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November 29, 1989

William G. Council  
Vice-Chairman  
TU Electric  
2001 Bryan Tower  
Dallas, TX 75201

Christopher Grimes, Director  
Office of Special Projects  
Comanche Peak Project Division  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: Documented Request for Action  
(re: Thermo-Lag/50.57 dispute between  
CASE and TU Electric)  
Docket Nos.: 50-445, 50-446

Dear Messrs. Council and Grimes:

Confirming our verbal notification on November 13, 1989, to TU Electric and the NRC, this letter is to formally notify you of a dispute between the Citizens Association for Sound Energy (CASE) and TU Electric over a November 2, 1989, incident between a Quality Control Inspector and his management concerning an instruction to not write a non-conformance report (NCR) on identified deficiencies in Thermo-Lag received on the Comanche Peak site from Thermal Science, Inc., and to request action by the NRC in regards to this incident.

Pursuant to Paragraph B.3 of the Joint Stipulation between the parties, CASE informed TU Electric of their concern regarding this issue on November 8, 1989. On November 16, 1989, TU Electric notified CASE of the preliminary results of their investigation. A copy of the November 16, 1989, letter (LIT-89/633) are enclosed for your information as Attachment 1.

CASE recognizes that TU has not finalized their review of this matter. However, we are elevating this matter to the dispute stage because TU Electric has not taken immediate remedial action to address this matter. It is CASE's position that TU should have already taken prompt action in response to this incident that indisputably involved instructions by management to a QC inspector to not write an NCR, or otherwise follow instructions and procedures.

CASE believes that the failure of TU Electric to do so has sent the message to other inspectors and supervisors within the QC Receiving Department (and possibly other departments) that management prerogative overrides mandated procedures. Additionally, since the person giving the instruction was a Level III inspector and his instruction was acquiesced to by the QC supervisor, the additional message has been sent that both procedures and the direct chain of authority for QC inspectors may be arbitrarily overridden to accommodate scheduling concerns, "critical path" items, and other issues such as regulatory concerns.

We believe that the actions by TU Electric to date violate the provisions of 10 C.F.R. 50.7 and 10 C.F.R., Part 50, Appendix B, Criterion I, which requires that applicants for an operating license maintain an environment for their workforce free from any type of pressure, coercion, harassment, intimidation or even innuendo that suggest not following QC procedures, including taking action to insure that inspectors are free to identify nonconforming conditions.

Specifically, CASE requests that the NRC independently conduct an inspection/investigation of the following issues:

- a. The incident of November 2, 1989.

This incident revolved around the words spoken by a Level III inspector to a QC inspector in front of other QC personnel in the department. Those words were, "We will not write NCR's on Thermo-Lag," or words to that effect. There was no discussion between that inspector and the Level III at that time, or before the inspector's lay-off later that same day, that the identified deficiencies in Thermo-Lag should be written on an unsat Inspection Report.

That instruction, coupled with the already-established history of identifying non-conforming Thermo-Lag material on NCRs, the extent of the identified deficiencies in the material (up to 100% rejection rate on some material), and the previous existing problems in similar aspects of the Thermo-Lag program, convince CASE that the response provided by TU Electric in their November 16, 1989, letter, part A, is inadequate. The explanation, absent any prompt remedial

action by management to insure that the quality control staff could not and did not misinterpret the Level III inspector's words, raises the concern to CASE that TU management is not effectively communicating with site management as to the proper method of handling disputes involving the identification of non-conforming conditions.

Additionally, no discussion was included by TU in its letters regarding the Level III inspector's requesting that the acceptance specifications for the material be changed.

b. The implications of the November 2, 1989, incident.

TU Electric has, on the basis of the investigation conducted by SAFETEM and Security, reached the preliminary position that Inspector A was not "wrongfully harassed," or "wrongfully laid off," and that Inspector C was not demoted. (See TU Electric's November 16, 1989, letter LIT-89/633.) However, TU Electric has not identified or addressed the issue of concern that CASE believes is at least one of the root causes of the problem, i.e., the lack of professional commitment to the highest quality standards by at least one Level III inspector at the site. Further, based on the best information available to CASE, we have a difference of opinion regarding harassment and intimidation in this instance.

c. The quality control/quality assurance breakdown at Thermal Science, Inc., and TU Electric.

CASE also has concerns regarding the apparent breakdown in the quality control/quality assurance program at CPSES as it relates to implementation of the requirements of PO #665-71871 (6/15/81), and the attached Technical and QA Requirements. Those concerns are documented in more detail in Attachment 2 to this letter. (See, Sequence of Events and Preliminary Findings.) Except for the failure of TU Electric's Quality Assurance Program to issue any type of stop-work order against Thermal Science, Inc., TU Electric to date has not taken any position in regards to the causes for and existence of receipt of large amounts of nonconforming Thermo-Lag materials.

Although CASE has not yet completed its full analysis of this matter, it appears to us to be a reversion to some past practices of pressure on quality control inspectors by their own supervision to not conform to the procedures as issued when they identify non-conforming conditions and/or processes. This condition, coupled with the weaknesses in the QA Program and its implementation department evident to CASE, raises this matter to one of the utmost concern to us. On the issues identified herein, CASE requests NRC intervention and resolution.



If CASE may be of any assistance to you in your pursuit of this matter, please advise either Mrs. Juanita Ellis, President of CASE, at (214) 946-9446, or me. Thank you for your attention to this matter.

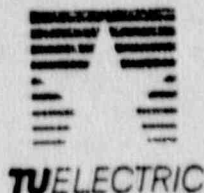
Respectfully,

*Billie Pirner Garde*

Billie Pirner Garde  
Attorney for CASE

cc: George Edgar, Newman & Holtzinger  
Susan Palmer, Stipulation Manager, Comanche Peak  
Robert Warnick, on-site Asst. Director for Inspection  
Programs, Office of Special Projects

LOG# LIT-89/633  
FILE# 10086



November 16, 1989

William G. Council  
Vice Chairman

Mrs. Juanita Ellis, President  
Citizens Association for Sound Energy  
1426 South Polk  
Dallas, TX 75224

Dear Mrs. Ellis:

TU Electric has undertaken an investigation of the "Inspector A" concerns under the auspices of the SAFETEAM program, with assistance as appropriate from TU Electric Corporate Security. This is to confirm the results of our telephone conversation of November 15, 1989 concerning the preliminary results of that investigation. Based upon my review of the preliminary results of the investigation, with particular emphasis on the harassment and retaliatory layoff allegations:

A. It does not appear that Inspector A was wrongfully harassed. It appears that Inspector A's perceptions were driven primarily by a difference in interpretation of applicable procedures by QC Supervision. In particular, QC Supervision maintained that an "Unsat" Inspection Report, rather than an NCR, was a correct method for documenting the deficiencies under applicable TU Electric procedures. In addition, QC Supervision did not effectively communicate with the QC inspectors concerning its position as to the proper means for documenting the deficiencies.

B. It does not appear that Inspector A was wrongfully laid off. The November 2 events that form the basis for Inspector A's allegations played no role in the layoff decision. The layoff decision was made pursuant to established procedures by QC management, without input from the individual who was alleged to have harassed Inspector A.

November 16, 1989  
Juanita Ellis  
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C. Inspector C was not demoted. He was assigned to a two-man inspection team with the responsibilities of a QC receiving inspector. The other member of the team was designated as lead, but Inspector C was not designated as a "helper".

D. There is no evidence that non-conforming thermolag material has been released to the field or installed in the plant in connection with the specific events associated with Inspector A's allegations.

All of the foregoing are preliminary results, of course, subject to completion of the ongoing SAFETEM investigation. Upon completion of the SAFETEM response to Inspector A's concerns, which includes the input from Corporate Security, we will make it available to you, subject to receipt by SAFETEM of an appropriate waiver/consent from Inspector A. I will conduct a review of the completed response and any corrective actions associated with Inspector A's allegations. I will advise you if my review indicates any need for modification of the response.

Please advise me immediately if you have any questions concerning the foregoing.

Very truly yours,

  
W. G. Council

WGC:1mi



## ATTACHMENT 2

### SEQUENCE OF EVENTS AND PRELIMINARY FINDINGS

The following is a selection and summary of the relevant events and documents that CASE is considering in its review of this incident. Since all background material and facts have not yet been received by CASE, this is a preliminary report.

#### I. SITE FABRICATED THERMO-LAG

09-01-88 TXX-88652 responded to an NRC Notice of Violation concerning TU Electric's (TUE) concerning their failure to include design requirements into specifications AFW pumps/motors. The response stated that as a part of their corrective action all site specifications were reviewed to assure their adequacy.

(Date unknown) Specification 2323-MS-38H for Thermo-Lag had likely been used as the basis for design, procurement, fabrication, installation procedures prior to September 1988.

(Date unknown) Purchase order (PO) for material for Thermo-Lag fabricated on-site.

(Date unknown) Receipt or acceptability inspection of Thermo-Lag fabricated on-site.

(Date unknown) 14,000 square feet of Thermo-Lag panels installed on-site.

(Date unknown) First type 330-1 panel found to be less than 1/2 inch minimum thickness specified.

07-28-89 NCR 89 8519 R.O was written on Thermo-Lag panels in the warehouse was observed as less than 1/2 in minimum.

07-29-89 Block 21, NCR 89 8519 for 50.55(e) was marked N/A. (Note: This appears to be inappropriate.)

07-31-89 NCR 89 8519 was dispositioned was to investigate 60 type 330-1 panels that were installed and QC accepted. (Note: This is unusual because there was 11,000 sq. ft. sitting in the warehouse that

could be inspected to show the lot or lots received were statistically acceptable or unacceptable. The installed Thermo-Lag could be shown unacceptable based on such inspection. In TXX-89737 these deficiencies are discussed and it appears TU personnel knew that the panels in the warehouse did not meet specification.)

08-16-89

Corrective Action Request (CAR)-89-009 was issued, and referenced specification 2323-MS-38H and NCR 89 8519. John Streeter signed the CAR for D.E. DeViney, the Director of QA. Engineering estimated that 2000 sq. ft. of nonconforming panel had been installed. On October 30, 1989, the potentially reportable block under NEO 9.01 was blank.

08-22-89

Memo QIM-89337 from K. Smith to D. Reynerson asked that the CAR be investigated.

09-06-89

Memo NC-4405 answered QIM-89337. It pointed out the following: 1) panels fabricated on-site or elsewhere could not be determined, 2) installation was inadequate to assure 1/2 in. min. specified maintained at seams, joints, edges, and bolts, and 3) process control was inadequate for applying adhesive to build up at protrusions. In addition the cause of the deficiencies were determined to be the Specification 2323-MS-38H, Appendix A, Section 7.4, which did not require adequate inspections of the cross-section of panels. Discontinuities were caused when fabricated on-site. Because the material would have to be retested, it would take time and may fail. Therefore, it was decided to remove and scrap all site-fabricated Thermo-Lag in the plant and warehouse.

09-20-89

Memo NC-4483 indicated that the CAR had been misdirected to construction in terms of evaluating the generic implications and reportability per NEO-9.01. It was then referred to engineering (CECO).

09-15-89

The deficiencies were verbally reported to the NRC.

10-15-89

TXX-89737 made a final report to the NRC and stated that, if undetected, a fire could have breached the barrier and adversely affected the shutdown of the plant had it been operating. It basically repeated the findings in Memo NC-4405 and said they were the causes. The stated generic implications made little sense and showed an inadequate evaluation. (Note: The report did not



even mention an important generic implication, that is, a QA program breakdown. QA controls the CAR and avoids self-inspection.)

10-30-89

CAR 89-009 closed out. It is CASE's understanding that recurrence of similar problems was to be prevented by changing from site to off-site fabricator.

#### CASE's Preliminary Findings

1. The corrective action taken on all specifications did not preclude recurrence in the Thermo-Lag program. This appears to be a failure to take effective corrective action.
2. It appears that the quality organization recognized a serious problem with nonconforming Thermo-Lag before NCR 89 8915 was issued, did not document the extent of the known nonconformances, but instead used the disposition "Exploratory Investigation" to buy time.
3. When the CAR was signed on 08-16-89 and the highest levels of QA were aware of the problems, they should have recognized that a QA program breakdown had occurred, yet they did not issue any stop work order. However, on 09-06-89 the Director of Construction voluntarily imposed a hold. (Note: It is not credible for QA management not to know about subsequent problems with the off-site Thermo-Lag vendor and handling of the NCR incident.
4. The 10 CFR 50.55(e) actions appear:
  - a. to be untimely,
  - b. to be inadequately evaluated for generic implications which included 1) an apparent QA program breakdown as about 14,000 sq. ft. of deficient fire barrier material was installed and had to be removed and scrapped, along with 11,000 sq. ft. in the warehouse that had not been installed, and 2) an inadequate generic review of specifications in response to a previous NRC violation.

#### 11. VENDOR FABRICATED THERMO-LAG

06-15-89 A Purchase Order was issued for Thermo-Lag for conduit was fabricated off-site by Thermal Science, Inc. The PO was marked "Priority one" and was needed to meet the construction schedule for Unit 1. Page 13 and 14 of the PO required Thermal Science Inc. to submit any nonconformances on the materials to TU Electric as well as a Certificate of Conformance. Fire, radiation, chemical, and seismic testing reports were also

required. The specifications called for a thickness of 0.625 plus or a minus 0.125 was required for all of the items (some having different configurations).

- 11-02-89 Three QC inspectors performed receipt inspection on Thermo-Lag received from Thermal Science, Inc. They found 30-40% of the 5 in. diameter X 36 in. long items for conduit and 94% of the 3/4 in dia. X 36 in. long was less than the specified thickness of 0.625 plus or minus 0.125.
- 11-03-89 Two inspectors continued inspecting while a third was reassigned to another area. Finally, the inspectors discussed with their lead QC inspector whether an NCR should be written. All three agreed that an NCR should be written. The QC supervisor and his Level III inspector were present and, according to statements of witnesses, the Level III inspector stated that "no NCR would be written." The QC supervisor supported the statement made by the Level III.
- 11-03-89 According to the SAFETEAM statement, the QC supervisor and Level III asked the lead procurement engineer to change the acceptance criteria from 1/2 to 3/8 in thickness, thereby permitting acceptance of the received materials.
- 11-03-89 One of the inspectors insisted that an NCR should be written as required by paragraph 6.1.3 of NQA-3.09-11.03. In a matter of hours he was laid off.
- 11-03-89 The Level III met with the NRC on previously identified potential violation regarding site fabricated Thermo-Lag that the NRC was reviewing. It is CASE's understanding that he argued against issuing the violations. However, he did not provide complete and accurate information to the NRC because he did not bring the newly found deficiencies with off-site fabricated Thermo-Lag to the NRC's attention.
- 11-04-89 Contrary to the directive, the second inspector wrote the NCR against the Thermo-Lag and forced the issue. When confronted with the NCR, the supervisor signed the NCR. Subsequently, this inspector was temporarily made a "helper." Although this shift in duties did not affect his pay status.
- 11-07-89 NRC holds the exit and issues 2 violations on-site fabricated Thermo-Lag panels 330-1, without the knowledge of the deficient 3/4 and 5 inch diameter Thermo-Lag for conduit fabricated by the off-site vendor.
- 11-08-89 CASE raised the issue to W. Council, TU Electric, and



asked for remedial action to counter the perceived harassment and instructions by management to disregard procedures without any explanation and the perceived retaliation.

- 11-08-89 TU Electric Corporate Security, at the request of W. G. Council, interviewed the inspector who was terminated. The SAFETEAM statement was provided to the investigator and the events were repeated. CASE also noted that the Level III was at Thermal Science, Inc. and raised the issue of Certificates of Conformance stating that material met specification, which did not.
- 11-10-89 TU Electric was unable to or chose not to take any action in regards to these matters.

#### CASE's Preliminary Findings

1. CASE contends that this is a QA breakdown concerning activities which should not be that difficult to control, and rears that this is a forewarning of things to come when the plant is operating. Instead of identifying generic issues, the focus was narrow and near-sighted as usual.
2. CASE sees a great deal of similarity between the way project management handled the removal of coating from service water system piping and the fabrication of Thermo-Lag. That is, the failure to establish adequate QA/QC and technical requirements, failure to control special processes, failure to have adequate QA/QC procedures, and failure to take corrective action. In both cases, there were program breakdowns that TU Electric refused to adequately address.
3. For the 330-1 panels, QA management failed to recognize that the inspection requirements for about 26,000 sq. ft. of site fabricated Thermo-Lag (14,000 installed and 11,000 in the warehouse waiting to be installed) was inadequate. That is, the most critical characteristic (minimum thickness) was not adequate to insure quality. This is very similar to the inadequate inspections of the service water system work of O.B. Cannon.
4. In this case even though 26,000 sq. ft. was scrapped because of inadequate QA management project oversight and no source inspection being subsequently imposed on the items fabricated off-site. In addition, the vendor was asked to expedite the manufacturer to meet the construction schedule which was critical path for fuel loading. The decision to require no source inspection was poor from both the production and quality standpoint.
5. Inspector A stated that the Thermo-Lag received was still



wet and in this state cannot be handled without causing damage which reduced the thickness. There was some accommodation made with the vendor to change the curing formula to make it cure faster so it could be sent to site.

6. Inspector A stated that before they started their inspection the QC supervisor and the Level III handed the inspectors a measuring device to use that Thermal Science, Inc. had brought on-site. The inspectors pointed out that it had not been calibrated. It was then sent to the calibration lab. This appeared inappropriate for QC personnel who are supposed to know better than to suggest using measuring devices that had not been through site calibration.
7. Inspector A stated that problems were later found with the measuring device because one arm of the device sagged and threw the dial indicator off by 0.005 of an inch.
8. The precedent for writing nonconformance reports against nonconforming Thermo-Lag is clear, suggestions that QA management and supervisory directions or suggestions to do otherwise raises questions about their instruction. The PO required the off-site vendor to make nonconformance reports if Thermo-Lag did not conform. In July, 1989, NCRs were written for the site fabricated panels. therefore, in November, 1989, NCRs were appropriate for the Thermo-Lag fabricated off-site for conduit.
9. It appears that QA management was a part of the problem for Thermo-Lag fabricated both on and off-site. Accordingly, it appears that instead of QA management aggressively pursuing the issue it appears they were trying to expedite production by ignoring 10 C.F.R. 50, Appendix B requirements by:
  - a. Preventing or delaying NCRs from being written;
  - b. Getting the acceptance criteria and specifications changed to avoid the writing of an NCR and identification of program breakdowns;
  - c. Not informing the NRC about the new problems with Thermo-Lag to avoid or minimize the seriousness of NRC violations that were forthcoming at the exit in a matter of one working day; and,
  - d. Terminating the inspector who was the most vocal about the deficiencies.