

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-387/82-29

Docket No. 50-387 Priority -- Category C

Licensee: Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Facility Name: Susquehanna Steam Electric Station Unit 1

Inspection At: Berwick and Sunbury Pennsylvania

Inspection Conducted: June 16-17, June 30, 1982 and July 13, 1982

Inspectors: E. H. Gray 10/7/82  
E. H. Gray, Reactor Inspector date

S. D. Ebnetter, Chief  
Engineering Programs Branch date

Approved by: J. P. Durr 10/15/82  
J. P. Durr, Chief, Materials and Processes Section date

Inspection Summary:

This special unannounced inspection involved 32 on site hours by a region based inspector. It was conducted as a result of a written allegation by a former Bechtel welder that his foreman and general foreman falsified renewal of his weld qualification. The allegation was not substantiated, although during the inspection the qualification renewal mechanism was revised to eliminate the possibility of inadvertant or falsified continuation of a welder qualification where use of the weld process had not actually occurred. The inspection determined that welds were not made by the welder in plant components with the weld process in question during the two week interval during which he was not qualified so that plant safety was not compromised.

## DETAILS

### 1. Persons Contacted

#### Pennsylvania Power and Light Company (PP&L)

- \*R. Beckley, Resident Nuclear QA Engineer
- \*R. Matthews, Senior Analyst
- \*T. Newman, Quality Assurance Engineer
- \*R. A. Schwarz, Supervising Engineer, Construction
- B. T. Yatko, Internal Auditor

#### Bechtel Power Corporation (BPC)

- \*G. A. Bell, Project QA Engineer
- G. T. Finnan, LWQCE
- \*L. Hickey, Electrical Superintendent
- \*T. McHenry, Asst. PFQCE
- \*J. T. Minor, PFE
- \*J. O'Sullivan, Assistant Project Field Engineer
- \*W. Ross, Lead Field Weld Engineer

#### General Electric Company Nuclear Energy Division (GE)

- Steve Bernat, Field Engineer
- Wade Green, Field Engineer
- John Rhodes, Field Engineer

#### USNRC

- \*J. McCann, Resident Inspector
- G. Rhoads, Senior Resident Inspector

\*Attendees at exit interview

The inspector also interviewed the allegor, other PP&L employees and Bechtel employees including craft workers.

### 2. The Allegation

The allegation as stated in the letter of May 14, 1982 to PP&L is as follows:

"... on one occasion I know of my foreman, ... and my general foreman, ... falsifying "filler metal withdrawal slips" so that I would not loose my stainless steel heli-arc welding qualification (filler metal must be drawn periodically or you automatically loose your qualification). The instance I pointed out can be verified with the records, because they assigned the welding to a job that did not exist. This took place near the middle of the month of March, 1982. It was assigned to the General Electric Project, who we weren't

working with at the time, nor did I have in my possession the equipment to do this type of welding."

### 3. Inspection Scope

This special inspection included interviews with the alleged, his foreman, general foreman and superintendent. Interviews were also conducted with GE Field Engineers, site welders, welding engineer, quality control personnel, quality assurance personnel, the electrical union shop steward, the union business agent and other workers under the alleged's general foreman.

Records pertaining to welder qualification, renewal of qualification, weld rod withdrawal and weld engineering daily records were reviewed.

### 4. Purpose of this Inspection

The purpose of this special inspection was to determine the significance of the allegation presented in part two of this report.

The inspection was directed toward the following factors.

- a. Could the allegation be substantiated?
- b. Is the welder qualification system adequate or are revisions necessary in the system?
- c. If the falsification did occur, were there any detrimental effects to the integrity of either safety related or non safety related plant components?
- d. Is records falsification a general site welding problem?

### 5. Interviews

Interviews were separated into three parts as follows:

Site Interviews on 6/16 - 6/17/82 by H. Gray

Interviewed were

Walter Ross - Bechtel Lead Field Weld Engineer (W.E.). Obtained the system method for qualifying welders and maintaining welder qualifications. Determined interaction between weld engineering and site Quality Control on the welder qualification subject.

George T. Finnan - Bechtel Q.C. Obtained more detail on QC-W.E. interaction and verified existence of welder qualification by procedure, welder qualification expiration exception report and confirming welder qualification update thru W. E. interaction with site foreman.

Foreman of the alleged. He stated that for the 3/9/82 work assignment he prepared a GTAW rod withdrawal slip, had the alleged withdraw wire from wire room and report to General Electric to do welding. He said (in response to the interviewer's question) that the alleged did not complain of being denied the opportunity to weld and thereby legally update his qualification after the job assignment had been changed. Subsequent to the 3/9/82 work assignment the alleged did not request another GTAW weld assignment to update this qualification. The foreman stated that he has no knowledge of any attempts to falsify welder qualification records at the job site.

General foreman of the alleged. The statements of the general foreman were supportive of those by the foreman. He stated that he had specifically told the alleged of the requirement to both draw rod and weld with the GTAW process in order to maintain (update) the welder's qualification. The general foreman stated that the alleged's GTAW qualification hadn't been required in the last 6 months and if it did expire he would send the welder back to weld school later for retraining/updating.

Weld rod issue attendant (WRIS). No new information was provided except that he said when a welder returns with all the wire issued shortly after leaving the rod room that the WRIS will discard the rod issue slip, negating the weld qualification update. (There was no formal requirement for this to occur.)

Random interview of two site welders. Both welders stated that as far as they knew, the welder qualifications and updating of welder qualifications were being handled in an honest manner.

Resident NRC Inspector - Independent investigation by J. McCann resulted in his statement that there does not appear to be a records falsification problem with welder qualifications.

During the 6/17 - 18 investigation, the inspector could find no proof that the alleged records falsification by supervision did actually occur. However, it was identified that the welder qualification maintenance system should be modified to prevent inadvertent updating of welder qualifications where welders are assigned to jobs that are later changed prior to actual welding being done. Also to require that rod be returned to issue point immediately after it is no longer required on the assigned job.

It was determined that the alleged was not assigned welding with the GTAW process on any site components from 3/9/82 until after being qualified for this process with carbon steel filter metal on 4/2/82.

Interview of Alleger by S. Ebnetter and H. Gray on 6/30/82.

The response to questions by the Alleger were as follows:

I started at Berwick Site May 1975, 3 years with the ironworkers, the remainder of the time with electricians. I qualified for GTAW on 5/1/81, the last update of record was September 16, 1981.

I did not weld with the GTAW process from September 16, 1981, until I returned to weld school for qualification with GTAW for carbon steel about 4/2/82.

The GE project J72 was completed before 3/9/82, therefore, when I was assigned to it on 3/9/82 I was being assigned to a job that did not exist.

The Bechtel system for qualifying welders and maintaining welders qualifications is honest and completely above board with this one exception.

In order to save money or time my foreman, at his general foreman's instruction, assigned me to a job that didn't exist to update my GTAW qualification. After drawing the GTAW weld rod, I put the rod in the gang box and returned to my foreman for another rod assignment. I did not go to the J72 project site because we (I and my foreman) knew that no work was going on there. The welding required there was previously completed with stick electrode. Also, the G.E. representatives, who always were waiting for us when we were assigned to G.E., were not present at the usual meeting location (gang box).

During the time my weld qualification was expired (3-16-82 to 4-2-82) I did not weld on any plant components with the GTAW process.

Site Interviews on 7/13/82 by H. Gray

Interviewed were:

- Three foreman who were also supervised by the general foreman involved in the allegation. Each foreman when interviewed stated that they were never pressured, requested, forced to, or involved in any records falsification. They stated that their general foreman was fair in his interaction with them. These foremen said they knew of no cases of false records being prepared at the site.
- Electrician Shop Steward and Electrician Union Business Agent. Both stated that the foreman and general foreman of the alleger were both good supervisors.

- General Electric Representatives (G.E.) Steven Bernat, Wade Green and John Rhodes, who have been working on the J72 work assignment, were interviewed together by the regional inspector. They stated that the J72 welding of stainless steel blocks to carbon steel clamps on pipes for testing purposes was in progress both before and after March 9, 1982. Review of rod disbursement forms and computer printouts for welder qualification maintenance purposes confirmed that the alleged did draw electrode to weld on the J72 project with E309-16 on 3/20/82 and 3/23/82. Therefore, the welding work on J72 of stainless steel to carbon steel was not complete prior to 3/9/82 as claimed by the alleged.

The G.E. representatives stated that although the SMAW (E 309) and GTAW (ER 309) procedures were permitted to be used by the applicable drawings on J72, that only the SMAW process had been used. Generally, GTAW equipment was not available in the work area and SMAW was more than adequate for the application. They could not recall any instance when a welder brought GTAW filler wire (issued as 3' long wires in a holding tube) to the J72 work site.

- Foreman of the alleged. With respect to the allegation of falsification, a factor is the determination of who decided to pick the GTAW process for use on J72 3/9/82. The following statement was made by the foreman in the presence of the Electrician Union Steward and Business Agent to the inspector.

The alleged asked for a rod withdrawal slip for Heliarc (GTAW) welding and the foreman replied that he didn't know how to fill out a slip for that weld process. The alleged provided the foreman with a sample slip from which the foreman made out the slip used by the alleged to withdraw the GTAW wire that updated the alleged's qualification record. Therefore, per the accounting of his foreman, the alleged actually initiated withdrawal of GTAW wire against the J72 project.

- Welders. Two welders who regularly work with the electricians under the general foreman or one of his foreman stated that welder's qualifications testing, and maintenance of welder qualifications were handled honestly at the site.
- Bechtel Electrical Superintendent

Mr. Hickey stated that both his general foreman and foreman are of excellent character and not likely to be a party to a falsification incident.

## 6. Sequence of Events

The sequence of events is summarized below:

- 5/75 - Alleger started at the Susquehanna Site as an ironworker welder.
- 5/78 - Began working with electricians as a welder.
- 5/1/81 - Qualified to GTAW weld.
- 9/16/81 - Last GTAW process update of record.
- 3/3/82 - Notification of process expiration by weld engineering.
- 3/4/82 - Alleger advised of process expiration date.
- 3/9/82 - Date of questionable rod withdrawal
- 3/15/82 - GTAW process expiration date.
- 4/2/82 - GTAW school attendance completed for carbon steel training and qualification by alleger.
- 4/29/82 - Allegers date of termination from site employment.
- 5/14/82 - Allegers date of allegation.

## 7. Changes to the Welder Qualification System

By letter of 6/21/82 the BPC Field Procedure Manual Part FP-W-1, Revision 14 states, "Should a change in work planning occur subsequent to the withdrawal of filler metal from a Rod Room by the welder that no longer requires the welder to weld the weldment indicated on the Withdrawal Authorization slip, the welder shall immediately return the filler metal to the Rod Room. The Rod Room attendant shall remove the withdrawal information from the Rod Disbursal Form and VOID the withdrawal authorization slip. In addition, he shall note on both 'No Welding Performed'."

The BPC letter of 7/8/82 revises FP-W-1 to state, "Once per month the LWQCE sends a list of welders to the LFWE that will lose their qualifications if they do not weld with a given process within the next several weeks. This list is compiled from the Welder Qualification Maintenance Record. This list is passed on to the area field welding engineer and appropriate craft superintendent. A field welding engineer must witness the welding and verify the quality of the weld. This information shall be documented on the FWE's Daily Report. A copy of the Daily Report will be sent to the LWQCE for posting in the Welder Qualification Maintenance Record."

The above revisions to the welder qualification system reduce the possibility of inadvertent or intentional updating of welder qualifications where use of the process does not actually occur and represent the corrective action to close loopholes identified by the allegor. The inspector had no further questions concerning this matter.

#### 8. Conclusion

This special inspection shows a conflict between job assignment records and the allegation. It was not definitely proven that a falsification did occur, but if it did, the falsification was an isolated case.

As is important to plant safety this inspection concludes that:

- No site welding by the GTAW process was performed by the welder during the time period, approximately 2 weeks, when his qualification was not current.
- Records falsification on welding qualification is not known to have occurred or to be presently occurring at the job site.
- The allegation could not be substantiated.
- The welder renewal qualification program had weaknesses in it that could permit errors.

#### 9. Exit Interviews

The inspector meet with licensee management representatives on 6/17/82 to present the scope and corrective actions identified during the inspection at that time. During the subsequent exit interview of 7/13/82 the inspector summarized the scope, corrective actions taken by the licensee and findings of the inspection.