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February 11, 1971

Re Compliance Visit to
Indian Point Site

Mr. Robert W. Kirkman, Director
U.S. Atomic Energy Commission
Division of Compliance
Region 1
970 Broad Street
Newark, New Jersey 07102

Dear Mr. Kirkman

Your letter of December 15, 1970 summarized the results of an inspection by your representatives to the Indian Point Unit No. 3 site and requested clarification or comments relative to certain variations between written WEDCO quality assurance procedures and the actual field implementation of these procedures.

The particular questions raised by your representatives and our comments on each question are contained in this letter.

AEC Comment

Criterion V, Appendix B, 10CFR50, entitled "Instructions, Procedures, and Drawings" states in part:

"Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, or a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings

Contrary to the above, the inspectors found:

1. Procedures or instructions relevant to heating the reactor vessel lifting beam and means of determining the surface temperature of this beam were not prepared, although the procedure for "Handling and Setting of IP-3 Reactor Vessel" stipulates that the lifting beam must not be used when its surface temperature falls below 70°F based on NDTT considerations.

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Con Edison Comments

The WEDCO procedure for "Handling and Setting of the Indian Point Unit No. 3 Reactor Vessel" specifies that the lifting beam should not be utilized when its surface temperature falls below 70°F. The intent of this requirement is to alert field personnel to the limitation on the use of the lifting beam under cold weather conditions.

The 70°F limitation of the WEDCO procedure was based on the recommendation of the lifting beam manufacturer which specified that the lifting beam should not be used when its temperature falls below 40°F. Therefore, the WEDCO limitation represents a conservatism of about 30°F above the suggested 40°F which also contains some margin of conservatism.

Prior to the reactor vessel lift electric heaters were wrapped around the beam and fiberglass insulation placed over the heaters. The surface temperature of the lifting beam was verified by contact thermometer and availability of electric power to the heaters was checked. These actions are recorded in WEDCO logbooks.

The intent of any written instruction or procedure is to clarify requirements, techniques, etc. and thereby to assure proper job completion. Ultimately any procedure relies on personnel actions for proper job completion.

The degree to which written procedures must be developed depends on the complexity of the job, the consequences of incorrect job completion, the inherent margins of conservatism and the experience of personnel involved. The relative importance of these factors again depends on personnel judgments.

WEDCO had not developed further specific written instructions on the methods of heating the lifting beam and of determining the surface temperature because in their judgment no further specific instructions were necessary and the instruction alerting personnel to the 70°F was deemed sufficient to assure proper job completion.

Con Edison concurs that in this particular case there is no need for any further detailed written instructions in view of the relatively large margin between the specified 70°F and the suggested manufacturers limitation of 40°F and the relatively simple available means of heating the lifting beam and verifying surface temperature.

AEC Comment

2. The log, showing gas pressures, condition of covers, and visitors to the area, is not being maintained as required by the WEDCO procedure, "Reactor Vessel and Reactor Vessel Head Receipt Inspection and Security During Storage".

Com Edison Comments:

The WEDCO procedure "Reactor Vessel and Reactor Head Receipt Inspection During Storage" was issued on August 20, 1970. This procedure required a security guard to maintain a log of conditions when going on shift and coming off shift as follows:

- a. Gas Pressure on Reactor Vessel
- b. Gas Pressure on Reactor Vessel Head
- c. Condition of Shipping Covers, etc.
- d. Mooring and Fastening Lines
- e. Visitors to the Security Area

On August 22, 1970 a WEDCO Quality Control standard operating procedure was issued which required the WEDCO Quality Control group to monitor the reactor vessel and head conditions. This operating procedure was intended to transfer the responsibility for monitoring the technical aspects of the reactor vessel from the security guards to WEDCO Quality Control. The procedure particularly pointed out the need to monitor the nitrogen gas purge pressure. The responsibility to maintain area security by logging visitors was retained by the security guards.

The security guard log which recorded visitors to the area where the vessel was stored has been maintained. Sufficient log entries are available to demonstrate a consistent effort in maintaining area security.

The WEDCO quality control inspection on the vessel and head was initiated in accordance with the Quality Control operating procedure which specified the parameters to be verified such as purge pressure at an inspection interval of five hours. As the inspections continued, it became apparent that the only technical variable occurring involved the gas purge. Accordingly, WEDCO concentrated on monitoring this particular aspect. When the vessel was landed from the barge, larger purge gas bottles were installed and the frequency of the purge gas monitoring was decreased to be consistent with the larger purge gas supply.

The written procedures which specified the extent of surveillance and the inspection frequency were not revised continually to reflect the actual surveillance actions taken. In this regard, the procedures were inconsistent with their implementation. However, WEDCO indicates that changes to these procedures were orally approved by the Reliability Manager to reflect the extent of surveillance actions required in his judgment. The actions taken in reducing the extent of recorded surveillance and in reducing the purge gas monitoring frequency were based on observable vessel conditions and were consistent with efficiently maintaining adequate vessel conditions during this construction phase.

The reactor vessel has been moved and is presently located within the containment building. There is therefore no need to revise the vessel storage procedure as it is no longer used as a basis for vessel surveillance. The portion of the procedure for monitoring the reactor head will however be revised as necessary to reflect the actual head surveillance extent and frequencies.

AEC Comment

3. The WEDCO "Procedure for Handling the Reactor Vessel Skid" referenced among others, a "Procedure for Installing the Lifting Beam" and a "Procedure for Setting the Reactor Vessel." There was no evidence that either of these procedures were being developed.

Con Edison Comment

The latter two procedures were written and issued December 14, 1970 in advance of the actual work.

With regard to the previously issued WEDCO "Procedure for Handling the Reactor Vessel Skid", this procedure describes the actions to be taken when locating the reactor vessel within the containment building and separating the vessel from its skid. As you know during this process a malfunction of the crane occurred and the reactor vessel and skid descended and contacted the temporary containment support plating. This incident is not a subject of this letter; however, it is presently being investigated and the resulting reports will be made available to your representatives.

AEC Comment

4. WEDCO's procedure WQA-4.0, Part 2.3.3-a, states in part: "All records and documentation required from the supplier must be on site and acceptable before the item is fully accepted". Contrary to this procedure, the reactor vessel has been released for installation prior to receipt of the N-1 "Data Report Form".

Con Edison Comment

The referenced WEDCO procedure was developed during the management transition at the site from United Engineers & Constructors, Inc. to WEDCO. The exact words within the procedure appear to be all encompassing with regard to required records at the site at the time of receipt inspection. The procedure was primarily developed for WEDCO supplied items and did not adequately clarify that for major Westinghouse components the significant quality assurance documentation would be retained by Westinghouse. The procedure will be revised to eliminate this unintended inconsistency.

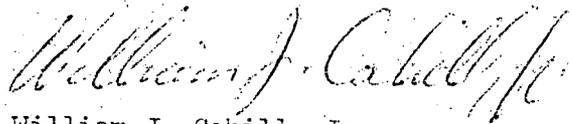
February 11, 1971

In summary, the particular questions raised by your representatives were caused primarily by paperwork which was not adequately updated or clarified to reflect the actual working practices or by a judgment which dictated that the paperwork was unnecessary or simply a judgment as to when the supporting paperwork was required. In all cases, these inconsistencies and judgments did not result in a decrease in the technical adequacy of the reactor vessel.

As mentioned previously, it is our intent to thoroughly investigate the crane malfunction and its consequences and to make all reports of this incident available to your representatives. Our emphasis in this area will be to concentrate on verifying the continued integrity of the reactor vessel.

I trust that our comments and commitments made herein are responsive to your letter.

Very truly yours



William J. Cahill, Jr.
Vice President

gv:cw

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