

G/712-16-10

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject AUDIT 76-14 RADIATION CONTROL (DOSIMETRY PROGRAM)

Location Reading

To J. J. COLITZ J. G. HERBEIN

Date August 25, 1976 GQM 2570

I. Persons Conducting Audit:

- a) M. R. Buring (Technical Assistant)
- b) E. V. Kellogg (Team Leader)

II. Personnel Contacted:

- a) K. E. Beale (Health Physics Supervisor)
- b) F. A. McCormick (Technical Instructor)
- c) T. L. Mulleavy (Health Physics Foreman)
- d) J. E. Romanski (Chemistry and Health Physics Supervisor)

III. Reference Documents:

- a) 10-CFR-19 Notices, instructions and reports to workers; inspections
- b) 10-CFR-20 Standards for protection against radiation
- c) TMI Station Radiation Protection Manual
- d) GPG039 Reports of Personnel Radiation Exposure on Termination of Employment or Work Assignment
- e) HPP 1715 Operation & Calibration of the Thermoluminescent Dosimetry System
- f) HPP 1685 Health Physics Procedure Compliance
- g) HPP 1770 Film Badge and TLD Badge Record Keeping
- h) HPP 1615 Use of Personnel Monitoring Devices
- i) Mil Std. 105D Sampling Plan

IV. Summary

An audit was performed on July 27, 28, and August 17, 1976 for the purpose of assessing the adequacy of and compliance with TMI's Dosimetry Program. In performing the audit, the audit team reviewed the dosimetry program for controlling and recording radiation exposures compared to the requirements contained in the documents listed in Item III above.

601281

The results of the QA/QC check samples were reviewed and found satisfactory. Non-conformances/inadequacies were identified with the dosimetry program. The specific observations made by the audit team are described in the finding section of this report. The observations are summarized as follows:

1. Records or evidence of the required training for several persons using dosimetry was not available.
2. The records and procedural implementation of internal audits by the Health Physics Supervisor/Foreman was lacking.
3. Lost, dropped or off scale dosimeter report forms were not always completely filled out.
4. There is evidence that some TLD's were read without the result being recorded on an NRC-5 form.
5. The reporting of exposure doses to the NRC has been later than the required time interval.
6. HPP 1770 is obsolete and is under revision.

These findings were discussed with the cognizant management personnel during the post-audit critique as indicated on the audit findings. It must be recognized that the above findings were revealed by looking at a small sampling of the overall dosimetry system and that these findings indicate that non-conformances/inadequacies may exist throughout the system.

Recommendation:

The audit team recommends that compliance with the program procedures be established and maintained.

Discussion:

The TMI Radiation Exposure Monitoring (REM) System was installed on January 1, 1976. Since installation, this system has been computing and recording the radiation exposure for all permanent and temporary personnel required at TMI. The audit investigated the implementation of the REM System. It is the opinion of the auditors that the REM System is effective for the purpose of maintaining personnel exposure records, a task which would be nearly impossible manually, and must be performed with utmost care and attention.

J. J. COLITZ  
J. G. HERBEIN

- 3 -

August 25, 1976  
GQM 2570

A follow-up on the findings and recommendation of this report will be performed in another dosimetry audit which will be scheduled for the first half of 1977.

Submitted: E. V. Kellogg 8/24/76

E. V. Kellogg for M. R. Buring 8/24/76

Approved: L. L. Lawyer 8/25/76  
L. L. Lawyer  
Manager-Operational  
Quality Assurance

LLL:EVK:mft  
Attachments 1 thru 6

cc: M. R. Buring  
J. E. Romanski

File: 02.0002.0018.0004

EC1283

METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 1 OF 6

DATE: 8/17/76 FACILITY: TMI-1

SUBJECT: Health Physics

FINDING: In accordance with <sup>the</sup> station Radiation

Protection Manual (sect 3.0) personnel issued dosimetry devices shall be provided training in their use. Contrary <sup>to the above</sup> there was no evidence that the following personnel received the required training: U.C. Heilmann, J.E. Kipple, W.D. Manis, J. Adams, D. Houtman, A. Steed, Charles Hofer and C. Scott.

DISPOSITION: Lack of Training documentation for the above individuals (Chester) will be supplied. Pending the results of this evaluation, changes to training documentation will be implemented. 9/25/76

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION

COGNIZANT DEPT. HEAD: H. E. Beale

AUDIT TEAM LEADER: E. V. Kellogg

NOTIFIED: X J. J. Gorman

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED:

E. V. Kellogg 11/8/76

AUDIT ENGINEER  
Coordinator

DATE



METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 2 OF 6

DATE: 8/17/76 FACILITY: PMI-1

SUBJECT: Health Physics

FINDING: HPP 1685 "Procedure Compliance" requires audits (internal) to be performed by the Radiation Protection Supervisor or Foreman in fifteen areas on a monthly basis. It also states, "Audits will be recorded and kept on file". An investigation into the audit file showed that only one <sup>internal</sup> audit has been performed. This procedure requires a follow-up to determine the effectiveness of the corrective action; no evidence of a follow-up exists.

DISPOSITION: HPP 1685 has been in effect since 11/75. Though ~~no~~ audit reports have been prepared, in accordance with HPP (Circle one) 1685, the fifteen areas indicated in HPP 1685 are ~~being~~ <sup>continually</sup> reviewed by the Radiation Protection Supv./Foreman. Although

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION  
*The intent of the procedure has been continually performed, further audit will be documented as indicated in the procedure.*

COGNIZANT DEPT. HEAD: E. Beale

AUDIT TEAM LEADER: E. V. Kellogg

NOTIFIED: J. J. Roman

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED: E. V. Kellogg 11/9/76

AUDIT Coordinator

DATE

POOR ORIGINAL

METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 3 OF 6

DATE: 8/17/76 FACILITY: TMI-1

SUBJECT: Health Physics

FINDING: HPP 1615 "Use of Personnel Monitoring Devices" states that dropped, lost or reads off scale dosimeters must be reported on Contamination/Exposure Report (Form 16121). Many of these report forms were incomplete as evidenced by the report attached. There is no evidence on the NRC-5 Form that an estimated exposure (or actual) was entered to cover the period in question.

DISPOSITION:

The proper procedure implementation will be reviewed with the Radiation Protection Supervisors and Technicians.  
(Circle one) 9/25/76

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION

COGNIZANT DEPT. HEAD: K. Beale

AUDIT TEAM LEADER: E. V. Kellogg

NOTIFIED: J. Glomauhin

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED:

E. V. Kellogg

AUDIT Coordinator

11/16/76

DATE



PERSONNEL CONTAMINATION: (Cont'd)

2. Method of Decontamination: \_\_\_\_\_

3.

Decontaminated Body Areas	Survey Results Highest DPM

4. Sample for Urine Bio collected: Yes \_\_\_\_\_ No \_\_\_\_\_

5. Individual sent for Whole Body Count: Yes \_\_\_\_\_ No \_\_\_\_\_

C. INVESTIGATION REPORT: (Include R.W.P. #)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Form Completed By:

\_\_\_\_\_

D. RESULTS OF INVESTIGATION: (Completed by Radiation Protection Supervisor/Foreman)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approved By RP-Supv/Foreman

\_\_\_\_\_

cc: F.H. Grice  
J.G. Herbein  
Department Head  
HP Lab  
Original to individual's file folder

601268

METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 4 OF 6

DATE: 8/17/76 FACILITY: TMI-1

SUBJECT: Health Physics

FINDING: In accordance with HPP-1612, form 1612-1 was completed for an individual whose self-reading dosimeter was lost. His TLD was processed to determine the accumulated exposure. This exposure is not indicated on a NRC-5 form, see attachment.

DISPOSITION:

(An evaluation and <sup>ser</sup> recommendation of the attached form (Circle one) <sup>EVK</sup> will be performed 9/25/76)  
ANY ~~PROCEDURE~~ CHANGES WILL BE IMPLEMENTED

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION

COGNIZANT DEPT. HEAD: R. Baird

AUDIT TEAM LEADER: E. V. Kellogg

NOTIFIED: J. H. ...

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED:

E. V. Kellogg 11/16/76  
AUDIT Coordinator DATE

POOR ORIGINAL



CONTAMINATION: (Cont'd)

Method of Decontamination: \_\_\_\_\_

3.

Decontaminated Body Areas	Survey Results Highest DPM

4. Sample for Urine Bio collected: Yes \_\_\_\_\_ No \_\_\_\_\_

5. Individual sent for Whole Body Count: Yes \_\_\_\_\_ No \_\_\_\_\_

C. INVESTIGATION REPORT: (Include R.W.P. #)

*Individual test has determined - write on the lot on the Rv Book*

Form Completed By:

*J. Murray*

D. RESULTS OF INVESTIGATION: (Completed by Radiation Protection Supervisor/Foreman)

*Was returned to work after evaluation of T.L.D.*

Approved By RP Supv/Foreman

*J. Murray*

**POOR ORIGINAL**

cc: Personnel Radiation Record File  
J.G. Herbein  
F.H. Grice

601231



METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 5 OF 6

DATE: 8/17/76 FACILITY: \_\_\_\_\_

SUBJECT: \_\_\_\_\_

FINDING: GP 0039 (Reports of Personnel Radiation Exposure on Termination of Employment or Work Assignment) states that a report of the individual's exposure to radiation shall be <sup>sent</sup> reported to the NRC no later than 30 days after the determination ~~or~~ 90 days after termination of employment which ~~is~~ shorter; the reports examined were in violation of the above.

DISPOSITION: The problem has been recognized and appropriate corrective action ~~and~~ <sup>is</sup> procedure changes <sup>was</sup> examined. (Circle one) ~~has~~ been initiated. GP 0039 will be removed by 10/1/76

Reports: GQL 0752  
GQL 0751

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION

COGNIZANT DEPT. HEAD: L. Beale

AUDIT TEAM LEADER: E. V. Kellogg

NOTIFIED: J. Sloman

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED: E. V. Kellogg 12/9/76  
AUDIT COORDINATOR DATE

POOR ORIGINAL



METROPOLITAN EDISON COMPANY  
AUDIT FINDING REPORT FORM

AUDIT NO. 76-14

FINDING 6 OF 6

DATE: 8/17/76 FACILITY: TMI - I

SUBJECT: Health Physics

FINDING: HPP 1770 (Film Badge and TLD Badge Record Keeping) is obsolete in that personnel dosimetry records are currently computer generated. The procedure should be deleted or replaced with a procedure prescribing the computer generated records.

DISPOSITION: Procedure revision will be reviewed and approved for implementation. 10/25/76  
(Circle one)

AGREEMENT/DISAGREEMENT, AS TO REPORTED FINDING AND DISPOSITION

COGNIZANT DEPT. HEAD: L. Beck

AUDIT TEAM LEADER: E.V. Kellogg

NOTIFIED: J. J. ...

STATION SUPT. OR DEPT. MANAGER

FINDING CLOSED: E.V. Kellogg 1/24/77

AUDIT Coordinator

DATE

**POOR ORIGINAL**

6-14 Audit Plan and Checklist (Radiation Control)

7/20/76  
D.P.R.

- Reference<sup>s</sup>:
- 10-CFR-19, 20
  - Radiation Protection Manual - TMI
  - GP 0039 Reports of Personnel Radiation Exposure on Termination of Employment of Work Assignment
  - HPP 1715 Operation & Calibration of the Thermoluminescent Dosimetry System
  - HPP 1685 Health Physics Procedure Compliance
  - HPP 1770 Film Badge and TLD Badge Record Keeping
  - HPP 1615 Use of Personnel Monitoring Devices
  - Mil Std. 105D Sampling Plan

Plan: The audit plan is to inspect the adequacy of, and compliance with, the personnel dosimetry requirements for each person in a statistically valid sample of the 800 people who were issued personnel dosimetry for the month of April, 1976. *Also, specific requirements in the reference documents will be checked, sect II of checklist.*

In accordance with the referenced sampling plan a lot size of 800 prescribes a sample size of 80. Therefore, the questions in section I of the checklist will be answered for 80 randomly selected individuals and <sup>the results</sup> noted on the attached <sup>will be</sup> data sheet. Section II are checks not applicable to individuals and will be answered on the checksheet.

Section I

1. Was a monitoring device issued to the individual?
2. Did he receive training in its use?
3. Is there evidence he used this badge a) by self reader record, b) by Radiation Work Permit, c) by film dosimeter result. *To self reader*
4. Was an accurate determination made of any exposure? *See history cards for out...*
5. Was the exposure within limits? *See history cards for out... not required to...*
6. Is his NRC-5 form correct, per HPP 1770, and up-to-date. *checked*
7. Was a report sent to him/NRC, if required, (GP 0039).

Section II

<u>Sat</u>	<u>Unsat</u>	<u>Discussion</u>
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HPP 1615

Para 5.3.4 Is there evidence that lost, dropped or off scale dosimeters are reported on (Form 1612-1). Are appropriate actions taken.

—	✓	0 1/2
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HPP 1685

**POOR ORIGINAL**

2.1 & 5.3.1 Inspect the audits performed by the Radiation Protection Supervisor/Foreman. Do they meet the prescribed frequency and areas for audit? Inspect (Form 1685-3)

—	✓	601234
---	---	--------

*Only one audit was in, audit fi*

Handwritten notes at the top of the page, possibly including a date or location.

I.P. no. 100  
19'

Handwritten notes in the middle section, possibly including initials or a name.

Handwritten notes in the lower middle section, possibly including a name or initials.

POOR ORIGINAL

601295

sat    unsat    discussion

- 5.1.2 Are Radiation Protection Violation Notices prepared (Form 1685-1)
- 5.2.1 Inspect violation log book.
- 5.3.6 Is there evidence that audit findings are followed up for effectiveness of corrective action and are audits on file?

— ✓  
 — ✓    The violation book was not available.  
 — ✓    ✓

Radiation Protection Manual

- 1.3 1) Are appropriate permission forms prepared prior to permitting personnel to exceed specified absorbed dose levels.
- Are the prescribed precautions followed when these individuals are so permitted.

*all to be done and completed*

*yes*

HPP 1715

- 5.5.2 thru 5.2 Are test and standard cards read and irradiated monthly to check instrument calibration, and assure quality assurance of dose information. Is annual test check made.

*The records in time traversed*  
*Copy had preparation for automatic dose.*  
*Form was not available.*

HPP 1770

- Para 1.0, When a report is not required is there written concurrence from the station Radiation Protection Supervisor.
- 2.0, When a report is required, is a report submitted to MOQA within 20 days after total exposure is determined or 80 days after the termination of employment.
- 3.0, Are reports prepared by the Licensing Staff signed by RCA.

*Copy = 3-2-85 1547-2-2-85*  
 ✓  
 — ✓  
 — ✓  
 — ✓

**POOR ORIGINAL**

631236

4. ... D.T. 2.500

4/21/74 - 04/30/76 *W.L. Ta...*

5. Coy, ... E. 1.500  
... 4 ...  
... .500 ...

\* ...

6. ... 2.360

POOR ORIGINAL

601297

No.	Name	Address	City	State
1	John H. ...	100150	...	S
2	...	100151	...	S
3	...	100152	...	C
4	...	...	...	S
5	...	100155	...	S
6	...	...	...	S
7	...	...	...	S
8	...	...	...	C
9	...	...	...	C
10	...	...	...	S
11	...	...	...	S
12	...	100160	...	S
13	...	100161	...	S
14	...	100162	...	S
15	...	100163	...	C
16	...	100164	...	S
17	...	100165	...	S

POOR ORIGINAL

60125B

S = not a party  
 U = unclassified party

Name	Check, I.	1	2	3	4	5	6	7
18 J. ...	100 179		S	11/1				
19 ...			S					
20 ...			U					
21 ...								
22 ...	E 100 220		S					
23 ...	100 230		S					
24 ...	F 100 240		S					
25 ...	A 100 250		S					
26 ...	S 100 260		S					
27 ...								
28 ...	E 100 284		S					
29 ...								
30 ...	100 300		S					
31 ...			S					
32 ...			S					
33 ...			S					
34 ...	F 100							

S = satisfactory  
 U = unsatisfactory

POOR ORIGINAL

601259

Name	Check, I.	1	2	3	4	5	6	7
35			S	U				
36			S					
37			S					
38			S					
39			S	V				
40			S	S	S			? U ✓
41			U	S	?			S
42			U	S	S			? U ✓
43			S	S	S			? U ✓
44			S	S	S			S
45			S	S	S			U
46			S	S				? U
47			S	S				
48			S	S				
49			U	S				
50			U	U				
51			S	S				

POOR ORIGINAL

601300

S = satisfactory  
U = unsatisfactory



Name	Check. I.	1	2	3	4	5	6	7
52 Adams, James	300292		S					
53 Goodman, Donald	300295		S					
54 Messner, C	300294		S					
55 Stacker, Fred	300319		S					
56 Davis, Herbert	300357		S					
57 Donlin, Hugh	300385		S					
58 Blackwell, W	300412		S					
59 W. Johnson	300430		S					
60 Cole, W. W.	300452		S					
61 Cohen, Robert	300481		S					
62 Shanky, Dan	300490		S					
63 Mairage, Stan	300498		S					
64 T. T. T. John	300518		S					
65 Craig, David	300553		S					
66 Hoop, Paul	300571		S					
67 Broad, Willard	300574		S					
68 Hooten, D	300577		U					

POOR ORIGINAL

601301

S = satisfactory  
 U = unsatisfactory

Home	Check, I.	1	2	3	4	5	6	7
69 McGrew, Richard	300604		S	S				
70 Bolger, Frank	300615		S	S				
71 Lear, Alan A.	300623		S	S				
72 Campbell, Pete	300629		S	S				
73 Steed, Andrew	300656		?U	S				
74 Bower, George	300705		S	S				
75 Harper, Charles	300711		U	S				
76 Hickey, John	300720		S	S				
78 Scott, Charles	300801		U	U				
78 Leonard, Joe	300707		S	S				
79 Wallace, Joe	300642		S	S				
80 Conway, Mike	300621		S	S				

POOR ORIGINAL

661302

S = satisfactory  
U = unsatisfactory

# METROPOLITAN EDISON COMPANY

Subsidiary of General Public Utilities Corporation

Subject AUDIT NOTICE, 76-14 RADIATION CONTROL  
(DOSIMETRY PROGRAM)

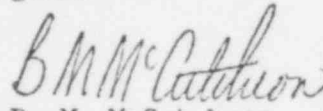
Location Reading

Date July 22, 1976  
GQM 2139

To J. J. COLITZ

An audit of the dosimetry program will be conducted during the week of July 25, 1976 by Messrs. M. R. Buring, (Radiation Safety Environmental Engineering) and E. V. Kellogg (OQA).

The purpose and scope of the audit is to determine the adequacy of and compliance with TMI-1 dosimetry program.



B. M. McCutcheon  
Ext. 113

BMM:EVK:rk

cc: M. R. Buring  
J. G. Herbein  
L. L. Lawyer

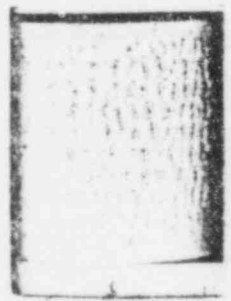
File: 61.0002.0018.0004

601303

1. New man is not assigned to the existing program.
2. Existing (over)manpower of expense print area not evaluated.
3. Why continue with it?
4. Why continue with it?

and MFE  
 EDA

POOR ORIGINAL



601304

TO E.V. KELLOGG

METROPOLITAN EDISON CO.

SPEED MEMO

DATE 10/30/76

MESSAGE

FIND ATTACHED AUDIT 76-14, FINDINGS 1, 5, AND 6. FINDINGS 2, 3, AND 4 WILL BE CLOSED AND PROPER DOCUMENTATION COMPLETE BY 11/5/76.

Please reply to

SIGNED: JEROMANSKI

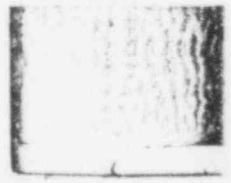
REPLY

FLR Findings 1 & 2 are closed  
3 & 4 are extended to 11/15/76  
5 is extended to 11/25/76  
6 is extended to 12/31/76

DATE: 11/8/76

SIGNED: E.V. Kellogg

THIS COPY FOR PERSON ADDRESSED



POOR ORIGINAL

601305

AUDIT FINDING CLOSEOUT EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 1 has been resolved to my satisfaction by

the action described in Letter       

Memo       

Report       

This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

① Action Taken: V. CHEILMAN AND J.E. HIPPLE HAVE RECEIVED DOSIMETRY TRAINING AS PART OF THEIR TRAINING AS RAD CHEM TECH'S. THIS IS DOCUMENTED. THESE INDIVIDUALS WILL NOT NECESSARILY RECEIVE DOSIMETRY TRAINING AS PART OF THE GENERAL EMPLOYEE TRAINING.

Submitted:

J. Romanuski 10/30/76  
Date

Compliance to the present training requirements should be emphasized and documented.

cc:

Accepted  
Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

E. V. Kellogg 11/5/76  
Audit Engineer Date  
Coordinator

POOR ORIGINAL

601306

# FINDING 1, CONTINUED.

(2) DOCUMENTATION INDICATING THAT CHARLES HAFFER HAS COMPLETED HEALTH PHYSICS BASIC I IS ON FILE IN THE TRAINING DEPARTMENT.

(3) ~~THE~~ DOCUMENTATION FOR W.D. MANIS, D. HURTEAU, A. STEED, ~~AND~~ CHESTER SCOTT IS NOT ON FILE. INDIVIDUALS RECEIVING PERSONNEL DOSIMETRY ARE, HOWEVER, INSTRUCTED IN THE USE OF DOSIMETRY WHEN IT IS ~~BE~~ ISSUED TO THEM. THIS INSTRUCTION AMOUNTS TO SHOWING THE INDIVIDUAL WHERE TO WEAR THE DOSIMETRY AND WHERE TO RETURN THE DOSIMETRY UPON THE COMPLETION OF HIS ASSIGNMENT. THE FACT THAT DOCUMENTATION WAS LOST WAS DISCUSSED WITH THE SUPERVISOR OF TRAINING. WE AGREED THAT THE CURRENT PROGRAM WAS ADEQUATE AND DO NOT ANTICIPATE ANY CHANGES AT THIS TIME.

There is non-compliance with the system

EUR 11/8/76

601307

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject OUTSTANDING AUDIT FINDING

Location Reading

To J. E. Romanoski

Date 10/18/76  
GPM 3089

Please be informed that Findings 1,394 of Audit 76-14 has have  
passed its disposition date. You were notified of this condition on 1/10/76  
and no action has apparently been taken to date. Please ensure that the  
corrective action is completed by 12/29/76.

The attached form may be utilized for reply.

E. V. Kellogg

EVK:cas

Attachment (w/original only)

cc: Dept. Head/Unit Superintendent \_\_\_\_\_ (w/o attach)  
Audit Coordinator (w/o attach)



Subject: Overdue Audit Finding

To: K. E. Beale,

Please be informed that the Target Date of 9/25/76, by which you were to have completed

Audit 76-14; Finding 1,344

has passed. Please complete this form and return it to the Lead QA Engineer c/o E. V. Kellogg. If this item has not been completed, please apply for a new Target Date by entering requested date in the appropriate space below. If the item has been completed, please indicate (by number, if possible) any correspondence that references this fact. If there is no pertinent correspondence, please enter your comments instead.

ITEM NOT COMPLETED

Status

Requesting New Target Date of \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

ITEM COMPLETED

Date Completed: \_\_\_\_\_

Reference: Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

No Reference; My Comments:

cc: Audit Coordinator (EVR, 10/5/76)

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject OVERDUE AUDIT  
76-14-2

Location TMI Nuclear Station  
Middletown, Pa.

Date November 4, 1976

To L.L. LAWYER

1. The concerns identified in this audit finding have been resolved. Departmental audits have been performed in the Radiation Protection Department during the months of September and October.
2. Assignment of audit findings to my personnel for resolution have possibly not received the priority that the auditor feels they should. In the future, a prompt response will be initiated upon the determination that an audit finding cannot be resolved by the agreed upon resolution date.
3. Audit 76-14-2 will be closed by November 5, 1976. Copies of subject audits will be attached.

*J.E. Romanski*

J.E. Romanski  
Supervisor of Radiation  
Protection and Chemistry

JER/dcr

cc: J.J. Colitz

J.G. Herbein

~~E.V. Kellogg~~ *Rdg*

file: JER writer's file

601310

X  
O  
X  
E  
X  
C  
K

AUDIT FINDING CLOSEOUT / EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 2 has been resolved to my satisfaction by

the action described in Letter \_\_\_\_\_  
Memo \_\_\_\_\_  
Report \_\_\_\_\_  
This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: AUDITS IN ACCORDANCE WITH HP 1685 HAVE BEEN PERFORMED IN ~~AUGUST~~ <sup>SEPTEMBER</sup> SEPTEMBER, AND OCTOBER. COPIES ATTACHED.

Submitted:

[Signature] 10/30/76  
Date

cc:

Accepted  
 Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

E. L. Killgore 11/5/76  
Audit Engineer Date  
Coordinator

601311

RADIATION PROTECTION DEPARTMENT

AUDIT REPORT

AUDIT CONDUCTED BY: [Signature] DATE: 1/2/76

AUDIT REVIEW AREA: RTU's TIME: 1:00 PM

FINDING(S): 1. All instruments are properly calibrated  
5. Instruments requiring calibration are calibrated at intervals  
of 12 months or shorter as appropriate. RTU's are documented  
in the log book. RTU's are documented in S.P. 1301-54  
and S.P. 1301-54. Instruments with a range check not documented  
are documented in the log book. RTU's are documented in the log book  
and S.P. 1301-54. All instruments are calibrated at intervals of 12  
months or shorter as appropriate. RTU's are documented in the log book  
and S.P. 1301-54.

RECOMMENDATION(S): Instruments with a range check not documented  
are documented in the log book. RTU's are documented in the log book  
and S.P. 1301-54. All instruments are calibrated at intervals of 12  
months or shorter as appropriate. RTU's are documented in the log book  
and S.P. 1301-54.

RESOLUTION(S): A.C.E. - log book will be updated to indicate  
those instrument checks which are documented elsewhere.  
Additionally, instruments which have been checked will have their  
log checked and updated. RTU's are documented in the log book  
and S.P. 1301-54. All instruments are calibrated at intervals of 12  
months or shorter as appropriate. RTU's are documented in the log book  
and S.P. 1301-54.

SIGNATURE: J.E. Romanus  
Supervisor of Radiation Protection and Chemistry

**POOR ORIGINAL** 6C1312

RADIATION PROTECTION DEPARTMENT

AUDIT REPORT

AUDIT CONDUCTED BY: FH GRICE DATE: 10/27/76

AUDIT REVIEW AREA: RESPIRATORY EQUIP<sup>T</sup> TIME: N/A

FINDING(S): SEE ATTACHED.

RECOMMENDATION(S): SEE ATTACHED.

RESOLUTION(S): SEE ATTACHED. THE RESPIRATOR PROCEDURE, HP1616, WILL BE REVIEWED FOR ADEQUACY AND PRACTICALITY. REVISIONS WILL BE SUBMITTED TO PORC BY NO LATER THAN 30 NOVEMBER 1976.

SIGNATURE: *J. S. [Signature]*  
Supervisor of Radiation Protection and Chemistry

601313

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Xerox: TLM  
RWD  
RDM  
+ TWO COPIES

Subject AUDIT OF RESPIRATORY PROGRAM HPP1646

Location TMI Nuclear Station  
Middletown, Pa.  
Date October 27, 1976

To J. E. ROMANSKI

An audit of the subject program showed the following:

1. 5.9.1 Training is needed for all employees on proper inspection of equipment before and after use. Emphasis on after, my checks indicate that individual employees are not doing this.
2. 5.9.2 A check of HP Department records showed our last inspection was July 1976, and before that April 1976. Some check sheets were not dated and the numbers and locations of pieces inspected not shown. Training in this area is also lacking. A Scott representative was here on 9/8/76 and presented a training program which we video-taped, this program has not been shown to anyone since. Most HP technicians really don't know proper inspection techniques.
3. 5.9.3 Control is needed as far as equipment maintenance is concerned. No record is kept on how many and which type of equipment requires maintenance. Because of this, follow up on getting the work done is difficult. For a given emergency we may not have sufficient equipment available.
4. Table 1616-3 self-contained apparatus was missing from the following locations:
  - 1 Control Building kitchen
  - 1 Service Building store room
  - \*2 Intermediate Building
  - \*2 Turbine Building 305'
  - \*2 Turbine Building 322'
  - 1 Aux. Building 281'
  - 2 Aux. Building 305'

\*It appears as though we never have had equipment installed in these locations.

According to Safety Department and HP Department records we should have 27 self-contained breathing units, 25 Scotts and 2 Survive Air. During my checking I could only locate 19. This inventory should be checked and missing units replaced. We appear to have sufficient cartridge type respirators, however, control of this inventory should be tightened.

*F. H. Grice*  
F. H. Grice

FHG:cg

cc: J. J. Colitz  
R. W. Dubiel  
W. S. Poyck

601314

Comments on Audit of Reg Program - H.P. 1616

- 1) 5.9.1 We tell all employees in every training session that we care for H.P. what to look for when inspecting a respirator - we also show & tell them how to be sure it fits properly etc. We also tell them when a r.p. is needed and how to return it to the Incon Room.
- 2) 5.9.2 I don't know what records exist for this procedure because there is a lack of data accumulation which is the fault of the procedure. We must decide what equipment is to be put on inventory list and how to be on a monthly basis.
- 3) 5.9.3 Same as above. I have talked to Fred. If we term the Scott & Survivalair Equipment listed in Table 1616-3 of the procedure as Emergency Equipment. It can be on the inventory to be dealt with on a monthly basis - It can be ~~in the inventory~~ and dealt with as 6821315 - ~~in the inventory~~ ~~on a monthly basis~~. The list however is

POOR ORIGINAL

Shows 23 Units - Fred admits  
that the Safety Dept and H.A. Dept  
records show we should have 27  
available. Somewhere we have to make  
a cut in the list and order a few more  
to use for training etc. As the list  
stands now we just don't make it.

As far as installation of all these units  
in the locations as specified in the table -  
we will have to look and see. I don't  
know if they are there or not.

---

Tom  
Tom MULLEAVY

POOR ORIGINAL

601316



METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject OVERDUE AUDIT FINDING 76-14-2 (HEALTH PHYSICS - SELF AUDIT PROCEDURE NON-COMPLIANCE) Location Reading  
Date October 18, 1976  
To J. E. ROMANSKI GQM 3081

The subject audit finding was originally to be completed by 8/31/76. You were notified of this overdue condition on 9/17 and 10/5/76. The apparent failure to close this finding indicates a weakness in the management control system which requires a reply within ten days. This reply should include:

1. Any corrective action you have taken, or will take;
2. The corrective action which will be taken to avoid future delays of this type; and
3. The date this finding will be closed.

ORIGINAL SIGNED BY  
L. L. LAWYER

*LL* L. L. LAWYER  
EXT. 111

LLL:EVK:mft

cc: R. C. Arnold  
J. G. Herbein  
*J. J. Cehitz*  
File: 61.0002.0018.0004

601317

METROPOLITAN EDISON COMPANY

Subsidiary of General Public Utilities Corporation

Subject OUTSTANDING AUDIT FINDING

Location Reading

To J. E. Romanuk

Date 10/5/76

Please be informed that Finding 2 of Audit 76-14 has passed its disposition date. You were notified of this condition on 1/17/76 and no action has apparently been taken to date. Please ensure that the corrective action is completed by 11/5/76.

The attached form may be utilized for reply.

E. V. Hogg

EVK:cas  
Attachment (w/original only)

cc: Dept. Head/Unit Superintendent J. J. Colby (w/o attach)  
~~Audit Coordinator (w/o attach)~~

GPF 4015.002  
5/10/76  
Rev. 2

601318

Subject: Overdue Audit Finding

To: J. Emanuele

Please be informed that the Target Date of 8/31/76, by which you were to have completed

Audit 76-14; Finding 2

has passed. Please complete this form and return it to the Lead QA Engineer c/o E. V. Kellogg. If this item has not been completed, please apply for a new Target Date by entering requested date in the appropriate space below. If the item has been completed, please indicate (by number, if possible) any correspondence that references this fact. If there is no pertinent correspondence, please enter your comments instead.

ITEM NOT COMPLETED

Status

Requesting New Target Date of \_\_\_\_\_

ITEM COMPLETED

Date Completed: \_\_\_\_\_

Reference: Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

No Reference; My Comments:

*EVA 9/17/76*

cc: Audit Coordinator

AUDIT FINDING (CLOSEOUT/EXTENSION)

To: B. M. McCutcheon

Audit 76-19 Finding 3 has been resolved to my satisfaction by

the action described in Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: ① DATA FROM THE ~~EXAMPLE~~ ~~EXAMPLE~~ INCOMPLETE

FORM 1612-1 HAS BEEN INPUTTED TO THE REMS COMPUTER PROGRAM. THE FORM HAS BEEN COMPLETED.

② THE RADIATION EXPOSURE FILE HAS BEEN INSPECTED AND ALL FORMS 1612-1 REVIEWED FOR COMPLETENESS.

③ A MEMO ATTACHED, HAS BEEN DISTRIBUTED TO THE RADIATION PROTECTION DEPARTMENT STAFF.

Submitted: J. J. [Signature] 11/5/76  
Date

cc:

Accepted  
Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

[Signature] 11/16/76  
Audit Engineer Date

601320

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject FORM 1612-1  
(CONTAMINATION/EXPOSURE REPORT)

Location TMI Nuclear Station  
Middletown, Pa.

Date November 4, 1976

To RADIATION PROTECTION SUPERVISORS  
RADIATION/CHEMISTRY TECHNICIANS/JUNIORS

It has been noted that many personnel have lost dosimetry equipment and Form 1612-1 has not been utilized properly.

This form is required by procedure to maintain exposure records in case of the loss of dosimetry equipment.

Please help us by using these forms and completing them correctly.

  
Fred Huwe

FMH/dcr  
cc: J.E. Romanski  
file: FMH Writer's File

681321

AUDIT FINDING CLOSEOUT/EXTENSION

To: Audit Coordinator

Audit 76-14 Finding 1, 3, 4, 4 ~~has been resolved to my satisfaction by~~  
the action described in Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

This Form \_\_\_\_\_

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: Please change Cognizant Party to R.W. DUBIEL from K.E. BEALE. Also change target date to 11/15/76. Reason not complete - Dubiel has not had the time.

Submitted:

RS Harbin 10/22/76  
Date

cc: Submitting party

Accepted  
Rejected

E. V. Kellogg 11/8/76  
Audit Coordinator Date

AUDIT FINDING CLOSEOUT/EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 34 has been resolved to my satisfaction by

the action described in Letter \_\_\_\_\_  
Memo \_\_\_\_\_  
Report \_\_\_\_\_  
This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: (1) THE EXAMPLE INCOMPLETE FORM 1612-1 HAS BEEN COMPLETED AND THE DATA HAS BEEN INPUTTED TO THE COMPUTER.

(2) A MEMO (SEE 76-14, FINDING 3), HAS BEEN ~~BE~~ DISTRIBUTED TO THE RADIATION PROTECTION STAFF.

Submitted:

J. Romanuski 11/5/76  
Date

cc:

Accepted  
Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

C. V. Kitting 11/16/76  
Audit Engineer Date

601323

# METROPOLITAN EDISON COMPANY

Subsidiary of General Public Utilities Corporation

Subject FORM 1612-1  
(CONTAMINATION/EXPOSURE REPORT)

To RADIATION PROTECTION SUPERVISORS  
RADIATION/CHEMISTRY TECHNICIANS/JUNIORS

Location TMI Nuclear Station  
Middletown, Pa.

Date November 4, 1976

It has been noted that many personnel have lost dosimetry equipment and Form 1612-1 has not been utilized properly.

This form is required by procedure to maintain exposure records in case of the loss of dosimetry equipment.

Please help us by using these forms and completing them correctly.

  
Fred Huwe

FMH/dcr  
cc: J.E. Romanski  
file: FMH Writer's File



AUDIT FINDING CLOSEOUT

To: Manager-OQA

Audit 76-14 Finding 5 has been resolved to my satisfaction by

the action described in  Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

This form X

Action Taken:

GP 0039, REV 1, HAS BEEN  
APPROVED BY RC ARNOLD.

Submitted:

J. J. Jomandin

12/17/76  
Date

Accepted

Rejected

E. V. Kellough  
MOQA-

12/9/76  
Date

AUDIT FINDING CLOSEOUT/EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 5 has been resolved to my satisfaction by

the action described in Letter       

Memo       

Report       

This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: ~~GPO039 IS STILL UNDER~~

SUBMITTED REVISIONS TO GPO039 HAVE YET TO ~~BE~~ A BE APPROVED BY A LAWYER. THE IMPLEMENTATION OF THE PROPOSED REVISIONS WILL SOLVE THE CONCERNS RAISED IN THIS FINDING.

*I cannot see why...  
EPC...  
of 10/30/76*

Submitted:

J. J. Romanowski

10/30/76  
Date

cc:

Accepted  
Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

S. L. Hogg         
Audit Engineer Date

POOR ORIGINAL

601326

Subject: Overdue Audit Finding

To: J. E. Remondino,

Please be informed that the Target Date of 10/1/76, by which, you were to have completed

Audit 76-14; Finding 5

has passed. Please complete this form and return it to the Lead QA Engineer c/o E. V. Kellogg. If this item has not been completed, please apply for a new Target Date by entering requested date in the appropriate space below. If the item has been completed, please indicate (by number, if possible) any correspondence that references this fact. If there is no pertinent correspondence, please enter your comments instead.

ITEM NOT COMPLETED

Status

Requesting New Target Date of \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

ITEM COMPLETED

Date Completed: \_\_\_\_\_

Reference: Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

No Reference; My Comments:

cc: Audit Coordinator (initials)

601327

AUDIT FINDING CLOSEOUT/EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 6 has been resolved to my satisfaction by

the action described in Letter       

Memo       

Report       

This Form X

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: PCR submitted to update procedure.

Procedure now describes methods presently employed at TMI for dosimetry control.

Submitted:

R.W. Duhril

1/21/77  
Date

cc:

Accepted  
Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

E.V. Killogg  
Audit Engineer

1/24/77  
Date

Coordinator

AUDIT FINDING CLOSEOUT/EXTENSION

To: B. M. McCutcheon

Audit 76-14 Finding 6 ~~has been resolved to my satisfaction by~~

~~the action described in~~ Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

This Form \_\_\_\_\_

If requesting a new completion date, please indicate the reason for the delay and the requested date in the Action Taken section of this form.

Action Taken: PCR TO be submitted  
by 1/14/77. Request new  
target date of 1/14/77.

Submitted:

R.S. Harbor 1/7/77  
Date

cc: Fred Howe  
Dick Dubiel

Accepted  
 Rejected

GPF 4015.003  
Date: 10/17/75  
Rev. 1

E.V. Kellogg 1/12/77  
Audit Engineer Date  
Coordinator

601323

Subject: Overdue Audit Finding

To: R.W. Dubiel,

Please be informed that the Target Date of 12/31/76, by which you were to have completed

Audit 76-14; Finding 6

has passed. Please complete this form and return it to the Lead QA Engineer c/o E. V. Kellogg. If this item has not been completed, please apply for a new Target Date by entering requested date in the appropriate space below. If the item has been completed, please indicate (by number, if possible) any correspondence that references this fact. If there is no pertinent correspondence, please enter your comments instead.

ITEM NOT COMPLETED

Status

Requesting New Target Date of 1-14-76

Item working -  
New date already requested  
R.W. Dubiel

ITEM COMPLETED

Date Completed: \_\_\_\_\_

Reference: Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

No Reference; My Comments:

cc: Audit Coordinator

Subject: Overdue Audit Finding

To: R.W. Dubiel

Please be informed that the Target Date of 12/31/76, by which you were to have completed

Audit 76-14; Finding 6

has passed. Please complete this form and return it to the Lead QA Engineer c/o E. V. Kellogg. If this item has not been completed, please apply for a new Target Date by entering requested date in the appropriate space below. If the item has been completed, please indicate (by number, if possible) any correspondence that references this fact. If there is no pertinent correspondence, please enter your comments instead.

ITEM NOT COMPLETED

Status

Requesting New Target Date of \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

ITEM COMPLETED

Date Completed: \_\_\_\_\_

Reference: Letter \_\_\_\_\_

Memo \_\_\_\_\_

Report \_\_\_\_\_

No Reference; My Comments:

cc: Audit Coordinator

To: Manager-OQA

Audit 76-141- Finding G <sup>NOT</sup> has been resolved to my satisfaction by the action described in:

- Letter \_\_\_\_\_
- Memo \_\_\_\_\_
- Report \_\_\_\_\_
- This Form

Action Taken: PLEASE EXTEND THE DUE DATE FOR THIS FINDING TO 12/31/76. THE ENTIRE AREA OF PERSONNEL DOSIMETRY IS CURRENTLY UNDER REVIEW BY A RECENTLY HIRED RADIATION PROTECTION FOREMAN. HIS WORK SHOULD BE COMPLETE BY THAT DATE. UNTIL THAT TIME, THE MFL DOSIMETRY PROGRAM WILL BE ADMINISTERED IN ACCORDANCE WITH ACCEPTED HEALTH PHYSICS PRACTISES.

Submitted By: J. J. Jankowski  
 Date: 10/30/76

POOR ORIGINAL

*[Handwritten notes and signatures at the bottom of the page, including a date stamp 601232 and various initials.]*