



*NUDOCs*

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

NRC FOIA REQUEST NUMBER(S) <b>FOIA - 89-446</b>	
RESPONSE TYPE	
<input checked="" type="checkbox"/> FINAL	<input type="checkbox"/> PARTIAL
DATE <b>NOV 21 1989</b>	
DOCKET NUMBER(S) (if applicable)	

REQUESTER  
*Mr David DeKok*

PART I. - AGENCY RECORDS RELEASED OR NOT LOCATED (See checked boxes)

- No agency records subject to the request have been located.
- No additional agency records subject to the request have been located.
- Requested records are available through another public distribution program. See Comments Section.
- Agency records subject to the request that are identified on Appendix(es) A are already available for public inspection and copying in the NRC Public Document Room, 2120 L Street, N.W., Washington, DC 20555.
- Agency records subject to the request that are identified on Appendix(es) B are being made available for public inspection and copying in the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.
- The nonproprietary version of the proposal(s) that you agreed to accept in a telephone conversation with a member of my staff is now being made available for public inspection and copying at the NRC Public Document Room 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.
- Agency records subject to the request that are identified on Appendix(es) \_\_\_\_\_ may be inspected and copied at the NRC Local Public Document Room identified in the Comments Section.
- Enclosed is information on how you may obtain access to and the charges for copying records placed in the NRC Public Document Room, 2120 L Street, N.W., Washington, DC.
- Agency records subject to the request are enclosed. Appendices A, B, C
- Records subject to the request have been referred to another Federal agency(ies) for review and direct response to you.
- You will be billed by the NRC for fees totaling \$ \_\_\_\_\_.
- In view of NRC's response to this request, no further action is being taken on appeal letter dated \_\_\_\_\_ No. \_\_\_\_\_.

PART II. A - INFORMATION WITHHELD FROM PUBLIC DISCLOSURE

- Certain information in the requested records is being withheld from public disclosure pursuant to the exemptions described in and for the reasons stated in Part II, sections B, C, and D. Any released portions of the documents for which only part of the record is being withheld are being made available for public inspection and copying in the NRC Public Document Room, 2120 L Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.

COMMENTS

*These records were forwarded to NRC by the Dept. of Health + Human Services.*

SIGNATURE, DIRECTOR, DIVISION OF FREEDOM OF INFORMATION AND PUBLICATIONS SERVICES  
*John Phillips*

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PDR FOIA  
DEKOK89-446 PDR

PART II B - APPLICABLE EXEMPTIONS

Records subject to the request that are described on the enclosed Appendix(es) C are being withheld in their entirety or in part under the Exemptions and for the reasons set forth below pursuant to 5 U.S.C. 552(b) and 10 CFR 9.17(a) of NRC Regulations.

1. The withheld information is properly classified pursuant to Executive Order (EXEMPTION 1)
  2. The withheld information relates solely to the internal personnel rules and procedures of NRC. (EXEMPTION 2)
  3. The withheld information is specifically exempted from public disclosure by statute indicated: (EXEMPTION 3)
    - Sections 141-145 of the Atomic Energy Act which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
    - Section 147 of the Atomic Energy Act which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
  4. The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated: (EXEMPTION 4)
    - The information is considered to be confidential business (proprietary) information.
    - The information is considered to be proprietary information pursuant to 10 CFR 2.790(d)(1).
    - The information was submitted and received in confidence pursuant to 10 CFR 2.790(d)(2).
  5. The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. (EXEMPTION 5). Applicable Privilege:
    - Deliberative Process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
    - Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation.)
    - Attorney-client privilege. (Confidential communications between an attorney and his/her client.)
  - X 6. The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy. (EXEMPTION 6)
  7. The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated. (EXEMPTION 7)
    - Disclosure could reasonably be expected to interfere with an enforcement proceeding because it could reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow them to take action to shield potential wrongdoing or a violation of NRC requirements from investigators. EXEMPTION 7 (A)
    - Disclosure would constitute an unwarranted invasion of personal privacy (EXEMPTION 7(C))
    - The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources (EXEMPTION 7 (D))
- OTHER

PART II C - DENYING OFFICIALS

Pursuant to 10 CFR 9.25(b) and/or 9.25 (c) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The persons responsible for the denial are those officials identified below as denying officials and the Director, Division of Freedom of Information and Publications Services, Office of Administration and Resources Management, for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL	
			SECRETARY	EDO
<i>Eric J. Backlund</i>	<i>Director, Office of Nuclear Regulatory Research</i>	<i>C/1</i>		<i>X</i>

PART II D - APPEAL RIGHTS

The denial by each denying official identified in Part II.C may be appealed to the Appellate Official identified in that section. Any such appeal must be in writing and must be made within 30 days of receipt of this response. Appeals must be addressed as appropriate to the Executive Director for Operations or to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should clearly state on the envelope and in the letter that it is an "Appeal from an Initial FOIA Decision."

Re: FOIA-89-446

APPENDIX A  
DOCUMENTS ALREADY IN THE PDR

1. 4/3/79 Letter to Joseph A. Califano, Jr., from Joseph M. Hendrie.  
(1 page) (ANO 7904130162)
2. 9/17/79 Memorandum for Commissioner Bradford from Victor Stello, Jr.,  
re: Health Physics Program at TMI, with enclosures. (26 pages)  
(ANO 8711060134)

APPENDIX B  
DOCUMENTS BEING PLACED IN THE PDR

1. 3/7/79 Amendment of Solicitation/Modification of Contract. (2 pages)
2. 2/27/79 Transcript, re: Proposal Conference on RFP No. RS-OSD-79-010 (A Study to Determine the Feasibility of Conducting an Epidemiologic Investigation of health Effects of Low-Level Ionizing Radiation). (26 pages)
3. 6/27/79 Letter to Dr. Elliott Stonehill from Todd M. Frazier, with enclosures. (20 pages)
4. 6/30/79 Annotated version of Current Occupational External Radiation Exposure, re: TMI Station. (1 page)
5. 9/1/79 A Study to Determine the Feasibility of Conducting an Epidemiologic Investigation of Health Effects of Low-Level Ionizing Radiation. (216 pages)
6. 9/7/79 Memorandum for Scientific Review Group on Feasibility Planning Study from Michael A. Parsont, re: Draft of the September 30 Interim Report to Congress on the Epidemiology Feasibility Planning Study, with enclosure. (12 pages)
7. 10/8/79 Letter to Todd M. Frazier from Michael A. Parsont. (1 page)
8. 10/16/79 Letter to Anthony Robbins from Robert A. Purple, with enclosures. (37 pages)
9. 2/27/81 Memorandum for Michael A. Parsont from Diane S. Flack, re: Status Report on TMI Worker Registry. (7 pages)

Re: FOIA-89-446

APPENDIX C  
DOCUMENT PARTIALLY WITHHELD

1. 6/30/79 Current Occupational External Radiation Exposure,  
re: TMI Station. (1 page) Ex. 6



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20535

April 3, 1979

HEW-05  
APR 4 3 49 PM '79

The Honorable Joseph A. Califano, Jr.  
Secretary of Health, Education and Welfare  
Washington, D. C. 20201

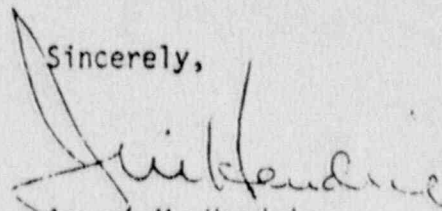
Dear Mr. Secretary:

This is in response to your memorandum of April 1, 1979 regarding the monitoring of persons on the Three Mile Island site during the incident. All individuals entering the island site are registered and provided appropriate dosimetry. It is our understanding that the site will evaluate and compile the exposures for all these individuals including personal information such as affiliation, address, date of birth and social security number. We have discussed this with Mr. Mark Nelson who is an HEW representative at the NRC Operations Center and he has agreed to relay this information to Dr. Robbins.

It should also be pointed out that both NRC and DOE have systems which can account for all their employees and contractor employees attached to both agencies working on the island site or in the vicinity of the site. If necessary, the list of these individuals could be made available to Dr. Robbins.

If there is any additional information you need or any additional actions which you believe we should take to establish adequate records, please let me know.

Sincerely,

  
Joseph M. Hendrie

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PDR

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SEP 17 1979

MEMORANDUM FOR: Commissioner Bradford  
THRU: *(Signed) T. A. Rehan*  
Executive Director for Operations  
FROM: Victor Stello, Jr., Director, Office of Inspection  
and Enforcement  
SUBJECT: HEALTH PHYSICS PROGRAM AT TMI

In your memorandum dated August 22, 1979, you had questions regarding identified deficiencies in Metropolitan Edison's health physics program at TMI and the plans and schedules which the staff believes are necessary to remedy these deficiencies. The following discussion and the enclosures provide the information you requested.

IE expressed its concerns regarding the health physics program at TMI in meetings with representatives of corporate management of Metropolitan Edison on July 13 and 18, 1979. The licensee committed, in a letter dated July 18 (see enclosure 1), to implementation of corrective action with regard to the following specific aspects of the radiation protection program:

- . organization,
- . QA audits,
- . control of high radiation areas,
- . air sampling program,
- . comprehensive bioassay program, and
- . personnel exposure procedures.

In letters to the Director, NRC Region I, dated August 6, 13, and 16, 1979, the licensee updated the status of actions committed to in the July 18 letter (see enclosures 2, 3 and 4). The following summarizes the current status of the identified areas of the health physics program:

- . The organization of the radiation protection program remains deficient in that: (a) functional areas and responsibilities are not clearly defined, and (b) there is no one person with the responsibility of coordinating

CONTACT: E. D. Flack, IE  
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station-wide radiation protection policy, and there is no objective evidence that the Unit 1 and Unit 2 radiation protection supervisors have an effective communication system to accomplish such coordination.

Action was scheduled to be completed by September 15, 1979.

- . The implementation of their QA program relating to the radiation protection program has not yet been accomplished.

Action was scheduled to be completed by September 15, 1979.

- . The revision of written procedures for high radiation areas was developed early in August 1979, but the work was of poor quality. As of September 4, 1979, the revised procedures have not been issued. This item is long overdue.

Action should be completed within the next few days.

- . The procedure containing written criteria for evaluating air samples had not been implemented as of September-2, 1979. This item is long overdue.

Action should be completed within the next few days.

- . The licensee's review and implementation of a bioassay program remains incomplete. Procedures related to this program were formulated on August 17, 1979, but were found by the NRC to be inadequate. New procedures are being developed. Training of people in these procedures should be complete a week after procedures are issued.

Action should be completed by September 30, 1979.

- . The licensee developed procedures for evaluation of an individual's exposure to airborne radioactive materials; this was completed August 17, 1979. The NRC found these to be inadequate, and the licensee is currently preparing a revision.

Action was scheduled to be completed by September 15, 1979.

Please note that while we are aware of the NUS report and its criticisms of the TMI health physics program, we have not specifically discussed that report and findings with the licensee. We have, however, reviewed the NUS findings and the results of our inspection program and find them to be generally consistent. There are certain aspects covered by the NUS report that are not covered specifically by regulatory requirements, nor have they been included specifically in detail in our inspection program. These items are related generally to the organization, communications and coordination within the health physics staff; whereas our attention has been devoted primarily to inter-organizational coordination and communication, e.g., between health physics and operational staffs, and between the staffs of the two operational units. We believe the deficiencies in this latter area (overall coordination, communications and oversight and management controls) contribute in large part to the problems



*Miller*

experienced at the site, and we are focusing our attention toward achieving corrective actions in this area. The NUS report, however, has focused our attention on other areas and we will follow these more closely in the future.

In summary, there are still deficiencies in the health physics program at TMI, and occasional lapses which result in exposure and contamination incidents. Improvements have been and continue to be slow. Our onsite inspectors are monitoring daily the actions of the licensee in meeting the commitments for improvements and in routine operational aspects of worker protection. As deficiencies are identified they are pointed out to licensee management, discussed in periodic meetings with licensee management representatives, and summarized in monthly formal reports of inspections.

Please let us know should you have any further questions concerning the above subjects. As in the past, we will continue to keep the Commission and its staff informed in a timely manner of incidents and newsworthy events that occur at the TMI site.

*(s) Thompson*  
*fo*  
Victor Stello, Jr.  
Director  
Office of Inspection  
and Enforcement

Enclosures:

1. July 18, 1979 ltr from Metropolitan Edison
2. August 6, 1979 ltr from Metropolitan Edison
3. August 13, 1979 ltr from Metropolitan Edison
4. August 16, 1979 ltr from Metropolitan Edison

cc: Chairman Hendrie  
 Commissioner Gilinsky  
 Commissioner Kennedy  
 Commissioner Ahearne  
 S. J. Chilk, SECY  
 A. Kenneke, PE  
 L. Bickwit, OGC

Distribution:

- |                                       |               |
|---------------------------------------|---------------|
| L. V. Gossick, EDO                    | IE Files      |
| R. Smith, EDO                         | Central Files |
| T. Rehm, EDO                          | IE Reading    |
| H. R. Denton, NRR                     | EDO Reading   |
| <del>R. Minogue, SD</del>             |               |
| TMI Inquiry Group                     |               |
| V. Stello, IE                         |               |
| D. Thompson, IE                       |               |
| G. C. Gower, IE                       |               |
| G. Ertter (EDO-7224)                  |               |
| L. N. Underwood, IE<br>(H11-2028-H08) |               |
| J. H. Sniezek, IE                     |               |
| L. B. Higginbotham, IE                |               |
| E. D. Flack, IE                       |               |

*IE: RT*  
*concerned by phone*  
*9/12/79*  
 EDO  
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*AD: FFMSI*  
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 GCGower  
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 9/17/79

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 9/ 179

July 18, 1979  
GQL 0909

Mr. B. E. Grier, Director  
Office of Inspection and Enforcement  
Region 1  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Sir:

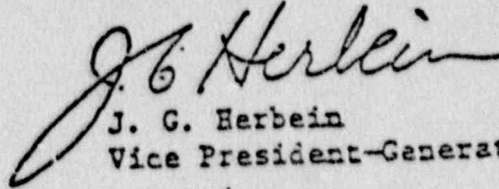
Three Mile Island Nuclear Station, Units 1 and 2 (TMI-1 and TMI-2)  
Operating License No. DPR-50 and DRR-73  
Docket No. 50-289 and 50-320  
Radiation Protection Program

1. By August 3, 1979, Met-Ed will:
  - a. Provide a description of the organizational changes in the Radiation Protection Program at the Three Mile Island Station.
  - b. Provide a definition of the functional areas of the Radiation Protection Program and the specific responsibilities associated with each.
  - c. Identify the individuals responsible for each functional area and the lines of responsibility for the Radiation Protection Program within the Metropolitan Edison Company organization.
  - d. Provide a definition of the geographical areas of responsibility for the Radiation Protection Staff assigned to Unit 1 and Unit 2.
2. By August 15, 1979, Met-Ed will review the adequacy of the current QA program as it relates to providing for regular audits of the Radiation Protection Program by individuals who are independent of day-to-day radiological protection activities.
3. By August 3, 1979, Met-Ed will review and re-issue written procedures for control of high radiation areas. These procedures will include specific steps for control of keys for such areas and a surveillance program for identifying new high radiation areas and for ensuring that such areas are properly controlled.
- By August 3, 1979, Met-Ed will issue a procedure containing written criteria for evaluating air sample results with respect to beta gamma ratios and beta energies.

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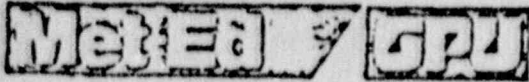
5. By July 27, 1979, Met-Ed will review adequacy of existing requirements for our bioassay program, and by August 17, 1979, Met-Ed will have implemented revised procedures as necessary to assure a comprehensive bioassay program.
6. By August 17, 1979, Met-Ed will review and implement necessary changes to the procedures which define the program that evaluates the potential exposure of individuals to concentrations of airborne radioactive materials as required by 10 CFR 20.201(b).

Sincerely,



J. G. Herbein  
Vice President-Generation

JGE:END:bar



Metropolitan Edison Corp.  
Post Office Box 480  
Middletown, Pennsylvania  
717 944-4041

August 6, 1979  
GQL 1018

Mr. B. H. Grier, Director  
Office of Inspection and Enforcement  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Three Mile Island Nuclear Station, Units 1 and 2  
Operating License No. DPR-50 and DPR-73  
Docket No. 50-289 and 50-320  
Radiation Protection Program

Dear Sir:

Met-Ed has closely followed the commitments which were made in our 7/18/79 letter (GQL 0909) to your office. As discussed in a meeting on 8/3/79 with members of your staff, certain commitment dates have arrived and it is appropriate to provide a status of our commitments. As noted in the 8/3/79 meeting, positive action has been taken on all items.

1. The specific status of each item in paragraph 1 of GQL 0909 is presented below.
  - a) The overall Radiation Protection Program organizational changes have been described in the form of a revised organization chart which is currently under review. This chart will be provided to your staff by August 10, 1979.
  - b) Functional areas of the Radiation Protection Program have been identified on the revised organization chart. Descriptions including the specific responsibilities of each functional area are currently being prepared and will be provided to your staff by August 10, 1979.
  - c) The individuals responsible and the lines of responsibility for each functional area of the Radiation Protection Program within the Met-Ed organization have been identified on the revised organization chart which will be provided to your staff by August 10, 1979.
  - d) The geographic responsibilities of the Radiation Protection staff assigned to Units 1 and 2 have been defined in the form of a plan view chart of Units 1 and 2 clearly marked to delineate geographic areas of responsibility on each unit. This chart is currently under review and will be provided to your office by August 10, 1979.

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2. Met-Ed is currently reviewing the adequacy of the QA program as it relates to providing for regular audits of the Radiation Protection Program by individuals who are independent of the day-to-day radiological protection activities. Our commitment to complete this review by August 15, 1979, remains on schedule.
3. The procedures for the control of high radiation areas have been revised and are currently under review. These procedures include specific steps for the control of keys for such areas and a surveillance program for identifying new high radiation areas and for ensuring that such areas are properly controlled. Comments received from your staff subsequent to the August 3, 1979 meeting regarding action levels and requirements will be incorporated into our procedures by August 10, 1979.
4. Met-Ed has issued a procedure containing written criteria for evaluating air sample results with respect to beta-gamma ratios and beta energies. Comments received from your staff prior to the August 3, 1979 meeting relative to formal procedure issuance and procedure format will be resolved prior to August 10, 1979.
5.
  - a. Met-Ed formally reviewed the adequacy of the existing requirements for the bioassay program on 25 July. Based upon our review, our present Health Physics Procedure "Internal Dosimetry/bioassay Program" (HP 1628) will be revised in accordance with the latest guidance provided in ANSI N-347, Reg. Guide 8.15, and details of NuReg 0041. It will include action levels for whole body counting and urinalysis for suspected acute and chronic exposures of Sr-89 and Sr-90.
  - b. Health Physics Procedure "Respiratory Protection Program" (HP 1616) will be expanded to include a detailed air sample analysis sequence with action levels specified when airborne concentrations of Sr-89 and Sr-90 (based on Cs levels) are detected.
  - c. The calculation of MPC exposure hours for airborne concentrations of radioactivity will formally be included in health physics procedure "RWP procedure" (HP 1613). Additionally, the appropriate health physics procedure will include the requirement for a periodic review of air sample results.
  - d. Procedures specifying the care, use and cleaning of the respiratory protection devices available, tritium air sampling and overall respiratory program implementation will be included in the Respiratory Protection Program.
  - e. Health Physics procedure "Air Test Booth" (HP 1717) will be reviewed and revised as required.
  - f. As previously committed, Met-Ed will have implemented the revised procedures outlined above to assure a comprehensive bioassay program by 17 August 1979.

6. By August 17, 1979, Met-Ed will review and implement necessary change to the procedures which define the program that evaluates the potential exposure of individuals to concentrations of airborne radioactive materials as required by 10 CFR 20.201(b).

Sincerely,

/s/ J. G. Herbein

J. G. Herbein  
Vice President-Nuclear Operations

cc: G. P. Miller



Metropolitan Edison Com  
Post Office Box 463  
Middletown, Pennsylvania  
717 944 4041

August 13, 1979

Mr. B. H. Grier, Director  
Office of Inspection and Enforcement  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Sir:

Three Mile Island Nuclear Station Units 1 & 2 (TMI-1 and TMI-2)  
License Nos. DPR-50 and DPR-73  
Docket Nos. 50-259 and 50-320  
Radiation Protection Organization

Met-Ed has continued its effort to meet the commitments of our 7/18/79 letter (GQL 0909) as modified by our 8/6/79 letter (GQL 1018). At our 8/10/79 meeting with Mr. White and Mr. Crocher of your staff, items pertaining to the overall Radiation Protection Program organization were presented to meet the 8/10/79 commitments identified in GQL 1018. The specific status of each item identified in our 8/6/79 letter (GQL 1018) is presented below.

1. The following items were presented to your representatives at the 8/10/79 meeting. Copies of the formal documents are enclosed.
  - a. Revised Radiation Protection Program Organization Chart. FIG. 1
  - b. Descriptions of the specific responsibilities of each functional area identified on the Radiation Protection Program Organization Chart.
  - c. The individuals responsible and the lines of responsibility for each functional area are described in (a) and (b) above.
  - d. A plan view chart of Units 1 and 2 which delineates the geographic areas of responsibility for each unit.
2. Met-Ed is continuing the review of the adequacy of the Q.A. program as it relates to providing for regular audits of the Radiation Protection Program by individuals who are independent of the day-to-day radiological protection activities. Documentation of the review will be completed by 8/15/79.
3. The procedure for the control of High Radiation Areas was reviewed by the Plant Operations Review Committee with changes which include your staff's comments of 8/3/79. A copy of the approved procedure was provided to Mr. White of your staff on 8/7/79.

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August 13, 1979

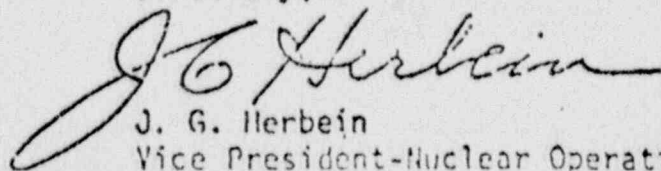
4. The procedure for evaluating air sample results with respect to beta-gamma ratios and beta energies was implemented by a Temporary Change Notice (TCN) on 8/3/79. The TCN was presented to Mr. White of your staff with an explanation which addressed the comments received from your staff.
  5. a) Health Physics Procedure "Internal Dosimetry/Bioassay Program" (HP 1628) describes the subject program and has been revised to incorporate the guidance provided in ANSI N-347, Reg. Guide 8.15 and NuReg 0041.  

A procedure (HP 1628.1) for implementing the Internal Dosimetry/Bioassay Program described in HP 1628 has been prepared which contains action levels for whole body counting and urinalysis for suspected acute and chronic exposures of Sr-89 and Sr-90.

Procedures HP 1628 and HP 1628.1 are presently undergoing review by the Plant Operations Review Committee.
  - b) Health Physics Procedure "Respiratory Protection Program" (HP 1616) has been expanded in the form of an implementing procedure (HP 1616.4) which includes a detailed air sample analysis sequence with action levels specified when airborne concentrations of Sr-89 and Sr-90 (based on Cs levels) are measured. This procedure (HP 1616.4) is presently undergoing review by the Plant Operations Review Committee.
  - c) The calculation of MPC hours for airborne concentrations of radioactivity has been included in Health Physics Procedure "RHP Procedure" (HP 1613) and in an implementing procedure "MPC Hours" (HP 1616.5).  

Procedures (HP 1613 and HP 1616.5) include the requirement for a periodic review of air sample results. Both of these procedures are presently undergoing review by the Plant Operations Review Committee.
  - d) Procedures specifying the care, use, and cleaning of the respiratory protection devices available, tritium air sampling and overall respiratory program implementation are presently undergoing review by the Plant Operations Review Committee.
  - e) Health Physics Procedure "Air Test Booth" (HP 1717) has been revised and is presently undergoing review by the Plant Operations Review Committee.
  - f) A training program for HP foremen and technicians will be accomplished so that the comprehensive bioassay program will be implemented by 17 August 1979.
6. A procedure providing for ALARA review and evaluation of potential exposures of individuals to concentrations of airborne radioactive materials, as required by 10 CFR 20.201(b), will be reviewed and approved by August 17, 1979.

Sincerely,

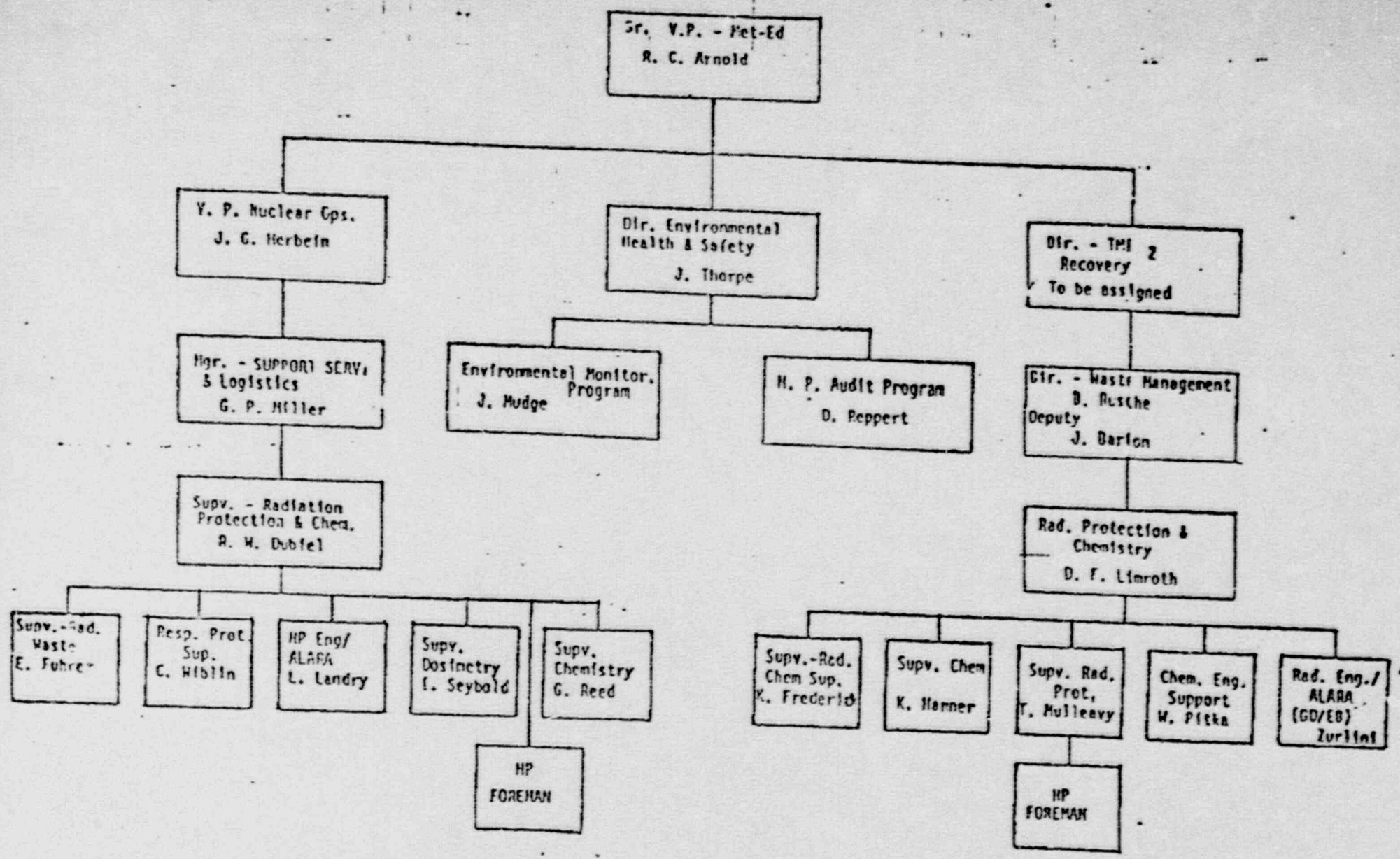


J. G. Herbein  
Vice President-Nuclear Operations



cc: R. C. Arnold  
J. Barton  
R. W. Dubiel  
D. F. Limroth  
G. P. Miller  
J. Mudge  
D. Reppert  
J. R. Thorpe

Enclosures



Y. P. Nuclear Ops.  
J. G. Herbeln

Dir. Environmental Health & Safety  
J. Thorpe

Dir. - TMI 2 Recovery  
To be assigned

Mgr. - SUPPORT SERV.  
& Logistics  
G. P. Miller

Environmental Monitor. Program  
J. Mudge

H. P. Audit Program  
D. Peppert

Dir. - Waste Management  
D. Rusche  
Deputy  
J. Barton

Supv. - Radiation Protection & Chem.  
R. W. Dubiel

Rad. Protection & Chemistry  
D. F. Limroth

Supv. - Rad. Waste  
E. Fuhrer

Resp. Prot. Sup.  
C. Hiblin

HP Eng/ ALARA  
L. Landry

Supv. Dosimetry  
I. Seybold

Supv. Chemistry  
G. Reed

HP FOREMAN

Supv. - Rad. Chem Sup.  
K. Frederick

Supv. Chem  
K. Hanner

Supv. Rad. Prot.  
T. Mulleney

HP FOREMAN

Chem. Eng. Support  
W. Pitka

Rad. Eng./ ALARA (GD/EB)  
Zurind

SPECIFIC RESPONSIBILITIES OF FUNCTIONAL AREAS

A. Support Services and Logistics - Radiation Protection and Chemistry

1. Supervisor-Radiation Protection and Chemistry
2. Supervisor-Dosimetry
3. Respiratory Protection Supervisor
4. Chemistry Supervisor-Unit 1
5. Radiological Engineering/ALARA Unit 1
6. Supervisor-Rad Waste Unit 1
7. HP Foreman Unit 1

B. Environmental Health and Safety

1. Environmental Monitoring Program
2. H.P. Audit Program

C. Waste Management Activity - Radiation Protection and Chemistry

1. Radiation Protection and Chemistry Group Head
2. Radiochemistry Supervisor
3. Radiation Protection Supervisor
4. Chemistry Supervisor
5. Radiological Engineering/ALARA - Unit 2
6. Chemistry Engineer Support - Unit 2
7. H.P. Foreman - Unit 2

**SUPPORT SERVICES AND LOGISTICS  
RADIATION PROTECTION AND CHEMISTRY**

Within the Operating Staff of Unit 1 is established a major group with the mission of providing radiation protection and chemistry support.

The organization of the Radiation Protection and Chemistry group is illustrated in Figure 1. Under the group head are:

1. Supervisor-Radiation Protection and Chemistry
2. Supervisor-Dosimetry
3. Respiratory Protection Supervisor
4. Chemistry Supervisor - Unit 1
5. Radiological Engineering/ALARA - Unit 1
6. Supervisor - Rad Waste - Unit 1
7. H.P. Foreman - Unit 1

1. Supervisor - Radiation Protection and Chemistry

The head of the Radiation Protection and Chemistry Department reports to the Manager, Support Services and Logistics. Reporting to him are the heads of the six sub-groups listed above. Direct liaison is also conducted with the Director, Waste Management Activity and the Radiation Protection and Chemistry Supervisor of the Waste Management Group for the coordination of station-wide Radiation Protection and Chemistry policy.

The incumbent is responsible for the overall coordination and performance of personnel assigned and specifically for ensuring that the Radiation Protection function is accomplished in full compliance with 10 CFR 20 (and other such regulations issued by competent authority and approved procedures) and the management of all chemistry functions associated with Unit 1 in accordance with the Unit's Technical Specifications and primary and secondary water chemistry and radiochemistry procedural requirements. The incumbent is also responsible for the implementation of Station Health Physics support functions (such as Dosimetry, Bioassay, etc.) for both Unit 1 and Unit 2. The incumbent is the normal point of contact in dialogue with representatives of the Nuclear Regulatory Commission in matters of radiological concerns Unit 1.

2. Supervisor-Dosimetry

Responsible to both Radiation Protection and Chemistry Supervisors for the complete Internal and External Dosimetry program including the supervision of all personnel in the dosimetry group.

The major functions include:

Dose Assessment

The dose assessment section is responsible for evaluations, calculations, investigations of dosimetry results to assure that proper data is used to determine each individual's dose. These people are also responsible for maintenance and delivery of the self-reader reports.

### External Dosimetry

This section is responsible to the Supervisor-Dosimetry for proper control and maintenance of the TLD system. This function includes TLD issue, reader operation, system calibration TLD Anomaly investigation and liaison with on-site organizations.

### Internal Dosimetry

This section includes implementation of the internal dosimetry program, sample collection and delivery, report, review and evaluation and computer input.

### 3. Respiratory Protection Supervisor

Conducts a program designed to maintain the effectiveness and adequacy of respiratory protection. Program review includes: wearer acceptance, examination of respirators in use, evaluation of protection afforded, correlation of MPC - hours with measured doses, and records. Writes or reviews procedures to implement the requirements of NRC Regulatory Guide 8.15 and NUREG-0041. Establishes liaison among the various departments that support the activity.

### 4. Chemistry Supervisor - Unit 1

The Chemistry supervisor is responsible for the coordination and performance of those personnel reporting directly to him which includes one Chemistry Foreman and Met-Ed Rad-Chem Technicians.

The Radiochemistry supervisor will normally be qualified for this position in accordance with ANSI N18.1 - 1971.

Specifically, this position is responsible for:

The management of the water chemistry sample and analysis program within Unit 1 including both auxiliary and plant systems.

The selection, supervision, set-up and calibration of all chemical analytic equipment/systems.

The development or technical review of new chemistry procedures to meet emergent requirements or to improve those in use.

The identification of training requirements for personnel assigned including the actual conduct of training which will be coordinated with the station Training Department.

The technical supervision of the operation of the water and waste treatment systems of Unit 1.

The maintenance of chemistry records and reports required by procedures under his cognizance and/or by state or federal agencies.

Other duties assigned by the Radiation Protection and Chemistry Group Head.

The sampling and analysis and reporting of non-radioactive waste water discharges in accordance with the station's NPDES (National Pollution Discharge Elimination System) permit.

5. Radiological Engineering/ALARA - Unit 1

Assist in the planning, design and control of work in support of the ALARA principles by providing recommendations, guidance and/or review in the following areas:

- Facility/Work space layout and arrangement
- Traffic/Material Flowpaths
- Shielding
- Remote indicating or monitoring equipment
- Ventilation requirements in support of respiratory protection
- Special tools/equipment to reduce or minimize exposure
- Contamination/radiological control techniques
- Drafting or review of procedures concerned with radiation protection and radiological controls.
- Other duties as may be assigned by the Radiation Protection and Chemistry Group Head:

6. Supervisor Rad Waste - Unit 1

Responsible for the operation of the solid radwaste systems in Unit 1 including solidification of concentrated liquid waste and compacted trash.

Responsible for insuring compliance of all radwaste activities with Technical Specifications, procedures and Federal and State regulations.

Responsible for the coordination with Waste Management Activities for the shipment of Unit 1 radioactive waste from the site.

Responsible to write or review procedures for the handling and packaging of waste material in Unit 1 to insure compliance with the regulations.

Responsible for engineering modifications to radwaste systems to insure proper, efficient and economical operation.

7. H.P. Foreman - Unit 1

Responsible to the Supervisor Radiation Protection and Chemistry for supervision of technicians in:

1. Laboratory counting and support - Unit 1
2. Health Physics operations and monitoring (RWP usage, job coverage)
3. H.P. Training - Unit 1
4. Radiological surveys

## ENVIRONMENTAL HEALTH AND SAFETY

Within the Corporate Staff is established a major group with the mission of providing environmental monitoring services and an H.P. audit program.

### 1. Environmental Monitoring Program

Responsible to the Director of Environmental Health and Safety for maintenance and review of the environmental surveillance program, ALARA review of effluent program and the reports related to the programs.

### 2. H.P. Audit Program

Responsible to the Director-Environmental Health and Safety for the Radiation Protection QA audit program.

## WASTE MANAGEMENT ACTIVITY-RADIATION PROTECTION AND CHEMISTRY

Within the Waste Management Activity is established a major group with the mission of direct operational and technical support of all facets of radiation protection and chemistry associated with Unit 2 recovery operations.

The organization of the Radiation Protection and Chemistry Group is illustrated in Figure 1. Under the group head are:

### Line Functions

- Radiochemistry Supervisor
- Chemistry Supervisor
- Radiation Protection Supervisor

### Support Functions

- Radiological Engineering and ALARA
- Chemistry Support Engineering
- Material Expediting

The functional responsibilities of these major sub-groups are enumerated below:

#### 1. Radiation Protection and Chemistry Group Head. The Head of the

Radiation Protection and Chemistry Group reports to the Director, Waste Management Activity. Reporting to him are the heads of the six sub-groups listed above. Direct liaison is also conducted with the Manager, Support Services and Logistics, TMI Nuclear Station, for the coordination of station-wide radiation protection and chemistry policy and for matters involving requisite station support functions (i.e. dosimetry, respiratory protection and generic radiation protection training).

The incumbent is responsible for the overall coordination and performance of personnel assigned and specifically for ensuring that the radiation protection function is accomplished in full compliance with 10 CFR 20 (and such other regulations issued by competent authority and approved procedures) and the management of all chemistry functions associated with Unit 2 in accordance with standard technical specifications and primary and secondary water chemistry and radiochemistry procedural requirements. The incumbent is the normal point of contact in dialogue with the representatives of the Nuclear Regulatory Commission in matters of radiological concerns affecting Unit 2.

#### 2. Radiochemistry Supervisor

The Radiochemistry Supervisor is responsible for the coordination and performance of those personnel reporting directly to him which include sample coordinators, sample compilers, and those contractor personnel who operate and maintain the various radiochemistry counting laboratories at TMI as a result of the Unit 2 accident. The Radiochemistry Supervisor will normally be qualified in accordance with ANSI 18.1 - 1971.

Specifically, this position is responsible for:

The selection, supervision and calibration of all radiochemistry analysis and counting equipment.



The establishing and day-to-day conduct of a quality assurance program to ensure the highest standards of radiochemistry laboratory results (excluding field or portable equipment).

The development or technical review of new radiochemistry procedures necessary to fulfill emergent requirements.

The identification of training requirements for personnel assigned, including the actual conduct of such training when the normal station training department or others cannot fulfill this requirement.

The maintenance of radiochemistry records and reports required by procedures under his cognizance and/or required by state or federal agencies.

Other duties assigned by the Radiation Protection and Chemistry Group Head.

The functions of the groups for which the Radiochemistry Supervisor is responsible are enumerated below:

a. Sample Coordinator

Coordinate the sampling effort throughout Unit 2 including ensuring recurring periodic samples are drawn as scheduled, arranging for other samples as requested, ensuring that samples are forwarded to the cognizant laboratory for counting and ensuring that results are received in a timely manner and distributed to cognizant personnel/offices. Implementation of the emergency Sample Procedure. (Z-32)

Implementation of the liquid discharge procedure. (Z-46)

Implementation of the sewage procedure (Z-51). Supervision of those personnel assigned to draw and transport samples to and from Sample Labs. Other duties as assigned or approved by the Radiochemistry Supervisor.

b. Sample Compilers

Compile/composite, store and dispose of samples as directed by the Radiochemistry Supervisor.

c. Contractor Radiochemistry Laboratories

Perform radiochemical analysis as directed by the Sample Coordinator

3. Radiation Protection Supervisor

The Radiation Protection Supervisor is responsible for the coordination and performance of those personnel assigned and especially for that of contractor radiation protection supervisors and foremen. He is specifically responsible for ensuring that the radiation protection function is accomplished in full compliance with 10 CFR 20 (and such other regulations issued by competent authority and approved procedures.)

Specific responsibilities include:

The review of surveys, including radiation, airborne and surface contamination, to detect trends which would require increased personnel protective measures.

The review and approval for radioactive releases from Unit 2 and, when requested, from Unit 1.

Maintaining close liaison with the Waste Management Activity Disposal Group for purposes of day-to-day review of the handling, storage and shipping of radioactive material. Specifically, the incumbent should review and approve shipping documents.

The calibration of survey and laboratory instruments assigned to Unit in accordance with direction from the radiochemistry supervisor.

The identification of training requirements for personnel assigned and for the monitoring of the quality of training conducted within his sub-group.

The maintenance of records and reports required by procedures, technical specifications and others required by state or federal agencies.

Other duties assigned by the Radiation Protection and Chemistry Group

The preparation or technical review of procedures affecting radiation protection. The incumbent is normally a member of PORC and/or RORC.

4. Chemistry Supervisor

The Chemistry Supervisor is responsible for the coordination and performance of those personnel reporting directly to him which includes one chemist, one contractor chemistry laboratory supervisor and Met-E rad-chem technicians.

The radiochemistry supervisor will normally be qualified for this position in accordance with ANSI N18.1 - 1971.

Specifically, this position is responsible for:

The management of the water chemistry sample and analysis program with Unit 2 including both auxiliary and plant systems.

The selection, supervision, set-up and calibration of all chemical analytic equipment/systems.

The development or technical review of new chemistry procedures to meet emergent requirements or to improve those in use.

The identification of training requirements for personnel assigned including the actual conduct of training when the normal station's training department cannot fulfill this requirement.

The technical supervision of the operation of the water and waste treatment systems (less those under the cognizance of the Waste Management Activity Processing Section) of Unit 2.

The maintenance of chemistry records and reports required by procedures under his cognizance and/or by state or federal agencies.

Other duties assigned by the Radiation Protection and Chemistry Group Head.

The Chemistry Supervisor shall be responsible for the time sheets for all Met-Ed bargaining unit personnel within the chemistry and radio-chemistry groups.

The functions of the group for which the Chemistry Supervisor is responsible are enumerated below:

- a. The B&W Laboratory Supervisor and technicians are responsible for the maintenance of the B&W chemistry laboratory and for the performance of analyses or other chemistry functions in accordance with approved procedures as directed by the Sample Coordinators.
- b. Met-Ed Rad-Chem Techs are responsible for the maintenance and operation of those chemistry systems assigned to or located within Unit 2 chemistry laboratory and for the conduct of such analyses or other chemistry functions in accordance with approved procedures as may be assigned by the Sample Coordinators or other duly authorized supervisory personnel.

The Chemistry Supervisor will be assisted by a chemist who fills a staff rather than line position; however, direct supervision of personnel within the group may be required from time to time. The Chemist is responsible for:

Assisting management and subordinates in the development, implementation, calibration, and standardization of functional tests, analysis techniques and other programs as may be assigned.

The development of a quality assurance/control program consisting of chemical calibrations and maintenance of instrumentation and, as necessary, periodic audits of the operation of associated systems and techniques and adequacy and accuracy of data.

Assisting the Chemistry Supervisor in the development of budgets, providing pertinent data and information regarding expenditures and projected requirements both for the chemistry and radio-chemistry sections.

The procurement of chemical laboratory equipment and supplies.

The instruction of technicians in review or unusual procedures and/or techniques associated with analytical procedures.

Other duties as may be assigned by the Chemistry Supervisor.

The Chemist will be the normal relief for the Chemistry Supervisor during periods of his absence.

Three staff assistants or groups are assigned within the Radiation Protection and Chemistry Group. Their functional responsibilities are listed below.

5. Radiological Engineering/ALARA - Unit.2

Assist in the planning, design and control of work in support of the ALARA principles by providing recommendations, guidance and/or review in the following areas:

- Facility/Work space layout and arrangement
- Traffic/Material Flowpaths
- Shielding
- Remote indicating or monitoring equipment
- Ventilation requirements in support or respiratory protection
- Special tools/equipment to reduce or minimize exposure
- Contamination/radiological control techniques
- Drafting or review of procedures concerned with radiation protection and radiological controls.

Other duties as may be assigned by the Radiation Protection and Chemistry Group Head.

6. Chemistry Engineer Support - Unit 2

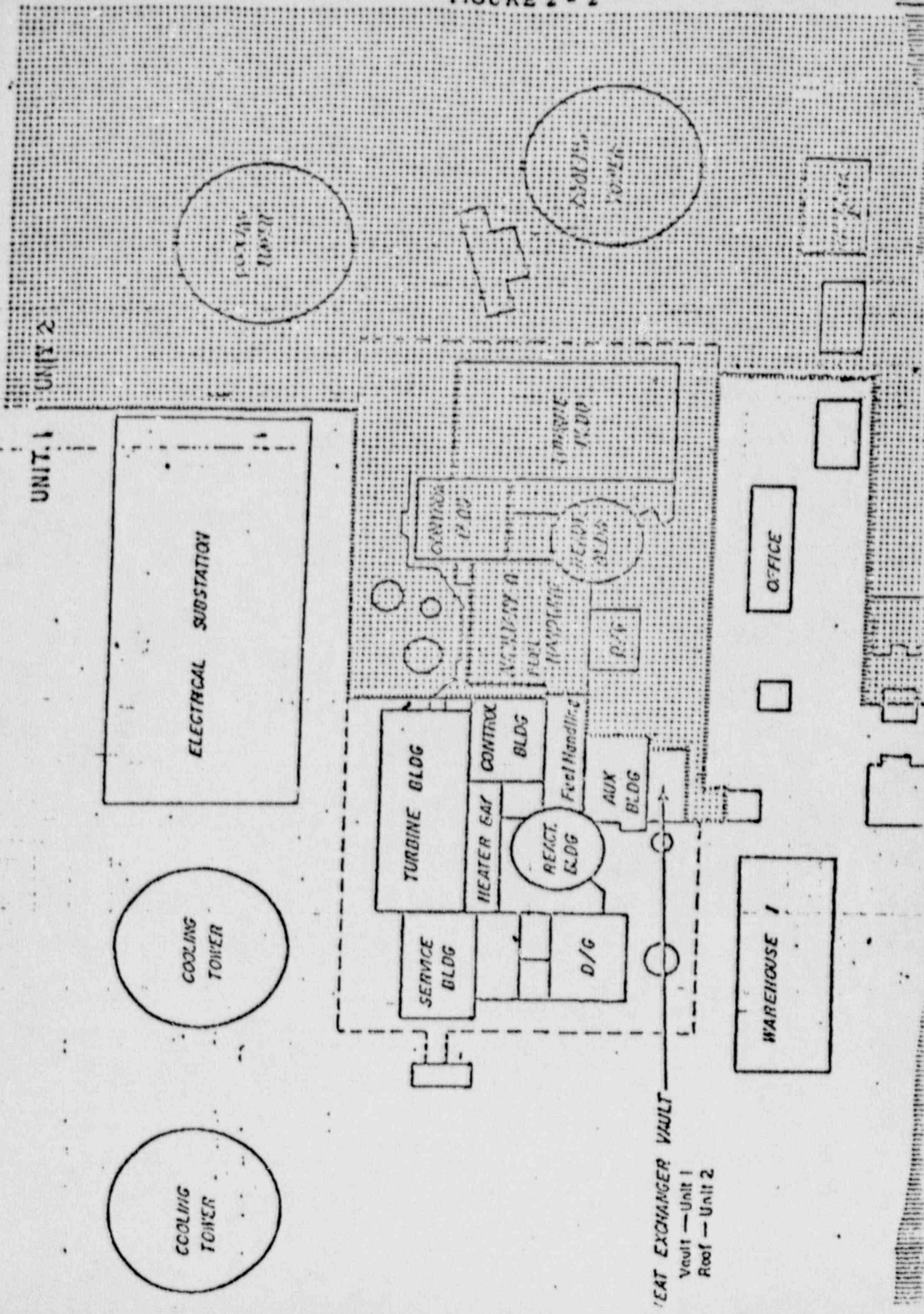
Engineering support, principally that concerned with sampling systems and procedures.

Draft and review procedures concerning sampling and analysis techniques.

Perform quality assurance checks and when directed, supervise the performance of technicians assigned to contractors laboratories.

FIGURE 2 - 2

NY  
08/  
DR



UNIT 1

UNIT 2

COOLING TOWER

COOLING TOWER

ELECTRICAL SUBSTATION

SERVICE BLDG

TURBINE BLDG

HEATER GAS CONTROL BLDG

REACT. BLDG

AUX. BLDG

Fuel Handling

CONTROL BLDG

TURBINE BLDG

REACT. BLDG

FUEL HANDLING

RAV

WAREHOUSE 1

OFFICE

COOLING TOWER

COOLING TOWER

HEAT EXCHANGER VAULT

Vault - Unit 1  
Roof - Unit 2

August 16, 1979  
GQL 1071

Mr. B. H. Grier, Director  
Office of Inspection and Enforcement  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Units 1 and 2  
Operating License Nos. DPR-50 and DPR-73  
Docket No. 50-289 and 50-320  
Radiation Protection Program

Met-Ed has continued its effort to meet the commitments of our 7/18/79 letter (GOL 0909) as modified by our 8/6/79 letter (GOL 1018) and our 8/13/79 letter. The specific status of each item identified in our 8/13/79 letter which requires further action is presented below. For clarity and continuity, the paragraph numbers used below correspond to those used in our 8/13/79 letter.

2. A review of the QA program as it relates to providing for regular audits of the Radiation Protection Program by individuals who are independent of the day-to-day radiological protection activities has been completed. Documentation of the review and the resulting recommendations will be provided to on-site members of your staff on 8/16/79.
5. a. Health Physics Procedure "Internal Dosimetry/Bioassay Program" (HP 1628) describes the subject program and has been revised to incorporate the guidance provided in ANSI N-347, Reg. Guide 8.15 and NuReg 0041.

A procedure (HP 1628.1) for implementing the Internal Dosimetry/Bioassay Program described in HP 1628 has been prepared which contains action levels for whole body counting and urinalysis for suspected acute and chronic exposures of Sr-89 and Sr-90.

Procedures HP 1628 and 1628.1 have been approved and submitted to the NRC I&E representatives on site for review and comment.

- b. Health Physics Procedure "Respiratory Protection Program" (HP 1616) has been expanded in the form of an implementing procedure (HP 1616.4) which includes a detailed air sample analysis sequence with action levels specified when airborne concentrations of Sr-89 and Sr-90 (based on Cs levels) are measured. Procedure HP 1616.4 has been approved and submitted to the NRC I&E representatives on site for review and comment.

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- c. The calculation of MPC hours for airborne concentrations of radioactivity has been included in Health Physics Procedure "RWP Procedure" (HP 1613) and in an implementing procedure "MPC Hours" (HP 1616.5).

Procedures (HP 1613 and HP 1616.5) include the requirement for a per review of air sample results. Both of these procedures have been approved and submitted to NRC I&E representatives on site for review and comment.

- d. A procedure specifying the care, use, and cleaning of the respirator protection devices (HP 1616.3), is presently undergoing review by the Plant Operations Review Committee (PORC). This procedure will be approved and submitted to the NRC I&E on site representatives by August 24, 1979.

The Tritium air sampling procedure (HP 1608), and the procedure for overall respiratory program implementation HP 1616.4, have been approved and submitted to the NRC I&E on site representatives for review and comment.

- e. Health Physics Procedure "Air Test Booth" (HP 1717) has been revised and submitted to the NRC I&E on site representative for review and comment.

- f. A training program for HP foremen and technicians has been developed for the comprehensive bioassay program. Initial training has been completed and the program was implemented on 8/17/79. Ongoing training and program review is continuing.

6. A procedure providing for ALARA review and evaluation of potential exposures of individuals to concentrations of airborne radioactive materials as required by 10 CFR 20.201(b), will be reviewed and approved by August 24, 1979. A draft of this procedure has been prepared and is currently undergoing review.

Sincerely,

/s/ J. G. Herbein

J. G. Herbein  
Vice President-Generation


JGH:djh

cc: R. C. Arnold	D. Reppert
J. Barton	J. Mudge
R. W. Dubiel	J. R. Thorpe
D. F. Limroth	I. W. Harding
G. P. Miller	J. White
	B. Crocker

## NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

AUG 22 1975

  
OFFICE OF THE  
COMMISSIONER

MEMO TO: Lee V. Gossick  
Executive Director  
for Operations

FROM: Peter A. Bradford *P.B.*

SUBJECT: HEALTH PHYSICS PROGRAM AT TMI

A consultant to Metropolitan Edison, NUS, concluded that there were areas of TMI's health physics program which were unacceptable. I understand the staff has met with Met Ed on this subject and identified its concerns in a letter to which Met Ed has responded. I would like a copy of the minutes of this meeting and any correspondence relating to this problem as soon as possible.

I would like by September 5, 1979 a status report of Met Ed's current weaknesses in this area and the specific plans with timetables which the staff believe are necessary to remedy any of the deficiencies. Additionally, the Commission should be kept currently informed of developments in the health physics area.

cc: Chairman Hendrie  
Commissioner Gilinsky  
Commissioner Kennedy  
Commissioner Ahearne  
Samuel J. Chilk  
Al Kenneke  
Len Bickwit

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*PAR*  
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SEARCHED  
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