

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

Report No. 99900317/79-01

Program No. 51400

Company: Cooper Services, Inc.
Cooper Energy Services
North Sandusky Street
Mt. Vernon, Ohio 43050

Inspection at: Grove City, Pennsylvania

Inspection
Conducted: March 19-23, 1979

Inspector: *D. M. Hunnicutt*
W. E. Foster, Contractor Inspector,
Vendor Inspection Branch

4/5/79
Date

Approved by: *D. M. Hunnicutt*
D. M. Hunnicutt, Chief, Components Section II,
Vendor Inspection Branch

4/5/79
Date

Summary:

Inspection on March 19-23, 1979 (99900317/79-01)

Areas Inspected: Action on five (5) previously identified inspection findings. Implementation of 10 CFR 50, Appendix B criteria, and applicable codes and standards, including manufacturing process control; procurement document control; document control; and nonconforming materials, parts, or components. The inspection involved twenty-nine (29) inspector-hours on site.

Results: In the five (5) areas inspected, no apparent deviations or unresolved items were identified in two (2) areas; the following deviations were identified in the remaining three (3) areas:

Deviations: Action on Previous Inspection Findings - Failure to take committed preventive measures within the committed time for items A. and B. identified in Inspection Report No. 78-01 (Enclosure, Items A. and B.). Two additional deviations were identified during evaluation of the corrective action response letter dated March 15, 1978 (Enclosure, Items C. and D.); these are repeat deviations.

2247 189

7906230035

Manufacturing Process Control - Completion of Inspection Plan not consistent with Criterion V of Appendix B to 10 CFR 50, and paragraph 4.4.1 of QC Procedure No. 10-1 (Enclosure, Item E.).

Document Control - practice not consistent with Criterion VI of Appendix B to 10 CFR 50, and Section 3 of Quality Assurance Manual No. QAM-1000-1, Revision 6, dated February 25, 1977 (Enclosure, Item F.).

Unresolved Items: None.

2247 190

Details Section

A. Persons Contacted

- *C. Bemiller, Manager - Quality Engineering
- W. J. Carothers, Engineer - Manufacturing
- *H. F. Curren, Manager - Quality Control
- *C. H. Patterson, Technician - Quality Engineering
- *A. Patton, Technician - Quality Engineering
- W. J. Webster, Group Leader - Blueprint

*Attended exit interview

B. Action on Previous Inspection Findings

1. (Closed) Deviation (Inspection Report No. 78-01): Failure to have a Quality Control Inspection Plan (QC/IP), or equivalent, available at the sawing operation for a connection. The inspector found that contrary to the preventive measure commitment in their letter dated March 15, 1978, a computer program had not been implemented by May 31, 1978, to verify that a QC/IP number had been inserted in the system for critical items. (See Enclosure, Item A.).
2. (Closed) Deviation (Inspection Report No. 78-01): Failure to issue Reminder Forms when corrective action in process had been delayed more than ten (10) working days. The inspector found that contrary to the preventive measure commitment in their letter dated March 15, 1978, the Corrective Action system procedure had not been revised by June 30, 1978. During evaluation of the corrective action and preventive measures, additional deficiencies were noted, this constitutes a repeat deviation (See Enclosure, Items B. and C.).
3. (Closed) Deviation (Inspection Report No. 78-01): Instances of failure to perform audits as scheduled. The inspector verified that scheduled audits had been performed and Audit Status Reports had been sent to management. During evaluation of this activity, additional deficiencies were noted, this constitutes a repeat deviation (See Enclosure, Item D.).
4. (Closed) Deviation (Inspection Report No. 78-01): Instances of failure to perform reaudits within the maximum of twenty (20) working days. During evaluation of this activity, additional deficiencies were noted, this constitutes a repeat deviation (See Enclosure, Item D.).

2247 191

5. (Closed) Unresolved Item (Inspection Report No. 78-01): Incompatibilities existed between the recently implemented computer system and the manual system for control of measuring and test equipment. The inspector verified a new procedure for control of measuring, and test equipment had been issued. The procedure described the computer system and its usage.

C. Manufacturing Process Control

1. Objectives

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

- a. Measures had been established to control manufacturing, inspection and test activities.
- b. Manufacturing, inspection and test activities had been accomplished in accordance with documented instructions, procedures and drawings.
- c. Mandatory inspection hold points had been indicated in appropriate documents and honored.
- d. Measures had been established to indicate the status of items being processed.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the following customer purchase orders (PO) and attendant documents to verify instructions, procedures, and drawings; inspection; inspection, test, and operating status; and test control had been invoked:
 - (1) Stone and Webster PO No. NMP2-E031A, dated January 12, 1977.
 - (2) Arizona Public Service Company PO No. 10407-13-MM-018, dated November 11, 1976.
- b. Review of the following documents to verify objectives a. through d.:
 - (1) Quality Assurance Manual No. QAM-1000-1, Revision 6, dated February 25, 1977, Section 6.

- (2) Quality Control Procedure No. 10-1, Revision 4, dated May 11, 1978.
 - (3) Quality Control Procedure No. 10-7, Revision 6, dated February 21, 1977.
 - (4) Quality Control Procedure No. 12-12, Revision 0, dated March 25, 1976.
- c. Observation of the following hardware and associated documents in the following areas to verify objective b.:
- (1) Power Head, P/N KSV-11-3A#2 in the Machine Shop.
 - (2) Air Staging Valve, P/N KSV-15A#2 in the Magnaflux Test Area.
 - (3) Diesel Generating Unit, P/N KSV-20-T in the Assembly and Test Area.
- d. Review of the following Quality Control Inspection Plans to verify objective b.:
- (1) No. 00G-2ID3, dated June 30, 1977, for a motor.
 - (2) No. 00G-4ID3, dated January 5, 1978, for a voltage regulator.
 - (3) No. 1-6ID2, dated November 17, 1976, for a lube oil header.
 - (4) No. 32-10ID3, for a bracket.
 - (5) No. 4-3ID3, dated March 15, 1976, for a power piston rod.
 - (6) No. 4-4ID3, dated February 16, 1977, for a piston pin.

3. Findings

a. Deviation from Commitment

See Enclosure, Item E.

b. Unresolved Items

None.

2247 193

c. Comments

- (1) Inspection Plan 4-4ID3 for P/N KSV-4-C#1, S/Ns 9B1200 through 9B1221 contained required responses to inspection operations, but no indication of the specific item inspected.

The contractor conducted a search and determined that some of the items had been scrapped subsequent to some inspection operations but prior to serialization. As a result, completion of inspection operations existed with no indication of specific items inspected. The identified inspection plan was corrected by annotating the unattached inspection responses with a notation that the hardware had been scrapped.

- (2) The identified customer POs invoked Instructions, Procedures and Drawings; Inspection; Inspection, Test, and Operating Status; and Test Control.

D. Procurement Document Control

1. Objectives

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

- a. Measures had been established and documented to assure that applicable regulatory requirements, design bases, and other requirements necessary to assure adequate quality had been included or referenced in the documents for procurement of items and services.
- b. Changes in procurement documents had been subjected to the same degree of control utilized in origination.
- c. Procurement documents required contractors to provide a quality assurance program consistent with the pertinent requirement of ANSI N45.2 - 1971, as necessary.
- d. Procurement documents included provisions for the following, as applicable:
 - (1) Supplier Quality Assurance Program,
 - (2) Basic Technical Requirements,

- (3) Source Inspection and Audit,
- (4) Documentation Requirements,
- (5) Lower Tier Procurements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the following customer purchase orders (PO) and attendant documents to verify procurement document control had been invoked:
 - (1) Stone and Webster PO No. NMP2-E031A, dated January 12, 1977.
 - (2) Arizona Public Service Company PO No. 10407-13-MM-018, dated November 11, 1976.
- b. Review of the following documents to verify objectives a. through d.:
 - (1) Quality Assurance Manual No. QAM-1000-1, Revision 6, dated February 25, 1977, paragraph 5.2.
 - (2) Quality Control Procedure No. 10-8, Revision 2, dated January 18, 1977.
 - (3) Purchase Orders and identified changes:
 - (a) No. 3621C5019, dated January 16, 1979.
 - (b) No. 3621C4031, dated December 28, 1978.
 - (c) No. 3621J3508, dated August 8, 1977 and Change Notice No. 1, dated August 8, 1977.
 - (d) No. 3621D6870, dated June 30, 1977, and Change Notice No. 1, dated July 8, 1977; Change Notice No. 2, dated November 3, 1977; and Change Notice No. 9, dated February 7, 1979.

3. Findings

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

The identified customer POs invoked Procurement Document Control.

E. Document Control

1. Objectives

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

- a. Measures had been established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribed all activities affecting quality.
- b. Established measures:
 - (1) Assured that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel.
 - (2) Assured that documents, including changes, are distributed to and used at the location where the prescribed activity is performed.
- c. Changes to documents had been reviewed and approved by the same organizations that performed the original review and approval or another designated responsible organization.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the following customer purchase orders (PO) and attendant documents to verify document control had been invoked:
 - (1) Stone and Webster PO No. NMP2-E031A, dated January 12, 1977.
 - (2) Arizona Public Service Company PO No. 10407-13-MM-018, dated November 11, 1976.
- b. Review of the following documents to verify objectives a. through c.:
 - (1) Quality Assurance Manual No. QAM-1000-1, Revision 6, dated February 25, 1977, Section 3.

2247 196

- (2) Quality Control Procedure No. 10-1, Revision 4, dated May 11, 1978.
- (3) Cooper Energy Services Procedures:
 - (a) No. 41900, dated June 1, 1968.
 - (b) No. 44721, dated February 3, 1978.
 - (c) No. 44722, dated February 16, 1978.
 - (d) No. 44725, dated May 29, 1974.
 - (e) No. 47500, dated October 2, 1967.
- (4) Drawings - No. KSV-11-3A, Revision 10, dated August 14, 1978; No. KSV-15-A, Revision 6, dated July 9, 1976; No. Z32-4-3D, Revision 3, dated January 30, 1976.
- (5) Drawing Release or Revision Notice Forms for Drawing Nos. KSV-9-2A, Revision 6, dated June 2, 1976, Revision 8, dated December 6, 1976; KSV-9-6, Revision 5, dated May 18, 1976; KSV-32-20, Revision 0, dated June 5, 1978; KSV-35-3G, Revision 3, dated September 15, 1978; KSV-36-15, Revision 1, dated January 26, 1979.

3. Findings

a. Deviation from Commitment

See Enclosure, Item F.

b. Unresolved Items

None.

c. Comment

The identified customer POs invoked Document Control.

F. Nonconforming Materials, Parts, or Components

1. Objectives

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

2247 197

- a. Measures had been established to control materials, parts, or components which did not conform to requirements in order to prevent their inadvertent use or installation.
- b. Established measures included, as appropriate:
 - (1) Procedures for identification, documentation, segregation,
 - (2) Procedures for disposition, and notification to affected organizations.
- c. Nonconforming items had been reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the following customer Purchase Orders (PO) and attendant documents to verify nonconforming materials, parts, or components had been invoked:
 - (1) Stone and Webster PO No. NMP2-E031A, dated January 12, 1977.
 - (2) Arizona Public Service Company PO No. 10407-13-MM-018, dated November 11, 1976.
- b. Review of the following documents to verify objectives a. and b.:
 - (1) Quality Assurance Manual No. QAM-1000-1, Revision 6, dated February 25, 1977, paragraphs 6.2.2 and 6.6.
 - (2) Quality Control Procedures, No. 10-6, Revision 1, dated October 15, 1976, and 10-8, Revision 2, dated January 18, 1977.
 - (3) Cooper Energy Services Procedures Nos. 44700 dated July 15, 1977; 44700A dated July 15, 1977, and 49107, dated June 15, 1973.
- c. Observation of the following nonconforming items and related documents to verify objective c.

- (1) Power Diesel Head, P/N KSV-11-3A#2, S/N 8M2807 on Material Review Request (MRR) No. 17787, dated March 19, 1979.
- (2) Water Heater, P/N 2-04H-073-002, S/N 9C0505 on MRR No. 17742, dated March 21, 1979.
- (3) Panel, P/N 2-00C-009-006, S/N IWQ-419-1 on MRR No. 6034, dated March 14, 1979.
- (4) Block, P/N KSV-9-4D#2, S/N 9B2-401 on MRR No. 6046, dated March 16, 1979.

3. Findings

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

The identified customer POs invoked requirements for Nonconforming Materials, Parts, or Components.

G. Review of Vendor Activity

The contractor has four (4) active contracts to provide diesel generators and auxiliaries to Nuclear Generating Stations. This activity equates to approximately twenty (20) percent of the total production. There are no unusual or unique processing methods or techniques, and no systemic or generic hardware or process problems were identified.

Some vendors are: American Standard Industrial Division, Amot Controls Corporation, Crosby Valve, Commercial Filter Division, Electric Products Company, and Jay Instrument and Specialty Company.

H. Exit Interview

1. The inspector met with management representatives denoted in paragraph A. at the conclusion of the inspection on March 23, 1979.
2. The following subjects were discussed:
 - a. Areas inspected.
 - b. Deviations identified.
 - c. Contractor response to the report.

2247 199

The contractor was requested to structure his response under headings of corrective action, preventive measures, and dates for each deviation; also, to inform us by telephone and letter when committed actions and dates can't be met.

3. Management comments were related generally to clarification of the findings.

2247 200