

Mr. Larry S. Kelly
Vice President/General Manager
Military Division
Hunt Valve Company, Inc.
1913 East State Street
Salem, OH 44460-2491

SUBJECT: INSPECTION REPORT NO. 99902011-2001-201

Dear Mr. Kelly:

The Nuclear Regulatory Commission (NRC) conducted a special-announced inspection of your facility on August 20-23 as a result of a 10 CFR Part 21 (Part 21) report by Hunt Valve of a defect in valve components supplied to a Nuclear Regulatory Commission (NRC) licensee. The inspection included an examination of areas of your manufacturing and quality assurance activities as required by NRC licensee procurement documents. The inspection was to determine whether: (1) the components supplied by Hunt Valve could reasonably be expected to perform their safety function in NRC licensed activities, (2) NRC licensees identified the appropriate codes, standards, and specifications in the procurement documents supplied to Hunt Valve, and (3) Hunt Valve had a satisfactory Quality Assurance (QA) Program applied to the design, fabrication, and testing of NRC licensee-identified safety components.

The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations of activities in progress. Based on the results of the inspection, a number of deficiencies were noted with Hunt Valve's compliance with quality assurance requirements specified in procurement documents from an NRC licensee. At the conclusion of the inspection, the results were discussed with members of your staff.

Should you have any questions about this report, please contact Wilkins Smith of my staff at (301) 415-7253.

Sincerely,

/RA/

Eric J. Leeds
Chief, Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosure:
Inspection Report 99902011-2001-201

cc: w/enclosure:
Rober E. Funk, Hunt Valve Company, Inc.
Walt Kruegel, Hunt Valve Company, Inc.

Mr. Larry S. Kelly
 Vice President/General Manager
 Military Division
 Hunt Valve Company, Inc.
 1913 East State Street
 Salem, OH 44460-2491

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cc: w/enclosure:
 Rober E. Funk, Hunt Valve Company, Inc.
 Walt Kruegel, Hunt Valve Company, Inc.

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**U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
SPECIAL-ANNOUNCED INSPECTION REPORT**

Report Number: 99902011-2001-201
Licensee: Hunt Valve Company, Inc.
Location: Salem, Ohio
Inspection Dates: August 20-23, 2001
Inspector: Wilkins Smith, FCSS
Approved by: Walter S. Schwink, Inspection Chief
Inspection Section
Safety and Safeguards Support Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

Enclosure

HUNT VALVE COMPANY, INC.
NRC INSPECTION REPORT 99902011-2001-201

EXECUTIVE SUMMARY

INTRODUCTION

The Nuclear Regulatory Commission (NRC) conducted an inspection of Hunt Valve Company, Inc. in Salem, Ohio, on August 20 - 23, 2001, as a result of a 10 CFR Part 21 (Part 21) report by Hunt Valve of a defect in valve components supplied to a (NRC) licensee. Hunt Valve is a major supplier of valves that are procured by NRC licensees for use on uranium hexafluoride (UF₆) processing, shipping and storage cylinders. These valves are a critical component of UF₆ packaging and containment systems and perform important safety functions that include the prevention of the release of the radioactive and chemically toxic material that is processed, stored, and transported in cylinders. The valves also provide assurance to prevent an accidental criticality (an uncontrolled nuclear chain reaction that releases a large amount of radiation in a short period of time). The inspection was to determine whether: (1) the components supplied by Hunt Valve could reasonably be expected to perform their safety function in NRC-licensed activities, (2) NRC licensees identified the appropriate codes, standards, and specifications in the procurement documents supplied to the vendor, and (3) the vendor had a satisfactory Quality Assurance (QA) Program applied to the design, fabrication, and testing of NRC licensee-identified safety components.

RESULTS

Safety Significance Evaluation and Corrective Actions on Part 21 Reported Defect

- The inspectors found that Hunt Valve correctly executed its responsibilities under the requirements of 10CFR21 by notifying its customer and the NRC, and conducting an evaluation of the cause of the cracking problem.
- Hunt Valve had liquid penetrant (PT) tested all suspect valves and implemented actions to detect valve surface cracks.
- The components produced in the actual manufacturing process could reasonably be expected to perform their safety function in NRC-licensed activities.

Problem Identification, Corrective Action and Reporting Systems

- The current Hunt valve procedures were adequate for implementation of problem identification, corrective action, and reporting systems, including reporting of defects in accordance with 10 CFR Part 21.
- Hunt Valve records indicated that the only Part 21 defect that it had noted was the valve nut cracking problem reported to NRC on December 7, 2000.

Manufacturing Process, Inspection, and Testing

- The vendor's manufacturing process, testing, and inspection activities that the inspectors observed were in accordance with the vendors current procedures and with the applicable NRC licensee procurement requirements invoking ANSI. N14.1.

- The inspectors' observations in these areas indicated that the valve components in process during the inspection could reasonably be expected to perform their intended safety function in NRC-licensed activities.

NRC Licensee Procurement Requirements

- NRC licensees procuring valve components for use in processing, storage, and transporting uranium hexafluoride identified appropriate standards and specifications in the procurement documents supplied to the vendor.

Hunt Valve Procurement of Subcontractor Items and Services

- The vendors QA program and procedures for control of procurement and of purchased items and services were not adequate to implement or assure compliance with the NRC licensee procurement requirements.
- The vendor's QA controls that were in place were not adequately implemented to provide assurance that the subcontracted components were manufactured, tested, and inspected in accordance with vendor and licensee procurement requirements.

Hunt Valve Quality Assurance Program

- Hunt Valve did not have a documented QA program for application to the design, fabrication, testing, and inspection of NRC licensee-identified safety components that met the requirements of NQA-1-1989 or-1994 as required by the NRC licensee's procurement.
- Requirements of NQA-1 and Hunt Valve QC procedures for internal audits, management assessments, subcontractor audits, procurement, document control, and controls for procured material and services were not implemented.

REPORT DETAILS

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1 **Safety Significance Evaluation and Corrective Actions on Part 21 Reported Defect**a. Scope

The inspectors conducted an assessment of the safety significance of a Part 21 defect reported by Hunt Valve to NRC, and the corrective actions and safety significance evaluation of the defect. The 10 CFR Part 21 notice of Dec. 7, 2000, NRC Operations Center Event Report #37576, identified a cracking problem on packing nuts on new 1-inch valves used on uranium hexafluoride storage containers, which had been supplied to a NRC licensee, United States Enrichment Corporation (USEC).

b. Observation and Findings

The inspectors reviewed the Hunt Valve investigation, evaluation, and documentation of the packing nut defect, with particular emphasis on the safety risk significant areas of alloy composition, heat treating, machined dimensions, material traceability, and inspection and testing.

In December 2000, during the valve manufacturing assembly process at Hunt Valve, a questionable surface condition was noted on the hex flats of a packing nut. The suspect nut was liquid penetrant (PT) tested and found to crack. The crack was circumferential in orientation. Further investigation by Hunt Valve identified several additional nuts, from two different heat lots, designated as heat codes "AXP" and "AFD," with surface cracks. The valves in question were made for USEC in accordance with the design specified in ANSI N14.1. These are 1-inch angle valves made of aluminum bronze (body and packing nut) with a monel stem/disc. Upon discovery of the cracking problem, and verification that valves from the suspect heats had been shipped, Hunt notified USEC of the problem. USEC reported to Hunt that none of the previously shipped valves of these lot numbers were yet in service. All were returned to Hunt Valve for PT inspection. Crack defects were noted in a number of the valves returned by USEC.

The packing nuts were, and currently are, manufactured for Hunt Valve by AMPCO Metals. AMPCO produces the aluminum bronze hexagonal bar stock (ASTM B 150, grade C 61300) used for the nuts. The bar stock is PT tested for material flaws and heat treated by AMPCO in accordance with ANSI N14.1 prior to machining. AMPCO also machines and dimensionally inspects the nuts. The machined, semi-finished nuts are then sent to other subcontractors for a final stress relieving heat treatment in an inert gas environment and final surface finishing and cleaning. Final inspection for fit and finish is performed by Hunt prior to assembly into finished valves. Hunt submitted a Part 21 defect report on December 7, 2001.

Recognizing that the problem was related to manufacturing and not service induced, Hunt sent several cracked packing nuts to AMPCO for metallurgical analysis. Hunt also sent another sample to an independent laboratory for analysis. However, Hunt apparently failed to advise the independent lab that the sample was from manufacture and not service. Consequently, the lab made an apparently erroneous assumption that rendered its analysis, at least partially, invalid. The AMPCO metallurgical analysis was not conclusive as to the root cause of the observed cracking. It did determine that the cracking occurred at

some point during the materials processing when it was at elevated temperature, due to the oxidized nature of the cracks. The report suggested that one of the heat treatments performed prior to machining was related to the cracking, but did not further explore this piece of evidence (note: when the bar stock is produced by the mill, it is tempered [stress relieved] per the ASTM specification. Then it is tempered again prior to machining per the ANSI N14.1 valve specification). AMPCO recommended PT inspection of the hexagonal bar stock prior to machining.

Hunt Valve implemented AMPCO's recommendation and also imposed a second PT examination on the finished nuts. NQA-1 requires that the purchaser establish planning to control supplier non conformances and corrective action. The evaluation, non-destructive examination (NDE) testing and inspection, and corrective action was forwarded to USEC via letter on December 12, 2001. Hunt Valve had no record of USEC's approval or concurrence with the actions. Although this was not specifically required by the procurement documents, since the packing nuts with crack indications were removed, and non conformances were not knowingly supplied, purchaser review of supplier evaluation and planned corrective action on problems such as this would normally be expected, particularly since this resulted in a Part 21 report.

The inspectors also reviewed a previous packing nut cracking problem that occurred and was investigated in 1997, as documented in report KY/L-1934, "Failure Investigation of Cracked One-Inch Uranium Hexafluoride Cylinder Valve Packing (Bonnet) Nuts", by W. S. Owen, Paducah Gaseous Diffusion Plant, November 1997. In this case, the nut material was CDA 636 (UNS 63600), another aluminum bronze alloy specified for valve use by ANSI N14.1. This report found two unrelated causes for the cracking experienced with this alloy. One was an incorrectly performed heat treatment that caused excessive softening of the alloy. The other was an excessive level of tramp lead in some of the material ("tramp" means an unwanted alloying element that acts as a contaminant). Lead levels above a certain value are known to cause embrittlement of aluminum bronzes. Corrective actions regarding heat treatment were implemented. Some of the report's recommended corrective actions, regarding tramp lead levels, were not implemented because Hunt Valve proposed to USEC a change to the other ANSI N14.1 approved alloy, the presently used ASTM B150, grade C61300. Hunt Valve decided that the problems encountered with tramp lead levels in the CDA 636 material would be avoided by changing materials to UNS C61300, and is using that alloy on the current USEC purchase orders. In both cracking cases, AMPCO Metals was the producer/supplier of the aluminum bronze hex stock used for machining the packing nuts.

The inspectors considered the available information in the metallurgical reports and found that although deficiencies were discovered in each case, and recommendations were made, a true, rigorous root-cause determination had not been performed. In the case of the 1997 report, the source of the excessive lead levels was never determined. For the Dec. 7, 2000, notification, the cracking was indicated to be associated with heat treating temperatures, but no further identification of when or why in the bar stock production and heat treating operations it occurs. The staff noted that the current cracking problem bears similarities to the 1997 event. It may be significant that AMPCO was the metal supplier in both cases. It is possible that an unidentified raw material production problem remains undiscovered. The recently adopted practice of PT inspections results in an "inspect in the quality" resolution rather than requiring action to prevent the condition from occurring in the first place. Absent a final root-cause

determination, a truly correct corrective action cannot be determined, however, the inspectors noted that, in accordance with ANSI 14.1, the assembled valves are required to be pressure tested at 400 psig, with any leakage being cause for rejection. This functional test provided reasonable assurance of the performance of the valves in service, since ANSI 14.1 states that the valves have a design pressure of 200 psig.

Part of the responsibility associated with a Part 21 notification is an evaluation of whether a defect in a basic component presents a substantial safety hazard. In this specific case, the defect hazard significance must be performed by the purchaser, USEC, since Hunt Valve did not have the capability to perform the metallurgical evaluation nor the knowledge of the uses of the valves to understand the chemical and radiological safety implications and consequences of a failed packing nut in service. Hunt Valve executed its responsibilities under the requirements of 10CFR21 by notifying its customer and the NRC of the defect. It is the NRC licensee's responsibility to assure adequate resolution of Part 21 defects prior to component use. Hunt Valve stated that it had not received any information from USEC regarding an evaluation of the cracked nut defect or safety hazard significance.

The inspectors noted that the components produced in the actual manufacturing process could reasonably be expected to perform their safety function in NRC licensed activities. All valves from the two suspect heats were returned to Hunt Valve and PT inspected for cracks. The assembled valves were pressure tested by Hunt Valve at 400 psig, with any leakage being cause for rejection. Hunt Valve had alloy material certifications, component processing and dimensional inspection documentation, and final assembly, testing and inspection records to support that the valves met the significant performance-related requirements of ANSI N14.1 for material traceability, alloy composition, heat treatment, dimensions, and PT and valve assembly pressure testing.

c. Conclusions

The inspectors found that Hunt Valve correctly executed its responsibilities under the requirements of 10CFR21 by notifying its customer and the NRC, and conducting an evaluation of the cause of the cracking problem.

Hunt Valve had PT tested all suspect valves and implemented actions to detect valve surface cracks. The components produced in the actual manufacturing process could reasonably be expected to perform their safety function in NRC licensed activities.

2. **Problem Identification, Corrective Action and Reporting Systems**

a. Scope

The Hunt Valve problem identification, corrective action and reporting management control systems were reviewed to verify that potential safety problems, including non-conformances or deviations that could affect the component safety function, are promptly identified, evaluated, and corrected in a timely manner. The vendor system for evaluating and reporting defects that could create a substantial safety hazard as defined in 10 CFR Part 21, was also reviewed to confirm that the NRC had been notified of all such defects.

b. Observations and Findings

The vendor procedures reviewed included QC-25, Corrective Action Procedure, Revision I, August 1998, and QC-6, Control of Non-Conforming Material and Nuclear Components, Reporting Defects or Noncompliance (ANSI 14.1 Products - UF6), Revision R, July 2001. The inspectors held discussions with Hunt Valve quality control personnel responsible for implementing the procedures and reviewed inspection rejection reports and corrective action reports to verify that procurement QA program requirements were being effectively implemented.

The disposition of the internally identified non-conformances or deviations that occurred over the last two years was reviewed to confirm that the corrective actions were technically adequate and completed in a timely manner commensurate with its importance to safety. The reported non-conformances and deviations appeared to be typical of those normally encountered in metal fabrication and machining processes. The evaluation and disposition of these defects appeared to be appropriate. All defects and items noted appeared to be either of minor safety significance or isolated occurrences where the components were scrapped or otherwise appropriately dispositioned.

Discussions were conducted with cognizant vendor personnel to determine how the vendor's Part 21 review and reporting process functioned. The inspectors were informed that the only Part 21 evaluation or report within the last two years was the valve packing nut cracking problem reported to NRC on December 7, 2000. The cracking problem and its evaluation are discussed in detail in Section 6 of this report. The inspectors also reviewed the inspection rejection reports, evaluation documents and corrective actions to verify that the important features of the cracking problem review and reporting process were documented and approved by management.

c. Conclusions

The current Hunt valve procedures were adequate procedures for implementation of problem identification, corrective action and reporting systems, including reporting of defects in accordance with 10 CFR Part 21.

Hunt Valve records indicated that the only Part 21 defect that they had noted was the valve packing nut cracking problem reported to NRC on December 7, 2000.

3. **Manufacturing Process, Inspection, and Testing**

a. Scope

The vendors reviewed the Hunt Valve processing of valves assemblies and components for NRC licensees. The inspectors observed the manufacturing process including component receipt, machining, testing, assembly and inspection from the point where materials and components enter the plant to final product storage and shipping to confirm that material traceability and specifications are maintained throughout the process, and whether management and QA controls are functioning in accordance with procurement and procedure requirements.

b. Observations and Findings

Procedures, material traceability marking and documentation and process routing documents were in place. The documentation packages for valve lots of 100 included subcontractor records of material traceability, tests and inspections. The assembly, testing and inspections observed were in accordance with the current procedure and NRC licensee procurement requirements. Appropriate qualification and training documentation was available for operators, inspector and the current certified Level III NDE person. Measuring and test equipment had current calibration stickers. Procedure and practice for calibration of torque wrenches used on licensee procurements were not adequate to assure that pressure testing of the valve assemblies met the ANSI N14.1 torque limits. The torque wrench setting was 1 foot-pound below the standard maximum of 55 foot-pounds, however, the torque wrench calibration limit was +/- 10 foot-pounds. The inspectors verified that the recent and current as-found conditions did not indicate that the torque limits were exceeded on the current USEC purchase orders because of a fortuitous biased reading of +10 foot-pounds for the wrench used.

c. Conclusion

The vendor's manufacturing process, testing, and inspection activities that the inspectors observed were in accordance with the vendors current procedures and with the applicable NRC licensee procurement requirements invoking ANSI N14.1.

The inspectors observations in these areas indicated that the valve components in process during the inspection could reasonably be expected to perform their intended safety function in NRC-licensed activities, provided that the subcontractor supplied material and components were within N14.1 specifications.

4. **NRC Licensee Procurement Requirements**

a. Scope

NRC licensee procurement documents issued to Hunt Valve were reviewed to determine whether the documents invoked appropriate codes, standards, or specifications to assure that the procured components could perform their intended safety function, and 10 CFR Part 21 requirements for reporting of defects and noncompliance.

b. Observations and Findings

During the past five years, Hunt Valve supplied UF₆ valves to USEC, Framatome, Honeywell/Allied Signal and Siemens, Cameco and Urenco. The bulk of the valves were supplied to USEC, an NRC licensee, and the only current purchase orders were from USEC. The inspectors reviewed the two most recent USEC purchase orders and noted that they invoked 10 CFR Part 21, Reporting of Defects and Noncompliance. The orders also specified that the valves meet of the American National Standard for Nuclear Materials - Uranium Hexafluoride - Packaging for Transport, ANSI N14.1-1990 (for 1" valves) and - 1995 (for 3/4" valves). The 1990 and 1995 N14.1 standard revisions require that the licensee-user have a documented QA program that meets 10 CFR 71 Subpart H or ANSI/ASME NQA-1-1989 and -1994 versions, respectively. The USEC purchase orders specifically required that Hunt Valve have a NQA-1 program. An earlier

purchase order from Framatome specified ANSI N14.1 and specific portion of NQA-1 to be applied to their order.

c. Conclusion

NRC licensees procuring valve components for use in processing, storage, and transporting uranium hexafluoride identified appropriate standards and specifications in the procurement documents supplied to the vendor.

5. **Hunt Valve Procurement of Subcontractor Items and Services**

a. Scope

The vendor's subcontractor material and component fabrication management controls were reviewed to confirm that the codes, standards and specification requirements invoked by NRC licensee procurement documents were appropriately implemented. Major areas reviewed included raw material specifications, procurement, and testing activities, and QC functions, including overcheck testing and receipt inspection.

b. Observations and Findings

Hunt Valve subcontracts major portions of alloy production, machining, heat treating, testing, and inspection for the UF₆ valve purchase orders. Except for the valve body, all alloy materials and components are produced, heat treated, tested, machined, and final inspected by subcontractors. Valve body production, valve assembly, testing, and inspection are done directly by Hunt Valve. The inspectors reviewed recent purchase orders from Hunt Valve to the major subcontractors and noted that the purchase orders did not specify the QA requirements, although Hunt Valve personnel stated that they were forwarded along with the purchase order.

No receipt inspection, overcheck, or quality verification had been required or documented on completed valve components that had been manufactured, tested, and final inspected by the subcontractors. The subcontractor reported material certifications, test results, and dimensional and other inspection results to Hunt Valve. These are, in turn, used by Hunt Valve to certify the valves as meeting the licensee procurement drawing and standard requirements. Hunt Valve had an approved subcontractor list, but no record of approval of its QA programs or other basis for placement on the list. As noted in Section 2 of this report, Hunt Valve conducted only one audit of a major subcontractor in the past 2 years.

c. Conclusion

The vendors' QA program and procedures for control of procurement and of purchased items and services were not adequate to implement or assure compliance with the NRC licensee NQA-1 procurement requirements.

The vendor's QA controls that were in place were not adequately implemented to provide assurance that the subcontracted components were manufactured, tested, and inspected in accordance with vendor and licensee procurement requirements.

6. Quality Assurance Program

a. Scope

The vendor QA Program and its implementation were reviewed to determine that the NRC licensees' procurement requirements were properly implemented. The inspection addressed whether a group independent of the production department was effectively monitoring the implementation of quality requirements for components supplied to NRC licensees; identifying potential safety and regulatory compliance issues and elevating those issues to an appropriate level of management for evaluation and corrective action; and, whether QA program commitments flowed-down to the vendor production, engineering, procurement and QC functions.

b. Observations and Findings

NRC licensees using these UF₆ valves, are required by QA requirements of 10 CFR Part 71 and/or 10 CFR Part 76, as applicable, to have quality planning methods to control procurement documents and procured materials and services. USEC utilizes an approved vendor list for procurement of materials and components important to safety. The USEC purchase orders required Hunt Valve have a QA program in accordance with NQA-1. A USEC QA audit in November 2000 found that the vendor had implemented an acceptable QA program, with a certification documentation omission the only discrepancy noted. However, a subsequent USEC audit in July 2001 found major weaknesses in a number of areas of the vendor's QA program and its implementation, including non-conforming material control, evaluation of significant conditions adverse to quality, and the audit program. As a result of the July 2001 audit, USEC, via letter, placed significant restrictions on Hunt Valve and required notification of production on its purchase orders.

The inspectors reviewed the Hunt Valve quality assurance program, which was contained in the Hunt Valve Quality Control (QC) Manual. The QC Manual consisted of a collection of individual procedures for various QC activities. It did not contain or comprise a documented QA program in accordance with NQA-1. The inspectors noted, in particular, that the NQA-1 requirements that the organization structure and QA program functional responsibilities, levels of authority, and lines of communication be documented, were not addressed in the QC Manual. Only an organization chart, which did not reflect recent organization changes, was in the QC manual. Licensee procurement and NQA-1 requirements were not documented in the Hunt Valve QC manual or procedures for procurement document control and control of procured material and services.

The inspectors reviewed the implementation by Hunt Valve of the NQA-1 requirements which by the USEC purchase orders. NQA-1 requires that management regularly assess the QA program and assure effective implementation. NQA-1 also requires planned and scheduled audits to verify compliance and effectiveness of the QA program. The inspectors found that no internal audits or management assessments had been done for the last 2 years.

NQA-1 requires that the QA program include methods for control of procurement documents issued at all tiers of procurement to assure that they include the QA requirements for subcontractor activities. Thus, Hunt Valve was required to evaluate and specify, to all major subcontractors, the applicable QA requirements that USEC specified in its purchase order, or to otherwise assure subcontractor compliance with USEC's procurement requirements. Hunt Valve

procurement documents did not specify any QA requirements, NQA-1 or otherwise, to its subcontractors, however, selected requirements may have been forwarded to the subcontractors informally enclosed with the purchase order. Hunt Valve procedures for vendor audits required planned and scheduled audits of subcontractors. With the exception of one audit of Trinity Forge in 2000, no audits or surveillances of major or minor suppliers had been conducted since 1997. No receipt inspection, overcheck, or quality verification had been required or documented on completed valve components that had been manufactured, tested, and final inspected by the subcontractors. Hunt Valve had an approved subcontractor list, but no record of approval of the subcontractor QA programs or other basis for placement on the list.

Hunt Valve did not perform actual design of the UF₆ valves. The valves were required to be manufactured in accordance with the N14.1 standard and customer drawings that specify the design, technical, and dimensional requirements. The N14.1 standard does permit certain component alloy options, one of which Hunt Valve elected after an earlier cracking problem was encountered in 1997. The vendor notified USEC of the alloy change prior to the placement of the current procurements.

The inspectors confirmed that the current Hunt Valve organization chart indicated adequate QA independence from the production organization and QA access to senior plant management.

c. Conclusions

Hunt Valve did not have a documented QA program for application to the design, fabrication, testing, and inspection of NRC licensee-identified safety components that met the requirements of NQA-1-1989 or-1994 as required by the NRC licensee's procurement.

Requirements of NQA-1 and Hunt Valve QC procedures for internal audits, management assessments, subcontractor audits, procurement document control and controls for procured material and services were not implemented.

7. **Exit Meeting**

The inspection scope and results were summarized during a meeting on August 23, 2001, with vendor personnel. The inspection team discussed its findings and conclusions. The vendor staff acknowledged the results of the inspection as presented.

PARTIAL LIST OF PERSONNEL CONTACTED (All were present at Exit Meeting)

Vendor - Hunt Valve Company

C. W. Gonter, Quality Specialist
Walt Kruegel, QC Manager
Larry Kelley, General Manager, Military Division
Bob Funk, General Manager, Industrial Division
Mickey Heestand, Engineering Manager
Jeff Stewart, Sales Manager

USEC

DRAFT

George W. Smith, Source Surveillance Inspector

INSPECTION TEAM

Wilkins Smith, Inspector, QA Specialist
Geoffrey Hornseth, Materials Engineer