

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

REGION III

Report No. 50-341/79-18

Docket No. 50-341

License No. CPPR-87

Licensee: Detroit Edison Company
2000 Second Avenue
Detroit, MI 48226

Facility Name: Enrico Fermi 2, Monroe, MI

Dates of Investigation: September 11-14, 1979

Investigation At: Monroe and Wayne, MI

Investigators: G. A. Phillip
G. A. Phillip

10-10-79
(Date)

Reviewed by: Charles E. Norelius
Charles E. Norelius
Assistant to the Director

10/10/79
(Date)

D. H. Danielson
D. H. Danielson, Chief
Engineering Support Section 2

10/10/79
(Date)

Investigation Summary: Investigation on September 11-14, 1979 (Report No.
50-341/79-18)

Areas Investigated: Three allegations were made by two allegers and they were that: safety related materials were received and used on the site without required receipt inspection; required vendor certificates of compliance were falsified by site personnel; and, welder's qualification coupons were welded for them by other personnel. The investigation consisted of an examination of pertinent procedures and records, observations and interviews of personnel and involved thirty-six investigation hours by two investigators.

Results: The first of the above allegations was confirmed; the others were not. One item of noncompliance with the provisions of 10 CFR Part 50, Appendix B, Criterion VII, failure to assure that purchased material conformed to the procurement document through an examination of the material upon delivery, an infraction, was identified during this investigation. See Section 4 of report Details.

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REASON FOR INVESTIGATION

During a telephone conversation on July 10, 1979 an individual alleged that individuals employed by Wismer and Becker, a site piping contractor, were being qualified as welders on the basis of test coupons welded by other individuals. Following earlier telephone contacts, an individual alleged during an interview on September 11, 1979 that Wismer and Becker had received and used safety related material at the site without receipt inspection and that certificates of compliance had been falsified. An investigation of these allegations was therefore initiated.

SUMMARY OF FACTS

On July 10, 1979, an individual alleged during a telephone conversation with Region III that individuals had welded the coupons used as a basis for qualifying welders employed by Wismer and Becker, a Fermi 2 site contractor. Another individual interviewed on September 11, 1979 alleged that safety related pipe had been received and used on site by Wismer and Becker without being receipt inspected. This individual also alleged that certificates of compliance required to be supplied by a vendor had been generated at the site by a Wismer and Becker employee.

Regarding the welding coupons, no information or evidence was obtained to substantiate the allegation. Regarding the falsification of certificates of compliance, it was ascertained that copies of the certificates are supplied to the customer with the original being retained by the vendor. A sampling of twenty-five certificates for material supplied to Wismer & Becker at Fermi 2 were examined at the vendor's facility and all appeared to be legitimate originals.

Regarding the failure to perform required receipt inspections, no record of receipt inspection and acceptance was available for two shipments of pipe received by Wismer and Becker in 1978. In one instance, acceptance of the material was not recorded on the Receipt Inspection Report form nor in the Receipt Inspection Report Log. In the other instance the log contained no entry for a shipment of pipe received on June 20, 1978 and the quality control office had no Receipt Inspection Report for that material. A reproduction of a Receipt Inspection Report for the material was, found however, in the Purchasing Department files. This copy was only partially completed, and did not indicate that a receipt inspection had been performed.

It was ascertained that no audits of Wismer and Becker receipt inspection activity had been performed which identified this problem.

One item of noncompliance, failure to perform receipt inspections was identified during this investigation.

DETAILS

1. Background Information

The Detroit Edison Company began construction of Enrico Fermi 2 nuclear power plant in October 1970. Construction activity was suspended in November 1974 when the plant was 45% complete. Construction was resumed in February 1977. While Detroit Edison is the architect-engineer for the project, the designer-engineer for the reactor building is Sargent and Lundy Engineers. Daniel International Corporation replaced the Ralph M. Parsons Company as the construction manager in July 1976. Wismer and Becker is the piping contractor at the site. Capitol Pipe and Steel Products Company and Unistrut Corporation are offsite vendors supplying materials to Wismer and Becker.

2. Persons Contacted

Detroit Edison Company (DECo)

*W. J. Fahrner, Project Manager
*E. Hines, Assistant Vice President, Quality Assurance
 W. Everett, Project Superintendent
*W. W. White, Assistant Project Manager and Superintendent
*J. A. Cartmill, Assistant Project Superintendent
*A. Alexiou, Assistant Project Superintendent
 R. Barr, Project QA Director
*E. H. Newton, Plant QA Engineer
*G. Carter, QA Engineer
 J. Mullens, QA Engineer

Daniel International Corporation (Daniel)

*R. P. Williams, Group Vice President
*D. E. Seifert, Project Manager
 K. Dempsey, Assistant Construction Manager
 J. G. Bolt, QA Manager
*T. J. T. Blixt, Project QC Manager
*G. King, Electrical Engineer

Wismer and Becker

*E. L. Young, Project Executive Manager
*L. Carlson, QA Engineer
 L. Osborne, QA Engineer
 J. Flaherty, Project Welding Engineer

United Association

J. Payment, Instructor

Unistrut Corporation

B. R. McClure, QA Supervisor

*Attended exit meeting on September 14, 1979.

In addition to the above, one Wismer and Becker welder was interviewed and brief contacts were made with various other Wismer and Becker personnel.

3. Introduction

During a telephone conversation on July 10, 1979 with Region III an individual made an allegation concerning the qualification of welders employed by Wismer and Becker at Fermi 2. During a July 24, 1979 telephone conversation and a subsequent interview on September 11, 1979 another individual made allegations concerning the receipt inspection activity of Wismer and Becker.

4. Allegations

Based on the information provided during contacts with the two allegers, three allegations were derived. These allegations and the information obtained regarding them during the investigation are set forth below.

Allegation 1 - Shipments of pipe were received and installed onsite which were not receipt inspected.

The alleger stated that some shipments of pipe for installation in safety related systems had been received, paid for and installed for which there are no records to show that they were inspected and accepted. It was indicated that for each such shipment a Receipt Inspection Report (RIR) is prepared which identifies the material and on which is recorded the inspection that was performed and whether it was accepted or rejected. A log of all RIRs is also maintained which shows whether material is accepted or rejected.

The alleger advised that in one instance a shipment was received from Capitol Pipe and Steel Products Company (Capitol) in June 1978, and the RIR does not indicate that the pipe was inspected and accepted. The log entry for this entry does not show whether the pipe was accepted or rejected.

In another instance, a shipment of pipe was received from Capitol in June 1978, subsequently paid for but there is no RIR in the Quality Control files relating to the shipment. A partially completed RIR is on file, however, in the Purchasing Department Files. An RIR bearing the same identification number was, however, in the QC files which related to valves received from Daniel International.

Finding - On September 12, 1979 10 RIR's and supporting documentation were reviewed as well as the RIR log.

Among those reviewed was RIR 1675. This document shows that on June 20, 1978 655' of 2" Schedule 80, SA 106 Gr B pipe was received from Capitol under Purchase Order 63176. The RIR contains no indication as to whether the shipment was accepted, placed in hold or rejected. The log entry for RIR 1675 does not contain any information indicating the disposition of the shipment of pipe. This is noncompliance with 10 CFR Part 50, Appendix B, Criterion VII.

Attached to RIR 1675 was a Capitol shipping order form showing the heat numbers 271876 and L41929 for 655' of 2" S/80 SA 106 Gr B pipe. QC personnel were unable to locate any information or certification for pipe having heat number 271876. Certificates however, were available for heat number L41929 which related to 226' of the 655' of pipe.

RIR 1715 was also reviewed. It showed that on June 27, 1978 four valves were received from Daniel International and accepted. Documentation was complete and reflected QC acceptance. The RIR log reflected the same information for RIR 1715. There was no other entry for RIR 1715. It was noted that immediately preceding the log entry for RIR 1715, there were several blank lines following the No. 1714. The log contains nothing relating to this RIR number and the QC engineer had no explanation for this condition. He advised that if for some reason an RIR is replaced by another or not used, that the practice has been to put the word "void" in the remarks column. He also stated that entry of the word "void" can also mean in some instances, that an RIR was initiated for material that did not require receipt inspection before it was determined that an RIR was not needed.

It was ascertained that RIR's are filed sequentially in the QC files. A second RIR bearing No. 1715 was not found through a search of file material where the RIR for valves was found.

The Purchasing Department's file for Purchase Order 63176 was reviewed. It contained a xerox copy of an RIR, No. 1715, with the number 1741 next to it and circled. This RIR, dated June 27, 1978, showed that under Purchase Order No. 63176 2,848' of 1-1/2" S/80 SA 106 Gr B pipe and 3,143' of 3/4" S/80 SA 106 Gr B pipe was received from Capitol. The copy showed no inspector's signature or QC verification

stamp. It appeared the copy had been made from an original or another copy with a blank piece of paper masking out a sizeable portion of the form. A copy of this RIR was obtained and is attached as Exhibit A. The QC engineer indicated he was unaware of the existence of this RIR and could find no other information pertaining to it.

In view of the presence of the circled number, RIR 1741 was reviewed. It related to pipe received from Capitol on May 18, 1978. The pipe in this shipment was as follows:

6300 ft of 1-1/2 inch S/80 SA 106 Gr B
348 ft. of 3/4 inch S/80 SA 106 Gr B

Attached to this RIR were certificates for the heat numbers associated with the shipment of pipe. It was noted, however, that the 348 ft. of 3/4 inch pipe when added to the 3,149 feet shown on RIR 1715 (3,497 ft.) essentially accounts for the 3500 ft. of 3/4 inch pipe listed on this purchase order. A Capitol invoice, No. 70217, dated June 25, 1978, shows that 3,149 ft. of 3/4 inch pipe was ordered and 3,166 ft. were shipped on June 19, 1978 along with 2,850 ft. of 1-1/2 inch pipe in response to an order for 2,848 ft. This invoice supports the information on RIR 1715 found in the Purchasing Department which shows that this pipe was received on June 27, 1978. No documentation was available that this shipment of pipe was receipt inspected. This is also in noncompliance with 10 CFR Part 50, Appendix B, Criterion VII.

Allegation 2 - Material certificates were falsified by Wismer and Becker personnel.

The alleger stated that material supplied by Unistrut Corporation was sometimes received on site in 1978 by Wismer and Becker which was not accompanied by the required material certificate. Since there was an immediate need to release the material for installation, the individual who was the warehouse supervisor but who is no longer employed at the site, falsified the certificate. The alleger said the certificate may have been subsequently received from Unistrut.

The alleger advised that data entries on certificates previously received from Unistrut had been whited out and xeroxed to produce blank certificate forms. The data was then typed on these forms so that they appeared to relate to current shipments of material. A copy of a Unitstrut certificate with only the customer name and factory job number filled in, and with the signature of the Quality Control manager appearing on it was obtained and is attached to this report as Exhibit B.

According to the alleger the purchase order number, part name and part number were then typed in by Wismer and Becker.

Finding - On September 12, 1979 several Unistrut certificates contained in Wismer and Becker files were reviewed. It was noted that all of them appeared to be xerox copies rather than originals. The QA Engineer stated that Wismer and Becker did not require Unistrut to supply the original certificate, but that Unistrut presumably retained the original in their files.

On September 13, 1979 a visit was made to the Unistrut Corporation facilities in Wayne, Michigan. The Quality Control Supervisor confirmed that the original certificates are retained in that office for materials shipped to Wismer and Becker at Fermi as well as for materials supplied to several customers at other nuclear reactor construction sites. He advised that he or the Quality Control Manager signed the certificates and copies are then routed to the shipping department for subsequent transmittal to the customer. He indicated that the certificates do not ordinarily accompany the material but are mailed to the customer.

Twenty-five certificates for materials supplied to Wismer and Becker during 1978 and 1979 were reviewed, all of which appeared to be originals. The certificates reviewed included those which corresponded to certificate copies reviewed the previous day at the site. No inconsistencies or irregularities were noted.

While it was not determined whether the certificates on file at the site were generated there or were actual copies of the originals, no noncompliance with NRC requirements, that is that material is certified and that certificates are available for review, was identified.

Allegation 3 - Individuals other than the personnel being tested performed welding on qualification test coupons.

The alleger stated that Wismer and Becker had established a welder training facility on the premises of Fermi 1 as a means of obtaining qualified workers for work at Fermi 2. After undergoing training individuals are required to weld a coupon which is tested for adequacy as a means of becoming qualified to perform welding at Fermi 2. It was alleged that in three specific instances, named individuals had performed welding on the test coupons used to qualify three other named individuals as welders.

In one instance it was stated that an individual, who during the investigation was identified as the night shift welding coordinator and who had done no welding at the site, had welded the coupon for another individual.

In the second instance it was alleged that an individual had welded the coupon for his brother.

In the third instance it was alleged that an instructor had done all but the final pass on the coupon of a trainee.

Finding - In the first instance the Wismer and Becker Project Welding Engineer advised that based upon a record review that the named individual had never been employed by Wismer and Becker at Fermi. Records at the training facility were reviewed and the individual's name was not among those who had received training.

In the second instance it was ascertained that one individual was an instructor at the training facility on the second shift, while his brother was receiving training on the same shift from about October 2 to 23, 1978. On October 19, 1978 he was qualified as a welder. The Project Welding Engineer advised that records are maintained of welder performance. This is maintained by recording all welding an individual performs which is radiographed. The number of inches of such welding is recorded by date and the number of inches rejected is also recorded. From these numbers, a weld rejection rate is calculated. The Project Welding Engineer stated that his records showed that the individual had performed no such welding.

He said he recalled the individual had experienced some difficulty in making acceptable welds on small diameter pipe when he first began work at the site. He said this would not be unusual for a new welder and he considered it somewhat imprudent to assign a new welder such jobs until he gained more experience on the job. He recalled having discussed the matter with the individual's foreman and suggested that he be given work on a larger pipe until he gained additional experience.

The Project Welding Engineer said that he would have been performing surveillance at the training facility when the individual was welding his test coupon. He said he had never seen anyone welding on anyone else's coupon and would not have permitted it. He, however, indicated that since the welding of the coupon takes several hours and may require days to complete, continuous surveillance of the individual is not maintained.

The training facility records also showed that the individual received seventy-two hours of training in heli-arc welding during the period May 1-11, 1979 and that training was discontinued due to his termination from his job.

Wismer and Becker records show that the individual was fired on May 7, 1979. It was also ascertained that the brother, who was an instructor at the training facility, is no longer employed there.

Regarding the third instance, training facility records show that the individual spent 321 hours in training during the period October 24, 1978 to February 14, 1979. He became qualified as a welder on February 19, 1979. The instructor denied that he performed any welding on the individual's coupon. He said to do so would have been self-defeating because the individual would still be required to perform acceptable welding on the job and if he did not, the instructor would receive complaints from the jobsite. The Project Welding Engineer stated that he also performed the surveillance at the test facility during the time this individual welded his test coupon. He reiterated that he had not observed and had no knowledge that anyone had performed welding on anyone else's coupon. He added that he had not observed anyone entering a welding booth while an individual was working on his test coupon. He echoed the instructor's statement that producing an acceptable coupon dishonestly would be of little benefit to anyone, since the individual must still perform acceptable welding on the job. If the individual does not, he would not be retained and the employer would have incurred a loss in time and expense.

The individual himself was interviewed on September 13, and he stated that he had performed all of the welding on his test coupon. He indicated he had spent several hours over a period of two or three days to complete his coupon. When he was not working on his coupon, it was secured in a locker assigned to him at the training facility.

The welder performance record showed that on two occasions this individual had performed welds which were radiographically inspected. On March 22, 1979 he made an 8" weld of which 1/2" failed. On May 28, 1979 he made a 27" weld, all of which was acceptable. His weld rejection rate was therefore 1.4%. The Project Welding Engineer indicated that this rejection rate was considered good.

5. Management Discussion

On September 14, 1979 the allegations and the investigation findings concerning them were discussed with those personnel identified in the Persons Contacted section of this report. In summary, it was stated that one of the three allegations, that relating to receipt inspection, had been substantiated and that two such instances had been identified. The other two allegations had not been substantiated.

Attachment: Exhibits A and B



WISMER & BECKER
ELECTRICAL-MECHANICAL CONTRACTING ENGINEERS

JOB NUMBER 1715 (741) DATE RECEIVED 6/21/78
JOB NAME WISMER & Becker JOB NO.
RECEIVED FROM Capitol Pipe & Steel
ADDRESS 301 City Line Avenue
Bala-Cynwyd, Pa 19004

DELIVERY PARTIAL	COMPLETE	DELIVERING CARRIER	REQUISITION NO.	P.O. ORDER NO.	
RAIL	EXPRESS	OUR TRUCK	PARCEL POST	CAR INITIAL AND NO.	FRT. BILL NO. OR EXP. NO.
ITEM	QUAN.	DESCRIPTION			REMARKS
1	2848'	1 1/2" 8/80 SA 106 GR B			
2	3149'	3 1/4" 8/80 SA 106 GR B			

POOR ORIGINAL

1522 176

UNLOADED AT:

I CERTIFY THAT THE SERVICES REQUIRED WERE SATISFACTORILY COMPLETED, OR THAT THE ARTICLES SPECIFIED HEREIN HAVE BEEN RECEIVED AND INSPECTED BOTH AS TO QUALITY AND QUANTITY AND PASSED OR REJECTED AS INDICATED ABOVE.

REVISED

BY

EXHIBIT A
Page 1 of 1

UNISTRUT CORPORATION

WORLD HEADQUARTERS • ELIZABETH AT CLINTON • WAYNE, MICH. 48184
TELEPHONE: (313) 721-4040 • TELEX 22-5457

CUSTOMER WISMER & BECKER

DATE SHIPPED _____

PURCHASE ORDER NO. _____

SHIPPER NO. _____

FACTORY JOB NO. U/DETROIT STOCK ITEMS

PART NAME _____

PART NUMBER _____

THIS IS TO CERTIFY THAT THE PARTS DESCRIBED HEREON HAVE BEEN PROCESSED IN ACCORDANCE WITH YOUR PURCHASE ORDER INSTRUCTIONS, INCLUDING APPLICABLE INTERNAL UNISTRUT CORPORATION SPECIFICATIONS. THE INFORMATION CONTAINED HEREIN HAS BEEN TRANSCRIBED FROM CERTIFIED TEST AND PROCESS SHEETS IN OUR PLANT. OUR FILE IS SUBJECT TO YOUR EXAMINATION AT ANYTIME DURING NORMAL BUSINESS HOURS.

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UNISTRUT CORPORATION

BY C. L. Cook
QUALITY CONTROL MANAGER

Per Bruce P. W. C.

CC: CUSTOMER
Q.C. FILE