

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

TO : G. F. Dilworth, Assistant General Manager (Technical), E12D46 C-K

FROM : H. N. Culver, Director of Nuclear Safety Review Staff, 249 HBB-K

DATE : October 25, 1982

SUBJECT: INVESTIGATION OF ALLEGED IMPROPER TERMINATION OF SERVICES OF A PERSONAL SERVICE CONTRACT EMPLOYEE - NUCLEAR SAFETY REVIEW STAFF (NSRS) REPORT NO. I-82-19-WBN

Attached is the NSRS report of an investigation conducted at Watts Bar Nuclear Plant which was prepared at your request. The investigation dealt with the circumstances surrounding the terminations of a Consultants & Designers, Inc., contract employee, [REDACTED] A, and a TVA annual salary policy employee B [REDACTED].

The results of our investigation indicate that Mr. [REDACTED] A and Mr. [REDACTED] B participated in improperly documenting an inspection activity by rejecting hangers that had not been physically inspected. Disciplinary action by management was to terminate the services of [REDACTED] A and [REDACTED] B, actions which management had a right to impose.

As a part of this NSRS investigation, some of the conditions associated with the QC inspection program were examined to determine the influence of these conditions on the actions management has taken regarding QC inspectors. Consequently, the report contains five conclusions specific to the termination of [REDACTED] A and [REDACTED] B, two general conclusions regarding conditions impacting on the QC programs, and three specific concerns expressed as conclusions and accompanying recommendations which require action. It is recommended that the Office of Engineering Design and Construction address these concerns and recommendations and provide a response to your office indicating appropriate action.

H. N. Culver
H. N. Culver

HNC:LML
Attachment

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TENNESSEE VALLEY AUTHORITY
NUCLEAR SAFETY REVIEW STAFF
INVESTIGATION
NSRS REPORT NO. I-82-19-WBN

SUBJECT: INVESTIGATION OF ALLEGED IMPROPER TERMINATION OF SERVICES OF A PERSONAL SERVICES CONTRACT EMPLOYEE

DATES OF INVESTIGATION: AUGUST 25 - SEPTEMBER 2, 1982

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ADMIN.
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I. BACKGROUND

On August 3, 1982 two Watts Bar Nuclear Plant (WBN) hanger quality control inspectors, one a Consultants & Designers, Inc. (C&D) contract employee and the other a TVA engineering aide, rejected 25 of 25 hangers which they had been requested to inspect. As a result of site investigation into a formal allegation report filed by a craft foreman, alleging rejection of work which was acceptable and a determination that [redacted] and [redacted] rejected hangers they had not inspected, the contract employee was removed from the site and terminated by C&D. The TVA engineering aide was also terminated effective September 21, 1982. On August 5, 1982 the contract employee filed a complaint with the U.S. Department of Labor (DOL) alleging discriminatory employment practices against its employer, Consultants & Designers, Inc. in violation of the Energy Reorganization Act of 1974, as amended 1978. C&D provided the Division of Construction (CONST) a copy of the DOL announcement of investigation dated August 10, 1982 and the contract employee's statement in a letter dated August 16, 1982. On August 23, 1982, the Assistant General Manager (Technical) directed that the Nuclear Safety Review Staff (NSRS) investigate the facts of the allegation. The investigation team was assigned the next day and the investigation was conducted August 25 through September 2, 1982 at TVA offices in Knoxville and at Watts Bar Nuclear Plant. Concurrent with part of the NSRS investigation were the DOL's investigation and Office of the General Counsel's (OGC) site litigation preparation.

II. SCOPE

The NSRS objective was to independently investigate the facts associated with the termination of services of the contract employee and the resultant discriminatory employment practices allegation and to draw conclusions based on findings from the investigation. Early in the investigation it was learned that the TVA engineering aide had received a termination notice and had filed a grievance. It was decided by the Team Leader to include the circumstances of his termination in the investigative effort since they were closely related.

NSRS initially assigned three investigators to the task and a fourth was later assigned to assist in interviewing cognizant personnel. Two teams of two investigators conducted all interviews from which written statements were requested. "Discussion" interviews were held with some personnel by only one investigator and written statements were not requested.

The following actions were taken during the course of the investigation:

- Approximately 200 manhours were expended by the investigators at the site and in the Knoxville offices conducting interviews and reviewing records, logs, and other documentation.
- Interviews of 47 persons were conducted including persons from second and third shifts. Interview notes were taken during all interviews.

- Procedures, policies, and practices for handling allegations were reviewed.
- Procedures, practices, and training in the Inspection Rejection Notice (IRN) program were reviewed.
- Signed statements were received from 30 persons.

III. CONCLUSIONS AND RECOMMENDATIONS

The following paragraphs contain conclusions drawn from facts gathered during the investigation and set forth in Part IV of the report. In addition to general conclusions, some specific conclusions with recommendations are included where NSRS believes specific follow-up actions are required by OEDC.

A. Conclusions Concerning Site Management Actions

1. Two quality control inspectors (^A [redacted] and ^B [redacted]), whose services have been terminated, prepared a record of their inspection activities for the work assigned to them on August 3, 1982. The entry made by the inspection team on an IRN indicated deficiencies in inspected hanger installations when, in fact, the inspectors had not inspected all of the units.
2. There are conflicting reasons given by management for termination of [redacted] but all involved managers were aware that ^A [redacted] and ^B [redacted] rejected hangers that they did not inspect. If he was terminated because of rejection of acceptable work, the site investigation report stated a sufficient reason to justify [redacted]'s removal. However, NSRS investigators determined the hangers that the site investigators identified as rejected but acceptable were not in fact acceptable under applicable inspection practices and should have been rejected. On the other hand, if the inspectors were terminated because of the issue of falsification of records, in that they had rejected hangers that had not been inspected, then there appears to be a valid basis for disciplinary action. The informal memorandum from a CONST management assistant to the CONST personnel officer dated August 24, 1982 stated the sole reason for [redacted]'s termination was for participating in the falsification of TVA records by not physically inspecting hangers that were rejected.

There is no indication that the inspectors intentionally falsified records with the intent to conceal the true condition of the hanger installations. Further, there is no indication that the inspectors' intentionally failed to inspect the remainder of the hangers for any reason other than their belief, based upon information from the craft

involved, that the installations were deficient and required rework. The inspectors had a record of being firm but of making valid inspections.

3. Management's action relating to the two inspectors was based upon an investigation of the allegation brought by the crafts against the two inspectors that the inspectors were rejecting acceptable work. The investigation report did properly establish the fact that the two inspectors had rejected work without specifically examining the work--a violation of procedures. Some of the findings of the site investigation report were determined by NSRS to be technically incorrect. Whereas the site investigation report indicated that the inspectors had rejected acceptable work, NSRS found that the hangers that were inspected by [redacted] and [redacted] were properly rejected. In fact, the work in dispute was rejected in accordance with the specific instructions that had previously been given to the inspectors. Other problems with the site investigation included:

- a. The designation of the Assistant Construction Engineer-Quality Control, J. C. Cofield, to independently investigate the allegation report since the Assistant Construction Engineer-Quality Manager believed Cofield had already determined its validity.
- b. The performance of an investigation by supervision of the unit against whom the allegation was made.
- c. Failure to interview or discuss the allegation with A. [redacted]
- d. Inclusion in the site report of information not developed from the investigation but prejudicial to A. [redacted]

4. The actions subsequently taken regarding [redacted] are consistent with the general philosophy at the site that shoppers can be removed for any valid reason or for no reason. This philosophy is in agreement with personal services contractual requirements.
5. The action to terminate [redacted] was not recommended by Hutzler, Henry, or Cofield, the managers most involved with the facts in the case. [redacted] was considered to be a good inspector but appears to have been caught up in the events surrounding [redacted], the more experienced of the two inspectors.

B. General Conclusions

1. The Inspection Rejection Notice Program as implemented by WBF1-G-21 and unwritten "policies" promoted excessive disharmony between crafts and quality control personnel and

undue pressure on quality control personnel. Lack of uniform application of the program by various inspectors and an apparent lack of guidance by QC supervision may have led to perceived problems with inspectors who wrote a large number of IRNs.

2. Although the recent reorganization of the quality control units was accomplished, there still remains many indicators of organizational pressure on the QC inspectors. Additional safeguards must be incorporated to assure that QC inspectors can identify deficiencies in the work place without undue concern for retaining their employment. The QC Unit cannot be effective in their work if there is undue concern by inspectors that they can be terminated the first time they make a mistake or if they write too many IRNs.

C. Specific Conclusions Requiring Corrective Action

1. I-82-19-WBN-01, Failure to Follow Procedures: Two Occurrences

During finalization inspection of a hanger series, two hanger QC unit inspectors failed to comply with the QC procedure for inspection of anchor bolts, and with the intent of a Field Instruction for Inspection Rejection Notices.

Recommendation

Project management should assure that all QC inspectors are well trained in the details and intent of procedures with which they work. While it is important that all personnel work in accordance with approved procedures, QC personnel especially should be made aware of the importance of following procedures (or recommending changes if they cannot be followed) as they intrinsically set an example for others. (See section IV.A.2 for details.)

2. I-82-19-WBN-02, Site Investigation of Allegation Report 2-82

Allegation Report 2-82 made by a craft foreman against inspectors in the Hanger QC Unit was investigated by a supervisor and shift leader of the Hanger Unit. In accordance with WBNP-QCI-1.31, "Handling Allegations," the Assistant Construction Engineer-Quality, or his designee, is responsible for investigations. Although not prohibited by procedure, the designation of an investigator affiliated with the unit(s) or group(s) most involved in the allegation may impede development of objective, unbiased results and may deter employees from expressing concerns to site management.

Recommendation

The Assistant Construction Engineer-Quality should make every effort to avoid designating an investigator of an allegation who is closely affiliated with the unit or group making the allegation or against whom the allegation is made. (See section IV.A.4 for details.)

3. I-82-19-WBN-03, Anchor Bolt Dual Inspection Criteria

QCP 1.42-2 (Revision 1) contains two alternative methods for inspection of anchor bolts' thread engagement which may yield different results. It is possible to accept a bolt per one criteria where it may not be acceptable by the other.

Recommendation

An appropriate engineering group (e.g., Civil Engineering Branch) should evaluate these criteria for a determination of the significance of the difference(s) in them, and establish consistent inspection criteria. Bolts not previously inspected to the established criterion should be reinspected. (See sections IV.A.1 and IV.B for details.)

IV. DETAILS

A. Events Preceding Allegation of Discriminatory Practices

From interviews and statements obtained from interviews with cognizant personnel and a review of related documents, NSRS established the following scenario of events.

1. Hanger QC Inspection of Pipe Hangers

On August 2, 1982, a steamfitter-welder signed up for QC finalization inspection of 25 pipe hangers located in the auxiliary building at WBN. A Hanger Quality Control Unit (HQC) quality control (QC) inspector refused to accept the hangers for inspection because the associated drawings did not reflect field change request (FCR) status. After obtaining the required drawing changes, the craftsman again signed up for QC inspection of the 25 hangers on August 3, 1982. Two certified QC hanger inspectors, [REDACTED] ^A and ^B [REDACTED], were assigned to inspect the hangers. Mr. ^A [REDACTED] was a contract inspector employed by Consultants & Designers, Inc., while Mr. ^B [REDACTED] was a TVA employee--engineering aide, SE-3. As the more experienced of the two, Mr. ^A [REDACTED] was also providing on-the-job training for Mr. ^B [REDACTED], although both were certified for independent finalization inspection.

On the morning of August 3, **A** and **B** met the craftsmen who had installed the 25 hangers and began to inspect them per Watts Bar QC Procedure WBNP-QCP-1.14 (Revision 10), "Inspection and Testing of Bolt Anchors Set in Hardened Concrete and Control of Attachments to Embedded Features"; WBNP-QCP-1.42-2 (Revision 1), "Bolt and Gap Inspection for Bolt Anchor Assemblies"; WBN-QCP-4.23-3 (Revision 0), "Support Location and Orientation"; and WBNP-QCP-4.23-8 (Revision 0), "Support Final Inspection."

They inspected 10 individual hangers on the floor, all unistrut-mounted pipe clamps, and determined they were rejectable for one or more of the following reasons: (1) oversized welds, (2) oversized washers, and (3) improper location of identifying tags. Of the 15 wall-mounted hangers, mounted on 5 unistrut supports containing 3 clamps each, 2 supports (6 hangers total) were easily accessible to the inspectors. **A** and **B** determined the six hangers were rejectable when a unistrut support expansion shell anchor bolt was withdrawn by the craftsman and found to lack sufficient thread engagement per QCP-1.42-2, paragraph 6.2.3.2.1. This describes an inspection technique that apparently differs from the alternative technique of paragraph 6.2.3.2.2 in that paragraph 6.2.3.2.2 accounts for an anchor recess dimension and is considered by inspectors to be a more precise measurement, although more time consuming to perform. QCP-1.42-2, paragraph 6.1.5, requires that if one anchor bolt is found unacceptable, all bolts in a support plate must be inspected. **A** and **B** told NSRS investigators that after only two of three bolts in the support had been checked, the craftsmen acknowledged that they had worked on all 15 of the wall-mounted hangers and installed the same length anchor bolts in all supports. The craftsmen did not substantiate making this statement, but one foreman who was not present when the inspection occurred told NSRS investigators in a signed statement that the craftsmen acknowledged to him that the statement had been made. The HQC supervisor and one HQC group leader also provided signed statements substantiating that a craftsman had made such an admission.

2. I-82-19-WBN-01, Failure to Follow Procedures - Two Occurrences

The craftsmen did not pull the middle support bolt during the inspection because it would entail disassembly of other hangers because of a piping interference. The inspectors apparently agreed not to pull the center bolt on the support or physically inspect any bolts on the remaining supports on the wall, and the craftsmen agreed to change the improper bolts, check the others, and replace them as necessary.

A and **B** returned to HQC. They indicated to NSRS that they thought the craftsmen would contact them later for reinspection. Since the center bolts were not inspected as required by QCP-1.42-2, paragraph 6.1.5, the inspectors failed to follow the procedure.

Watts Bar Field Instruction, WBFi-G-21 (Revision 0), "Inspection Rejection Notice," (IRN) requires that inspectors write and issue IRNs for identified deficiencies which do not constitute nonconforming conditions per WBNP-QCI-1.2, "Control of Nonconformances." The IRN is defined in WBFi-G-21 as "a communication tool used by inspection personnel to inform craft and engineering of an unacceptable condition of work in progress which can normally be corrected within the acceptance criteria. An IRN form is used to document and indicate disposition of these conditions."

Additionally, the procedure requires that IRNs be written (if necessary) if the inspector has to leave the area. This "area" concept has not been procedurally defined and is interpreted differently by QC inspectors, who generally regard it as the immediate area in which the inspection occurs, and the crafts, who generally regard "area" as the entire Watts Bar Nuclear site. Under the craft interpretation of "area," a deficiency could be corrected and reinspected by the identifying inspector without the issuance of an IRN, if done so prior to the inspector's leaving the site (i.e., his end-of-shift). The understanding of the craftsmen who accompanied [redacted] A and [redacted] B on their inspection of the 25 hangers was that they would reinspect the hangers without issuing IRNs.

Although not explicitly stated, an apparent intent of WBFi-G-21 is that IRNs not be generated unless an inspector has actually inspected an item (e.g., an inspector may not reject uninspected work based only on a craft's admission that it is rejectable). This is generally understood by all of the inspectors including A [redacted] and [redacted] B. The 3 or possibly 4 unistrut supports on the wall, consisting of 9 (or 12) hangers were not physically inspected by [redacted] A and [redacted] B, but were determined to be rejectable by them based on the craftsmen's purported acknowledgement that they had used the same length bolts in those hanger supports as had been used in the inspected but rejectable support(s). Because of possible variations in anchor recesses, the same length of bolt should not have been used as a basis for rejection. [NOTE: The ambiguity in the number of supports actually inspected is from [redacted] A and [redacted] B's statements that 2 of 5 supports with 6 of 15 hangers were inspected, while craftsmen state that only 1 of 5 supports with 3 of 15 hangers were inspected. NSRS investigators feel this point is immaterial as it is acknowledged by all that at least three supports with 9 hangers were not inspected.]

Later that afternoon, [redacted] A and [redacted] B determined that the 25 hangers would not be ready in time for reinspection by end of shift and [redacted] B began writing 17 IRNs for all 25 hangers. However, at approximately 3:30 p.m. (25 minutes before end of shift) a dual-rate foreman came to the HQC and stated that the hangers had been checked and were ready for

reinspection. When requested to sign up the hangers in the "sign-up" log, the dual-rate foreman refused, since the hangers had been signed up twice already. The foreman may have been unaware that the inspectors felt they needed these sign-ups so that their inspections could be documented for time-study purposes. The "sign-up" log is also used to document the times of day an inspector starts an inspection and completes it. Since the hangers weren't "signed-up" for reinspection, the hangers were not reinspected by [redacted] and [redacted] that day. Since [redacted] and [redacted] would be leaving the work area at the end of the shift, the IRNs for the 25 hangers were completed and signed by [redacted] and issued, including IRNs for the 9 or 12 pipe clamps which had not been physically inspected but were rejected due to the craftsmen's statements. This failure to follow the understood intent of the WBFI-G-21, "Inspection Rejection Notice," on performing physical inspections prior to issuing IRNs constitutes a second occurrence of failure to follow procedures.

3. Events Subsequent to the Issuance of the Inspection Rejection Notices

On the morning of August 4, 1982, the responsible steamfitter foreman discovered the IRNs [redacted] had written the previous day. Upset that 25 of 25 hangers had failed, he informed his General Foreman, Jerry Hamrick, who requested the Construction Superintendent, Charles Jetton, to come to the area and observe the hangers in question. Jetton told NSRS investigators that he went to the hangers with Hamrick and found William G. Jackson, Assistant Steamfitter Superintendent; Terry L. Higgins, Steamfitter Foreman; and two steamfitters assembled in the area of the work. Jetton said that Hamrick and Higgins told him that they had received 25 IRNs and felt that they were unjustified. Jetton said he examined the IRNs and listened to the craft and found what he thought were also errors in the IRNs. Jetton said that he was told by the steamfitters that on some hangers, the inspectors removed one bolt, checked for adequate length, found that it was slightly out of tolerance, and on this basis the inspectors rejected all remaining hangers without further inspection. Jetton said that the steamfitters also pointed out welding IRNs which the steamfitters thought were acceptable welds. Jetton told NSRS investigators that in his opinion, four welds were oversized based on the steamfitter using a fillet gauge to check the weld.

On the basis of this review, Jetton said that he believed the craft had a legitimate concern, and he had Hamrick contact the Assistant Construction Engineer- Quality Control, J. C. Cofield, and requested that he join the foreman and Jetton in the area. Upon arrival, Cofield spoke with the foreman, observed the 25 hangers, and determined that the foreman's claim that acceptable work had been rejected might

be valid. When told by the foreman that he wanted to file a formal allegation against the inspectors who had done the inspection, Cofield instructed him how to do this per WBNP-QCI-1.31 Cofield later told NSRS investigators that he was not aware that some hangers may have been reworked after the initial inspection by [REDACTED] and [REDACTED], but before his observations.

The foreman formalized his allegation against [REDACTED] and [REDACTED] by name, in allegation report 2-82 dated August 4, 1982, which Cofield brought to the Construction Quality Manager, Shelton Johnson, responsible per QCI 1.31, for investigation of allegation reports.

4. I-82-19-WBN-02, Site Investigation of Allegation Report 2-82

In an interview with an NSRS investigator, Shelton Johnson, the CONST Quality Manager stated that he assigned J. C. Cofield to investigate Allegation Report 2-82 since Johnson thought Cofield had already determined its validity. QCI 1.31 (Revision 2) permits assignment of a designee to perform investigations. Cofield assigned J. W. Henry, QC Coordinator of Hanger, Welding, and Mechanical QC Units, to select two qualified hanger personnel to investigate the allegation. Henry selected the M-5, Hanger QC Supervisor, C. W. Hutzler and J. A. Fergerson, [REDACTED]'s Shift Leader. [REDACTED] and [REDACTED] were restricted on August 4, 1982 from further inspections by Hutzler. In interviews with NSRS investigators, Hutzler explained that during the course of his investigation on August 4 and 5, 1982, he and Fergerson observed the hangers in question, spoke with and requested statements from four craft personnel, and interviewed [REDACTED] privately. He did not interview or get a statement from [REDACTED]. The requested statements from the craft personnel were not provided to Hutzler, but were delivered to his supervisor. Hutzler did not see these statements until August 16. Hutzler also stated that the only work subsequently determined by he and Fergerson to have been acceptable at the time of initial rejection had been the positioning of some hanger identification tags. There was no clear procedural requirement that these tags be affixed to uniquely identify the hanger; only that they be affixed to the support member. However, previous practice, as well as Hanger QC Unit training, had directed that these tags be offset on a support with multiple hangers to uniquely identify each hanger on the support. Inspectors had been instructed by their supervisors, with craft concurrence, to reject hangers not meeting this "unwritten requirement." [REDACTED] and [REDACTED] rejected some hangers failing the identification "requirement." During Hutzler's investigation, in the absence of a clear procedural requirement, these hangers were determined acceptable and the IRNs invalid. The investigation report signed by Hutzler and Fergerson dated

August 5, 1982 does not detail this situation, but states ". . . some of the rejections were appropriate, while some of the inspections were a misinterpretation of the acceptance criteria, and should have been accepted."

The allegation investigation was performed by supervision of the unit against whom the allegation was made. NSRS investigators feel that it would have been appropriate to have assigned another group(s) to perform the investigation in order to produce the most objective results possible.

5. Circumstances of the Termination of [REDACTED] A

On August 4, 1982 Ferguson, Hutzler, and Henry determined that [REDACTED] should be removed from the site. According to Hutzler, the CONST engineering side of management was looking to see if there was just cause to have the shop (C&D) remove [REDACTED] due to negative comments from the craft and engineering and some portions of inspection. He stated that [REDACTED] A's general nature, forward approach, tightness of inspection, and hard-to-get-along-with attitude caused him problems with the craft. He indicated that if a person is causing enough problems, either directly or indirectly, the unit could be more effective with one less person and that problems with [REDACTED] had been on the increase in July. Additionally, he cited tardiness, attendance, lack of timeliness, and argumentative nature as problems being discussed in the unit prior to the 25-hanger incident. One prior complaint from the craft was brought to NSRS investigators attention concerning a pressurizer cubicle hanger, identified as 1-68-431 which had been inspected and rejected three times, twice by [REDACTED] A. [REDACTED] A's rejections of the hanger had been brought to his supervisor's attention after the responsible foreman had complained. Henry told NSRS investigators that he had talked with Hutzler about work related problems with [REDACTED] at this time, including that described below when [REDACTED] had rejected acceptable work because he had a "bad day." Henry stated that the rejection of this pressurizer cubicle hanger was not a consideration at this time. Henry told Hutzler that Hutzler should monitor [REDACTED] A's performance and that if any additional problems arose such as the one Hutzler told Henry about, they should consider requesting [REDACTED] A's removal from the site. [REDACTED] A's rejection of the hanger pressurizer cubicle was later determined to be proper, however, and the hanger has subsequently been rejected for a fourth time by another inspector.

Additionally, [REDACTED] A told NSRS investigator: of one occasion on which he retracted an IRN he had written on acceptable work because he had had a "bad day." He stated that he apologized to the craft. This incident was confirmed by his supervisor, including the apology.

On August 4, 1982, Hutzler met with Henry and informed him of his recommendation to have [redacted] removed. Cofield, who had been informed of [redacted] A's and [redacted] B's rejecting acceptable work and of rejecting work that had not been inspected, concurred in the recommendation. In an interview Cofield told NSRS investigators that his decision to remove [redacted] was based on [redacted] A's rejection of acceptable work and other problems but had nothing to do with falsification of any records (IRNs written by [redacted] B on uninspected work, later given as the reason for [redacted] B termination--see NSRS treatment of this subject in section IV.A.6) since he had not generated any. Cofield notified C. O. Christopher, Assistant Construction Engineer, who notified the CONST Personnel Officer, J. M. Raines. Raines called C&D on the morning of August 5 directing A's [redacted] removal from Watts Bar. C&D called [redacted] at Watts Bar, instructed him to leave the site, and terminated his employment with C&D. A [redacted] requested that J. W. Henry tell him why he was fired and to state the reasons in writing. Henry, according to [redacted] A, would not write a reason because it was not his job, but told [redacted] A that he was disruptive in the unit, he was no longer useful to the unit, and his inspections hadn't been in accordance with procedures. [redacted] A left the site at approximately 11:30 a.m. on August 5. Later that day, he filed a formal complaint with the Department of Labor charging C&D with discriminatory employment practices in violation of the Energy Reorganization Act.

6. Inconsistencies Disclosed in Reason for Terminations

According to J. M. Raines, CONST Personnel Officer, when he was instructed by the site to obtain [redacted] A's removal, the reason he was given was for falsification of records. Raines was told that documentation was available to justify removal for this violation of the Division of Construction Conduct Guidelines for Salary Policy Employees (Blue Book). From interviews with cognizant supervisory personnel and a review of requested documents, NSRS investigators learned that [redacted] B's writing, signing, and issuing four IRNs for hangers which had not been physically inspected by himself or [redacted] A had precipitated the charge of falsification of QA/QC and/or TVA records against [redacted] A and/or B [redacted]. The ambiguity of the characterization of the charge and against whom it was made became apparent from interviews with site supervisors and managers and from a review of documents associated with the termination of both individuals. Some supervisors were apparently under the impression that IRNs were QA (or QC) records. The IRN procedure WBF1-G-21 is not included in the quality assurance program at Watts Bar and defines the IRN not as a QA record but as a ". . . communication tool . . ." Nor is the IRN listed in an index of QA or QC records.

The Assistant Construction Engineer-Quality Control, whose ultimate decision it was to have [redacted] removed from the site, stated that [redacted] removal had nothing to do with falsification of records, but was because he had rejected acceptable work and other problems. However, in an informal memorandum from a Construction Management Assistant to the CONST Personnel Officer dated August 24, 1982, it is stated that the sole reason for the termination of [redacted]'s services was for participating in falsification of TVA records. The site investigation report of August 5, 1982 indicates that additional reasons, such as attitude, failure to follow orders, not completing work in a timely manner, and general lack of rapport with the crafts, as well as hangers not inspected as justification for [redacted]'s removal.

In treatment of the IRN as a TVA record, it was discovered during NSRS' investigation that the IRN is identified with a TVA form number and that these forms are also identified as an attachment to their previous parent procedure, WBNP-QCI-1.2-1, which was superseded by the WBF1-G-21. A site decision was made to use the old forms since many were already on hand and under the new non-QA program, IRNs had no record retention, preservation, or disposition requirements. One paragraph in WBF1-G-21 requires that IRNs be retained by the respective units. An interview with the Supervisor, Quality Control and Records Unit (QC&RU), revealed that although the QC units were required to keep them, there were no plans to collect or turn over these files and they would probably be destroyed. Other interviews disclosed that perhaps as many as 75 percent of previously completed IRNs from all QC units had already been discarded as their usefulness as a communication or tracking tool had ended. Interviews with the supervisors, Procedures and Training Unit and the QC&RU, disclosed the site's intention to return the IRN process to the Watts Bar Quality Control Program with its own procedure as soon as the site and OEDC QA agree on how the IRN is to be handled as a record.

B. I-82-19-WBN-03, Anchor Bolt Dual Inspection Criteria

One of the HQC inspectors who inspected and documented the reinspection of the hanger bolts after some of the bolts were replaced by the craft stated his view that had he inspected to the alternative criteria of paragraph 6.2.3.2.2 of QCP 1.42-2 instead of paragraph 6.2.3.2.1, the bolts might still have demonstrated insufficient thread engagement and failed inspection. NSRS investigators were told by the NRC Resident Inspector that this situation will be identified by the NRC as an open item. NSRS determined that potential for acceptance of an anchor bolt by one acceptance criteria, when an equally valid criteria might fail it, requires additional engineering clarification.

C. ^{MA A} [REDACTED] - Background Information

From a review of records, interviews with cognizant supervisors, co-workers, and craftsmen and a 43-page transcript of NSRS' interview with [REDACTED], NSRS investigators learned that:

1. A [REDACTED] had been continuously employed at Watts Bar Nuclear Plant as a QC inspector since September 1979; first with Butler Services, Incorporated, for one year, and then when their contract was not renewed, with Consultants and Designers, Incorporated, for the past two years.
2. In January 1981 A [REDACTED]'s services were terminated from the Mechanical Engineering Unit by L. Johnson, Unit Supervisor, for failing to work assigned overtime or calling in on two occasions. When asked by the new Hanger Engineering Unit supervisor, Johnson indicated that he had problems with [REDACTED] A but that [REDACTED] was a good inspector. This evaluation resulted in [REDACTED] being provided to the Hanger Engineering Unit. A [REDACTED] did not miss any time at Watts Bar as a result of Johnson's "termination" of his services and the fact of the "termination" or reassignment was not documented in the CONST Personnel Officer's file on [REDACTED] A
3. A [REDACTED] worked in the Hanger Unit Modifications and Additions (M&A) Group in the spring of 1982. He apparently had personality conflicts in that section with the section supervisor and group leader. The group leader documented during this time several instances of [REDACTED] A failing to report for scheduled work and not submitting paperwork in a timely manner. According to interview statements, conflicts may have arisen from the very different methods the M&A Group of hanger inspectors employed as opposed to the inspection and documentation techniques of the "routine" hanger inspection unit. For example, according to weekly status reports for the month of August 1982, HQC performed a total of 1731 anchor pull and finalization inspections with 166 IRNs written. During the same period M&A performed a total of 815 inspections but did not write a single IRN. This obvious difference in acceptance ratios itself warrants further investigation, but was considered outside the scope of this investigation.
4. At the time of the NSRS investigation A [REDACTED] had written more IRNs than any other hanger inspector still employed at Watts Bar (218). With the supervisory exceptions from M&A Group and a craft foreman, A [REDACTED]'s supervisors, co-inspectors, and even some craftsmen agreed that [REDACTED] was a tough, knowledgeable inspector, but subject to moodiness, which was occasionally reflected in his inspections.
5. One group leader stated to NSRS that he heard of an incident approximately one year ago in which the foreman who later filed allegation 2-82, allegedly attempted to initiate an

altercation with ^A over an IRN, but fled, stating "I'll get you," or words to that effect. On the day ^A was removed, August 5, 1982, the group leader said he also heard that foreman boast "I told you I'd get him," or words to the effect. One other inspector also stated he had heard from others of the boast.

6. Several inspectors had been assigned to ^A for on-the-job training by HQC supervision. ^B was in training status during the inspection of the 25 hangers.

D. Woodrow Meadows' Termination

Upon completion of his investigation, the HQC supervisor, C. W. Hutzler, recommended to Henry and Cofield that the TVA salary policy employee ^B receive a warning letter for issuing IRNs on uninspected work. He was told by Henry, his immediate supervisor, that the "Blue Book" prescribed either termination or suspension for Group C violations which include falsification of TVA records (first offense). Hutzler, Henry, and Cofield agreed that a two-week suspension would be an adequate disciplinary action. Site management disagreed with this recommendation, and the decision was made to terminate ^B. Hutzler disagreed with this decision and refused to sign ^B termination notice stating to NSRS investigators that he had opted to use supervisory discretion in his original recommendation as he was not "privy to the outside information" used to determine termination. He stated he requested access to this information or a letter directing him to terminate ^B but was refused on both issues. Hutzler then told Olson, Cofield, and Henry that if either of those requests couldn't be honored, he would request in writing to be removed from his position as HQC supervisor. This "demotion request" was requested of him on August 25, 1982 by Cofield. Cofield approved this request, and on August 29, 1982 Hutzler was demoted from M-5 (temporary) to SD-4 and assigned to the HEU as a civil engineer. Hutzler stated that in view of his disagreement with management's decision, the demotion would have come whether he requested it or not. In his statement Hutzler indicated that if he had it to do over he would probably have recommended suspension rather than a warning letter. He indicated that his inexperience led him to not fully understand the seriousness of the alleged activity. He also stated that he was told the decision to fire ^B came from "Knoxville" and was because of similar trouble at Bellefonte and Hartsville. However, the Project Manager, Guenter Wadewitz, told NSRS investigators that the decision was his alone. NSRS is aware of and investigated a situation at Bellefonte in which an HEU group leader admitted to falsifying signatures on QA records. The group leader received a letter of reprimand, and for a later second offense of falsifying a QA record with the intent to conceal a mistake, was removed from his position as group leader, but was not terminated.

B

On August 19, 1982 [REDACTED] was notified of his termination, effective September 21, 1982 in a letter signed by J. W. Henry, Assistant Construction Engineer, for knowingly falsifying TVA records.

E. The Inspection Rejection Notice

NSRS investigators interviewed cognizant QC supervision, inspectors, construction and craft supervision, and craftsmen and reviewed selected production reports, various logs, and status reports to determine how the IRN is used at Watts Bar, and whether or not this "communication tool" influenced the events under investigation. The following key points were considered noteworthy:

1. Most QC inspectors had formal training in the IRN program per WBNP-QCI 1.2-1 and later per WBF1-G-21 and understood that the IRN was a communication and tracking vehicle with the crafts and engineering, used to obtain corrections to deficiencies identified "in process." Some thought it was a document necessary for crafts to rework items prior to final acceptance (i.e., a "work authorization"). Most thought that craft supervision and project management kept track of IRNs issued to trend productivity and to highlight areas for improvement.
2. Even with training in the use of IRNs, there existed significant differences in the attitude toward and use of IRNs between groups of the same unit such as the disparity that existed between Hanger M&A and Hanger QC, both under the same supervisor. As previously compared, from July 30, 1982 until August 26, Hanger QC wrote 166 IRNs and Hanger M&A wrote none, although the inspections involved are identical.
3. Craftsmen and craft supervision had no formal documented training on the IRN program per WBF1-G-21, as it was not required by the QA program. They all thought that IRNs issued were tracked against craft crews by their supervision for disciplinary purposes. This use of the IRN was emphatically endorsed by the Construction Superintendent during an interview with NSRS investigators.
4. IRNs were trended against foremen and QC inspectors by name. Those tracked against foremen did not distinguish between workmanship problems and "engineering" problems which do not reflect on craft ability or productivity although this distinction is possible. The Construction Engineer thought these tracking reports were no longer issued. NSRS did not confirm this statement but was made aware that craft and inspection personnel thought the tracking was still being done.

5. According to some QC inspectors, some craftsmen and foremen were so intimidated by the IRN and their perception of the disciplinary connotations it carried that they would actually beg the inspector not to issue one. Others would argue vehemently over every one issued.

These logs and trend reports used at the site could be a valuable management tool, when judiciously used, to identify areas in need of management attention. However, the crafts perception of their use appears to be diametrically opposed to the QC inspectors' and engineering management's intentions and instructions for their use, and augments a disharmonious relationship between craft and QC. NSRS feels that it was in this atmosphere that the problems between craft foremen and [REDACTED] were sustained.

F. The Significance of Acceptance or Rejection of Work Without Inspection

NSRS investigators questioned many inspectors and QC supervisors in interviews about their perception of the difference between rejection of work without physical inspection and acceptance of work without inspection. In all cases, the QC inspectors and supervisors considered acceptance or rejection of work without inspection was improper and a violation of procedure. In all cases personnel appeared to be well aware of the fact that acceptance without inspection would constitute a major breakdown of the quality assurance program and was viewed as far more serious than rejection without inspection. Rejection without inspection was perceived as improper, but an error in the "conservative direction," which would likely impact schedule and cost but not quality or safety.

In that personnel involved were aware of the distinction, including [REDACTED] A and [REDACTED] B and no evidence of acceptance of uninspected work was disclosed, NSRS had no other questions in this area.

G. Contributing Factors Associated With [REDACTED] A's Removal and [REDACTED] B's Termination

1. A [REDACTED]'s Removal

Prior to May 1982, the hanger QC group was an integral part of the Hanger Engineering Unit, as all QC units were sub-groups of their respective engineering groups. In May 1982 a reorganization established the QC inspection groups under their own Assistant Construction Engineer, an M-6, with two quality control coordinators, M-5s, reporting to him, responsible for a total of seven QC units. Each QC unit is supervised by an M-4 or M-5 supervisor. When this reorganization occurred, [REDACTED] A was transferred from Hanger M&A QC to Hanger QC. Both groups were supervised by C. W. Hutzler.

From an interview with Hutzler, NSRS investigators learned that [redacted] was well thought of as an inspector, and experienced few problems in hanger QC for the first four to six weeks (estimated by Hutzler). From a review of the IRN logs from May 1, 1982 through August 4, 1982, it was discovered that [redacted] did not write an IRN until May 28, 1982 and through June 16, 1982, wrote 10 IRNs. From May 28, 1982 through August 4, 1982 [redacted] wrote 60 IRNs, for an average of about one per day. From interviews with other inspectors and craftsmen, it was learned that he was considered one of the "tougher" inspectors, and wrote more IRNs than did the others. Other inspectors stated they would work with the crafts to give them time to correct deficiencies through a "give-back" process that didn't require IRNs. [redacted] also stated he would do this occasionally, but usually followed the IRN procedure, which requires writing an IRN on rejectable work if the inspector must leave the area. (Differences of opinion on "area" are discussed in section IV.A.)

Inspectors and supervisors also stated that [redacted] was inclined to take the harder jobs, the more inaccessible and complex hangers because of his experience.

From a review of the IRN logs, NSRS determined that many of [redacted]'s IRNs were written for drawing or "engineering" problems. However, as has been noted in section IV.E.4, the distinction between "engineering" and "craft" IRNs was not made in the accountability process, and crafts did not like to get IRNs for any reason as they felt they were used against them. Many of the inspectors interviewed stated that the more experienced inspector was able to detect more deficiencies and would thus write more IRNs. The craftsmen and craft foremen generally thought that [redacted] wrote too many IRNs.

Although not included in all their written statements, of the inspectors and group leaders interviewed, many consistently identified some craft foremen who complained about IRNs more often than others. The foreman whom was overheard by one HQC group leader to say "I finally got him" was most consistently named.

Many inspectors felt that [redacted]'s problems with the crafts had culminated in late July when he twice rejected hanger 1-68-431 for reasons neither the crafts nor his supervision thought were valid, but which were later determined to be so. The prevalent opinion of the inspectors interviewed was that [redacted] was fired because of craft supervisory pressure for "writing too many IRNs," and that the other inspectors "had better not write too many" or "make a mistake and end up like [redacted] and [redacted]." Although the inspectors had no documented evidence to support these views, the inspectors' perception could have an adverse impact upon the quality of inspections in the future.

A comparison of IRNs per inspection prior to ^A [redacted]'s removal with that after [redacted] ^B termination derived from HQC weekly reports dated August 5, 1982 and August 26, 1982 demonstrates a reduction in the rejection rate from 9.1 percent to 5.2 percent.

2. ^B [redacted] Termination

As previously discussed in section IV.A, NSRS did not substantiate that TVA records were knowingly falsified by ^B [redacted], which was the documented reason for his termination. However, since the site investigation of allegation report 2-82 resulted in ^A [redacted]'s removal for this documented reason (see reference No. G), NSRS feels that site management, in order to demonstrate consistent discipline, determined that [redacted] should also be terminated.

^B
V. LIST OF PERSONS CONTACTED

T. E. Adams, Jr., Engineering Associate, SE-5, Group Leader, Hangers
G. H. Baisden, Jr., Supervisor, Hanger Quality Control Unit
J. Ballard, Assistant Unit Supervisor, Mechanical Engineering Unit B
T. Brown, Supervisor, Hanger Engineering Unit
E. L. Burke, Jr., Assistant Construction Engineer
M. L. Chrestman, Construction Management Assistant, M-4
C. O. Christopher, Assistant Construction Engineer
J. C. Cofield, Assistant Construction Engineer, Quality Control Section
J. A. Ferguson, Engineering Associate, SE-6, Shift Leader, Hanger
Quality Control
C. J. Hamrick, Steamfitter Superintendent
P. E. Hardin, Construction Personnel Officer
J. W. Henry, Assistant Construction Engineer, Quality Control, Welding
Mechanical, Hanger QC Inspection
T. L. Higgins, Steamfitter Foreman
J. Hughes, Assistant Steamfitter Superintendent
C. W. Hutzler, Civil Engineer, SD-4, Hanger Engineering Unit; prior
to 8/29/82, Supervisor, Hanger Quality Control unit, M-5(T)
W. G. Jackson, Assistant Steamfitter Superintendent
C. H. Jetton, General Construction Superintendent
L. J. Johnson, Supervisor, Mechanical Engineering Unit B
M. Johnson, Construction Management Assistant
S. Johnson, Assistant Construction Engineer
D. Kelley, Supervisor, Quality Control and Records Unit
S. E. Low, Engineering Associate, SE-6, M&A Group Leader, Hangers
B. Majors, Lead Auditor, Quality Assurance
S. Martin, Jr., Assistant, Hanger Engineering Unit
C. D. Wagner, Jr., SD-4, M&A Supervisor, Hangers
R. W. Olson, Construction Engineer, M-7
J. M. Raines, Construction Personnel Officer
A. W. Rogers, Supervisor, Quality Assurance Unit
J. Thompson, Supervisor, Procedures and Training Unit
G. Wadewitz, Project Manager

Hanger QC Inspectors (14)
Steamfitter Craftsman (3)

VI. REFERENCES

- A. Quality Control Procedures
 - 1. WBNP-QCP-1.42-2, "Bolt and Gap Inspection for Bolt Anchor Assemblies," R1
 - 2. WBNP-QCP-4.23-8, "Support Final Inspection," R0
- B. Quality Control Instructions
 - 1. WBNP-QCI-1.2, "Control of Nonconforming Items," R4, July 6, 1982 and R5, August 16, 1982
 - 2. WBNP-QCI-1.08, "Quality Assurance Records," R3
 - 3. WBNP-QCI-1.11-2, "Qualification/Certification of Construction Quality Control Inspectors," R2
 - 4. WBNP-QCI-1.31, "Handling Allegations," R2
- C. Field Instructions
 - 1. WBF1-G-21, "Inspection Rejection Notice," May 20, 1982
- D. Isometric Drawings for Hanger Location
 - 1. H-920-38, Sheet 1A, R0
 - 2. H-920-38, Sheet 2B, R0
 - 3. H-920-38, Sheet 1C, R0
 - 4. H-920-38, Sheet 2C, R0
 - 5. H-920-38, Sheet 1D, R0
- E. Memorandum from C. W. Hutzler to Watts Bar Nuclear Plant Files, "Watts Bar Nuclear Plant - Investigation into Allegations by Craftsman Concerning Improper Inspections by Hanger Quality Control Inspectors [REDACTED] and [REDACTED]" dated August 5, 1982 (Administratively Confidential)
- F. Memorandum from J. W. Henry to [REDACTED], "Watts Bar Nuclear Plant - Notice of Termination," dated August 19, 1982
- G. Informal memorandum from Mark Johnson to Jim Raines, "Watts Bar Nuclear Plant-A [REDACTED]," dated August 24, 1982 (Administratively Confidential)
- H. Letter from Edward J. Brenner, Jr., Vice President/Southern Division Manager, Consultants and Designers, Inc., to Jim Raines, Personnel Officer, Tennessee Valley Authority, dated August 16, 1982
- I. Letter from Lillard Trice, Area Director, Department of Labor, to Pat Kern, Consultants and Designers, Inc., dated August 10, 1982

- (
- J. Employee Personal Interview Statement, U. S. Department of Labor, from [REDACTED], dated August 5, 1982
A
 - K. Draft memorandum from C. W. Hutzler to Watts Bar Nuclear Plant Files, "Watts Bar Nuclear Plant - Followup Inspections of Hangers Identified in the Allegation by Craftsmen Concerning Improper Inspections by Hanger Quality Control Inspectors [REDACTED] A and [REDACTED] B
 - L. Statement from J. L. Reese, Sr., August 5, 1982 (Administratively Confidential)
 - M. Statement from M. E. Pilkinton, August 5, 1982 (Administratively Confidential)
 - N. Draft statement from W. G. Jackson (Administratively Confidential)
 - O. Statement from T. L. Higgins, August 4, 1982 (Administratively Confidential)
 - P. Allegation reports for the years 1981 and 1982 at Watts Bar Nuclear Plant
 - Q. Hanger Quality Control Weekly Report
 - R. Monthly IRN Review, July 1982
 - S. IRN logs for Hanger Quality Control and for Modifications and Additions
 - T. Hanger Inspection and Production Reports
 - U. Final Hanger Inspection Request Log
 - V. IRNs (22)
 - W. Quality Assurance Training Records for Hanger Quality Control
 - X. Quality Control Procedures Certification Records for Hanger Quality Control
 - Y. Resume of [REDACTED] A
 - Z. Nonconforming Condition Report 4255R
 - AA. Telex from Mark Johnson to Jim Raines dated August 24, 1982 including information about prior problems with [REDACTED] A (Administratively Confidential)
 - BB. Division of Construction, Conduct Guidelines for Salary Policy Employees, October 7, 1981
 - CC. General Construction Specification, G-32, "Bolt Anchors Set in Hardened Concrete," R7

- DD. Title 29, Part 24 of Code of Federal Regulations, "Procedures for Handling Discrimination Complaints Under Federal Employee Protection Statutes"
- EE. Section 10, Title II of the Energy Reorganization Act of 1974, as amended.
- FF. TVA Code VI Records dated July 6, 1981

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

GNS 0117 050

TO : G. H. Kimmons, Manager of Engineering Design and Construction, W12A9 C-K

FROM : H. N. Culver, Director of Nuclear Safety Review Staff, 249A HBB-K

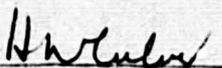
DATE : January 17, 1983

SUBJECT: NUCLEAR SAFETY REVIEW STAFF (NSRS) ROUTINE REVIEW - FOLLOW-UP REVIEW OF CORRECTIVE ACTIONS TO DIFFERING STAFF OPINIONS INVESTIGATION - NSRS REPORT NO. R-82-22-NPS

Attached is the NSRS report for the routine review conducted in OEDC--mainly in EN QES QEB. The purpose of this review was to examine corrective actions initiated in response to NSRS' investigation I-80-14-NPS and the follow-up review R-81-26-NPS. The original report contained 22 open items. Seven of those were closed by report R-81-26-NPS and two new ones were added. This report closed 14 leaving 3 items open from the original investigation and none from the prior follow-up report.

The three items open at this time are pending issue of two QEB engineering procedures and revision of a third. Please note that the original report was done January 28, 1981.

If you have any questions concerning the report, please contact Kermit Whitt at extension 6620.


H. N. Culver

JWM:LML

Attachment

cc (Attachment):

J. W. Anderson, M155G MIB-K

G. F. Dilworth, W12D46 C-K

MEDS, W5B63 C-K

NSRS FILE



TENNESSEE VALLEY AUTHORITY
NUCLEAR SAFETY REVIEW STAFF
REPORT
NSRS REPORT NO. R-82-22-NPS

SUBJECT: FOLLOW-UP REVIEW OF CORRECTIVE ACTIONS TO
DIFFERING STAFF OPINIONS INVESTIGATION
REPORTS I-80-14-NPS and R-81-26-NPS

DATE OF
REVIEW: DECEMBER 1, 1982

REVIEWER: John Mashburn 1-11-83
JOHN W. MASHBURN DATE

APPROVED BY: William C. Burke 1-11-83
WILLIAM C. BURKE DATE

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I. BACKGROUND

This is the third in a series of NSRS reports arising out of the differing opinions of TVA staff who performed an Office of Engineering Design and Construction Quality Assurance (OEDC QA) evaluation of The Division of Engineering Design (EN DES) Quality Engineering Branch (QEB) operations in 1980. The evaluation, QAE 80-1, was performed by a team made up of four OEDC QA personnel and one Division of Construction (CONST) Phipps Bend Nuclear Plant (PBN) engineer. Following the audit, a memorandum from the Quality Assurance Manager, OEDC, to the Manager of EN DES (CAM 800824 001) categorized the evaluation findings as follows. Four findings were deficiencies; of these, one was significant in accordance with Procedure QAI 4.0. The other 29 findings were not considered deficiencies and hence response by EN DES and follow up by OEDC QA was not required.

Two members of the evaluation team did not concur with the QA Manager and their dissenting opinions were voiced in the following: a memorandum from R. F. Keck to S. Duhan (HPP 800815 027), and a memorandum from W. F. Kelleghan to S. Duhan (PBN 800923 024). The NSRS received copies of these memoranda and performed an investigation described in NSRS report No. 1-80-14-NPS, dated January 28, 1981 (GNS 810202 002). This report contained 22 open items requiring resolution by OEDC. OEDC then produced OEDC QA Audit Report MSO-11 based on the NSRS report and commenced corrective action and follow up to the audit report.

An NSRS follow-up report, R-81-26-NPS, was issued by NSRS on November 12, 1981 (GNS 811112 050). At that time, 15 of the 22 original open items remained open, and a new one was added. Subsequent to that report, OEDC provided information on further planned corrective actions, which were acknowledged by NSRS in a memorandum dated April 7, 1982 (GNS 820407 001). The memorandum did not close any item, but indicated agreement with OEDC's stated intentions.

This report covers the review of the 15 items open in the first follow-up report, plus the one added therein, and the recommendation, Paragraph IV.W, not listed as a numbered open item.

II. SCOPE

This was a follow-up review on actions taken by OEDC in response to NSRS report 1-80-14-NPS and follow-up report R-81-26-NPS. Documents were reviewed to determine if corrections had been made to the program, and personal interviews were conducted to determine the degree of implementation of the changes.

III. SUMMARY AND CONCLUSIONS

The follow-up review of OEDC action taken in response to NSRS investigation report 1-80-14-NPS and previous follow-up report R-81-26-NPS, resulted in the following:

- A. It was determined that causes of 19 of the original 22 open items have been corrected, and they are now closed. Seven of these were closed by follow-up report R-81-26-NPS, and 12 are closed by this report. Two items were opened in the previous follow-up report, and corrective actions by OEDC were adequate to close both in this report. The three items remaining open from the original investigation are pending issue of two QEB-EP procedures and revision of one.

Table 1
Summary of Status by Item

<u>Item</u>	<u>Status</u>	<u>Closing Report</u>	<u>Open Pending</u>
I-80-14-NPS-01	C	R-81-26-NPS	
-02	O		QEB-EP 24.11
-03	C	R-82-22-OEDC(NPS)	
-04	C	R-81-26-NPS	
-05	O		QEB-EP 24.40
-06	C	R-82-22-OEDC(NPS)	
-07	C	R-81-26-NPS	
-08	C	R-82-22-OEDC(NPS)	
-09	C	R-82-22-OEDC(NPS)	
-10	C	R-82-22-OEDC(NPS)	
-11	C	R-82-22-OEDC(NPS)	
-12	C	R-82-22-OEDC(NPS)	
-13	C	R-81-26-NPS	
-14	O		QEB-EP 24.56 Revision
-15	C	R-82-22-OEDC(NPS)	
-16	C	R-82-22-OEDC(NPS)	
-17	C	R-82-22-OEDC(NPS)	
-18	C	R-81-26-NPS	
-19	C	R-82-22-OEDC(NPS)	
-20	C	R-81-26-NPS	
-21	C	R-82-22-OEDC(NPS)	
-22	C	R-81-26-NPS	
R-81-26-NPS-01	C	R-82-22-OEDC(NPS)	
Para. IV. W	C	R-82-22-OEDC(NPS)	

IV. DETAILS

The NSRS investigated two dissenting OEDC staff opinions relating to the disposition of findings from OEDC QA Evaluation Report QAE 80-1. The investigation resulted in 22 numbered open items and a set of 21 recommendations which, as a group, covered the issues raised in the 22 open items.

At the time of this follow-up review, a prior follow up had closed seven of those items and added two new ones.

- A. The following sections cover items that remained open from the original review, plus the two additional ones. No new items were added by this follow-up review.

1. I-80-14-NPS-02, Identification Controls Needed on EN DES Procedures/Manuals

This item was raised by the OEDC evaluation team because QEB had not complied with a portion of their Inspection Manual which required the Branch Chief to document his review and approval of parts of the manual. NSRS observed that a wider look was needed by EN DES to ensure that all of its documents were in conformance with requirements of EN DES-EP 1.28.

EN DES QAB has indicated that EP's are prepared, controlled, issued, reviewed and approved under EP's 1.01 and 1.02.

Their ongoing audit program verifies implementation of these requirements. The problem with the inspection manual arose because it was outside the EP program.

EN DES QEB is preparing QEB-EP 24.11 to replace the Inspection Manual. It was in draft form at the time of this review. This item will remain open pending issuance and implementation of the EP.

2. I-80-14-NPS-03, Field Office Manpower Deficiency

The OEDC QA evaluators had recommended that QEB re-evaluate its manpower levels in the regional offices. It appeared there was an adverse impact from increasing the average number of contracts per inspector from 16 to more than 28 in the period leading up to the evaluation. There were problems in providing optional surveillance (surveillance not specifically required by the language of a contract) due to lack of manpower and restricted travel budgets. It also appeared that increased attention was not promptly focused on problem contracts when evidence surfaced to indicate problems.

QEB has cooperated with QAB in developing a new procedure, QEB-EP-24.70 "Surveillance Planning" which was in draft form at the time of this review. It will provide for a "Contract Surveillance Inspection Plan" (CSIP) to cover ANSI N45.13 requirements including availability of inspectors. Further, they had issued QEB-AI 104 (RO) "Manpower Forecasting," dated January 11, 1982. It established a process and responsibilities for a comprehensive manpower forecasting system. This, together with the reduced TVA procurement and overall construction effort in 1982 compared to 1980, has removed the concern about manpower shortages in QEB. This item is closed.

3. I-80-14-NPS-05, Qualification Procedure Required for Personnel Engaged in Special Processes

The OEDC QA evaluation team had observed that QEB field personnel were provided a training and certification program for nondestructive testing (NDT) activities, but not for

other QA activities. They recommended that the program be expanded to include basic equipment and materials used for surveillance, codes used for fabrication and installation, and for affected inspectors, AWS, ASME, and ANSI B31.1 codes. The NSRS reviewer concurred with the evaluation team. QEB had initially expressed concern about the cost in manpower and travel to implement the required program.

At the time of this review, a draft procedure QEB-EP 24.40 "Certification and Training of QEB Quality Control Employees" is in the approval cycle. The intent of this procedure is to document detailed requirements for, and to document fulfillment of, training and certification for QEB inspectors by title and grade. This intent was reported in the attachment to the interim report to NRC on this deficiency (NEB 821020 271).

This item will remain open pending issue of a suitable procedure and its implementation.

4. I-80-14-NPS-06, Inspection Report Content

NSRS had reviewed 34 field inspection reports and concluded from them, and from the OEDC QA evaluation (QAE 80-1) and other documents, that a potentially significant deficiency existed. The reports did not contain sufficient detail in some cases, and in other cases attachments were filed separately in apparent conflict with procedures. Further, resident TVA inspectors' reports were not explicitly provided for in the language of the procedures.

The NSRS concern was reviewed again for significance by the OEDC QA Manager after the follow-up report (R-81-26-NPS) was issued. It was deemed significant and reported to the NRC.

At the time of this follow-up review, two procedures had been revised and a final report to the NRC had been filed. EN DES-EP 5.43, R6 "Release of QA Items from Suppliers' Shops to TVA Construction Sites" was issued March 25, 1982. QEB-EP 24.56, R1 "Inspection Reports - Preparation, Review, and Distribution" was issued July 23, 1982. These, together with the investigation by QEB into the specific examples raised by NSRS, as reported to the NRC (NEB 821020 271), constitute the required corrective action. This item is closed.

5. I-80-14-NPS-08, Waiver Release Controls

The OEDC QA evaluation team had recommended that QEB develop and issue an EP covering the process of setting up inspections not specifically detailed in the contracts, and covering the subject of waivers--when they may waive an inspection and who may authorize a waiver. NSRS had concurred in this recommendation and also observed that lack of firm waiver

controls had the effect of changing procurement document requirements without having the same approvals as the original documents. This would be contrary to requirements. The problem involved procedural inadequacies and conflicts within EP 5.43 "Release of QA Items from Suppliers' Shops to Construction Site" and with the Inspection Manual. Further, QEB interpreted itself to be the responsible organization rather than the requisitioning branch or project, so it did not have to seek the branch or project's approval for a waiver.

This has been resolved by the following corrective actions. EN DES-EP 5.43, R6, was issued March 25, 1982, to eliminate conflicts involving inspection waivers. The Technical Engineer on a contract, not QEB, now has to waive source inspection in writing. This item is closed.

6. I-80-14-NPS-09, Interface Controls in Design Document Review

The OEDC QA evaluation team had recommended that QEB and the requisitioning branches jointly develop guidelines for inspection requirements to be considered in preparing requisitions. NSRS observed that a more basic problem existed because QEB was a group given responsibilities under the requisitions but was not in the approval cycle for them. If one followed EP 5.01 which governed requisition preparation, the only person asked to review a requisition was someone who the preparer thought was necessary. The only requirement for squadchecking the requisition by that procedure was the case where no PR was on file. Even then, QEB was not identified as a reviewer. This situation put EP 5.01 in conflict with EP 1.28, "Control of Documents Affecting Quality," which required squadchecking or equal.

EN DES performed a study of the procurement process as part of the action plan for quality improvement (QAS 820524 002). The implementation of the report's recommendations was by memorandum from M. N. Sprouse to Those listed, dated November 12, 1982 (QAB 821112 001). Inspection requirements included in requisitions by contract engineering branches are required to be coordinated with QEB before issue. Further, QEB will be charged with review and approval of requisitions for QA materials, a function transferred from EN DES QAB. This item is closed.

7. I-80-14-NPS-10, Pre-Award Activities

The OEDC QA evaluation team had recommended that procurement requests include a section requiring the bidder to submit a QC inspection and test plan for approval. QEB would then be able to use this plan to prepare their detailed inspection plan. The NSRS investigator found support for this recommendation in ANSI N45.2.13-1976, but inadequate implementation of the ANSI standard in EN DES procedures.

In response to these recommendations, EN DES has issued Revisions 3 and 4 to EP 5.30 "Standard Format for the Preparation of Procurement Specifications," dated June 6, 1981 and August 3, 1982, respectively. The procedure now calls for a Vendor's List of Submittals for Technical Engineer and a Vendor's List of Submittals for Materials Engineer to be included in requisitions. NSRS has verified implementation of Revision 3 in another review of EN DES this spring (R-82-02-WBN). Revision 4 clarified some items but the submittal requirements were already present in Revision 3. This item is closed.

8. I-80-14-NPS-11, Review of NRC Regulatory Guide Commitments

This item was raised by NSRS after observing that TVA was committed to Regulatory Guide 1.28-1972 in spite of later revisions that placed more emphasis on the vendor auditing function. The EN DES review of commitments had been slow due to other priorities for the Nuclear Engineering Branch and a general lag in updating Regulatory Guide Conformance Sheets had developed, as noted in finding R-81-14-OEDC(BLN)-3 of the Bellefonte/OEDC major management review by NSRS. At the time of this review, the PRM did have a commitment sheet for Regulatory Guide 1.28, Revision 2, dated 1979. This is the latest revision. EN DES is also committed to reviewing new Regulatory Guides within 45 days of receipt and that program is nearly caught up to date. This item is closed.

9. I-80-14-NPS-12, Response to Audit Reports

This item involved a needed revision to EN DES-EP 5.34 to provide for warning suppliers that failure to respond to audit findings in the requested time is a noncompliance to contract requirements. EN DES has agreed to make the change and a related change to EP 1.29, as stated in their response to deficiency No. 4 of OEDC Audit M80-11B.

At the time of this review, the revised procedures had been issued. EN DES-EP 5.34, R4, "Vendor Quality Assurance Audit Program" was issued September 20, 1982. EN DES-EP 1.29, R4, "Internal EN DES Quality Assurance Audit Program" was issued November 10, 1982. This item is closed.

10. I-80-14-NPS-14, Regional Field Office Problem Resolution Notification

This item was based on a need for QEB to keep its field offices informed on resolution of problems identified in inspection reports.

This item is open pending issue of a revision to QEB-EP 24.56 which will make it clear that QEB-QC in Knoxville is responsible to provide timely notification to the appropriate field office of the resolution of problems.

11. I-80-14-NPS-15, Breakdown of a QEB QC Group Responsibility

QEB's QC group did not always keep its field offices fully and promptly informed of matters which affect them. The item remained open after follow-up review R-81-26-NPS because a memorandum was needed to remind technical engineers to notify QEB of vendor meetings so they could be informed or could participate as appropriate.

The required memorandum from M. N. Sprouse to Those listed, (QEB 800808 008) was sent to the EN DES branches and projects August 8, 1980. This item is closed.

12. I-80-14-NPS-16, Breakdown of a QEB-QC Engineering Staff Responsibility

This item was based on the need for QEB to ensure that its senior QC staff engineers carry out necessary detailed investigations when problems arise from a vendor's inability or unwillingness to perform to contract requirements. The specific problem investigated was a Lakeside Bridge and Steel Company contract dispute over interpretation of the C. F. Braun specifications on Contract 76K820119 and others. NSRS recommended that EN DES instruct the QC engineering staff in what was expected of them in such situations.

QEB issued a new procedure, QEB-EP 24.70, "Surveillance Planning," dated December 14, 1982 which provided the necessary guidance. This item is closed.

13. I-80-14-NPS-17, Document Controls

The basis for this item was a need for EN DES-QEB to ensure the field offices were aware of changes to procurement documents. The item was not closed in follow-up report R-81-26-NPS because it appeared the details of the item had not been considered by QEB before responding, or by NEB NLS in their determination of reportability under 10CFR 50.55(e).

NEB NLS reviewed the additional material and confirmed that their original determination was correct, i.e., the item was reportable. QEB has received guidance in the most critical phase of this problem by directive from the Manager of EN DES, that they may not authorize shipment of materials which do not conform with contract requirements without a dispositioned nonconformance report (NCR). This had been an unwritten but understood policy, but it was not always clear to the vendors that QEB had authority to insist on conformance to the documents in its possession, rather than the vendors'. The memorandum from M. N. Sprouse to Those listed (QEB 821112 011) resolved the matter. This item is closed.

14. I-80-14-NPS-19, Lack of Independent Review of Nonsignificant Audit Deficiencies

This item was based on the fact that OEDC QA had no process of review for items they considered nonsignificant despite the requirement of OEDC-QAI 4.

By the time of this review, OEDC QA had established a review channel for such items, and had satisfied a second aspect of the concern by keeping a record of items determined to be nonsignificant. Furthermore, OEDC QA functions have since been transferred to the Office of Quality Assurance (OQA). This item is closed.

15. I-80-14-NPS-21, Reevaluation of QAE 80-1 Items for Significance

This item was a request for OEDC QA to evaluate nine NSRS items for significance. The requested review was done and NSRS has received copies of the results, including reports by NEB NLS under 10CFR50.55(e). This item is closed.

16. R-81-26-NPS-01, Inadequate OEDC Handling of Formal Appraisal Findings

The follow up to I-80-14-NPS was complicated by the fact that OEDC Procedure MO-QAP-3.4 had called for paraphrasing the NSRS concerns and handling them indirectly. This led to incomplete responses in some cases. The basis of this item was the need to handle such appraisals by groups outside of OEDC in a more direct fashion.

By January 21, 1982, OEDC-QA had instructed its personnel to communicate all relevant information when transcribing data from CAQs and NSRS reports to specific concern sheets. Since then, NSRS has had no further problems with misinterpreted or incomplete findings information. This item is closed.

17. R-81-26-NPS, Paragraph IV.W. Recommendation Without An Open Item Number

This item was a recommendation to reevaluate the EN DES procurement program by performing an indepth audit. In response, EN DES QAB performed a study, SS-81-3 (QAS 820524 002). The implementation of the study's recommendations was in a memorandum from M. N. Sprouse to Those listed dated November 12, 1982 (QAB 821112 011). This item is closed.

V. PERSONS CONTACTED

I. M. Heatherly	NEB
W. C. Linde	QEB
J. W. Mabee	OQA-formerly QAB

M. S. Martin	OEDC Manager's Office
J. L. Snyder	QEB
R. A. Thompson	ESB-formerly QAB
J. M. Winebrenner	QEB

VI. DOCUMENTS REVIEWED

A. Reports

Quality Assurance Evaluation QAE 80-1
OEDC QA Audit Report M80-11a and M80-11b, M80-11c revisions
EN DES QAB Audit Report RO-82-2 (QAS 820511 018)
EN DES QAB Audit Report P-82-8 (QAB 820909 008)
NSRS Report I8014NPS (GNS 810202 002)
NSRS Report R8126NPS (GNS 811112 050)
NSRS Report R-82-02-WBN (GNS 820503 051)
NSRS Report R-8114-OEDC(BLN) [GNS 810930 054]
EN DES QAB Study SS813 (QAS 820524 002)

B. Procedures

EN DESEP 1.28 (R3) dated December 23, 1980 "Control of Documents Affecting Quality"
EN DESEP 1.01 (R10) dated May 18, 1982 "Preparation and Processing of EN DES Engineering Procedures"
EN DESEP 1.02 (R13) dated September 20, 1982 "Preparation and Processing of Branch/Project Engineering Procedures"
QEBEP 24.56 (R1) dated July 23, 1982 "Inspection Reports Preparation, Review and Distribution"
QEBAI 104 (RO) dated January 11, 1982 "Manpower Forecasting"
MOQAP 3.2 (R5) dated February 1, 1982 "Review of Division Nonconformance Reports and Audit Deficiencies"
EN DESEP 5.43 (R6) dated March 25, 1982 "Release of QA Items From Suppliers' Shops to Construction Site"

C. Draft Procedures

QEBEP 24.11, "Quality Engineering Branch General Instructions" (Replaces the Inspection Manual)

QEB-EP 24.40, "Certification and Training of QEB Quality Control Employees"

QEB-EP 24.56, Revision after R1, "Inspection Reports, Preparation, Review, and Distribution"

QEB-EP 24.70, "Surveillance Planning"

D. Memoranda

R. F. Keck to S. Duhan	(HPP 800815 027)
W. P. Kelleghan to S. Duhan	(PBN 800923 024)
J. P. Knight to M. N. Sprouse	(QAM 800421 001)
H. N. Culver to G. H. Kimmons	(GNS 820407 001)
M. N. Sprouse to G. H. Kimmons	(NEB 820629 251)
J. A. Raulston to T. G. Campbell	(NEB 820129 301)
M. N. Sprouse to Those listed	(QEB 800808 008)
J. A. Raulston to L. M. Mills	(NEB 820803 256)
J. L. Parris to J. A. Raulston	(QEB 820816 003)
R. A. Costner to M. N. Sprouse	(QAS 820524 002)
E. G. Beasley to J. W. Anderson	(EDC 821117 011)
J. A. Raulston to L. M. Mills	(NEB 821020 271)

Letters

L. M. Mills to James P. O'Reilly, US NRC (A27 821021 017)

L. M. Mills to James P. O'Reilly, US NRC (A27 820827 016)

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

GNS '82 1129.053

TO : James L. Williams, Jr., Director of Purchasing, 1000 CUBB-C

FROM : H. N. Culver, Director of Nuclear Safety Review Staff, 249A HBB-K

DATE : November 29, 1982

SUBJECT: NUCLEAR SAFETY REVIEW STAFF (NSRS) FOLLOW-UP REVIEW R-82-23-PURCH OF DIVISION OF PURCHASING (PURCH) CORRECTIVE ACTION TO MAJOR MANAGEMENT REVIEW R-81-15-PURCH(BLN)

Attached is the NSRS report of the follow-up review of PURCH conducted on November 2, 1982. This review was scheduled following our notification by memorandum to you on September 20, 1982 (GNS 820920 054).

A total of six items had been opened by the subject major management review, and all six are closed by this report. PURCH personnel contacted were cooperative with the reviewers. John Cain and Dan Henry provided review materials and came to Knoxville in advance of the review to ensure that a proper understanding of each item had been achieved. We believe these efforts contributed to the efficiency of our review.

If you have any questions concerning the report, please contact John Mashburn at extension 6860 in Knoxville.



H. N. Culver

JWM:LML

Attachment

cc (Attachment):

G. F. Dilworth, E12D46 C-K
MEDS, W5B63 C-K

NSRS FILE

TENNESSEE VALLEY AUTHORITY
NUCLEAR SAFETY REVIEW STAFF
REVIEW

NSRS REPORT NO. R-82-23-PURCH

SUBJECT: FOLLOW-UP REVIEW OF CORRECTIVE ACTIONS TO MAJOR
MANAGEMENT REVIEW R-81-15-PURCH(BLN)

DATE OF
REVIEW: NOVEMBER 2, 1982

TEAM LEADER: John W. Masburn 11-17-82
JOHN W. MASBURN DATE

REVIEWER: Charles M. Schnupp 11/22/82
CHARLES M. SCHNUPP DATE

APPROVED BY: James A. Crittenden 11-23-82
JAMES A. CRITTENDEN DATE

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I. BACKGROUND

The Nuclear Safety Review Staff's (NSRS) major management review of the Division of Purchasing (PURCH) [R-81-15-PURCH(BLN)] contained six recommendations in six functional areas and was conducted in conjunction with a major management review of the Office of Engineering Design and Construction (OEDC) which concentrated on activities affecting the Bellefonte Nuclear Plant (BLN). During the review of PURCH, only activities which affected BLN were reviewed. NSRS received acceptable written responses from PURCH for the six recommendations and scheduled this follow-up review to verify implementation.

II. SCOPE

This follow-up review was conducted to verify correction action taken by PURCH in response to NSRS' major management review [report No. R-81-15-PURCH(BLN)]. Each of the six findings was addressed in the document review and again in personal interviews with a sample cross-section of PURCH management and purchasing agents (PA). The interviews were conducted on November 2, 1982.

III. SUMMARY AND CONCLUSIONS

This follow-up review was conducted by reviewing available documents, such as the newly issued PURCH QA manual and various items of correspondence. Onsite interviews with management and purchasing agents were also conducted to verify implementation of the corrected or enhanced program elements. It was concluded that all six items opened by report R-81-15-PURCH(BLN) are now closed. PURCH personnel were adequately informed and were performing their activities substantially in accordance with revised procedures and orders. The review team received excellent cooperation, in part, because PURCH had provided coordinators whose efforts streamlined the follow-up review. An itemized summary of the six items follows.

A. Status of Previously Identified Items

1. R-81-15-PURCH(BLN)-01, Establishment of a Distinct, Documented QA Program

This item is closed since PURCH has developed and implemented a new, separate controlled PURCH QA Manual. Refer to section IV.A.1 for details.

2. R-81-15-PURCH(BLN)-02, Resolution of QA Reviews for X- and Z-Type IQT or BPA Requisitions

This item is closed since the new PURCH QA Manual, PURCH-QAP 2, R0, "Procurement Document Control," requires all X- or Z-type IQT and BPA requisitions and contracts initiated by PURCH receive a technical and QA review by the Division of Engineering Design (EN DES) and/or the Division of Nuclear Power (NUC PR) before issuance of the request for Quotation or Invitation to Bid. Refer to section IV.A.2 for details.

3. R-81-15-PURCH(BLN)-03, QA Approval to Extend IQT or BPA Contracts Missing

This item is closed since the new PURCH QA Manual, PURCH-QAP 2, R0, contains a requirement for documenting telephone conversations regarding QA review for IQT and BPA requisitions, contracts, or extensions. Refer to section IV.A.3 for details.

4. R-81-15-PURCH(BLN)-04, Failure of Invitations to Bid (I/B) or Request for Quote (RFQs) to Receive Supervisory Review Prior to Document Transmittal

This item is closed since PURCH now requires the supervisory reviews prior to release of RFQs or I/Bs. Refer to section IV.A.4 for details.

5. R-81-15-PURCH(BLN)-05, Program to Evaluate Vendor Historical Quality Performance

This item is closed since PURCH is furnishing sufficient historical information to requisitioners. Refer to section IV.A.5 for details.

6. R-81-15-PURCH(BLN)-06, Need to Alert Vendors on Repair Items that Contract Provisions are Still in Effect

This item is closed since PURCH now requires its correspondence authorizing return for repair or nonconformity to remind vendors of the contract provisions. Also, the Division of Finance (FIN) has included a reminder on the Over, Short, Substituted, Damaged or Defective (OSSD or D) report form. Refer to section IV.A.6 for details.

IV. DETAILS

A. Status of Previously Identified Items

A detailed discussion of the corrective action taken for each of the six items follows:

1. R-81-15-PURCH(BLN)-01, Establishment of Distinct, Documented QA Program

This finding identified a problem with PURCH performing its QA interface and internal responsibility activities in accordance with detailed procedures in its nonbinding, uncontrolled Procurement Manual. Criterion II of Appendix B to 10CFR50 requires TVA as the "applicant" for a license to construct and operate a nuclear plant to establish a QA Program which complies with the requirements of Appendix B. Criterion I of Appendix B requires the authority and duties of persons and organizations performing activities affecting the safety-related functions of structures, systems, and components to be clearly established and delineated in

writing. In addition, the TVA QA Topical Report (TR-75-1A), which replaces Chapter 17 of the BLN FSAR, describes the TVA QA Program designed to satisfy the Appendix B requirements. Based on the above requirements and NSRS recommendation, PURCH has extracted the QA procedures which were located in the Procurement Manual, added additional procedures to satisfy Appendix B requirements, and developed a separate, controlled PURCH QA Manual for the accomplishment of QA activities. This QA Manual became effective November 21, 1981 and has been distributed to the applicable PURCH personnel. This item is closed.

2. R-81-15-PURCH(BLN)-02, Resolution of QA Reviews for X- and Z-Type IQT or BPA Requisitions

This finding identified a conflict between ID-QAP 4.2, R2, "Procurement Document Control by the Division of Purchasing," and paragraph 5.15, part 5 of section 20 to the Procurement Manual in regard to the handling of X- or Z-type IQT or BPA requisitions. ID-QAP 4.2, attachment 5, note 8, required that "all safety-related IQT or BPA requisitions which are initiated by PURCH will receive a technical and quality assurance review by either OEDC or POWER before issuance of the request for quotation or invitation to bid." Paragraph 5.15, part 5 of section 20 to the Procurement Manual specified that the purchasing agents (PA) should send or arrange to send IQT or BPA PURCH originated requisitions to one of the QA groups to assure proper QA review is received. NSRS' concern was that the manual's requirement was less than the actual practice. Also, it required the PA to decide what was safety-related. All X- or Z-type requisitions which were initiated by PURCH were actually sent to the applicable cognizant QA group for their review rather than determining if it was a safety-related requisition and forwarding it on or calling to find out if a QA review was required. With the issuance of the new PURCH QA Manual, this item has been resolved. Note 8 of attachment D of PURCH-QAP 2, R0, requires "that all X- or Z-type IQT and BPA requisitions and contracts which are initiated by PURCH will receive a technical and QA review by EN DES and/or NUC PR before issuance of the Request for Quotation or Invitation to Bid unless the QA review is not required by the requisitioner and documented by the PA." In addition, PURCH-QAP 2, attachments F and G, are forms to document PURCH submittals for (1) confirmation of determination per telephone conversation as to whether a QA review is required and (2) formally submitting X- or Z-type IQT or BPA requisitions or contracts for QA review. This item is closed.

3. R-81-15-PURCH(BLN)-03, QA Approval to Extend IQT or BPA Contracts Missing

The finding identified a problem because the requirements of section 20, paragraph 5.1.5 of the Procurement Manual for a

QA review in extending contract terms of existing X- or Z-type IQT or BPA contracts were not being followed. Essentially, the PA was to informally verify with the appropriate QA reviewing group that existing contract QA requirements had not changed since the last review. NSRS recommended that PURCH incorporate a transmittal request in ID-QAP 4.2 of the Purchasing Manual to alert the requisitioning organization's QA group of their responsibilities and the need by PURCH to document their request for extension and for QA acceptability. With the issuance of the new PURCH QA Manual, this item has been resolved. PURCH-QAP 2, attachment G, provides the method for documenting telephone conversations regarding QA review for IQT or BPA requisitions, contracts, or extensions. This item is closed.

4. R-81-15-PURCH(BLN)-04, Failure of Invitations to Bid (I/B) or Request for Quote (RFQs) to Receive Supervisory Review Prior to Document Transmittal

The basis of this finding was that ID-QAP 4.2 required the section supervisor to perform a review of the I/B or RFQ prior to document transmittal. Contrary to this, the supervisors were generally not performing the review of the actual documents; instead they reviewed a package used internally and from which final documents were prepared. This package contained the form TVA 411, "Invitation to Bid Worksheet," and attachments, typically from which the Contracts Unit would construct the final document package.

Subsequent to the NSRS review, PURCH instituted a 100 percent review of QA I/Bs and RFQs by having the final package returned to the purchasing agent from the Contracts Unit prior to reproduction. The purchasing agent and his supervisor then review the package and return it to Contracts. This is detailed in PURCH-QAP 2, section 2, and attachments A and D, note 2. This item is closed.

5. R-81-15-PURCH(BLN)-05, Program to Evaluate Vendor Historical Quality Performance

This item was offered as an enhancement to the PURCH program rather than a requirement. The Office of Power (POWER) and EN DES organizations had firm requirements to consider vendors' performance history in awarding new QA contracts. These requirements were in OP-QAP 7.1 and EN DES-EP 5.01. The reviewers found no evidence during the review that PURCH was supporting those organizations with available data and therefore recommended they do so.

Following issuance of the report, NSRS learned that PURCH had been furnishing basic data on all contracts to EN DES, but the data was not disseminated and most people in PURCH and EN DES were not aware of it. The follow-up review dis-

closed that PURCH was making progress in using vendor historical information for their own purposes. The Open Market Branch was planning to develop a program to capture performance data from contracts and use it in deciding on future invitations. Other branches were using MAMS computer information to assist a search if they had questions about a vendor. This item is closed.

6. R-81-15-PURCH(BLN)-06, Need to Alert Vendors on Repair Items that Contract Provisions are Still in Effect

NSRS had recommended notifications be added to TVA orders for repair or correction of nonconforming of vendor items. Such orders should contain a reminder to the vendor that provisions of the original contract were in effect, such as QA, TVA inspection prior to shipment, etc. PURCH has included a requirement to this effect in PURCH-QAP 2, section 2.G. Additionally, by request from NSRS to the Comptroller, the "Over, Short, Substituted, Damaged, or Defective," (OSSD or D) report form TVA 210, has been revised to carry the reminder. This item is closed.

V. PERSONS CONTACTED

- B. A. Boncutter, Supervisor, Open Market Electrical Section
- *N. A. Brown, Assistant to the Director
- *J. J. Cain, Supervisor, Procurement Studies Section
- J. B. Carden, Purchasing Agent, Materials Section
- C. R. Dodson, Assistant Chief, Nuclear Procurement Branch
- *D. E. Henry, Quality Assurance Engineer, Procurement Studies Section
- J. W. McCarter, Chief, Open Market Procurement Branch
- B. D. McNelley, Supervisor, Raw Materials and Building Supplies Section
- G. S. Ownsby, Staff Purchasing Agent, Materials Procurement Branch
- S. W. Palmer, Purchasing Agent, Open Market Section
- R. S. Patton, Supervisor, Nuclear Equipment Section
- D. A. Smith, Purchasing Agent, Nuclear Equipment Section
- *R. H. Sunderland, Chief, Procurement Support Staff

*Attended exit meeting.

VI. DOCUMENTS REVIEWED

- A. PURCH "Procurement Manual," Volumes I and II
- B. 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"
- C. ANSI N45.2.13-1976, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants"
- D. BLN Final Safety Analysis Report (FSAR), Chapter 17, "Quality Assurance"

- E. Division of Purchasing Quality Assurance Program Manual, R0, dated 10/21/82
- F. OP-QAP 7.1, R0, "Control of Purchased Material, Equipment, and Services"
- G. EN DES-EP 5.01, R2, "Purchase/Transfer Requisitions - Evaluation of Bids and Recommendation/Rejection of Contract Award - Revision to Contracts"
- H. NSRS Report No. R-81-15-PURCH(BLN) dated September 8, 1981 (GNS 810908 051)
- I. Memorandum from James L. Williams, Jr., to H. N. Culver dated October 6, 1982 (GNS 811009 100)
- J. Memorandum from John J. Cain to Jerry Stansberry dated October 26, 1982, "QA Related Changes to the Procurement Manual"
- K. Memorandum from R. H. Sunderland to Those listed dated May 25, 1982, "Supervisory Review of Quality Assurance Requirements to be Included in the Invitation to Bid or Request for Quotation"
- L. Memorandum from John J. Cain to Those listed dated October 25, 1982, "Distribution of Controlled Copy of Purchasing Quality Assurance Program Manual"
- M. Memorandum from James L. Williams, Jr., to Joe W. Anderson and H. J. Green dated October 28, 1982, "QA Training for Division of Purchasing"
- N. Memorandum from H. N. Culver to James L. Williams, Jr., dated September 20, 1982 (GNS 820920 054)
- O. Memorandum from James L. Williams, Jr., to H. N. Culver dated April 1, 1982 (GNS 820405 102)
- P. Memorandum from M. N. Sprouse to J. L. Williams, Jr., dated November 3, 1981 (QAS 811103 004)
- Q. Memorandum from L. M. Mills to Director of Nuclear Reactor Regulation, NRC, dated July 23, 1982 (NEB 820927 602)