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

Report No. 99900060/80-02 Program No. 51300

Company: Target Rock Corporation
1966 East Broadhollow Rd.
East Farmingdale, New York 11735

Inspection Conducted: September 8-10, 1980

Inspector: W. M. McNeill for 9/19/80
Wm. D. Kelley, Contractor Inspector Date
Components Section I
Vendor Inspection Branch

Approved by: W. M. McNeill for 9/19/80
D. E. Whitesell, Chief Date
Components Section I
Vendor Inspection Branch

Summary

Inspection on September 8-10, 1980 (99900060/80-02)

Areas Inspected: Implementation of 10 CFR 50, Appendix B and applicable codes and standards including, design and document control - design computer program verification; procurement source selection; control of special processes - welding procedure specification, joint fitup and welding; manufacturing process control - welding material control; and inspection and test - ultrasonic examination. Also, performed a review of the vendor's activities and conducted an exit interview. The inspection involved twenty (20) inspector-hours on site by one (1) NRC inspector.

Results: In the seven (7) areas inspected, no deviations or unresolved items were identified.

DETAILS

A. Persons Contacted

Target Rock Corporation (TRC)

*C. A. Abruzzo, Manager Quality Assurance
C. Desouza, Welding Supervisor
V. Liantonio, Manager of Engineering
F. T. Meichner, Product Quality Engineer (Level III)
*D. M. Pattarini, Vice President of Engineering
R. M. Platz, Welding Engineer Supervisor and Chief Metallurgist

*Denotes those persons who attended the Exit Interview.

B. General Review of Vendor's Activities

1. There has been no change in the status of the ASME Certificates of Authorization, the authorized inspection agency, or the authorized nuclear inspection as reported in NRC IE:RIV Report No. 99900060/79-02.

2. The ASME survey team is scheduled to re-survey TRC during the period of September 22-24, 1980.

3. TRC's contribution to the nuclear industry represents approximately forty percent (40%) of its total workload.

C. Design and Document Control, Design Computer Program Verification

1. Objectives

The objectives of this area of the inspection were to verify that:

a. Procedures had been prepared and approved by the vendor to prescribe a system for design computer program verification which is consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program.

b. The design computer program verification procedures are properly and effectively implemented by the vendor.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

a. Review of the ASME accepted Quality Assurance Manual. Revision 3, Change Notice #4, Section 4, "Design, Drawing, Specification

and Procedure Control," to verify that the vendor had established procedures to prescribe a system for design computer program verification.

b. Reviewed the document referenced in paragraph a. to verify that it contained measures to verify the adequacy of design, required documented results of the design computer program verification, and required the design verification to consider the importance to safety. Also to verify that it identified the method of performing the design verification, identified items to be addressed during the design review, and prescribed the requirements for performing verification by alternate calculations, or by qualification test.

c. Interviews with personnel to verify that they are knowledgeable in the procedures applicable to design computer program verification.

3. Findings

a. The inspector verified that TRC is developing design computer programs for their products. Upon development of the pilot design computer program, a procedure will be written, reviewed and approved for the development of future programs. The procedures will address the use, approval, and verification of the design computer program including design changes and customer imposed revisions of drawing and/or design specifications. Design engineering personnel are presently being trained in the development and use of the design computer program.

b. Within this area of the inspection no deviations or unresolved items were identified.

c. Followup Item

The inspector will review the TRC procedure pertaining to the design computer program and its verification on a subsequent inspection.

D. Procurement Source Selection

1. Objectives

The objectives of this area of the inspection were to verify:

a. Procedures had been prepared and approved by the vendor to prescribe a system for procurement source selection, bid evaluation and contract award in accordance with NRC rules and regulations and the ASME accepted Quality Assurance Program.

b. The procurement source selection, bid evaluation, and contract award procedures are implemented.

2. Method of Accomplishment

The objectives of this area of the inspection was accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 3, Change Notice #4:

(1) Section 5.0 "Material Control," and

(2) Section 6.0, "Control of Vendors,"

to verify that the vendor had established procedures for procurement source selection, bid evaluation, and award of contract.

b. Review of the following TRC Quality Control Instructions:

(1) QCI-1802, "Evaluation and Selection of Vendors,"

(2) QCI-1820, "Quality Control Requirements for Procurement of Vendor Services and Manufactured Parts,"

(3) QCI-1830, "Receiving Inspection of Vendor Items," and

(4) QCI-1840, "Corrective Action Requirements for Descrepant Parts Manufactured by Vendor,"

to verify that procurement source selection, bid evaluation and contract award procedures were prepared by the designated authority, approved by management, and reviewed by QA.

c. Review of the procurement source selection procedure and verified it provided for integrated action and evaluation of supplier's history.

d. Review of the bid evaluation and contract award procedure and verified it provided for:

(1) measures to assure the supplier's bid conforms to the procurement document.

(2) bid evaluations were made by designated individual.

(3) resolution of unacceptable conditions.

e. Review of six sets of procurement source selection, bid evaluation and contract award documents to determine the procedures and procurement documents were available to the person responsible for the quality affecting activity and the vendor procedures are being properly and effectively implemented.

3. Findings

a. The inspector verified that:

(1) Procedures had been prepared and approved by the vendor to prescribe a system for procurement source selection, bid evaulation and contract award in accordance with NRC rules and regulations and the ASME accepted Quality Assurance Program.

(2) The procurement source selection, bid evaluation and contract award procedures were implemented.

b. Within this area of the inspection, no deviations or unresolved items were identified.

c. Followup Item

The inspector reviewed the audit check list (Form TRQC 86) for a vendor performing nondestructive testing for TRC. The check list contains a general section that pertains to all nondestructive testing disciplines and a seperate list of attributes for liquid penetrant examination and radiography but none for magnetic particle examination or ultrasonic examination. The manager of quality assurance stated the check list would be revised to include attributes for magnetic particle examination and ultrasonic in order to strengthen the audit check list.

The inspector will review the TRC revised audit check list and the audit of the vendor in accordance with the audit check list on a subsequent inspection.

E. Control of Special Processes, Welding Procedure Specification

1. Objective

The objective of this area of the inspection was to determine if the welding procedure specifications used by the vendor in production welding had been prepared, qualified and controlled in accordance with the applicable NRC rules and regulation and the ASME accepted Quality Assurance Program.

2. Method of Accomplishment

The objective of this area of the inspection was accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 3, Change Notice #4:

(1) Section 7.0, "Process Control," and

(2) Section 8.0, "Welding,"

to verify that the vendor had established procedures for the preparation, qualification, certification, distribution, and revision of welding procedure specifications.

b. Review of welding procedures JWP 15.601A "Mechanized Hard Surfacing of Seats in Carbon Steel One Inch 'Y' Bodies in Accordance with ASME Code," and JWP 15.501B "Mechanized Hard Surfacing of Seats in Standard Stainless Steel One Inch 'Y' Bodies in Accordance with ASME Code," to verify that all essential variables, were in accordance with the applicable Sections of the ASME Code.

c. Review of Welding Procedure Qualification Tests for welding procedures JWP 12.135 cs and JWP 12.158 ss-cs (per NB-4360) to verify that:

(1) The procedures had been qualified in accordance with Section IX of the ASME Code and the supporting procedure qualification records were on file.

(2) The procedure qualification records had been certified by the vendor and the mechanical test results meet or exceed the minimum ASME Code requirements.

(3) The procedure qualification record lists the essential variables for the specific welding processes and the values and ranges of the variables are consistent within the limits of Section IX of the ASME Code.

d. Review of the Welding Procedure Specifications and Procedure Qualification Records listed in paragraphs b. and c. above to verify that:

(1) All mechanical tests, required by Sections III and IX of the ASME Code, had been completed and are properly documented in the procedure qualification records.

(2) Changes and/or revisions of essential variables in any welding procedure specification, is supported by requalification documents.

(3) Changes in the nonessential variables of the welding procedure specification were properly identified and documented.

f. Observation in the shop to verify that the welding procedure specifications are available to the welders and the specifications are properly followed.

g. Interviews with personnel to verify they are knowledgeable in the procedures applicable to welding.

3. Findings

a. The inspector verified that the welding procedure specifications used by the vendor in production welding had been prepared, qualified and controlled in accordance with the applicable NRC rules and regulations and the ASME accepted Quality Assurance Program.

b. Within this area of the inspection no deviations or unresolved items were identified.

F. Manufacturing Process Control, Welding Material Control

1. Objective

The objective of this area of the inspection was to verify that welding material is identified and controlled until it is consumed in the welding process in accordance with the applicable NRC rules and regulations and the ASME accepted Quality Assurance Program.

2. Method of Accomplishment

The objective of this area of the inspection was accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 3, Change Notice #4:

(1) Section 5.0, "Material Control,"

(2) Section 6.0, "Control of Vendors," and

(3) Section 8.0, "Welding,"

to verify that procedures had been established for purchasing, receiving, distribution and handling of welding materials.

b. Review of welding records and parts being welded, to verify that distribution of the welding material is being controlled in accordance with approved procedures, and that unused welding materials were scrapped, or recycled, in accordance with the procedures.

c. Observation in the shop welding area and storage area, to verify that:

(1) Welding materials were clearly identified at all times in accordance with the approved procedures, and that the identification of acceptable materials was being maintained throughout the storage and manufacturing operations, until the material is consumed in the welding process.

(2) Welding material requiring environmental control was held at the appropriate storage, and/or baking temperatures, for the time specified in the procedure.

d. Interviews with personnel to verify they are knowledgeable of the procedures applicable to Welding Material Control.

3. Findings

a. The inspector verified that welding materials are identified and controlled until they are consumed in the welding process in accordance with NRC rules and regulations and the ASME accepted Quality Assurance Program.

b. Within this area of the inspection, no deviations or unresolved items were identified.

G. Control of Special Processes, Joint Fitup and Welding

1. Objective

The objective of this area of the inspection was to verify that the production welding was controlled in accordance with the applicable NRC rules and regulations and the ASME accepted Quality Assurance Program.

2. Method of Accomplishment

The objective of this area of the inspection was accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 3, Change Notice #4, Section 8.0 "Welding", to verify that welding was included in the quality assurance program.

b. Review of selective routing sheets to verify work was performed in the established sequence in accordance with the referenced procedures and specifications and established hold points provided for production and quality control signoffs.

c. Review of selective welding procedure specifications and drawings at the work stations to verify they were readily available.

d. Review of selective Filler Metal Requisitions to verify that the welding filler metals were of the type and grade, had been properly inspected, and identified and traceable to certification.

e. Visual observations in shop to verify that:

(1) Weld joint geometry was as specified and surfaces to be welded had been prepared, cleaned and inspected in accordance with applicable procedures.

(2) Parts to be welded were assembled and held within specified gap and alignment.

f. Interviews with personnel to verify they were knowledgeable of the procedures applicable to weld joint fitup and welding.

3. Findings

a. The inspector verified that the production welding was controlled in accordance with the applicable NRC rules and regulations and the ASME accepted Quality Assurance Program.

b. Within this area of the inspection no deviations or unresolved items were identified.

H. Inspection and Test Ultrasonic Examination

1. Objectives

The objectives of this area of the inspection were to ascertain that:

a. The ultrasonic examination procedures used by the vendor meets NRC rules and regulations, and the ASME accepted Quality Assurance Program.

b. The ultrasonic examinations are performed by qualified personnel, using qualified procedures.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 3, Change Notice #4:

(1) Section 7.0, "Process Control," and

(2) Section 10.0, "Nondestructive Examination,"

to verify that procedures had been established for ultrasonic examination.

b. Review of the following procedures:

(1) Report No. 1805-1, Revision B, "Ultrasonic Test Procedure Longitudinal Wave," and

(2) Report No. 1805-2, Revision 0, "Ultrasonic Test Procedure Shear Wave,"

to verify that they have been approved and qualified in accordance with the ASME Code requirements and the quality assurance program. Also to verify that they had been accepted by the Authorized Inspector (ANI).

c. Review of the procedures listed in paragraph b. to verify that the type of equipment, the extent of coverage, the scanning technique, the calibration requirements, the size and frequency of search units, the distance amplitude curve or electronic distance - amplitude correction and transfer mechanism, the scanning gain setting, the acceptance levels or limits for evaluation, and recording of indications, and the method of recording significant indications are specified.

d. Interviews with personnel to verify they are knowledgeable in the procedures applicable to ultrasonic examination.

3. Findings

a. The inspector determined that the ultrasonic procedures are in accordance with the NRC rules and regulations and the ASME accepted Quality Assurance Program.

b. TRC does not perform ultrasonic examination in house at the present time. All ultrasonic examination is performed by an outside testing laboratory that has been surveyed, qualified, and placed on the approved vendors list in accordance with the requirements of the ASME accepted Quality Assurance Program. However, TRC has written an ultrasonic examination procedure and is in the process of training a Level II inspector and will demonstrate the procedures to the Authorized Nuclear Inspector.

c. Within this area of the inspection no deviations or unresolved item were identified.

d. Follow-up Item:

The inspector will verify the qualification of the Level II inspector and the demonstration of the ultrasonic examination procedures to the Authorized Nuclear Inspector on a subsequent inspection.

I. Exit Interview

At the conclusion of the inspection on September 10, 1980, the inspector met with the company's management, identified in paragraph A, for the purpose of informing them of the results of the inspection. During this meeting, management was informed no deviations or unresolved items were identified.

The company's management acknowledged the inspector's statement and had no additional comments.