not occur until after Applegate had been hired and brought information of potential weld defects in specific welds to the attention of CG&E officials. Copies of NR E2138 and NR E2138 R1 are furnished as Attachments 5 and 6 respectively.

Below is a brief description of the status of the three alleged defective welds and available information documented during the course of both the IE investigation and the OIA investigative effort.

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WELD CY 606

IE Investigation Report

Regarding weld No. CY-606, 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 reradiographed 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.

OIA Review of Welding Documentation

A "reconstructed" weld data sheet for this weld was located and bore the notation "original card lost reconstructed by RT data." QA stamps for instructions 1, 2, 3 and 7 - i.e., proper procedure levels, fit up and final pass - were missing and in place of the QA stamp was a reference to the above quoted notation. This weld was originally done in mid 1976.

According to the weld package, the history of this weld is as follows:

410609

7/16/76	Radiographic Report...Incomplete Fusion, Undercut 0-13 13-26
7/16/76	Weld Rework/Repair Data Sheet...PT and RT
7/19/76	Penetrant Inspection Report...Ground Out Areas-Accept
7/21/76	Weld Rework/Repair Data Sheet...PT and RT
7/23/76	NDE Request...PT, Ground Area
7/23/76	Penetrant Inspection Report...Ground Out Area-Accept
7/27/76	Radiographic Report...Incomplete Fusion, 0-12 12-24
7/27/76	WELD WELD Rework/Repair Data Sheet...PT and RT
7/29/76	NDE Request...PT and Grind Out

gls

7/29/76 Penetrant Inspection Report...Grind through and area immediately adjacent-Accept

8/2/76 NDE Request...RT, Grind Out for Information Only

8/4/76 NDE Request...PT, Repair Area to Locate Defect Found by RT

8/4/76 Penetrant Inspection Report...Crack in Edge of Weld - Not Accept

8/9/76 Radiographic Report...Cracks, Incomplete Fusion - 0-12 Reject

8/10/76 Need Rework/Repair Data Sheet...PT and RT

8/10/76 Penetrant Inspection Report...Ground Out Areas - Accept

8/10/76 ~~NDE~~ ^{NDE} Request...PT, Repair Area

8/11/76 Radiographic Report...Porosity, Tungsten, Undercut, Surface Indications-Accept

2/15/77 Weld Rework/Repair Data Sheet...PT, RT, RT

6/8/77 Radiographic Report...Porosity, Tungsten, o-13 13-26 - Accept

Weld data records for Weld CY-606 is included as Attachment 7.

WELD RH-42

IE Investigation Report

"Regarding weld No. RH-42, 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."

OIA Review of Welding Documentation

OIA's review of the weld package revealed that during the period March to May 1980 weld RH-42 was cut out and replaced by weld RH-K-262. The weld package describes the history of this weld as follows:

8/6/76 Initial weld fit-up, etc., inspected.

8/9/76 Final radiograph revealed unacceptable porosity and slag in the area of 36-48.

8/10/76 Rework ordered.

8/11/76 Rework accepted by KEI based upon August 10, 1976, reradiograph.

3/21/80 Weld RH-42 ordered cut out.

4/21/80 Rework to reprepare weld area ordered.

4/23/80 QA verification of proper bevels, etc., for the in process weld based upon April 23, 1980.

4/30/80 QA rejection of proper bevels, etc.

5/1/80 QA reverification of proper bevels, etc.

5/7/80 KEI approval of weld based upon May 6, 1980, final radiograph

Weld data records for weld RH-42 is included as Attachment 8.

WELD WR-K-811

IE Investigation Report

"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."

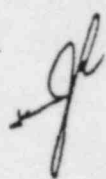
CIA "Review of Welding Documentation

Weld package for WR-K-811 and K-916 describes the history of this weld as follows:

1/30/79 Initial weld, fitup, etc.

10/11/79 Nonconformance Report dated October 11, 1979, No. E-2138R1. Describes that established ANI hold point was missed. Disposition: 10/11/79 Nonconformance Report dated October 11, 1979, No. E-2138R1.

10/11/79 Nonconformance Report dated 10/11/79, No. E-2138. Describes that established ANI hold point was missed. Disposition - Perform RT - Accept on basis of RT. NR stamped "VOID" dated December 14, 1979.

10/11/79 Weld K-811 - Cut out per NR 2138 R1 on January 14, 1980 - Description - (1/14/80). Hold point not signed off. 

1/18/80 Weld No. K-916 initial weld.

1/24/80 Final pass.

Weld data records for weld K-811 is included as Attachment 9.

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AUG 6 1981

MEMORANDUM FOR: Chairman Palladino
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne
Commissioner Roberts

1518 Cummings

FROM: James J. Cummings, Director
Office of Inspector and Auditor

SUBJECT: OIA SPECIAL INQUIRY RE ADEQUACY OF IE INVESTIGATION
50-358/80-09 AT THE WILLIAM H. ZIMMER NUCLEAR POWER
STATION

Mr. Applegate's allegations with respect to my actions in this matter
are as follows:

Page 16 of original GAP Petition

"For instance, Phillip stated that the NRC became aware of the
allegations against Zimmer after Applegate called on February 28.
On that date, Applegate called NRC Chairman Ahearne. In fact,
however, the process had begun two weeks earlier on February 15,
when Applegate called Inspection and Audit Director James Cummings
to lodge his claims. Mr. Applegate called Cummings several more
times before giving up in frustration and contacting the Chairman.
The relevant telephone bill for Mr. Applegate's residence is attached
as Exhibit 5.) Mr. Cummings received information which he apparently
sat on."

Phillip Interview

"Senator Glenn's office provided him with the name of James Cummings,
Director, OIA, NRC. Phillip then explained that Applegate claimed
he contacted Cummings by telephone and related the information
concerning the problems at the Zimmer site. Applegate also related
to Phillip that he (Applegate) became frustrated with Cummings as a
result of several telephone conversations with Cummings which culminated
with Cummings' requesting that Applegate provide "something in
writing" compiling the allegations. Phillip stated that Applegate
thought about the request over a weekend and became angry. According
to Phillip, Applegate stated that he was upset about the request
because he (Applegate) had been incurring personal expenditures to

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bring the information to someone's attention and now he was requested to do more. Applegate said he then called Chairman Ahearne's office who apparently referred the matter to IE."

In view of the above, I think it appropriate for me to provide, for the record, my best recollection of the situation.

On February 19, 1981, Mr. Applegate called my office, spoke to my secretary, and asked that I return his call. After several telephone attempts by both Mr. Applegate and myself, we finally spoke two or three days later. My best recollection of the highlights of this conversation is as follows:

- Because of his investigation of the Zimmer Plant, he feared for his life and wanted me to provide for his transportation from Cincinnati, Ohio, to Washington, D.C., and to also provide for his protective custody.
- Applegate had been to both the Cincinnati FBI and the Cincinnati U.S. Attorney's office and had not received a satisfactory solution from these offices of his problem.
- He had currently locked himself in his home and was afraid to go outside because of the investigative reports he had written. He reasoned that if he could give these reports to someone in the Federal Government, then the pressure would be off him, i.e., they would be out of his control and that being the case he could go about his business with less fear.
- Applegate did not trust NRC and would definitely not deal with the NRC Regional Office.

I told Applegate that I could not provide either the transportation or protective custody that he sought, but that I would be happy to receive his written investigative reports regarding the Zimmer Plant. Applegate told me that my having a copy of his reports might solve his problems, but that he would have to think about it over the weekend and let me know of his decision.

After talking to Applegate I called the Cincinnati FBI office and verified that Applegate had been to their office seeking protective custody. The agent to whom I spoke characterized Mr. Applegate as apparently totally sane.

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Several days later, exact date not recalled, probably about February 25 or 26, Applegate again called my office, but I was not in the office to receive his call. He called again that same day and again I was not in to receive his call. During the course of his conversation with my secretary, during the second call, he asked for the name of my supervisor. My secretary provided this information to Applegate and then called former Chairman Ahearne's secretary alerting her that I would be away from the office all day and she might expect a call from Applegate. The next morning I was contacted by one of former Chairman Ahearne's staff and told that he had spoken to Applegate and had referred him to the Office of Inspection and Enforcement (IE). That same day I was subsequently contacted by Bill Ward, IE, who told me that he had spoken to Applegate and that Applegate had agreed to meet with Headquarters IE staff in Cincinnati in the next few days. In view of this arrangement I did not recontact Applegate.

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OIA Reading

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7/31/81					

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