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Writer's Direct Dial Number:

April 18, 1986

Mr. Harry B. Kister, Chief  
Projects Branch No. 1  
U.S. Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

Dear Mr. Kister:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
IE Inspection Report 50-219/85-35

Attachment I to this letter provides GPU Nuclear's responses to the identified violations in Appendix A of your letter dated February 14, 1986. Due to the multiple aspects associated with these violations, an extension of the due date to April 18, 1986 was granted by the Senior Resident Inspector at the Oyster Creek Station.

If any further information is required, please contact Mr. John Rogers of my staff at (609)971-4893.

Very truly yours,

Peter B. Fiedler  
Vice President and Director  
Oyster Creek

PBF/JJR/dam(0168A)  
Attachment

cc: Dr. Thomas E. Murley, Administrator  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Mr. Jack N. Donohew, Jr.  
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7920 Norfolk Avenue, Phillips Bldg.  
Bethesda, MD 20014

NRC Resident Inspector  
Oyster Creek Nuclear Generating Station

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## ATTACHMENT I

### Violation A

10 CFR 50, Appendix B, Criterion IX and Section 6 of the Oyster Creek Operation Quality Assurance Plan require, in part, that special processes, such as welding, be accomplished in accordance with applicable codes and that procedures be established to meet the requirements of the applicable codes. The applicable code for structural welding is AWS D1.1.

Contrary to the above, as of November 5, 1985, it was identified that the GPUN welding program did not address the requirements of AWS D1.1 Structural Welding Code regarding partial and full penetration structural welds.

### Response

GPUN does not concur in the violation.

The welding program as written was not intended to contain all requirements defined in AWS D1.1. The GPUN Welding Program addresses specific weld geometries and design requirements for ASME qualified procedures. The statement that a specific weld geometry in AWS D1.1 was not in the GPUN Welding Program is true. However, there was never any intent to include all possible weld geometries in the GPUN Program, since they are considered a non-essential variable by ASME. GPUN has taken the position that our ASME qualified procedures meet the AWS code requirements. If a weld geometry is selected which is not contained within the GPUN Welding Program, then specific guidance to support performance of the welding will be supplied.

Finally, a gas tungsten arc welding (GTAW) process was utilized in performing the identified welds. AWS D1.1 does not recognize GTAW welding process. Therefore, there are no AWS D1.1 prequalified joints for this process nor are there any AWS D1.1 essential elements assigned to this process. However, AWS D1.1 does make provisions for processes not listed in the code: "Other welding processes may be used provided they are qualified by applicable tests as prescribed in 5.2 and approved by the engineer." In conjunction with the tests, the joint welding procedures and limitation of essential variables applicable to the specific welding process must be established by the contractor developing the procedure. Considering, GPUN's experience in using the GTAW process with the essential elements of the ASME Code, we state that the requirements of AWS D1.1 relating to "other welding processes" have been met.

The GPUN Welding Program is being revised to document our acceptance for use of ASME procedures on AWS design.

## ATTACHMENT I

### Violation A

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The GPUN Welding Program is being revised to document our acceptance for use of ASME procedures on AWS design.

## Violation B

10 CFR 50, Appendix B, Criterion III and Section 4 of the Oyster Creek Operation Quality Assurance Plan require, in part, that design requirements be correctly translated into specifications, drawings, procedures, and instructions. Further, 10 CFR 50, Appendix B, Criterion V and Section 3 of the Operation QA Plan require, in part, that activities affecting quality be accomplished in accordance with procedures.

Attachment 1 to GPUN Standard MTWA-001, GPU System Welding Program, and paragraph 4.2 of procedure 6150-QAP-7220.01, GPUNC Welding Manual, require, in part, that Technical Functions Engineering specify weld joint configurations in appropriate procedures and drawings.

Contrary to the above, as of October 26, 1985, Technical Functions issued FCR-C-039642 to GPUN Drawings SN 15081.02-ES-04 and ES-05 specifying that structural steel pieces be joined together using a partial penetration weld. No information was specified on the FCR as to the weld joint configuration required to achieve the design strength. This omission resulted in inadequate welds being made in the field.

## Response

GPUN concurs in the violation.

Field Change Request FCR-C-039642 was issued to GPUN drawings SN 15081.02-ES-04 and SN 15081.02-ES-05 with inadequate detail as identified in Violation B.

Corrective Actions Taken and Results Achieved: The welds in question were documented as defective in Material Non-Conformance Report (MNCR) 85-275 on November 7, 1985. Technical direction for restoring the identified weld was provided on November 7, 1985 in response to MNCR 85-275. The repair action was implemented and passed a Quality Control (QC) inspection on November 9, 1985.

A technical evaluation was performed to document the acceptability of utilizing GPUN Welding Program specifications and procedures in lieu of AWS D1.1 requirements (e.g., the selection of the GTAW process for the identified welds). This evaluation was completed on April 16, 1986.

Corrective Actions Which Will Be Taken and Date When Full Compliance Will Be Achieved:

1. The importance of issuing adequate requirement specifications in weld packages will be re-emphasized to requisite in-house and contracted engineering personnel by June 1, 1986.
2. GPUN procedure 5000-ADM-6250.01, "Professional Services", concerning the interface with contracted engineering firms, will be reviewed to determine if a revision is required to provide additional references to the requirements of the GPUN Welding Program. If a revision is required, it will be issued by June 15, 1986.

### Violation C

10 CFR 50, Appendix B. Criterion V and Section 3 of the Oyster Creek Operation Quality Assurance Plan require, in part, that activities affecting quality be prescribed by and accomplished in accordance with documented instructions, procedures, and drawings.

Contrary to the above, as of November 6, 1985, the following inadequacies existed regarding modifications to Instrument Racks RK01 and RK02:

- (1) QC inspection personnel failed in eleven instances to fully document their inspection activities on inspection reports in sufficient detail to show that inspection objectives had been met, as required by GPUN procedure 6130-QAP-7210.03, Exhibit #6, QA Mod/Ops Inspection Program.
- (2) Maintenance, Construction and Facilities (MCF) failed to follow the fabrication requirements of drawings SN 15081,02-ES-04 and 05 as evidenced by: (a) substitution of a seal weld for a partial penetration weld in six separate locations; (b) the use of a bearing connection in lieu of a friction connection for four pieces of bolted structural steel; (c) inadequate bolting including lack of full thread engagement of nuts and bolts, and failure to use washers where specified; and (d) the use of undersized fillet welds to attach a stiffener plate. Also, MCF failed to properly install the 3-valve manifold associated with level indicator LI-622-916 on RK01. It was installed upside down, contrary to the requirements of drawing 15081.02-CC-13, Rev. 0, Instrument Rack RK01 Phase I Modification Piping Schematic.
- (3) A MCF Job Supervisor failed to sign off production hold points on the Weld Repair Record associated with MNCR 85-233 and Short Form 31529 as required by paragraph 4.2 of Exhibit 4 of GPUN procedure 6150-QAP-7220.05, Rev. 0-00.
- (4) MCF failed to implement prerequisite 4.7.3 in GPUN procedure A15B-G1136.010, Rev. 0, RK01 Rack Modifications-Electrical. An emergency Technical Specification change provided the option of either implementing or revising this procedure prerequisite, but neither action was taken.

### Response

- (1) GPUN concurs in the violation.

#### Corrective Actions Taken and Results Achieved:

Prior to restart from the 10M outage, interviews were conducted with available GPUN Inspectors in the area of concern (6 inspectors out of a total of 18. Twelve inspectors were contracted and are no longer on site.) It was determined that inspections were performed correctly but were not adequately documented.

1. The production and QC documentation for the work on the RK01 and RK02 racks was reviewed in total for any additional problems. All concerns were addressed to assure that the Oyster Creek Nuclear Generating Station could be safely restarted following the IOM outage.
2. The discrepancies identified in this review were corrected by supplementing the requisite Plant Inspection Report (PIR). The bases for the additional information were also documented and are available for review.
3. The practice of taking field notes and later transferring the information to the PIR was terminated immediately. Interim guidance was provided to require completing PIRs in the field as the inspection occurs (or as close as possible in the case of Radiologically Controlled Areas). Guidance for completing PIRs to identify the inspected activities has been expanded. These changes were incorporated into the Inspection Procedure by revision.
4. The indoctrination for contracted inspectors has been modified to include emphasis on the appropriate methods and required level of detail for documenting inspections.
5. A human factors evaluation of the production documents was performed to provide individual QC sign offs for each step, assuring that inspection status is readily available even when a job lasts longer than one shift. This change has been incorporated into the checklist used to review production documents.
6. As an ongoing process commencing with refueling outage 11R, GPUN in-house supervision has been scheduled on backshifts to oversee contracted inspector performance. This will be supplemented by increasing the awareness of GPUN QA/QC supervision to this concern.
7. The Operations QA Monitoring section has been directed to periodically monitor PIRs for adequacy throughout the 11R outage.

Full compliance was achieved on March 31, 1986.

(2) GPUN concurs in the violation.

Corrective Actions Taken and Results Achieved:

- a) The seal weld was substituted for a partial penetration weld due to inadequate guidance provided in the Field Change Request (FCR). Immediate corrective actions were taken to weld a stiffener plate over the identified weld. The addition of the plate resolved the inadequate weld concern.
- b) A hole was drilled in lieu of a slot as specific measurements were made in the field and a slot was not considered essential. Immediate corrective action was taken to evaluate the drilled hole. The plate was determined to be acceptable and was dispositioned "use-as-is".

- c) The cause of the violations was an inadvertent mixing of 1 1/2" and 1 3/4" bolts. Immediate corrective action was taken to replace the shorter 1 1/2" bolts with the correct 1 3/4" bolts.
- d) The violation occurred due to accessibility problems in welding the stiffener plate. The entire assembly had been pre-assembled and brought into the plant. The stiffener plate was attached after the assembly had been mounted. Immediate corrective action was taken to perform an evaluation of the welds in question. It was subsequently dispositioned "use-as-is".
- e) The cause of the violation was inadequate guidance given to the craft personnel for an unusual task. Immediate corrective action was taken to remove and re-install the 3 valve manifold.
- f) All five of the specifics detailed in the Violation resulted from work supervised by contractor employees. Contractor supervisors were counseled on the need for attention to detail and appropriate actions to be taken if inadequate guidance is supplied with an initial work package. This was accomplished prior to restart from the IOM outage. The training program for contractor supervision was reviewed to determine if changes or additions should be initiated to prevent recurrence. A revision to the training program was issued. Training has been and will continue to be conducted.

Full compliance was achieved prior to commencing the IIR outage.

(3) GPUN does not concur in the violation.

This concern arose as a result of a welding evolution being performed over more than one shift. When production occurs over more than one shift or more than one day, a misleading date and apparently incorrect signature can appear on the welding package. Interviews were conducted with the contractor supervision involved in this concern. It was verified through discussion that although one supervisor actually oversaw the work, a different supervisor signed and dated the document when the entire package was completed. An evaluation was performed to determine if additional clarity was required in the signing and dating procedures associated with production maintenance. Subsequently, the affected procedure was clarified.

(4) GPUN concurs in the violation.

The violation occurred when a procedural prerequisite which was met at the commencement of work was not maintained throughout the work process. Although the prerequisite dealt with a Technical Specification requirement, at no time was a Plant Technical Specification violated.

As this concern was identified during the job close out process, no immediate corrective action was required.

Corrective Actions Which Will Be Taken and Date When Full Compliance Will Be Achieved: Additional instructions to Job Planners were added to the Maintenance, Construction and Facilities (MC&F) "Special Procedure Format" list. These instructions will assure that when continuous control of prerequisites is required, specific steps will be included in the body of the procedure to address tag outs, temporary variations, lifted leads, or other administrative controls. Full compliance will be achieved by evaluating the effectiveness of this revision throughout the 11R outage.



#### Violation D

10 CFR 50, Appendix B, Criterion X, and Section 6 of the Oyster Creek Operation Quality Assurance Plan require, in part, that inspections be performed to verify conformance with documented instructions, procedures, and drawings.

Contrary to the above, as of November 6, 1985, QC inspections failed to identify the following deficiencies:

- (1) The undersized fillet welds discussed in paragraph C.(2)(d) of this Notice of Violation;
- (2) The inadequate partial penetration welds discussed in paragraphs B and C.(2)(a) of this Notice of Violation;
- (3) The inadequate bolting discussed in paragraph C.(2)(b) of this Notice of Violation; and
- (4) The upside down 3-valve manifold discussed in the second paragraph of C.(2) of this Notice of Violation.

#### Response

GPUN does not concur with specific (2) of Violation D.

As the required inspection was not specified in either the weld package or engineering documentation (refer to the response to Violation B), it was not possible for the inspector to identify a deficiency.

(1), (3), and (4) GPUN concurs in the Violation.

#### Corrective Actions Taken and Results Achieved:

1. The discrepancies identified in the violation were reinspected and MNCRs issued as appropriate. The MNCRs were dispositioned and reinspection where required was completed prior to restart from 10M.
2. The inspectors involved in the violation were counselled on proper inspection methods and acceptance criteria.
3. Training guidelines reflecting the lessons learned were prepared and will be used on an as-needed basis for the training of new inspectors.
4. Requisite portions of this inspection report have been reviewed with the appropriate disciplines of the current inspection staff and documented in the training files.
5. The checklist used for final inspection of completed modifications has been modified to include a reference to proper thread engagement of structural bolting and proper installation of 3 valve manifolds.

Full compliance was achieved on March 31, 1986.

## Violation E

Technical Specification 6.8.1 requires, in part, that written procedures be established, implemented, and maintained. Paragraph 7.2 of procedure number 915.26, Rev. 2, Release Surveys, contained in the Oyster Creek Radiological Controls Policy and Procedure Manual, requires that all personal items, such as clipboards, drawings, notebooks, etc., be radiologically surveyed prior to release of these items from the radiation control area (RCA).

Contrary to the above, on November 6, 1985, personnel were observed leaving the RCA without performing a radiological survey of carry-along items.

## Response

GPUN concurs in the violation.

### Corrective Actions Which Have Been Taken and the Results Achieved:

1. All department heads on Oyster Creek were notified of the deficiency in frisking hand held items and requested to sensitize personnel and assist in enforcement of this procedure.
2. Large poster signs were installed temporarily at each automatic frisker to remind personnel to frisk hand held items. These were later replaced by permanent engraved signs.
3. The Radiological Controls technicians monitored and documented failures to frisk hand held items and enforced immediate corrective actions. Documentation was sent to responsible supervision for appropriate discipline.
4. An article was placed in the site weekly newspaper "Info Update".
5. This subject was discussed in the monthly Rad Awareness meeting.
6. The Radiological Assessor has monitored compliance and violations are not repetitive.
7. Off shift tours by management have not detected any further violations.

Full compliance was achieved on November 10, 1985.