Nov. 28, 1984

Note to: R.C. Tang

Re: Comments on Electrical/Instrumentation Group SSERs

I have reviewed the E/I Group SSERs provided on November 29, 1984. Specific comments are discussed in Attachment I.

Cat 7 is the only one which mentions discussions to obtain alleger feedback. This involved one alleger and the matter was left open.

The actions required in the SSERs are not identified with the 9/18/84 letter. How should this be handled in ~~the~~ the summary part of the SSER? Categories 1 and 4 differ the most.

Categories 5, 6, 8 and 9 refer to QA/QC overall programmatic review. Do we really intend to reverse the SSER after its issued to pick up QA/QC feedback? It seems more prudent to address these matters in the QA/QC SSER or some other way, rather than

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make future revision to the SSER.

This brings up another point. DO we intend to revise the SSER to incorporate additional user feedback?

C. A. Hjmayer

Comments on Electrical/Instrumentation Group SSERs

Category 1

1. Are the actions required the same as in the 9/18/84 letter? If our requirements have changed or been expanded it should be brought to mgt. attention.

Category 2

1. Pg 2, fifth concern → Was the program found to be effective and did it exist during entire Unit 1 cable tray installation? If not, is the allegation correct?

2. Pg 3 - No conclusions for AE-27 and AQE-10

Category 3

1. Pg 2 - Regarding AE-51 - what is allegation and how was it addressed

2. Pg 2 - ~~[illegible]~~ Clarify allegation AQE-49. How were AQE-6, AQE-11 & AQE-49 addressed?

3. Pg 3, Why are deviations on panels CP1-EC-PRCE-09 and 03 isolated cases?

Category 4

1. The actions required ~~[illegible]~~ are acceptable and consistent with C/S-14 (except as noted in 2 below). However, the actions differ from the 9/18/84 letter, not necessarily in content, but certainly by the words used. This could lead to a number of questions and confusion.

2. The SSER does not permit the review to conduct less than 2 [illegible].

Category 5

1. How was AQE-42 addressed?

2. Pg 5, second par. – To which allegation does this discussion pertain?

3. Pg 6 - Conclusions – Did we get any feedback regarding QA/QC programmatic review which would alter our conclusions?

Category 6, 7

No comments.

Category 8

1. Pg 3 missing

2. Pg 7 - Conclusions - Did we get any feedback regarding QA/QC programatic review which would alter our conclusions?

Category 9

1. Pg 3 - Conclusions - How can we say that the completion of an inspection report without reinspection has no safety ~~significance~~ significance? Are we saying that since the alleger based his allegation on hearsay we don't intend to investigate it further? Our case on this item appears to be weak

2. Regarding Allegation on On-Process Inspections we addressed the issue of changing the number of required on-process inspections. Section 3 states that the allegation is that the number of inspections per procedure was not being complied with. So this is the allegation we did not address it.

Category 9 (continued)

3. Pg 4 - conclusions - Any feedback regarding QA/QC program the review which would alter our conclusions.

USE DARK FELT TIP PEN AND PLEASE PRINT

FACSIMILE COVER SHEET

DATE: Dec 20, 1984

TO: R.C. Tang

ROOM NO.: MS-P-234

Phillips Bldg - 7920 Norfolk Ave.

Bethesda, Md. 20814

NOTE:
Please call R.C. TANG on X-28986 upon receipt.
R.C. Tang - Please send copy to D. Jeng for review

U. S. NUCLEAR REGULATORY COMMISSION

~~OR~~

~~U. S. DEPARTMENT OF ENERGY~~

(X OUT ONE)

FACSIMILE TELEPHONE NO.: 8-492-7617

TO VERIFY RECEIPT: 8-492-7317

FROM: Charlie Hofmayer

BUILDING 129
BROOKHAVEN NATIONAL LABORATORY
UPTON, NY 11973

TELEPHONE NO.: COMMERCIAL (516) 282-2317 2446
FTS 666-2317

THIS TRANSMITTAL CONSISTS OF 3 PAGES, INCLUDING THIS COVER

FOIA-85-59

SAT-3

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Category 15, Rebar Improperly Drilled

Replace last paragraph of Section 4 (on page 5)
with the following:

Although the above discussed allegations, with the exception of AQC-15 which requires further action, cannot be substantiated the fact that such allegations were made indicates that there was no effective quality assurance program to oversee the issuance and use of diamond core drill bits.

The TRT interviewed the individual concerned about the loan of rebar drills without proper documentation and unauthorized cutting of rebar at non-specific locations. This individual did not agree with certain TRT findings. In particular, the alleger felt that the TRT's estimate of approximately 120 unauthorized rebar cuts was much too low. He believes that the number of drill bits ordered by him was in the thousands and that as much as 20 percent of the drill bits may have been used in an unauthorized manner. It was also his opinion that the unauthorized cutting of rebar was not limited to his period of employment, but occurred for the duration of the project.

As a result of these additional discussions with the alleger, the TRT searched TUEC's files relating to the purchase of diamond drill bits and found that 1170 drill bits were purchased between January 13, 1978 and January 14, 1980. This number is more in agreement with the alleger's assessment and is higher than the previously reported number of 415 (IE Report 83-27). The TRT also found that there were a total of 3368 drill bits ordered from one manufacturer between January 13, 1978 and March 18, 1983. After this period other manufacturers supplied the drill bits. Based on the usage through March 10, 1983, the TRT estimates that approximately 5000 diamond drill bits have been used to date on the project. Assuming that 20 percent of these drill bits were used in an unauthorized manner and that each drill bit could be used to cut up to five rebars, the TRT estimates that their could be approximately 5000 alleged unauthorized rebar cuts.

The TRT estimates, depending upon the average length of rebar assumed, that there are approximately 800,000 to 1,200,000 bars installed in all of the concrete structures. Thus, if 5000 bars were cut without authorization, they would represent approximately 0.6% of the total rebar in the plant. Even if all 5000 drill bits were used in an unauthorized manner it still would only represent 3% of the total rebar in the plant. Thus the percentage of rebar that could have been cut without proper authorization is low. Since no information has been supplied to the contrary, the TRT assumes that these unauthorized cuts, if they did occur, were scattered throughout the plant and not concentrated in one localized area. In addition, as noted earlier, a large number of rebar cuts are not necessarily synonymous with an identical number of rebar actually being cut. It is also noted that nuclear structures are very conservatively designed. In addition to the conservative loads, load combinations and safety factors utilized in the design, it is the common practice of the design engineer to specify 5 to 10 percent more rebar than is actually required by his calculations. This occurs because it is difficult to obtain the exact area of reinforcement required using standard bar sizes and standard bar spacing. The area of reinforcement is selected from charts which show the area provided for each bar size at a given spacing. Rather than be underdesigned, the designer selects an area of reinforcement higher than that which is actually required. It should also be noted that critical structures contain a large number of bars; therefore, they are not generally vulnerable to the random cutting of a small number of bars.

AGENDA

NRC-TRT MEETING 1/07/85

I. OVERALL CPRT INITIATIVES/PHILOSOPHY - LEVIN/HOOTON

II. CONCRETE
1) Introduction to Action Plan - Levin
2) Gridding Procedure - Harrison/Webster
3) Description of Test Procedures/Traveler - Harrison
4) Description of Statistical Evaluation - Webster

III. CONDUIT
1) Introduction of Action Plan - Levin
2) Sample Selection - Wright/Mortgat
3) Description of Engineering Instruction/ Qualification of Personnel - Wright
4) Description of Walkdown Documentation - Wright
5) Overview of G&H Analytical Effort/ and Third Party Review - Mortgat

IV. CONTROL ROOM CEILING
1) Introduction to Action Plan - Levin
2) Objective/Philosophy of Design Changes - Levin
3) Experience in Earthquake/What's Important - Swan
4) Physical Description/Photos - Swan
5) EQE Recommendations - Swan
6) Design Details - Wells
7) Third Party Activites - Witt

V. FIELD WALKDOWN

VI. DISCUSSION

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