

CALLER 3:11 How many V20 how many channels but only 10 channels do - 10 is the table

Mr. Luis A. Reyes

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July 15, 1987

DOCKETED
USNRC

NUCLEAR REGULATORY COMMISSION
Docket No. 50-160-KEN EXHIBIT NO. 24
In the matter of Go. Seeh
☐ Staff ☐ Applicant ☒ Intervenor ☐ Other
☒ Identified ☐ Received ☐ Rejected Reporter WCLW
Date 5/21/86 Witness RL

'96 JUL 10 10:22

by hand
We do not consider A.2.a a violation. It is true that by February 23, 1987, the procedures had not all been revised to reflect the cover gas change from helium to nitrogen. But the Nuclear Safeguards Committee did not require updating by a certain date. There are many procedures impacted by the change and at the time of the inspection we were in the process of updating the procedures. Please remember that we have limited resources, but nevertheless, as of May 22, 1987, we have completed updating all procedures.

We deny that A.2.b is a violation. It was stated in inspection report (IR) that certain handwritten changes were made to procedures 2002 and 2003 for over a year and a half without these changes being incorporated into a permanent revision. The IR states further that on a number of occasions these handwritten changes were omitted causing failure to follow procedure as written.

in process of further
The changes that the IR refers to are not changes to procedures 2002 and 2003 but are comments on certain equipment operational status. The comments are limited to the phrase, "out of commission" being used to describe the status of the following equipment: (1) universal counter; (2) PA system; (3) storage pool drained for painting; (4) picoammeter #1, and so on. In all cases, except the universal counter, the conditions are temporary. With regard to the universal counter, we have been unable to buy parts for this instrument to keep it in working order. No one makes this instrument any more. Consequently we decided to replace it. This will be done by February 1988.

We admit that errors were committed as charged in A.3.a by not logging initial critical conditions and equilibrium condition data. The reason is simple oversight. I emphasized to the operators that we must methodically and step by step comply with all procedures. More care shall be taken to appropriately follow procedures. Additionally, I have instituted internal audits to monitor our compliance. Compliance was achieved May 1, 1987.

We admit violation A.3.b. The reason for the violation is again oversight. A contributing factor to the violation is the limited number of licensed operators we have.

We are taking steps to increase the number of licensed operators by 2. Additionally we have discussed at length the need for procedure 2210. Originally the requirement of procedure 2210 was instituted during the extended period of no reactor operation at the time of conversion from one to five MW. A consensus exists that this procedure serves no safety function. Consequently, we will ask the Nuclear Safeguards Committee to approve deletion of this procedure. Until we get approval, we have been in compliance since June 25, 1987.

RELATED CORRESPONDENCE

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PDR ADOCK 05000160
G PDR

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Item II

- B. Technical Specification 6.3 defines requirements for the administrative controls of experiments, including requirements for approval, quality assurance, and documentation. Technical Specification 6.3.a(1) requires that no experiment shall be performed without review and approval by the Nuclear Safeguards Committee. Technical Specification 6.3.e requires that there shall be a quality assurance (QA) program to assure compliance with the limitations on experiments in Technical Specification 3.4. Technical Specification 6.3.c(3) requires that each experiment removed from the reactor be subject to radiation monitoring and the results be documented.

Contrary to the above, the licensee failed to meet the requirements of Technical Specification 6.3 for the approval, QA, and documentation of experiments in the following instances:

1. Technical Specification 6.3.a(1) is implemented in part by the "Request for Minor Experiment Approval" form, which provides information necessary for obtaining and documenting Safeguards Committee approval of experiments. The "Request for Minor Experiment Approval" requires a copy of calculations of estimated activities of principal isotopes to be attached. Numerous copies of this form were on file for 1985 without attached calculations of estimated activities.
2. Technical Specifications 6.3.a(1) and 6.3.e are implemented in part by Procedure 3102, which requires that an Experiment Schedule Form be completed and retained in the files each time an experiment is performed. The required Experiment Schedule Forms were frequently not completed and filed for runs in the pneumatic facility or for Nuclear Engineering class laboratory experiments.
3. Technical Specification 6.3.e is implemented in part by the "Experimentor's Checklist" form. No Experimentor's Checklist form was on file for experiment R6512 for the run on September 10, 1986.
4. Technical Specification 6.3.c(3) is implemented for experiments performed using the pneumatic facility by entering the results of radiation monitoring in the console log. Dose rates for experiments were not documented as required on pages 125, 131, and 147 of console log #29.

This is a Severity Level IV violation (Supplement I).

Response

B.1. The Inspection Report stipulates that calculations of estimated activities of principle isotopes are required in every case. While this interpretation is possible based on the information requested on the "Request for Minor Experiment Approval Form," it was never meant to be a requirement.

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*to have a
signature for
J. A. R.*

In fact the practice at the NNRC before I came was often not to fill-in this information. I made a conscious effort to estimate the activities on the form based on knowledge of what was in the sample. Often however we have samples that we do not know their elemental composition. Consequently, we approach the problem with care, i.e., we irradiate a small sample for a short duration at normally low power. The bottom line here is that we will make, to the extent possible, analyses of the activities of the principle isotopes, but we do not treat this as a requirement. We therefore deny that any violations were committed in B.1.

B.2, 3, 4. We admit the violations and admit further that our procedures for tracking required information under Technical Specifications 6.3.a(1) and 6.3.c are somewhat confusing and unnecessarily complex. We are re-evaluating the whole process. The root cause is that we have too many forms. The form consolidation and streamlining will be finished October 15, 1987. We are currently reviewing and re-evaluating all procedures to be finished October 15, 1987. We achieved compliance with this requirement on March 1, 1987.

Item III

- C. Technical Specification 4.2.b requires that a channel check of the ~~power~~ trip channels and picoammeter channels, comparing the channel checks to a heat balance, shall be made weekly when the reactor is operated at a power level at or above one megawatt.

Contrary to the above, no heat balance calibration check was made between March 31, 1986 and April 14, 1986, although the reactor was operated at one megawatt on April 7, 1986.

This is a Severity Level IV violation (Supplement I).

Response

We admit the violation in that no heat balance was made between March 31-April 14, 1986. The operators claim it was an oversight. I continue to stress the need to minimize or eliminate oversight altogether. Our internal audits, started this year, will help monitor this problem. I will evaluate whether or not progress is being made in about one year from now. Compliance was achieved July 1, 1987.

Item IV

- D. 10 CFR 50.59 allows the holder of a license to make changes in the facility as described in the safety analysis report without prior Commission approval unless the proposed change involves a change in the Technical Specifications incorporated in the license or an unreviewed safety question. The holder of a license who desires a change in the facility which involves a Technical Specification change shall submit an application for amendment of the license pursuant to 10 CFR 50.90.

Technical Specification 3.6.e addresses the use of helium as the cover gas of the Georgia Tech Research Reactor, stating that the reactor shall not be critical unless "The D_2 concentration in the helium sweep is less than 2% by volume.

Contrary to the above, the licensee made a change to the facility involving a change in the Technical Specifications without prior Commission approval, in that the cover gas was changed from helium to nitrogen in mid-1986 without first obtaining a Technical Specification change. In addition, the licensee did not include the change from helium to nitrogen cover gas in the annual report to the NRC, as required by Technical Specification 6.7.a.

This is a Severity Level IV violation (Supplement I).

Response

The charge in D is that Technical Specifications were violated because the cover gas was changed from He to N_2 and for not reporting the change in the Annual Report. Our response to the charge of violation on the cover gas change is as follows: Although the word helium appears in the Technical Specifications 3.6.e, it was felt that the 3.6.e requirement is 2% by volume D_2 concentration in the cover gas. The fact that the cover gas was mentioned as helium is incidental to the requirement. For this reason we felt that Technical Specifications 3.6.e was not violated. We still hold that view. We will however submit a formal request to change the Technical Specifications to reflect, among other things, the change in cover gas mentioned in 3.6.e and on page 24 of Technical Specifications. The amendment to the Technical Specifications has been drafted and is awaiting approval by the Nuclear Safeguards Committee (scheduled to meet on July 23, 1987). Submittal of the request to amend Technical Specifications will take place July 24, 1987. With regard to the violation account of not including the change in the Annual Report, we are guilty as charged. This again was a simple oversight that eluded reviews of seven different people. I have however established a punchlist for items to be done and this list will be updated weekly. On this punchlist there will be an item to review Nuclear Safeguards Committee minutes in January of every year. This review should help refresh appropriate memories of whether or not changes to the facility were incorporated.

Item V

- E. 10 CFR 50.54 paragraph (i-1) requires the licensee to have in effect an NRC approved operator requalification program which satisfies the requirements of Part 55 Appendix A. The licensee may not make changes in the approved program which decrease the scope or frequency of conducting different parts of the program.

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10 CFR 55 Appendix A Paragraph 3 requires that the requalification program include control manipulations. Appendix A Paragraph 4.c requires that the requalification program include systematic observation and evaluation of the performance and competency of licensed operators including evaluation of actions taken or to be taken during actual or simulated abnormal and emergency conditions.

stand
The licensee's approved requalification program requires that summaries of both the control manipulations and the performance observations required by 10 CFR 55 Appendix A Paragraph 4.c be documented annually.

Contrary to the above, as of February 23, 1987, yearly summaries of control manipulations and annual observations of the performance of licensed operators under simulated emergency conditions had not been documented since 1983.

This is a Severity Level IV violation (Supplement I).

Response

The charge in (E) is that we failed to keep summaries of the control manipulations and the performance observations by licensed operators. Annual summaries of control manipulations do exist in our files. Therefore no violation was committed. The performance evaluations were not done since 1983. This appears to coincide with the change in personnel. The person in charge of this activity stated that he simply forgot.

As a step to correct this, I have begun to list all system worksheets, procedure 4900, on my punchlist with due dates listed. Compliance was achieved July 1, 1987.

Item VI *urgent problem*

- F. Technical Specification 6.4a requires that all procedures and major changes thereto shall be reviewed and approved by the Nuclear Safeguards Committee prior to being effective.

Technical Specification 6.4.b(5) requires that written procedures shall be provided and utilized for preventive or corrective maintenance operations which could have an effect on the safety of the reactor.

Technical Specification 6.2.e(5) requires that the Nuclear Safeguards Committee shall audit reactor operations and reactor operational records for compliance with internal rules, procedures, and regulations and with licensed provisions including Technical Specifications.

Technical Specification 6.2.e(7) requires that the Nuclear Safeguards Committee audit plant equipment performance.

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Technical Specification 6.2.e(6) requires that the Nuclear Safeguards Committee audit existing operating procedures for adequacy and to assure that they achieve their attended purpose in light of any changes since their implementation.

Contrary to the above, the Nuclear Safeguards Committee failed to perform the review, approval and audit functions required by the license in the following instances:

1. Procedure 4901 provides administrative requirements for preparing written job plans to satisfy the requirement of Technical Specification 6.4.b(5) that maintenance operations be conducted according to written procedures. The Nuclear Safeguards Committee was not performing reviews or audits of the completed job plans as required to satisfy Technical Specification 6.2.e(5), 6.4.a and 6.4.b.5.
2. Nuclear Engineering laboratory experiments were being performed each quarter without documentation that the Nuclear Safeguards Committee had ever reviewed the procedures as required by Technical Specification 6.4.a.
3. Systematic audits of equipment function were not being performed as required by Technical Specification 6.2.e(7).
4. Nuclear Safeguards Committee audits of operations, operational records, and existing procedures required by Technical Specifications 6.2.e(5) and 6.2.e(6) were inadequate in that the same eight procedures were audited each year, and records of experiments were not being audited.

This is a Severity Level IV violation (Supplement I).

Response

The charge in F.1 refers to the Nuclear Safeguards Committee not performing reviews and audits. The implication is that this committee must audit everything exhaustively and annually. The Technical Specifications do not specify such a requirement. Recent audits have been more extensive than in years past but not to the degree implied in item F. I would be delighted to have the Committee conduct exhaustive and thorough audits. But we all should realize that the Committee does this work on a voluntary basis and realistic expectations of how much they can do would be useful to all. I will distribute the inspection report and this response to the Committee members. I also will recommend to the President of Georgia Tech to enlarge the membership of the Committee so that more depth and breadth of audits can be realized.