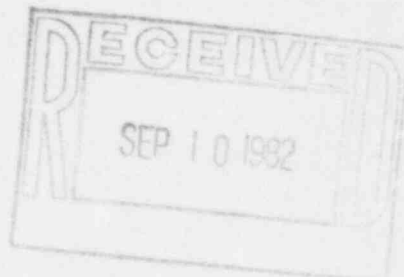


September 2, 1982

The United States Nuclear Regulatory Commission
Region 4
611 Ryan Plaza Drive - Suite 1000
Arlington, Texas 76011



Attention: Mr. Uldis Potapovs
Chief Vendor Program Branch

Dear Mr. Potapovs:

This letter, with attachments, is Nutherm's response to the violations and nonconformances found by Mr. W. E. Foster on June 21-25, 1982. Nutherm's written responses and written statements contain the following:

1. A description of steps which have been or will be taken to correct these items;
2. A description of steps which have been or will be taken to prevent recurrence; and
3. The dates these corrective actions and preventive measures will be completed.

Also enclosed are the final audit results from TVA which prompted your visit. Please note that there were no new findings identified during this audit and the audit therefore was able to close out all open deficiencies remaining from the previous audits.

In conclusion, I feel that the inspection conducted by Mr. Foster was very beneficial to Nutherm, as his knowledge and understanding of the regulations helped our company identify deficiencies in our system. We at Nutherm look upon auditors as consulting services.

If you need additional information or have any questions pertaining to my statements on these violations and nonconformances, please do not hesitate to contact me.

Sincerely,

NUTHERM INTERNATIONAL, INC.

James S. Hanner
Quality Assurance Manager

JSH/mgr
Attachments

8211290720 821119
PDR GA999 EMVNUTH
99900779 PDR

Our response should correct this impression. Dick B.

TENNESSEE VALLEY AUTHORITY

KNOXVILLE, TENNESSEE 37902

400 West Summit Hill Drive, W11C126

Proj

August 23, 1982

Nutherm International, Incorporated
501 South Eleventh Street
Mount Vernon, Illinois, 62864

Attention: J. Hanner, QA Manager

Gentlemen:

VARIOUS NUCLEAR PLANTS - CONTRACT NOS. 81K6-826719, 81K6-826973,
81P69-827232, 81K5-827791, 81K6-827910, 81KN1-829225, 81P5-829280,
81X8-829385-2, 81P6-829413, 82K6-829656, 82K69-829791, 82K6-829978, AND
82K5-830137 - VENDOR AUDIT 82V-42

AUDIT RESULTS

Attached is a copy of the report for the audit conducted at your facility during June 30 through July 1, 1982.

There were no new findings identified during this audit, and the audit team was able to close out all remaining open deficiencies from previous audits 81V-47 and 82V-10. No response to this report is required.

Very truly yours,

R. A. Costner

R. A. Costner, Chief, Quality Assurance Branch

Enclosure

DESIGNATED ORIGINAL
Certified By *Rheanne Clark*

NOTICE OF VIOLATION

- A. As a result of the inspection conducted on June 21-25, 1982, and in accordance with Section 206 of the Energy Reorganization Act of 1974 and its implementing regulation, 10 CFR Part 21, the following violation was identified and categorized in accordance with the NRC Enforcement Policy (10 CFR Part 2 Appendix C), 47 FR 9987 (March 9, 1982):

Section 21.6 of Title 10, Part 21 of the Code of Federal Regulations, dated December 18, 1981, states in part:

"Each individual, partnership, corporation or other entity subject to the regulations in this part, shall post current copies of the following documents in a conspicuous position on any premises, within the United States where the activities subject to this part are conducted (1) the regulations in this part, (2) Section 206 of the Energy Reorganization Act of 1974, and (3) procedures adopted pursuant to the regulations in this part.

"If posting of the regulations in this part or the procedures adopted . . . is not practicable, the . . . firm subject to the regulations in this part may, in addition to posting Section 206, post a notice which describes the regulations/procedures, including the name of the individual to whom reports may be made, and states where they may be examined."

Deficiencies

Steps Taken to Correct and Prevent
Recurrence/Date:

1. Contrary to the above, posting of 10 CFR, Part 21, Section 206, of the Energy Reorganization Act of 1974, adopted procedures, or an appropriate notice had not been accomplished.

This is a Severity Level V violation (Supplement VII).

1. As of 9-8-82, Nutherm has adopted adequate procedures, posted document 10 CFR, Part 21, and Section 206 of the Energy Reorganization Act of 1974 on our bulletin board. The above documents and procedures will remain in this area in the future to prevent recurrence.

NOTICE OF NONCONFORMANCE

- A. Paragraph 6.1.1 of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states in part, "All activities affecting the quality of the product shall be covered by written manufacturing instructions and engineering procedures or drawings. The activity shall be described as indicated in job specification, work instructions, shop construction drawings, planning sheets, operating or procedures manuals, test procedures or any other type of written form, providing adequate description of the activity to be performed."

DEFICIENCIES:

- i. The assembly of heater elements had not been covered by written manufacturing instructions and engineering procedures or drawings. Consequently, assembly personnel had no written information regarding mounting hardware and tightening requirements.
2. The bending of Part No. 064 was not being performed as required by Drawing No. 7003-51054-23, dated March 31, 1982. Rather, the designated portion (3 inches by 38.375 inches) was sheared and reattached, at 90 degrees, by welding.
3. Wiring was not being performed as indicated on Drawing No. 1023-51151-43, Revision 1, dated April 8, 1982. The wire being used was manufactured by Rockbestos, while the drawing specified wire manufactured by National.

STEPS TAKEN TO CORRECT AND PREVENT RECURRENCE/DATE:

1. As of 7/1/82 a written procedure (618, Revision 0) on mounting heater elements and tightening hardware has been adopted. Future recurrence will be prevented by the fact that adequate controlled procedures are available to the shop personnel.
2. As of 7/1/82 Drawing No. 7003-51054-23 has been revised to include changes. Meeting with Engineering, Purchasing, and Quality Assurance on 7/5/82, the error was discussed in detail to prevent recurrence.
3. As of 7/1/82 Drawing No. 1023-51151-43 has been revised to include the correct wire manufacturer. Quality Assurance Manager and the Project Engineer discussed the error on 7/7/82 and determined discrepancies in the specification and human errors. To prevent recurrence the Quality Assurance Department has tightened up the process in reviewing drawings.

Notice Of Nonconformance

Page 2

- B. Paragraph 7.1.1 of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states in part, "All documents such as manufacturing instructions, engineering procedures, and drawings, including changes which describe activities affecting quality, shall be reviewed for adequacy and approved for release..."

DEFICIENCIES:

1. Numerical control programs and tapes which describe activities affecting quality, had not been reviewed for adequacy and approved for release, prior to usage.

STEPS TAKEN TO CORRECT AND PREVENT RECURRENT/DATE:

1. As of 7/6/82 NUTHERM's Practice and Procedure No. 725 Revision 2 includes the tape forms and are reviewed for adequacy and approved for release prior to usage. To prevent recurrence the program tapes per procedure requirements will be followed.

- C. Paragraph 10.1.3.1 (a) of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states in part, "All . . . welding on safety class shall be performed in accordance with qualified procedures..."

DEFICIENCIES:

1. Welding of Part No. 064 (Drawing No. 7003-51054-23, dated March 31, 1982) was not being performed in accordance with a qualified procedure inasmuch as the procedure being used required E70S-6 filler metal while that being used was E70S-3.
2. The electrode wire speed was computed to be approximately 284 inches per minute rather than the specified 170-205 inches per minute, during performance of the welding on Part No. 064.

STEPS TAKEN TO CORRECT AND PREVENT RECURRENT/DATE:

1. As of 7/1/82 additional training of the Welding Department by the Welding Engineer and continual monitoring by the QA Inspector has given the NUTHERM welders adequate knowledge to prevent this mistake from happening in the future.
2. As of 7/3/82 electrode wire speed charts were developed by the Quality Assurance Department and welding procedures changed accordingly to prevent recurrence.

- D. Paragraph 16.1.4. of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states in part, "All nonconforming material parts or components disposition shall be noted on the appropriate inspection records and will be signed by the MRB. . . ."

DEFICIENCIES:

STEPS TAKEN TO CORRECT AND PREVENT
RECURRENCE/DATE:

- | | |
|--|--|
| <p>1. The disposition of all nonconforming parts had not been noted on the Inspection Report-Quality Assurance, for a Remote Panel for Project No. A-1089. Three nonconforming conditions had been recorded at Operation No. 3, only one dispositioned by the operation had been accepted.</p> | <p>1. As of 7/1/82, the Inspection Report was modified by the Inspector to show all three (3) dispositions on the Remote Inspection Report. To prevent recurrence, the QA Inspector was trained in the correct method of writing up a three-part nonconformance.</p> |
|--|--|
- E. Paragraph 4.1.2 and its subparagraph (c) of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states: "Design functions include: Prepare design drawings in accordance with contractual requirements."

DEFICIENCIES:

STEPS TAKEN TO CORRECT AND PREVENT
RECURRENCE/DATE:

- | | |
|--|---|
| <p>1. Design drawings had not been prepared in accordance with contractual requirements as evidenced by Drawing Nos. 1023-51153-33, and 1023-51151-43, both are Revision 1, dated April 8, 1982. The drawings specified wire manufactured by Marathon and National, respectively, while the customer specification required wire manufactured by Cerro Wire and Cable Company.</p> | <p>1. This deficiency ties in with Section A, Sub-point 3. To prevent recurrence, if there are any discrepancies between the specification and what we are supplying, a verbal change by our customer is needed (also, we shall document in project book) and/or followed up by written confirmation of change from our customer.</p> |
|--|---|

- F. Paragraph 11.1.2 of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, states in part, "The Quality Assurance Manager shall indicate mandatory inspection hold points which require witnessing or inspecting by the purchasers designated representative . . . the specific hold points shall be indicated in appropriate documents."

DEFICIENCIES:

1. Purchaser witness and hold points (welding and shop test) required by Purchase Order No. 91-1325-226, dated November 9, 1981, had not been indicated in the Inspection Reports-Quality Assurance for the Remote Control Panel and Electric Air Handling Heater for Project No. A-1089; nor had documented exceptions been taken as required by Note 2 of the purchase order.

- G. Paragraph 13.1.1 of the Quality Assurance Manual, No. QA-N-10179-3, Revision 3, dated October 2, 1981, required that tools, measuring and testing devices used in activities affecting quality, be controlled by written procedures to assure calibration.

DEFICIENCIES:

1. Wire terminal crimping tools (hand and bench-mounted) had not been controlled by written procedures to assure calibration.

STEPS TAKEN TO CORRECT AND PREVENT RECURRENCE/DATE:

1. In February 1982 verbal witness and hold points from our customer had been excluded except for the final hold point. As of February 1982 verbal followed up by written confirmation is required to prevent recurrence in the future.

STEPS TAKEN TO CORRECT AND PREVENT RECURRENCE/DATE:

1. As of 8/5/82 NUTHERM hand and bench mounted crimping tools have been added to NUTHERM Calibration Frequency Procedure 507, Revision 4. To prevent recurrence, all crimping tools will be listed in the calibration frequency procedure and updated accordingly.