

Public Service
Electric and Gas
Company

Thomas J. Martin
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October 24, 1985

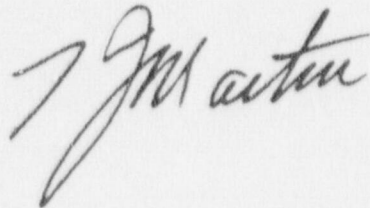
Dr. Thomas E. Murley, Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

INVESTIGATION RESULTS
ALLEGATION LETTER DATED 9/6/85
HOPE CREEK GENERATING STATION

Attached are the results of our investigation into the
allegations addressed in Region I's letter dated September 6,
1985.

Very truly yours,



Attachment

C NRC Resident Inspector - Hope Creek
P. O. Box 241
Hancocks Bridge, NJ 08038

8709290333 870924
PDR FOIA
MAXWELL87-413 PDR

B-1

REPORT OF INVESTIGATION
I&C CONCERNS
OCTOBER 23, 1985

Detailed below are the investigation results and corrective actions, as warranted, for the concerns expressed to the Hope Creek SAFETeam on August 26, 1985. Sections 1 and 2 below respond to the two (2) allegations conveyed by Region 1's letter dated September 6, 1985. Section 3 addresses additional concerns expressed by the same individual to SAFETeam and are included for your information.

We have evaluated the results of the Hope Creek SAFETeam investigation and consider it to be complete and adequate.

SECTION 1

- A. CONCERN GENERAL: The Concernee, an I&C Technician, was told by a superior named Bob Glass that if he "raised a stink" about his concerns he could lose his job. Despite this threat, he brought his concerns to SAFETeam.

The Concernee was recently demoted from a Foreman's position because of his "poor productivity resulting from his meticulous attention to Q rated packages." The Concernee agrees that he is meticulous, but feels dealing with nuclear power and the potential danger associated with it demands excessive attention to detail. However, he states that the reason for his demotion was due more to his unwillingness to return packages with inaccurate measurements. He claims the company is more interested in the generation of paperwork instead of doing an accurate job. So much so, that people are intimidated into signing off back-dated packages or worse, fabricating measurements to meet paperwork demands.

To support his claims, the Concernee has submitted a list of the most recent packages he returned to his Supervisor for various reasons.

INVESTIGATION: The SAFETeam interviewed sixteen (16) Instrumentation & Controls (I&C) Technicians from PSE&G and the Subcontractor. All have had similar problems on test packages concerning procedures and calibration requirements. All Technicians interviewed said these types of problems can be identified on the exception list in each test package or be taken to the responsible Startup Test Engineer (STE) to be corrected. In many cases, these problems are corrected the same day. All sixteen Technicians stated it was the responsibility of the Technicians to identify these types of problems.

The PSE&G Startup program, in addition to the commitments made per the PSE&G Quality Assurance Manual, provide vehicles to address and correct all of the problems identified herein. A

thorough review of the packages listed in this concern confirms this. PSE&G Management has assured SAFETEAM that it is not the policy of the company to dismiss or demote employees for expressing concerns of construction or operating practices at any of their facilities.

B. CONCERN: Package #GKC-D176 (GKC-0176)*

This package was returned because: 1) the procedure was improper; 2) the required data sheets did not accompany the package; 3) completion would require the installation of a jumper in a safety (Q rated) Motor Control Center to which access was prohibited. After discussing the situation with another Engineer, the Concernee realized that two other packages that required the same treatment were completed without the adjustments.

INVESTIGATION: Package #GKC-D176 (GKC-0176)* The procedure was improper. The General Test Instruction, GTI-02C-1258 Revision 0 (which was the improper procedure) was changed to GTI-02C-1258 Revision 1 on August 29, 1985. Revision 0 applied to one type of actuator only. Revision 1 incorporated three (3) types of actuators which includes the actuators addressed in test package GKC-0176.

The required data sheets did not accompany the package. After GTI-02C-1258 Revision 1 was approved for use, the responsible Test Engineer added the required data sheets to the test package. Completion does not require the installation of a jumper in a safety (Q rated) Motor Control Center to which access is prohibited. Engineering has informed us that the responsible Technician can and does obtain power from one of several alternate locations.

The other two packages referenced were GKC-0163 and GKC-0164. Although they originally had the same problem, the Test Engineer who corrected GKC-0176 was aware of the situation, corrected and reissued both packages. The original version has not been completed and accepted.

Test packages GKC-0176 and GKC-0163 are presently being worked in the field. Calibration and testing are not yet complete. Test package GKC-0164 was completed in the field, reviewed and accepted by the Startup Test Engineer October 12, 1985.

C. CONCERN: Package #GJC-0062.

This package was sent back because the General Testing Instrumentation was not sufficient for calibration. The Concernee believes that this package could have then been completed by the day shift (8-12-85).

Note: * actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

INVESTIGATION: Package #GJC-0062. The responsible Startup Test Engineer voided the package on September 12, 1985 because the calibration values did not agree with the calibration requirements. A new test package will be issued and will include all instruments from voided test package GJC-0062. Per conversation with Engineering, the new test package has not been generated and does not have a test package number yet assigned.

D. CONCERN: Package #AFC-0027 (AFC-0067, AFC-0258, and AFC-0227)*

In the 120 Level of the Reactor Building, transmitters 1531B and 1532B were originally tagged incorrectly. A company Startup Test Engineer realized the problem and simply switched the tags. This rendered the wiring incorrect and the calibration invalid. However the data was processed as accurate (8-9-85).

INVESTIGATION: Package #AFC-0027 (AFC-0067, AFC-0258 and AFC-0227)*. AFC-0027 is not the test package for transmitters 1531B and 1532B. Transmitters 1531B and 1532B are found in AFC-0227, AFC-0258 and AFC-0067. Transmitter 1531B was voided from test package AFC-0067 due to a lack of physical access to perform the test. The deviation for transmitter 1531B is documented on Startup Deviation Report (SDR) #AF-0094 as of May 23, 1985. Transmitter 1531B was tested using test package AFC-0258 on August 27, 1985. Review of test package AFC-0258 has not yet been accomplished.

Transmitter 1532B was initially calibrated on May 29, 1985 in test package AFC-0067. Startup Deviation Report #AF-0088 was written on May 20, 1985 to identify wiring corrections needed on transmitter 1532B. This was nine (9) days before the initial calibration. On June 25, 1985 Engineering closed SDR #AF-0088. At the time this concern was written (August 26, 1985) only one transmitter (1532B) had been calibrated. Concernee states that the wiring is incorrect and calibration is invalid. The wiring problem is identified on SDR #AF-0088. The responsible Technician also identified exactly how the wiring was done on the exception list in test package AFC-0067. Transmitter 1532B was calibrated again August 27, 1985 on test package AFC-0227. Transmitter 1531B was initially calibrated August 27, 1985 on test package AFC-0258 one day after this concern was written.

Thorough review of test packages AFC-0227, AFC-0258 and AFC-0067 has revealed that all problems encountered with these transmitters in regard to wiring and calibration have been effectively addressed in compliance with the Startup program.

Note: * () actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

E. CONCERN: Package #GSC-0194

The Concernee had to change the wiring to match the Logic Drawing J1057-0-5. However no action had been taken to correct the EE-580 program from which the wiring was done.

INVESTIGATION: Package #GSC-0194. On July 24, 1985 the same day of testing, the responsible Technician identified the wiring change on the exception list which is included in test package GSC-0194. On August 1, 1985 the responsible Test Engineer wrote SDR #GS-0195 and requested that the EE-580 program be updated to reflect the wiring change. Field Change Request (FCR) #E50.479 was then initiated on August 7, 1985 to make the required change on the EE-580 program. Block 8 on SDR #GS-0195 (the disposition accomplished block) is signed completed with the note "see FCR #E50.479, work completed by PSE&G" dated August 14, 1985. On October 15, 1985 SAFETEAM contacted Document Control and obtained a copy of the computer printed status report that verifies the EE-580 program was revised per FCR #E50.479.

F. CONCERN: Package #GKC-0044.

This package also was returned because the procedure was inadequate to perform a calibration. The Concernee was told that the day shift was again given this package and they completed it with no problems. A Procedure Writer was called into the situation and he made additions to the procedure, in effect concurring with the Concernees' handling of the problem. A big question here must be asked... what about similar packages? Were they completed without proper procedure?

INVESTIGATION: Package #GKC-0044. The procedure was inadequate to perform the required calibration. The instruments identified in test package GKC-0044 could not be calibrated with the scope of GTP-2 Revision 3 and GTI-02C-0026 Revision 0 Startup Procedures. For this reason, test package GKC-0044 was voided on August 5, 1985. The instruments identified in voided test package GKC-0044 have been re-issued in new test package GKC-0208. Test package GKC-0208 has been completed and is in the final stages of review.

When a procedure is revised, it is reviewed for impact to previously performed tests by the Test Engineer. Each test package has form #20-12 which is a Procedure Revision Review form. Test package GKC-0208 has form #20-12 which is signed by the responsible Test Engineer. Form #20-12 incorporated in this test package verifies that the procedure revision listed will have no impact on previous tests and no corrective action is necessary.

G. CONCERN: Package #OHB FT-N120 (HBC-0424)*

This package was returned because: 1) improper calibration data; 2) no vendor manual references; 3) calibration instructions. This package was then given to the day shift who completed it without a problem. The Concernee believes a review of this package would show that the indicated calibration was impossible.

INVESTIGATION: Package #OHB FT-N120 (HBC-0424)*. This is not a test package number: it is a component number. This component is found in test package HBC-0424. Review of this package shows that the indicated calibration is possible. The responsible Technician had to revise the input/output scale for calibration. This change was made August 7, 1985 and is clearly documented and approved by the Startup Test Engineer.

Vendor manual references are not required. Calibration procedures are referenced in this package. This test package (HBC-0424) has been completed and final review was accepted and signed off September 13, 1985.

H. CONCERN: Concernee stated that all Westinghouse Controllers are equipped with input/output conditioners that require an accuracy measurement of - - 0.016 Milliamps. Subject stated these conditioners were calibrated with equipment that did not meet specifications. The Concernee felt the accuracy level was too high anyway.

INVESTIGATION: SAFETEAM contacted PSE&G's Measurement & Test Equipment (M&TE) Supervisor and PSE&G I&C Startup Group Leader. These Supervisors stated the accuracy level called for on these Westinghouse Controllers was excessive in relationship to the overall accuracy requirement for the entire loop/system. Depending upon the application of the controller, the output of the controller is 4-20 Milliamps. For calibration purposes, the output is measured to an accuracy of +/- 0.1% of the span of the instrument.

The I&C Supervisor for PSE&G informed SAFETEAM that SDR GK-0206 was issued on July 25, 1985 to resolve this condition. The SDR stated that the available test equipment was adequate for calibration adequacy. This SDR confirms that Westinghouse Controllers model number 751C-1100/203-101/2212 have output range of 4-20 Milliamps with an accuracy level of +/- 0.1%. Since all controllers are used in control loops with positive feedback, output error is not a concern. The controller will automatically compensate for the error. SDR GK-0206 was dispositioned "use as is" for all cases and approved by PSE&G Site Engineering on September 5, 1985.

Note: * : actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

SDR ZC-0052 was initiated at the request of PSE&G QA to ensure the engineering justification for the "use as is" disposition is documented and readily retrievable.

Subsequently, PSE&G concluded that 0.1% of span was unnecessarily restrictive. SDR ZC-0045 providing 0.25% of span accuracy for all Westinghouse Controllers was approved by Site Engineering on September 20, 1985.

- I. CONCERN: In the company DITS (Design Installation & Testing Specifications) a statement reads, "no blowdown valves will be installed on instrument sensing lines." The Concernee observed that almost all sensing lines have blowdown valves installed. When he attempted to write a Field Question to clarify the situation, the Department Head said, "...forget it!"

INVESTIGATION: SAFETEAM contacted PSE&G Engineering and Bechtel Engineering and discussed this concern. After reviewing the Bechtel DITS, there is no statement that reads, "no blowdown valves will be installed on instrument sensing lines." The term "blowdown valve" is non-existent. The term "blowdown" is a process which clears instrument lines of any internal accumulated material. The use of hot blowdown for instrument lines is to be avoided. There is a statement in the Bechtel DITS that reads, "no instrument sensing line blowdowns will be provided except where no other practical alternative exists." Vents are to be used for releasing trapped air, backflushing, or prefilling of tubing systems. Vents shall not be used for blowdowns. The preferred methods to clear instrument lines of any accumulated material are flushing or backflushing.

- J. CONCERN: A Field Questionnaire was written addressing the use of compression fittings on Class 1 instrument piping (tubing). When the installation details specify welded fittings, the Concernee states that Bechtel claims they are allowed to use compression fittings because of an agreement allowing the Engineers to substitute a compression fitting in lieu of a welded fitting wherever he sees fit. PSE&G accepted the disposition of the request but the Concernee still questions this practice, particularly in the Torus area of the Reactor.

INVESTIGATION: SAFETEAM contacted Bechtel I&C Engineering in response to the above concern. It was stated by the I&C Engineer that all Class 1 connections for instrument tubing require welded fittings. Compression fittings are not substituted in Class 1 instrument systems. He further explained that no Class 1 instrument tubing is included in the Hope Creek design. All tubing is downstream of the excess flow check valves or piping system root valves and is designated Class 2 or 3 as appropriate.

SAFETEAM reviewed Drawing #J-G1010-3 Revision 4. This drawing indicates that all instrument tubing, both inside and outside the containment boundary is Class 2 or Class 3. SAFETEAM also reviewed Bechtel Project Specification #10855-J-825 (Q) for Control System Instrument Installation for Hope Creek. This specification states, "flareless tubing fittings may be substituted for welded fittings at the Field Engineers discretion." Compression fittings used at Hope Creek are purchased from Parker-Hannifin (PH) using the ASME Section III criteria. SAFETEAM reviewed a letter from Parker-Hannifin to Bechtel Power, Inc. This letter explained that PH has done numerous tests on these fittings to determine their reliability and that PH fittings have been widely used by the nuclear power industry with no reported fitting failures to date. The letter also explains that Parker-Hannifin is a Certified Nuclear Vendor and all nuclear class PH fittings have heat numbers which are traceable to the actual Mill Test Report.

SECTION 2

- A. CONCERN: During a walkdown in January in the 102 Level of the Reactor Building, the Concernee questioned the installation of a pipe hanger that was too close to a Motor Control Center (MCC). usually a three foot clearance is acceptable, but in this case, clearance was 12". The Concernee knew it was a violation of NEC regulation Article 110-16, but he was not the Electrical Engineer on the walkdown so he only questioned. The Bechtel Engineer who installed the hanger denied it was a violation. The Concernee then filed a Field Questionnaire in an effort to address the problem and in February he received a response. However, even though the response suggested a change in the clearance, no action has been taken in 6 months. This situation exists in 3 areas in the Reactor Building (three on El. 102, one on El. 77). Neither PSE&G nor Bechtel has acted. The Concernee suggested that if a visual inspection was necessary he would be happy to show an investigator to the hanger site. If this situation continues and someone is fatally injured, the Concernee believes that homicide charges could be brought against all who ignored the violation.

INVESTIGATION: During the investigation SAFETEAM contacted PSE&G Quality Assurance personnel, Electrical Site Engineering and Bechtel's Electrical Engineering department for information pertaining to this concern.

SAFETEAM performed an initial walkdown with PSE&G QA personnel to identify the location and unique identity number for each MCC in question. The MCC numbers and location are 10B232, 102', Area 15; 10B212, 102', Area 24; 10B222, 102', Area 16; and 10B242, 77', Area 13. The interfering supports were cable tray and conduit unistrut supports, not pipe supports as mentioned in the concern.

PSE&G Engineering and Construction has reviewed MCC numbers 10B232, 10B212 and 10B242 and have determined that the locations of the supports, while not a safety hazard, are an inconvenience for maintenance personnel performing maintenance on these MCC's. An Engineering Change Notice (ECN) #1793 has been generated and a Design Change Package (DCP) #615 has been issued by Bechtel Field Engineering for the redesign of these supports. The redesign will consist of relocation, elimination of the support member and a new support type to increase the distances between the front of the MCC's and the support members. This work shall be completed prior to fuel load.

PSE&G Electrical Site Engineering has evaluated MCC 10B222. The horizontal tray supports are installed above the MCC. These supports are located in an area where there are no internal adjustable or renewable parts. There is adequate working space to perform routine maintenance for MCC 10B222. This is in accordance with IEEE 141 (The Institute of Electrical and Electronics Engineers) and good engineering practice. Therefore PSE&G does not consider this item a violation of any safety codes and finds this configuration acceptable as is.

SECTION 3

- A. CONCERN: Originally, testing for I&C Technicians was required. In the beginning, the Technicians were scoring well. As the demand for Technicians increased, newly hired Technicians began to have trouble with the test. This resulted in coaching. At one point, a Technician made and circulated copies of the test. It is still not certain that all the copies have been recovered. Subject feels this indicates that the Technicians do not have the technical expertise to carry out their work accurately and their lack of ability has lead them to "...giving the boss what he wants," which is completed packages.

INVESTIGATION: SAFETEAM conducted a telephone interview with the I&C Lead who was in charge of giving the test. It should be noted that this individual is no longer on site. This Lead stated that the test was not a certification/qualification test; it was used only as a screening device to check common knowledge of I&C testing equipment. The Lead agreed that someone had made copies of the test. When this was discovered, all testing was stopped. Personnel are certified per Startup Administrative Procedure #15.

SAFETEAM interviewed PSE&G's I&C Supervisor. The Supervisor also stated that the test mentioned above was only a screening vehicle. This Supervisor was responsible for the implementation of this test. This test is not a part of SAP #15's requirement for Startup personnel. Certification/qualification requirements are outlined in SAP #15. PSE&G requires that all Technicians meet these requirements regardless if they are contractor personnel or site employees.

PSE&G is responsible for the background search of site employees. The contract firm that supplies I&C Technicians is required to assure PSE&G that their personnel are certifiable. To do this, the contract firm has enlisted the services of an independent background research firm. This firm known as TRI-states was contacted by telephone. The firm representative who spoke to SAFETEAM stated that personnel placed on this site by the contract firm are required to have 3 years construction experience and at least 1 year nuclear I&C experience to be qualified as a Level 1 Technician. These are minimum requirements.

SAFETEAM contacted PSE&G's Senior Staff Startup Engineer for Methods & Administration. He informed SAFETEAM that PSE&G receives a qualification letter from the contract firm which is attached to the form 15-9 of SAP #15. This form details the contract employee's past I&C employment and number of months employed with previous firms. This form is completed and placed in the employee's personnel file along with the qualification letter from the independent background firm. PSE&G I&C Supervisor and the Startup Engineer for Methods & Administration both stated that the requirements of SAP #15 had been satisfied. It should also be noted that the I&C Supervisor was satisfied with the overall quality of work that contract personnel produce.

SAFETEAM interviewed approximately 10% of the I&C Technicians. The Technicians interviewed stated that they were not pressured into signing off incorrect work packages. They also felt qualified to carry out the work listed in the I&C packages. Many Technicians stated that if anyone had a problem completing a specific job, there was plenty of support available from Supervisors or Startup Engineering personnel.

- B. CONCERN: The Concernee states that there is a basic lack of presence of Quality Assurance at Hope Creek. There has been little interface between the Concernee's company and QA. The Concernee was involved with the Incore Monitoring System for almost six weeks and he never saw QA personnel. When the company gets a Q packages, they are supposed to contact the QA Department. The most contact they have is a phone call. Usually QA never comes out to monitor anything. In fact, there are times when all the Concernee gets is an answering machine which logs the phone calls when QA is not around. The Concernee states that compared to other sites, QA at Hope Creek is non-existent.

INVESTIGATION: SAFETEAM contacted a PSE&G QA Engineer, a PSE&G QA Supervisor, the PSE&G QC Supervisor and interviewed the PSE&G Startup QA Engineer. The reply from the above responsible personnel was that the Nuclear Quality Assurance (NQA) Organization implements its portion of the Operational Quality Assurance Program through the use of procedures described in their Nuclear Quality Assurance Department Manual. Volume #GM9-1 of this manual states:

"Hope Creek QA Instructions shall remain applicable for the Hope Creek project Startup program and construction completion activities in accordance with the functional transfer provided by the transition plan."

The QC Supervisor stated that GM9-QAP 5-3 governs their inspection program and Attachment #1 of this procedure governs the guidelines for mandatory inspections. During the period 8/11/85 through 9/14/85 a total of 2,544 field inspections were performed. Of these 1,889 were mandatory inspections and 655 were non-mandatory inspections.

During the aforementioned time period, PSE&G QA performed extensive reviews of Startup TPR's. A total of 1,332 Test Package Requests were reviewed. Of these, 726 TPR's were accepted and 606 TPR's were rejected. There were a total of 1,579 Non-Q work orders verified. 850 Q work orders were reviewed, 688 accepted and 162 rejected.

To address Measure & Test Equipment, there were a total of 357 M&TE pieces received. Of these 323 were accepted and 34 rejected. All of the above was verified by reviewing PSE&G Weekly Reports and the PSE&G Hold Point Log.

In response to the concern about non QA involvement with the Incore Monitoring System, it was explained by the PSE&G QC Supervisor that this system is a complex system with some portions being Q and others being Non-Q. It is designed with electrical devices and monitoring devices which will monitor the activities inside the core of the Reactor. If the portion of the Incore Monitoring System in which the Concernee worked was Non-Q, there would be no need for QA involvement. If the portion of this system was Q in which the Concernee was involved, there would be Inspection Notification Points/Inspection Hold Points beyond which work may not proceed without QA being notified or beyond which work may not proceed until an inspection has been performed, witnessed or waived. The action taken depends on the importance of such testing because most tests will be run again during pre-operational testing.

SAFETEAM contacted the PSE&G Startup Manager to verify that Startup activities were receiving adequate support from PSE&G QA. The Startup Manager indicated to SAFETEAM the Quality Assurance staff was large enough to support their activities.

In reply to the concern about the answering machine, it was stated that the answering machine is rarely on during the day shift and mostly on at night when all inspection personnel are in the field and no one is in the office to monitor incoming calls.

C. CONCERN: Also reviewed is a hand written memo describing actions suggested to the Concernee addressing the accompanying two-package report forms. The Concernee was the Supervisor at the time of this report, but he cleared the package without an equipment list in order to provide the information and clean-up the report appearance. A second package form was drafted and back-dated to meet management demands. However, the equipment that then appeared on this list may not be the equipment checked when completing the package. Due to management pressures, the Concernee signed-off the second report also.

INVESTIGATION: In regard to the concern SAFETEAM pulled TPR BGC-0095. Copies of Valve/Damper Operating Test Record (Form 13.1) were provided to SAFETEAM. SAFETEAM investigated the possibility of the gauge listed (HC I&C 0006) on form 13.1 not being the gauge used to perform this test. SAFETEAM went to PSE&G I&C M&TE storage area and requested the usage log. After review the log, SAFETEAM was able to verify that gauge HC I&C 0006 was used on June 25, 1985 for TPR BGC-0095 by the Technician who also signed form 13.1 on June 25, 1985. All the documentation reviewed in the investigation of this concern verified that the gauge recorded on the 13.1 form was properly issued for this specific test.

SAFETEAM contacted PSE&G Startup Manager and discussed the concern. He stated that the use of the M&TE usage log is an acceptable method to verify that specific M&TE test equipment was used for a specific startup test. He also explained that the test would be re-performed if M&TE usage log could not support TPR. In reference to management pressure to sign documentation, he is unaware of any instance in which management has forced personnel to sign documentation.

Hope Creek SAFETeam
Hope Creek Generating Station
P. O. Box A
Hancocks Bridge, NJ 08038

October 28, 1985

Dear Concern No. 11043:

You took the opportunity for a Hope Creek Safety Concern Review and shared your concerns with the Hope Creek SAFETeam. We investigated the issues you brought to our attention and have described the results below.

In keeping with our promise to preserve your confidentiality, we are using the code number assigned to your interview to address this letter. After I signed this letter, the secretary of the independent firm hired to conduct the interviews and assure you anonymity produced the envelope by matching the number above with your name and address.

You expressed several concerns about the construction performed at Hope Creek. SAFETeam has investigated your identified concerns and submit to you the following responses.

You indicated that you were told by a superior named Bob Glass, that if you "raised a stink" about your concerns you could lose your job. Despite this threat, you brought the concerns to SAFETeam.

You were recently demoted from a Foreman's position because of your "poor productivity resulting from your meticulous attention to Q rated packages." You agree that you are meticulous, but feel dealing with nuclear power and the potential danger associated with it, demands excessive attention to detail. However, you state that the reason for the demotion was due more to your unwillingness to return packages with inaccurate measurements. You claim the company is more interested in the generation of paperwork instead of doing an accurate job. So much so that people are intimidated into signing off back-dated packages or worse fabricating measurements to meet paperwork demands. (1)

To support your claims, you have submitted a list of the most recent packages you returned to your Supervisor for various

reasons. The SAFETeam interviewed sixteen Instrumentation and Controls (I&C) Technicians from PSE&G and the Subcontractor. All have had similar problems on Test Packages concerning procedures and calibration requirements. All Technicians interviewed said these types of problems can be identified on the exception list in each test package or be taken to the responsible STE to be corrected. In many cases these problems are corrected the same day. All sixteen Technicians stated it was the responsibility of the Technicians to identify these types of problems. (2)

The PSE&G Startup program, in addition to the commitments made per the PSE&G Quality Assurance manual, provide vehicles to address and correct all of the problems identified herein. A thorough review of the packages listed in this concern confirms this. PSE&G management has assured SAFETeam that it is not the policy of the company to dismiss or demote employees for expressing concerns of construction or operating practices at any of their facilities.

Package # GKC-D176 *(GKC-0176)

This package was returned because,

1. The procedure was improper;
2. the required data sheets did not accompany the package;
3. completion would require the installation of a jumper in a safety (Q rated) Motor Control Center to which access was prohibited. After discussing the situation with another Engineer, you realized that two other packages that required the same treatment were completed without the adjustments.

Package # GKC-D176 *(GKC-0176) The procedure was improper. The General Test Instruction GTI-02C-1258 Revision 0 (which was the improper procedure) was changed to GTI-02C-1258 Revision 1 on August 29, 1985. Revision 0 applied to one type of actuator only. Revision 1 incorporated three types of actuators which includes the actuators addressed in Test Package GKC-0176. (3)

The required data sheets did not accompany the package. After GTI-02C-1258 Revision 1 was approved for use the responsible Test Engineer added the required data sheets to the test package. Completion does not require the installation of a jumper in a safety (Q rated) Motor Control Center to which access is prohibited. Engineering has informed us that the responsible Technician can and does obtain power from any one of several alternate locations. (3.5)

Note: * () actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

The two packages which required the same treatment are GKC-0163 and GKC-0164. These packages were not completed without adjustments. They had never been reviewed and signed-off by the responsible Test Engineer. The Engineer who made the changes (the revision change on procedure and the addition of required data sheet in package GKC-0176) was aware of these problems on GKC-0163 and GKC-0164. He added the required data sheets and changed the procedure revision from GTI-02C-1258 Revision 0 to GTI-02C-1258 Revision 1.

Test packages GKC-0176 and GKC-0163 are presently being worked in the field. Calibration and testing are not yet complete. Test package GKC-0164 was completed in the field, reviewed and accepted by the Startup Test Engineer October 12, 1985.

Package # GJC-0062.

This package was sent back because the General Testing Instrumentation was not sufficient for calibration. You believe that this package could have then been completed by the day shift (8-12-85).

Package # GJC-0062. The responsible Startup Test Engineer voided the package on September 12, 1985 because the calibration values did not agree with the calibration requirements. A new test package will be issued and will include all instruments from voided test package GJC-0062. Per conversation with Engineering, the new test package has not been generated and does not have a test package number assigned yet. (4)

Package # AFC-0027 *(AFC-0067, AFC-0258, and AFC-0227)

In the 120 Level of the Reactor Building, transmitters 1531B and 1532B were originally tagged incorrectly. A company Startup Test Engineer realized the problem and simply switched the tags. This rendered the wiring incorrect and the calibration invalid. However the data was processed as accurate (8-9-85).

Package # AFC-0027 *(AFC-0067, AFC-0258, and AFC-0227) AFC-0027 is not the test package for transmitters 1531B and 1532B. Transmitters 1531B and 1532B are found in AFC-0227, AFC-0258 and AFC-0067. Transmitter 1531B was voided from test package AFC-0067 due to a lack of physical access to perform the test. The deviation for transmitter 1531B is documented on Startup Deviation Report (SDR) #AF-0094, as of May 23, 1985. Transmitter 1531B was tested using test package AFC-0258 on August 27, 1985. Review of test package AFC-0258 has not yet been accomplished. (5)

Note: * () actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

Transmitter 1532B was initially calibrated on May 29, 1985 in test package AFC-0067. Startup Deviation Report #AF-0088 was written on May 20, 1985 to identify wiring corrections needed on transmitter 1532B. This was nine (9) days before the initial calibration. On June 25, 1985 Engineering closed SDR #AF-0088. At the time this concern was written (August 26, 1985) only one transmitter (1532B) had been calibrated. You state that the wiring is incorrect and calibration is invalid. The wiring problem is identified on SDR #AF-0088. The responsible Technician also identified exactly how the wiring was done on the exception list in test package AFC-0067. Transmitter 1532B was calibrated again August 27, 1985 on test package AFC-0227. Transmitter 1531B was initially calibrated August 27, 1985 on test package AFC-0258, one day after this concern was written.

Thorough review of test packages AFC-0227, AFC-0258 and AFC-0067 has revealed that all problems encountered with these transmitters in regard to wiring and calibration have been effectively addressed in compliance with the Startup program.

Package # GSC-0194.

You had to change the wiring to match the Logic Drawing J4057-0-5. However no action had been taken to correct the EE-580 program from which the wiring was done. (7-25-85).

Package # GSC-0194. On July 24, 1985, the same day of testing, the responsible Technician identified the wiring change on the exception list which is included in test package GSC-0194. On August 1, 1985 the responsible Test Engineer wrote Startup Deviation Report (SDR) #GS-0195 and requested that the EE-580 program be updated to reflect the wiring change. Field Change Request (FCR) #E50.479 was then initiated on August 7, 1985 to make the required change on the EE-580 program. Block 8 on SDR #GS-0195 (the disposition accomplished block) is signed completed with the note "see FCR #E50.479 work completed by PSE&G," it is dated August 14, 1985. On October 15, 1985 SAFETEAM contacted Document Control and obtained a copy of the computer printed status report that verifies the EE-580 program was revised per FCR #E50.479. (6)

Package # GKC-0044.

This package also was returned because the procedure was inadequate to perform a calibration. You were told that the day shift was again given this package and they completed it with no problems. A Procedure Writer was called into the situation, and he made additions to the procedure, in effect concurring with your handling of the problem. A big question here must be asked. . . what about similar prior packages? Were they completed without proper procedure? (7)

Package # GKC-0044. The procedure was inadequate to perform the required calibration. The instruments identified in test package GKC-0044 could not be calibrated within the scope of GTP-2 Revision 3 and GTI-02C-0026 Revision 0 Startup Procedures. For this reason test package GKC-0044 was voided on August 5, 1985. The instruments identified in voided test package GKC-0044 have been redefined in new test package GKC-0208. Test package GKC-0208 has been completed and is in the final stages of review. (7.5)

When a procedure is revised, it is reviewed for impact to previously performed tests by the Test Engineer. Each test package has form #20-12 which is a Procedure Revision Review form. Test package GKC-0208 has form #20-12 which is signed by the responsible Test Engineer. Form #20-12 incorporated in this test package verifies that the procedure revision listed will have no impact on previous tests and no corrective action is necessary.

Package # OHB FT-N120 *(HBC-0424)

This package was returned because of 1. improper calibration data; 2. no vendor manual references; 3. calibration instructions. This package was then given to the day shift who completed it without a problem. You believe a review of this package would show that the indicated calibration was impossible.

Package # OHB FT-N120 *(HBC-0424) This is not a test package number, it is a component number. This component is found in test package HBC-0424. Review of this package shows that the indicated calibration is possible. The responsible Technician had to revise the input/output scale for calibration. This change was prepared August 7, 1985 and is clearly documented and approved by the Startup Test Engineer. (8)

Vendor manual references are not required. Calibration procedures are referenced in this package. This test package (HBC-0424) has been completed and final review was accepted and signed off September 13, 1985.

You stated that all Westinghouse Controllers are equipped with input/output conditioners that require an accuracy measurement of +/- 0.016 Milliamps. You stated these conditioners were calibrated with equipment that did not meet specifications. You felt the accuracy level was too high anyway.

SAFETeam contacted PSE&G's Measurement & Test Equipment (M&TE) Supervisor and PSE&G I&C Startup Group Leader. These Supervisors stated the accuracy level called for on these Westinghouse

Note: * () actual Test Package Request (TPR) number existing and reviewed for investigation purposes.

Controllers was excessive in relationship to the overall accuracy requirement for the entire loop/system. Depending upon the application of the controller, the output of the controller is 4-20 Milliamps. For calibration purposes, the output is measured to an accuracy of $\pm 0.1\%$ of the span of the instrument.

The I&C Supervisor for PSE&G informed SAFETeam that SDR GK-0206 was issued on July 25, 1985 to resolve this condition. The SDR stated that the available test equipment was adequate for calibration adequacy. This SDR confirms that Westinghouse Controllers model number 751C-1100/203-101/2212 have output range of 4-20 Milliamps with an accuracy level of $\pm 0.1\%$. Since all controllers are used in control loops with positive feedback, output error is not a concern. The controller will automatically compensate for the error. SDR GK-0206 was dispositioned "use as is" for all cases and approved by PSE&G Site Engineering on September 5, 1985. (9)

SDR ZC-0052 was initiated at the request of PSE&G QA to ensure the engineering justification for the "use as is" disposition is documented and readily retrievable. (9.5)

Subsequently, PSE&G concluded that 0.1% of span was unnecessarily restrictive. SDR ZC-0045 providing 0.25% of span accuracy for all Westinghouse Controllers was approved by Site Engineering on September 20, 1985.

You state in the company DITS (Design Installation Test Specs.) a statement reads, "No blowdown valves will be installed on instrument sensing lines."

You observed that almost all sensing lines have blowdown valves installed. When you attempted to write a Field Question to clarify the situation the Department Head said, "...forget it!"

SAFETeam contacted PSE&G Engineering and Bechtel Engineering and discussed your concern. After reviewing the Bechtel Design Installation Test Specifications (DITS), there is no statement that reads "no blowdown valves will be installed on instrument sensing lines." The term "blowdown valve" is non-existent. The term "blowdown" is a process which clears instrument lines of any internal accumulated material. The use of hot blowdown for instrument lines is to be avoided. There is a statement in the Bechtel DITS that reads "no instrument sensing line blowdowns will be provided except where no other practical alternative exists." Vents are to be used for releasing trapped air, backflushing, or prefilling of tubing systems. Vents shall not be used for blowdowns. The preferred methods to clear instrument lines of any accumulated material are flushing or backflushing. (10)

You state a Field Questionnaire was written addressing the use of compression fittings on Class 1 instrument piping [tubing]. When the installation details specify welded fittings, you state that Bechtel claims they are allowed to use compression fittings because of an agreement they reached with PSE&G. A note or memo

was circulated allowing the Engineers to substitute a compression fitting in lieu of a welded fitting wherever he sees fit. PSE&G accepted the disposition of the request but the Concernee still questions this practice, particularly in the Torus area of the Reactor.

SAFETEM contacted Bechtel I&C Engineering in response to the above concern. It was stated by the I&C Engineer that all Class 1 fittings for instrument piping are welded fittings. Compression fittings are not substituted for Class 1 instrument systems. He then explained that no Class 1 instrument tubing is being installed at Hope Creek. He also explained that Class 1 or 2 instrument lines are changed to Class 2 or 3 category downstream of either the root valve or the excess flow check valve. These are the first valves downstream of the process piping.

SAFETEM reviewed Drawing #J-G1010-3, Revision 4. This drawing indicates that all instrument tubing, both inside and outside the containment boundary are Class 2 or Class 3. SAFETEM also reviewed Bechtel Project Specification #10855-J-825 (Q) for Control System Instrument Installation for Hope Creek. This specification states:

"Flareless tubing fittings may be substituted for welded fittings at the Field Engineers discretion." → 11

Compression fittings used at Hope Creek are purchased from Parker-Hannifin using the ASME Section III criteria. SAFETEM reviewed a letter from Parker-Hannifin to Bechtel Power Inc. This letter explained that PH (Parker-Hannifin) has done numerous tests on these fittings to determine their reliability and that Parker-Hannifin fittings have been widely used by the nuclear power industry with no reported fitting failures to date. The letter also explains that Parker-Hannifin is a Certified Nuclear Vendor, and all nuclear class PH fittings have heat numbers which are traceable to the actual Mill Test Report.

An additional concern states: Originally testing for I&C Technicians was required. In the beginning the technicians were scoring well. As the demand for technicians increased newly hired technicians began to have trouble with the test. This resulted in coaching. At one point, a technician made and circulated copies of the test. It is still not certain that all the copies have been recovered. Subject feels this indicates that the technicians do not have the technical expertise to carry out their work accurately and their lack of ability has led them to "...giving the boss what he wants..." which is completed packages

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SAFETEAM conducted a telephone interview with the Instrument & Calibration (I&C) Lead who was in charge of giving the test. It should be noted that this individual is no longer on site. This Lead stated that the test was not a certification/qualification test, it was used only as a screening device to check common knowledge of I&C testing equipment. The Lead agreed that someone had made copies of the test. When this was discovered, all testing was stopped. Personnel are certified per Startup Administration Procedure #15 (SAP).

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SAFETEAM interviewed PSE&G's I&C Supervisor. The Supervisor also stated that the test mentioned above was only a screening vehicle. This Supervisor was responsible for the implementation of this test. This test is not a part of SAP #15's requirement for Startup personnel. Certification/qualification requirements are outlined in SAP #15. PSE&G requires that all technicians meet these requirements regardless if they are contractor personnel or site employees.

PSE&G is responsible for the background search of site employees. The contract firm that supplies I&C Technicians is required to assure PSE&G that their personnel are certifiable. To do this the contract firm has enlisted the services of an independent background research firm. This firm known as TRI-States was contacted by telephone. The firm representative who spoke to SAFETEAM stated that personnel placed on this site by the contract firm are required to have 3 years construction experience and at least 1 year nuclear I&C experience to be qualified as a Level I Technician. These are minimum requirements.

12.5

SAFETEAM contacted PSE&G's Senior Staff Startup Engineer for Methods & Administration. He informed SAFETEAM that PSE&G received a qualifications letter from the contract firm which is attached to the form 15-9 of SAP #15. This form details the contract employees past I&C employment and number of months employed with previous firms. This form is completed and placed in the employees personnel file along with the qualification letter from the independent background firm. PSE&G's I&C Supervisor and the Startup Engineer for Methods & Administration both stated that the requirements of SAP #15 had been satisfied. It should also be noted that the I&C Supervisor was satisfied with the overall quality of work that contract personnel produce.

SAFETEAM interviewed approximately 10% of the I&C Technicians. The Technicians interviewed stated that they were not pressured into signing off incorrect work packages. They also felt qualified to carry out the work listed in the I&C packages. Many Technicians stated that if anyone had a problem completing a specific job, there was plenty of support available from Supervisors or Startup Engineering personnel.

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You state that there is a basic lack of presence of Quality Assurance at Hope Creek. There has been little interface between your employer and Quality Assurance. You were involved with the Incon Monitoring System for almost six (6) weeks, and you never saw QA personnel. When the company gets a Q package, they are supposed to contact the QA Department. The most contact they have however is a phone call. Usually QA never comes out to monitor anything. In fact, there are times when all you got was an answering machine which logs the phone calls when QA is not around. You state that compared to other sites, QA at Hope Creek is non-existent.

SAFETeam contacted a PSE&G Quality Assurance Engineer, a PSE&G QA Supervisor, the PSE&G Quality Control Supervisor, and interviewed the PSE&G Startup QA Engineer. The reply from the above responsible personnel was that the Nuclear Quality Assurance (NQA) Organization implements its portion of the Operational Quality Assurance Program through the use of procedures described in their Nuclear Quality Assurance Department Manual. Volume #GM9-1 of this manual states:

"Hope Creek QA Instructions shall remain applicable for the Hope Creek Project Startup Program and construction completion activities in accordance with the functional transfer provided by the transition plan."

The QC Supervisor stated that GM9-1, QAP 5-3 governs their inspection program and Attachment #1 of this procedure governs the guidelines for mandatory inspections. During the period 8/11/85 through 9/14/85, a total of 2,544 field inspections were performed. Of these inspections 1,889 mandatory inspections and 655 non-mandatory inspections were performed.

During the aforementioned time period, PSE&G performed extensive reviews of Startup TPR's. A total of 1,332 Test Package Requests (TPR) were reviewed. Of these 726 TPR's were accepted and, 606 TPR's were rejected. There was a total of 1,579 non-Q work orders verified. 850 Q work orders were reviewed, 688 accepted, and 162 rejected.

To address Measure & Test Equipment, there was a total of 357 M&TE pieces received. Of these 323 were accepted and 34 rejected. All the above was verified by reviewing PSE&G Weekly Reports and the PSE&G Hold Point Log.

In response to the concern about the lack of QA involvement with the Incon Monitoring System, it was explained by the PSE&G QC Supervisor that this system is a complex system with some portions being Q and others being non-Q. It is designed with electrical devices and monitoring devices which will monitor the activities inside the core of the Reactor. If the portion of the Incon Monitoring System in which the Concernee worked was non-Q,

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14.1

there would be no need for QA involvement. If the portion of this system was Q in which the Concernee was involved, there would be Inspection Notification Points (INP)/Inspection Hold Points (IHP) beyond which work may not proceed without QA being notified or beyond which work may not proceed until an inspection has been performed, witnessed or waived. The action taken depends on the importance of such testing because most tests will be run again during pre-operational testing. During the period of 7/16/85 through 9/3/85 only two (2) work order/work packages were waived.

14.1
(CONT)

SAFETEAM contacted the PSE&G Startup Manager to verify that Startup activities were receiving adequate support from PSE&G Quality Assurance. The Startup Manager indicated to SAFETEAM the Quality Assurance staff was large enough to support their activities.

In reply to your concern about the answering machine, it was stated that the answering machine is rarely on during the day shift and mostly on at night when all inspection personnel are in the field and no one is in the office to monitor incoming calls.

Also in response to this concern a NRC Systematic Assessment of Licensee Performance (SALP) was reviewed by SAFETEAM. This report was initiated by the NRC Region 1, dated 11/23/84. The report states in part that the Quality Assurance and Control Program was found to be effective and is based upon adequate policies and procedures. The report further states that QA surveillances and audits were well scheduled and effectively conducted.

14.2

Your concern states: Attached is a hand written memo describing actions suggested to you, addressing the accompanying two-package report forms. You were Supervisor at the time of this report, and cleared the package without an equipment list in order to provide the information and clean-up the report appearance. A second package form was drafted and back-dated to meet management demands. However, the equipment that then appeared on this list may not be the equipment checked when completing the package. Due to management pressures you signed-off the second report also.

In regard to your concern SAFETEAM pulled the Test Package Release (TPR) BGC-0095 of which you provided copies of Valve/Damper Operating Test Record (Form 13.1) to SAFETEAM. SAFETEAM investigated the possibility of the gauge listed (HC I&C 0006) on form 13.1 not being the gauge used to perform this test. SAFETEAM went to PSE&G Instrument & Calibration (I&C) measurement and test equipment (M&TE) storage area and requested M&TE usage log. After reviewing the M&TE usage log, SAFETEAM was able to verify that gauge HC I&C 0006 was used on June 25, 1985 for TPR BGC-0095, component 1BG-HVF033. The usage log was signed

June 25, 1985 by the technician who also signed form 13.1 on June 25, 1985. All the documentation reviewed in the investigation of this concern verifies that the gauge recorded on the 13.1 form was properly issued for this specific test.

SAFETeam contacted PSE&G Startup Manager and discussed your concern. He stated that the use of the M&TE usage log is an acceptable method to verify specific M&TE test equipment as used for a specific startup test. He also explained that the test would be re-performed if M&TE usage log could not support TPR. In reference to management pressure to sign documentation, he is unaware of any instance in which management has forced personnel to sign documentation.

Lastly, is the most pressing concern you expressed. During a walkdown in January in the 102 level of the Reactor Building, you questioned the installation of a pipe hanger that was too close to a Motor Control Center (MCC). Usually a three foot clearance is acceptable, but in this case clearance was 12". The Concernee knew it was a violation of NEC regulation, Article 110-16, but he was not the Electrical Engineer on the walkdown so he only questioned. The Bechtel Engineer who installed the hanger denied it was a violation. The Concernee then filed a Field Questionnaire addressing the problem, and in February you received a response. However, even though the response suggested a change in the clearance, no action has been taken in 6 months. This situation exists in 3 areas in the Reactor Building (three on El. 102, one on El 77). Neither PSE&G nor Bechtel has acted. You suggested that if a visual inspection was necessary you would be happy to show an investigator to the hanger site. If this situation continues and someone is fatally injured, you believe that homicide charges could be brought against all who ignored the violation. (15) (15.1)

Your concern regarding pipe supports being too close to Motor Control Centers (MCC) has been investigated by the SAFETeam at Hope Creek Generating Station.

During the investigation SAFETeam contacted PSE&G Quality Assurance Personnel, Electrical Site Engineering and Bechtel's Electrical Engineering Department for information pertaining to your concern.

SAFETeam performed an initial walkdown with PSE&G Quality Assurance Personnel to identify the location and unique identity number for each MCC in question. The MCC numbers and location are 10B232, 102', Area 15; 10B212, 102', Area 24; 10B222, 102', Area 16, and 10B242, 77', Area 13. The interfering supports were cable tray and conduit unistrut supports, not pipe supports as mentioned in the concern. (15.2)

PSE&G Engineering and Construction has reviewed MCC numbers 10B232, 10B212, and 10B242 and have determined that the locations of the supports while not a safety hazard are an inconvenience for maintenance personnel performing maintenance on these Motor Control Centers. An Engineering Change Notice (ECN) #1793 has been generated and a Design Change Package (DCP) #615 has been issued by Bechtel Field Engineering for the redesign of these supports. The redesign will consist of relocation, elimination of the support member, and a new support type to increase the distances between the front of the MCC's and the support members. This work shall be completed prior to fuel load.

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PSE&G Electrical Site Engineering has evaluated Motor Control Center #10B222. The horizontal tray supports are installed above the MCC. These supports are located in an area where there are no internal adjustable or renewable parts. There is adequate working space to perform routine maintenance for MCC #10B222. This is in accordance with IEEE 141 (The Institute of Electrical and Electronics Engineers) and good engineering practice. Therefore PSE&G does not consider this item a violation of any safety codes and finds this configuration acceptable as is.

15.4

I would like to thank you for sharing your concern with us and I hope that our explanation fully answers your questions. Your interest in helping PSE&G assure that Hope Creek operates safely and reliably is appreciated.

Should you have any further questions about this issue or any others that you wish to share, please write or call the Hope Creek SAFETEAM. If you write, please identify yourself only by the identification code number above. Should you wish to call, the toll free telephone number is 1-800-932-0593. If you call us after our usual operating hours (Monday through Friday, 8:30 a.m. to 4:30 p.m.), please leave your code number and telephone number with our answering machine so that we can get back to you.

Sincerely,


E. A. Gilligan
Manager, SAFETEAM

EAG/dlc



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Annette
Vieth-Cook

JUL 18 1985

MEMORANDUM FOR: James M. Taylor, Director
Office of Inspection and Enforcement

Hugh L. Thompson, Director
Division of Licensing
Office of Nuclear Reactor Regulation

FROM: B. J. Youngblood, Chief, Licensing Branch #1
Division of Licensing
Office of Nuclear Reactor Regulation

Walter P. Haass, Vendor Programs Branch
Division of Quality Assurance, Vendor and Technical
Training Center Programs
Office of Inspection and Enforcement

SUBJECT: AUDIT OF SAFE TEAM ACTIVITIES AT FERMI 2

On June 27 and 28, 1985, the writers performed an audit of selected SAFE TEAM allegation files at the FERMI 2 facility of Detroit Edison (DECo) with the objective of determining the effectiveness of the DECo program for resolving safety concerns relative to the Quality First program by KG&E for the Wolf Creek facility. The salient conclusions of this comparative study are as follows:

1. A total of 15 allegor files consisting of 73 concerns was reviewed. The files reviewed were selected from a list of files reviewed by OI during audits on June 11-13 and 18-20, 1985. A total of ~900 allegation files have been opened under SAFE TEAM comprising a total of 1868 concerns; 1845 concerns have been closed as of June 21, 1985.
2. It was found that the program and its implementation were generally similar to those at the Wolf Creek plant. However, the implementation at FERMI 2 was determined to be less rigorous.
3. Specific areas of less rigor at FERMI 2 were:
 - a. Occasionally noted a lack of diligence in pursuing a concern by not obtaining more specificity through the interview process.
 - b. Occasionally noted that a concern was closed by citing the existence of a procedure or training. This rationale was used to invalidate an allegation without reviewing the implementation specific to the identified concern.

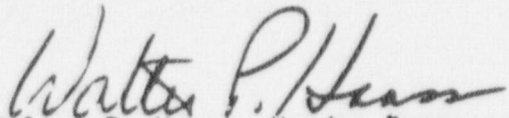
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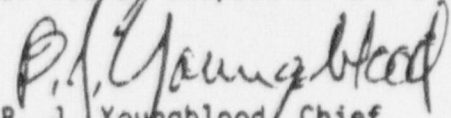
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- c. No formalized documents such as Quality First Action Requests (QFARs) or Quality First Investigative Reports (QFIRs) were observed in the SAFE TEAM files. As a result the breadth and depth of reviews were less at FERMI 2.
 - d. Saw no attempts to determine generic applicability of a concern by investigating other potentially affected areas.
 - e. Saw no documentation to assess reportability of a concern under Part 50.55(e).
4. The process for interviewing allegeders was reviewed with the following results:
- a. The nature of the process seems to be conducive to protection of confidentiality and to eliciting concerns.
 - b. Lack of technical expertise and investigator-type experience hindered the obtaining of specific information. This in combination with item 3a above often resulted in a generalized allegation that was closed out in too casual a fashion.
5. The resources expended by DECo for SAFE TEAM appeared to be considerably less than expended by KG&E for Quality First.
6. The overall conclusions of this audit effort are that the SAFE TEAM program appears to be generally adequate and is implemented in a generally acceptable manner. As noted above, weaknesses in the program were evident, but they do not appear to be over-riding. No significant safety problems were noted. This audit did not include a followup of hardware corrective actions within the plant.


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