

G/70-16-84

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject AUDIT 75-32, RADIATION MONITORING

Location Reading

To R. M. KLINGAMAN

Date March 8, 1976
GQM 0721

An audit was conducted on October 29, 1975, to investigate and determine the status of recommendations generated in the "Report of Investigation into TMI-1 Radiation Monitoring System." The outcome of the audit is contained in the attached memo dated November 18, 1975. As noted on the memo, 18 of the 23 recommendations have been carried out and appear as "complete" on the list.

Although 5 of the recommendations contained in the attached list are found as "open", no findings were generated for the items. This was due to the fact that no regulatory or procedural commitments were involved. Please note that although the attached list was used in conducting the audit, no formal Audit checklist is contained in the report. The auditor who performed the audit has since left the company, and no checklist was generated prior to his departure.

The following personnel were contacted during the audit:

J. E. Romanski	D. L. Good
R. W. Dubiel	Shift Supervisor
V. P. Orlandi	Control Room Operators
B. H. Harrison	Auxiliary operators

The following persons were present at the post audit review of October 29, 1975:

V. M. Cini, T. A. Jenckes, S. W. Porter, Jr.

The 5 open items on the attached list should be completed by June 1, 1976. These items are being tracked by the Generation Engineering Task Assignment System, to ensure that corrective actions are taken in a timely manner.

The audit was conducted by V. M. Cini - QA Engineer and T. A. Jenckes, Supervisor - RS&FE, and was completed by R. L. Mann - QA Engineer.

ORIGINAL SIGNED BY
L. L. LAWYER
L. L. LAWYER
Ext. 111

LLL:RLM:rk

cc: T. A. Jenckes
T. M. Crimmins
S. W. Porter, Jr.

535 025

SUBJECT: FOLLOW-UP REVIEW OF RMS TASK FORCE
REPORT OF 10/3/74 (S&L-2674)

November 18, 1975
GEM 3757

TO: L.L. LAWYER


On October 29, 1975 an on-site review of the RMS Task Force recommendations was conducted by V. Cini, T.A. Jenckes and S.W. Porter, Jr. Persons contacted during this review were as follows:

J.E. Romanski
R.W. Dubiel
V.P. Orlandi
B.H. Harrison

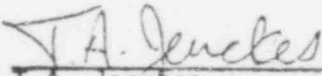
D.L. Good
Shift Supervisor
Control Room Operators
Auxilliary Operators

The results of this review are attached as enclosure (1).

18 of the 23 recommendations have been carried out, or are close to completion, and these are considered "complete". Dr. T.A. Jenckes will take responsibility for follow-up on the remaining 5 "open" items.



V. Cini



T.A. Jenckes



S.W. Porter, Jr.

TAJ:rk

cc: R.C. Arnold*
R.M. Klingaman*
M.R. Buring*
J.G. Herbein
J.J. Colitz
T.M. Crimmirs

File: 20.1.2/15.9.3

535 026

Review of RMS Task Force Recommendations

Items listed below are taken from Section V, Recommendations of the "Report of Investigation into TMI-1 Radiation Monitoring System" dated 10/3/74, S&L-2674

		Item Status	
		Complete	Open
1.	<p>Acceptance tests for TMI Unit 2 RMS should take place at least one year prior to Unit 2 startup and the system equipment and procedures should be debugged <u>prior</u> to plant startup.</p> <p>Acceptance tests presently are being written by Burns and Roe. They must be reviewed by the TMI staff one and one half years prior to TMI-2 startup.</p>		X
2.	<p>The Unit 2 RMS warranty period should <u>begin</u> at the time all units have passed their acceptance test.</p> <p>This item is not a pertinent issue since it is impractical to change the Victoreen contract at this time.</p>	X	
3.	<p>The Unit 1 RMS acceptance test should not be used for Unit 2 prior to being revised in light of present knowledge. Messrs. Orlandi and Ruth should work on this revision. Then the tests should be sent to Victoreen with a request for them to thoroughly review and comment on the tests.</p> <p>The acceptance test review route has not, as yet, been established.</p>		X
4.	<p>The quarterly RMS calibration procedure (1302-3.1) must be <u>immediately</u> revised in light of present knowledge. The recommendations of J. Ruth dated 7/15/74, should be incorporated immediately. The ¹³⁷Cs source should be used in calibrating the iodine monitor window. Refer to the memorandum from S.W. Porter, Jr. to V. Orlandi of 9/20/74. Quarterly calibrations should be conducted as soon as possible. The procedure should require in place calibration and immediate steps should be taken to ensure that as sample chamber become contaminated alternative procedures or replacement chambers are available. This procedure must allow for immediate re-adjustment of channels found out of calibration.</p> <p>As noted in Part VI <u>TMI Staff Follow-up</u> of the RMS Task Force report dated 10/3/74 S and L 2674, the quarterly calibration procedure was immediately revised incorporating the J. Ruth recommendations dated 7/15/74. The ¹³⁷Cs source is being used to calibrate the iodine monitor window. Quarterly calibrations were promptly performed in accordance with the revised procedure which does require in-place calibration and decontamination of the monitor. The procedure provides for immediate re-adjustment of channels found out of calibration. A new replaceable liner chamber has been installed in RML-6. A new replaceable liner for L-6 has been ordered.</p>	X	

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(4) Assessment of Internal Deposition of Radionuclides - all items incorporated into existing procedures except for "quicksort" NaI crystal count procedure.

Sept. 12 Memo

All items complete except for arrangements for a backup counting lab. This item has been referred to R. DuBiel for action. This is an emergency plan item, and as such, the item is considered complete for purposes of the RMS Task Force.

11. The present condition of RMA2 continuously alarming (apparently on radon) must be investigated and correct immediately in order that the system may be capable of performing its intended function. One possible solution is an alpha monitor to read out gross alpha and beta/alpha ratio. This will show fission products in high radon-thoron environments.

This condition has apparently been satisfied by procedure.

12. The TMI-1 Technical Specification requirements for surveillance of the RMS channels should be reviewed to determine if all channels should be included. Channels not directly associated with LCO's should not be included in T.S. Surveillance requirements. All LCO's involving RMS channels should clearly state action to be taken if the channel is inoperable. The inconsistencies between Appendices A and B of the T.S. with regard to RMS surveillance should be resolved in a T.S. change request and the terms check, test and calibrate should be defined in Appendix B (or reference made to the definitions in Appendix A).

This item has been resolved for the present by Technical Specification Change Request.

It is expected that the standardized technical specifications, when implemented for TMI-1, will satisfy the full task force recommendations to provide alternatives to the RMS system such as portable monitors, etc.

13. The importance of RMS and especially those channels associated with Limiting Conditions for Operation of the T.S. needs to be emphasized to shift operating personnel. Meter readings and recorder chart printout should correspond and discrepancies corrected quickly. All abnormal situations (source checks, releases, etc.) should be annotated on the recorder charts.

Discussions on 10/29/75 with the shift supervisor and control room personnel showed the following:

1. A procedure stipulates that every 2 hours an operator compare the RMS meter reading with the strip chart recorder.

The RM-A2 sampler has been working properly since September 1974. A change mod is being made to minimize a moisture problem in the sampler. The performance of the RM-L7 pump (SRP-4) has been less than adequate. The RMS spare parts are more than adequate at this time. RM-L7 motor was changed in mid 1975 and has performed satisfactorily.

19. The review of and response to QC audit findings needs to be upgraded, and all QC non-conformance items should be checked to determine if T.S. violations are involved. X

20. A system for marking and storing RMS (and other) recorder charts should be developed. The system should permit location of specific past data without having to search more than one role. X

Chart storage is still not adequate. A person should be assigned to the storage area one to two days a week to provide a better method of transfer of charts from the control room, to establish chart accountability, to perform inventories and to administer a check-out program to account for charts borrowed by engineers performing studies. A long term chart storage program must be established now. These records must be retained, in many cases, for the life of the station according to technical specifications.

21. TCN procedures should be reviewed for effectiveness and all involved should be re-briefed on the proper handling of TCN's. X

The review committee is satisfied that this item has been accomplished.

22. The committee recommends periodic (every few years) cross-calibration of the gas monitors (RMA8 and RMA9) with NBS gaseous sources and the TMI calibration sources. X

The review committee recommends that this calibration be performed once rather than on a periodic basis. This calibration should be performed because the Victoreen calibration of the gas monitor was not performed in place, nor with many of the major radiorelease nuclides.

23. A shield should be installed around the Ge-Li detector. X

The Shield was installed as noted in Section VI of the original report.

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