

STAFF
October 17, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of)
METROPOLITAN EDISON COMPANY, ET AL.)
(Three Mile Island Nuclear Station,)
Unit No. 1))

Docket No. 50-289
(Restart Remand
on Management)

NRC STAFF'S FIRST SUPPLEMENTAL RESPONSE TO INTERVENOR
UNION OF CONCERNED SCIENTISTS' FIRST SET OF
INTERROGATORIES TO NUCLEAR REGULATORY COMMISSION STAFF

Pursuant to the Licensing Board's rulings at a prehearing conference on September 24, 1984, the Staff provides the following supplemental responses to Intervenor Union of Concerned Scientists' First Set of Interrogatories to NRC Staff. In accordance with the directions of the Licensing Board, answers are being provided for the period of time beginning with the close of the record in this proceeding, that is, October of 1981. Tr. 27510. The Staff is continuing to answer the remaining interrogatories and it is expected that additional supplemental answers will be provided by October 19, 1984. The provision of answers to these interrogatories is not a representation by the Staff that the information is relevant to the issues to be heard in this remanded proceeding.

INTERROGATORIES

Interrogatory 2

Identify all individuals whom the NRC Staff intends to call as witnesses on the remanded issues related to the GPU training program. For each such witness, state or identify the following:

- a. The individual's qualifications, including educational and employment history and publications.
- b. All of the individual's contracts, consulting arrangements, advisory positions, and other relationships with the NRC Staff.
- c. Whether the individual has ever performed work, as employee, agent or consultant of any kind, for GPU or any subsidiaries, Babcock and Wilcox, or Bechtel. If so, state specifically the nature of the work and the compensation received, and identify any written material produced.
- d. All regulatory proceedings of any type in which the individual has participated as witness, provided technical assistance, or in any other fashion participate. For each proceeding, state the purpose of the hearing, the subject of the testimony, and the date, time, and place of the testimony, if any.
- e. All documents reviewed by the individual in the course of preparing testimony for this proceeding.
- f. All other persons whom the individual interviewed or consulted in the course of preparing testimony for this proceeding. In each case, state the subject of the interview or conversation and the advice or information obtained from the person in question.
- g. All documents that the individual intends to use in connection with forming the opinions contained in his/her testimony in this proceeding.
- h. The topics to be covered in the individual's testimony.
- i. The conclusions reached in the individual's testimony and the bases for those conclusions.

JJP Response

JJB
DSM

At the present time, the Staff intends to call as witnesses the following individuals on the remanded issues related to the GPU training program:

Julius J. Persensky

Joseph J. Buzy

Dolores S. Morisseau

It is anticipated that these witnesses will testify as a panel.

- 2a. Copies of these witnesses' professional qualifications are attached.
- 2b. See response to 2.a. above.
- 2c. No.
- 2d. Mr. Persensky has not participated in any prior regulatory proceedings.

In early 1982, Mr. Buzy provided the Staff's response to the first and second set of interrogatories by the Palmetto Alliance on a contention on the subject of licensed operators at Catawba. During the NRC Staff's evaluation of the GPUN v. B&W lawsuit review, Mr. Buzy provided additional review to those items identified in the initial review of documents and testimony.

During the GPUN v. B&W lawsuit review, Ms. Morisseau was a member of the task force from the Division of Human Factors Safety and provided input into NUREG-1020-LD, "GPU v. B&W Lawsuit Review and Its Effect on TMI-1."

- 2e. Special Report of the Reconstituted OARP Committee, June 12, 1984; NUREG-0630 and Supplements 4 and 5 thereto; and the documents identified in Appendix B to NRC Staff's Response to Intervenor Union of Concerned Scientists' First Request to the Executive Director For Operations For Production of Documents.
- 2f. The individuals have consulted with William Russell, Deputy Director, Division of Human Factors Safety, on the scope of the Staff's testimony, and with Mary E. Wagner, Counsel for the Staff. The conversations with Ms. Wagner are protected by attorney-client privilege and attorney work product.

2g. See response to 2e.

2h. The topics covered in the testimony will be the training issues remanded in ALAB-772.

2i. No conclusions have as yet been reached.

Interrogatory 3

Describe the process by which written and oral examinations are designed and questions prepared by the NRC Staff.

MEW Response

Licensee's counsel has clarified, in a letter to the Board of September 27, 1984, that the reconstituted OARP Committee does not rely on NRC examinations in evaluating the substantive accuracy of the TMI-1 training program. Accordingly, this interrogatory seeks information outside the scope of this proceeding. See Tr. 27491-96.

Interrogatory 4

Identify the person(s) who have participated in the design of examinations given at TMI-1 since March 28, 1979. Provide their qualifications, including educational and employment history and publications and describe what they have done.

MEW Response

See response to Interrogatory 3 above.

Interrogatory 5

Describe in detail all actions taken by the NRC Staff to review the GPU training program since March 28, 1979. Your answer must include, but not be limited to the following:

- a. The name, position, and qualifications of each individual who participated in the review on behalf of the NRC Staff (whether a member of the NRC Staff or employed by a contractor).

- b. The time spent by that individual, including the dates on which the individual participated in the review and the hours spent on each such date.
- c. The particular aspects of the GPU training program reviewed by that individual, broken down according to the dates on which the individual reviewed each particular aspect.
- d. The documents reviewed by the individual on each date of the review, the extent of the review of each document, and the purpose of the review of each document.
- e. The personal observations made by the individual, including but not limited to the observation of actual training sessions.
- f. The persons with whom the individual communicated in the course of the review, including the date, time, and substance of each communications. Identify all written communications that fall within this interrogatory.

WB
JJB
DSM

Response

The NRC staff has taken many actions to review the GPU training program since October 1, 1981. Such actions range from senior management probing operators' opinions on the adequacy of their training in the course of a plant tour to a detailed inspection of particular aspects of the GPU training program by staff reviewers on inspections.

Since October 1, 1981, the NRC Region I office has performed on the order of three dozen inspections, in each of which some aspect of the GPU training department at TMI-1 was reviewed. UCS has previously been provided all such reports. The Staff disagrees with UCS on the proper scope of the remanded proceeding on training, see Tr. 20504-06. However, for ease of reference, the Staff has made its best effort to further identify specific pages in its inspection reports where training was reviewed. The following is a list of the specific reports identified, with a page reference and the subject of the inspection:

1. Inspection Report 50-289/81-29, areas inspected:
 - 1) Page 5, paragraph 3, qualifications of radiation protection organization
 - 2) Page 5, paragraph 5, training programs for radiological controls personnel and general radiation workers.
2. Inspection Reports 50-289/81-30 and 50-320/81-20, areas inspected:
 - 1) Page 4, paragraph 5, training and retraining for radiological controls personnel.
3. Inspection Report 50-289/81-33, areas inspected:
 - 1) Page 2, paragraph 2, Inspector Follow Item 289/80-19-05, shift technical advisor training.
 - 2) Page 2, paragraph 2, Inspector Follow Item 289/80-19-11, implementation of training department manual
 - 3) Page 2, paragraph 2, Inspector Follow Item 289/80-21-12, post modification training.
 - 4) Page 3, paragraph 2, Inspector Follow Item 289/80-21-22, training program for nonlicensed personnel.
 - 5) Page 3, paragraph 3.c, training in mitigating core damage.
 - 6) Page 3, paragraph 4.a, training and retraining including flow transients.
 - 7) Page 4, paragraph 4.b, training for plant communication system.
 - 8) Page 4, paragraph 5.a, part-task simulator training.
 - 9) Page 4, paragraph 5.b, training in abnormal transient operational guidelines (ATOG).
 - 10) Page 5, paragraph 6.a, training during low power testing.

4. Inspection Report 50-289/82-06, areas inspected:
 - 1) Pages 4-7, paragraph 2, Inspector Follow Item 289/79-IR-10, PORC/Independent Safety Review training program:
 - 2) Page 7, Unresolved Item 289/80-19-06, training and qualification of test personnel.
5. Inspection Report 50-289/82-07, areas inspected:
 - 1) Pages 3-4, paragraph 2, Inspector Follow Item 289/79-IR-10, PORC member training.
 - 2) Page 17, paragraph 7, Uncontrolled Training Examinations.
6. Inspection Report 50-289/82-09, areas inspected:
 - 1) Page 2, paragraph 2, Inspector Follow Item 289/80-19-11, STA training.
 - 2) Page 3, paragraph 2, Inspector Follow Item 289/81-19-12, dissemination of operating experience information.
 - 3) Page 4, paragraph 2, Inspector Follow Item 289/80-21-22, training program for non-licensed personnel.
7. Inspection Report 50-289/82-16, areas inspected:
 - 1) Page 2, paragraph 2, feedback of operating experience.
 - 2) Page 5, paragraph 2, Inspector Follow Item 289/80-19-11, training department administrative manual
 - 3) Page 5, paragraph 2, Open Item 289/82-BC-53, additional operator training on the TMI-2 accident.
8. Inspection Report 50-289/82-18, areas inspected:
 - 1) Page 2, paragraph 2, Inspector Follow Item 289/80-21-12, post modification training.

- 2) Page 3, paragraph 2, Inspector Follow Item 80-21-22, training program for non-licensed personnel
 - 3) Page 5, paragraph 2, Inspector Follow Item 82-BC-55, modification training
 - 4) Page 5, paragraph 2, TAP Item 289/82-SC-08, training for pressurized thermal shock.
9. Inspection Report 50-289/82-19, areas inspected:
- 1) Page 11, Unresolved Item 289/81-28-01, post modification training.
 - 2) Page 23, paragraph 4, plant training.
10. Inspection Report 50-289/82-83, areas inspected:
- 1) Page 4, paragraph 6, fire-brigade training and drill program.
11. Inspection Report 50-289/82-2, areas inspected:
- 1) Page 2, paragraph 3, Item 50-289/81-20-01, emergency plan training.
12. Inspection Report 50-289/83-02, areas inspected:
- 1) Page 8, Inspector Follow Item 289/82-BC-83, emergency director training.
 - 2) Page 8, Inspector Follow Item 289/82-BC-78, audits of training program.
 - 3) Page 10, Inspector Follow Item 289/80-21-22, non licensed technical training.
 - 4) Page 11, ASLB Restart Condition 289/82-BC-55, incorporation of operating experiences into training program.

- 5) Page 12, Inspector Follow Item 289/80-21-12, modifications training for non-Operating personnel.
13. Inspection Report 50-289/83-03, areas inspected:
 - 1) Page 4, paragraph 17, security training and qualification.
14. Inspection Report 50-289/83-04, areas inspected:
 - 1) Page 5, Inspector Follow Item 289/82-BC-32, training on the in-plant radioiodine monitor.
 - 2) Page 5, Inspector Follow Item 289/82-BC-22, qualifications of the health physics/chemistry technicians.
 - 3) Page 6, Inspector Follow Item 289/80-22-16, development and implementation of training.
15. Inspection Report 50-289/83-06, areas inspected:
 - 1) Page 3, Inspector Follow Item 289/81-33-01, mitigating core damage training.
16. Inspection Report 50-289/83-10, areas inspected:
 - 1) Page 4-1, training of personnel.
 - 2) Page 11-1, STA training.
17. Inspection Report 50-289/83-11, areas inspected:
 - 1) Page 3, NRC Bulletin 289/79-BU-27, training required by bulletin 79-27.
18. Inspection Report 50-289/83-13, areas inspected:
 - 1) Page 4, training of offsite support organizations.
19. Inspection Report 50-289/83-14, areas inspected:
 - 1) Page 13, paragraph 7.10.1, briefly mention training during low power testing.

20. Inspection Report 50-289/83-18, areas inspected:
 - 1) Page 5, Unresolved Item 289/79-17-03, fire brigade training.
 - 2) Page 10, paragraph 10.0, fire brigade training.
21. Inspection Report 50-289/83-22, areas inspected:
 - 1) Page 2, Inspector Follow Item 289/82-BC-77, operator training instructor qualification
 - 2) Page 2, Inspector Follow Item 289/82-BC-79, procedure for routine sampling and review of examination answers for evidence of cheating.
22. Inspection Report 50-289/83-28, areas inspected:
 - 1) Page 4, paragraph 6, training program for chemistry and radiological controls personnel.
23. Inspection Report 50-289/83-29, areas inspected:
 - 1) Entire report deals with training.
24. Inspection Report 50-289/83-30, areas inspected:
 - 1) Page 6, paragraph 3.4, security training.
25. Inspection Report 50-289/84-01, areas inspected:
 - 1) Page 4, paragraph 2, Unresolved Item 83-29-02, training department instructor evaluation.
26. Inspection Report 50-289/84-03, areas inspected:
 - 1) Page 4, paragraph 5, Training on post accident sampling.
27. Inspection Report 50-289/84-05, areas inspected:
 - 1) Entire report deals with operational readiness evaluation
28. Inspection Report 50-289/84-06, areas inspected:
 - 1) Page 4, Violation No. 289/83-18-02, fire protection training program.

- 2) Page 5, Unresolved Item 289/83-18-03, fire brigade training.
 - 3) Page 5, Unresolved Item 289/83-18-04, "hands on" fire protection training.
 - 4) Page 5, Unresolved Item 289/83-18-05, fire brigade drills.
29. Inspection Report 50-289/84-09, areas inspected:
- 1) Entire report consists of examination report of operator licensing examinations.
30. Inspection Report 50-289/84-10, areas inspected:
- 1) Page 6, paragraph 4, administrative controls and QA.
31. Inspection Report 50-289/84-11, areas inspected:
- 1) Page 3, Inspector Follow Item 289/81-33-03, operator training prior to ATOG implementation.
 - 2) Page 9, paragraph 3, ATOG program training.
32. Inspection Report 50-289/84-12, areas inspected:
- 1) Page 2, paragraph 4, training of corporate and station personnel concerning important to safety activities.
33. Inspection Report 50-289/84-16, areas inspected:
- 1) Page 6, paragraph 3.14, unresolved item 289/83-22/01, technician training in handling SR-90/Y-90 BETA sources.
 - 2) Page 15, paragraph 7, training for H.P. technicians.
 - 3) Page 27, paragraph 13.3, staffing and training
 - 4) Page 28, paragraph 14.0, organization, qualification and training radiation protection.

34. Inspection Report 50-289/84-17, areas inspected:
- 1) Page 9, paragraph 3, LER 83-012/036-0, training of maintenance personnel on snubbers and their repair.
 - 2) Page 10, paragraph 3, LER 83-026/01T-0, training related to problems resulting from improper procedure change review.
35. Inspection Report 50-289/84-19,^{*/} entire report.
36. Inspection Report 50-289/84-25,^{*/} entire report.

Additional detail responsive to Interrogatory 5a.-f. can be found, to the extent documented, in the above-referenced reports.

The documents reviewed by Mr. Buzy during the Staff's evaluation of the BETA and RHR Report are listed in NUREG-0680, Supplement 4, at Section 4. NUREG-0680, Supplement 5, Section 7.3.2 lists the documents reviewed by him in connection with the current status of training at GPU. The Inspection Reports contained in the SALP Reports, referenced in Section 7.3.2 and Licensee's responses thereto, are also being reviewed.

The documents reviewed by Ms. Morisseau in June of 1983 during the Staff's evaluation of the BETA and RHR Reports are listed on pp. 4-3 and 4-4 of NUREG-0680, Supplement 4.

Mr. Persensky has not previously been involved in any review of GPU Training Program documents.

Interrogatory 6

Identify the dates and purposes of all examinations administered by the NRC Staff to individuals employed at or seeking employment at Three Mile

^{*/} These reports are under internal management review and, when finalized, will be placed in the public document room.

Island Unit 1 since March 28, 1979. For each such examination, state or identify the following:

- a. The purpose of the examination.
- b. The process through which the NRC Staff developed the examination.
- c. Each individual who took the examination.
- d. Whether the individual passed or failed.
- e. The individual who administered the examination on behalf of the NRC Staff.
- f. The individual who graded the examination on behalf of the NRC Staff.
- g. Where an applicant originally received a failing grade but was passed upon final grading, explain in detail the justification for the passing grade.

ND

Response

6a. The information responsive to this request is contained in a document listed as "Power Plant Examination Results Summary Sheet (9 pages)" on Attachment A to the NRC Staff's Response to Intervenor Union of Concerned Scientists' First Request to the Executive Director For Operations For Production of Documents, October 4, 1984. All examinations administered by the NRC since October, 1981, have been for the purpose of licensing operator candidates under 10 CFR, Part 55.

6b. Examinations are developed according to 10 CFR 55, Subparts 20, 21 and 22. This process is more specifically set forth in NUREG-1021, Chapters ES-107, 202, 203, 402 and 403. See also NUREG-1021, Chapters ES-301, 302, 303, 304, 305, 501 and 502 for guidance in developing oral and simulator examinations.

6c. - 6f. See response to 6a. above.

6g. The grades on an examination may change during the different levels of review as defined in Section ES-108 of the Examiners Standard, NUREG-1021. Only grading changes made as a result of an appeal requires justification as described in Section ES-201(a) of NUREG-1021. The justification for the standards for the passing grade has been provided in Section ES-201(g) of NUREG-1021.

Interrogatory 8

Has the NRC Staff or contractors ever interviewed TMI-1 operators other than in connection with the investigation of the cheating episodes? For example, has the Staff or contractors interviewed TMI-1 operators to get their views on the content and adequacy of the TMI-1 training programs?

Response

Yes.

RS
DSM
JJB

Interrogatory 9

If the answer to #8 is "yes,"

- a. identify the persons interviewed.
- b. identify the interviewer(s).
- c. state the date and purpose of the interviews, the questions asked and the answers given.
- d. provide all written documentation of the interviews.
- e. state the conclusions drawn from the interviews and provide all written documentation thereof.

RS

General Response

All licensee operators are interviewed as part of the licensing process under Part 55. In addition, licensed and non-licensed operators are routinely interviewed in the course of resident and region-based inspections, as well as in follow-up activities (e.g., enforcement

conferences, site visits, meetings) to enforcement actions on a variety of topics associated with the operation of the facility. Such interviews typically do not result in all instances in a formal inspection finding which identifies the specific questions asked, answers given or identification of all individuals queried. At management's direction to assess the readiness of the plant staff for restart, specific inspections were performed in early 1984. The Staff has identified the following Inspection Reports as containing relevant information dealing with licensed operators, their training and their understanding of operational transients and procedures: 84-11, 84-19 and 84-25. See also NUREG-0680, Supplements 4 and 5.

Additional information responsive to 9a.-e. is contained in the above-referenced reports.

Specific Response

DSM
JJB

9(a) and 9(b) Interviews were conducted on behalf of the Staff by Ms. Morisseau and Mr. Buzy. Licensed operators and training personnel were interviewed. Assurances of anonymity were provided to all persons interviewed except for one person who was interviewed on the subject of Fire Brigade training. Therefore, only the interviewee on Fire Brigade training has been identified below.

9(c) The purpose of the interviews is stated in Supplement 4 of NUREG-0680 (p. 4-2, Section 4.1.2 and 4.1.3). The interviews were carried out during the week of June 13 thru June 17, 1983, with the exception of the Fire Brigade training interview, as discussed below.

The questions asked were as follows:

Licensed Personnel

1. The RHR survey indicated that Licensed Personnel did not receive enough training in specific procedures and analyzing plant conditions.
 - a. What are specific procedures?
 - b. At TMI-1, where should training be conducted in specific procedures?
2.
 - a. What type of training do you now receive in analyzing plant conditions?
1) Classroom 2) Drills 3) Simulator 4) BPT
 - b. Are there questions in the requalification exams or quizzes that evaluate knowledge of subject?
 - c. Does initial and requalification training include/review significant transients at TMI-1?
3. In addition to the above areas, what additional training or increased emphasis in specific areas would you recommend to meet:
 - a. your needs
 - b. needs of all Licensed Personnel
4. What do you believe is meant by comments that training department training prepares the operators to pass exams but not to run the plants?
5. What do you believe is meant by the comments that content of training is different from what operators experience in the plant?
6. Have the Licensed Operators experienced antagonism between the trainers and other Licensed Operators?
7. What do you believe to be the cause of the antagonism, if there was any?

8. How do you study for exams?
9. Is a tape recorder ever used to record walk through?

TMI Trainers

1. Why do most operators believe that training does not prepare them to run the plant?
2. Have licensed operators requested additional courses or specific instruction to meet their needs (or) has the training department reviewed the requalification program and proposed changes to meet the needs of the operators.
3. What does "specific procedure" mean? Is it normal operations from cold to hot to full power and back down? Review the classroom time allotted for "specific procedure" review.
4. Does the training department have transient analysis in the methods to analyze plant conditions; in the licensed operator training and requalification program, what are the total hours devoted to transient analysis?
5. Has the training department reviewed post TMI-2 significant transients; does the training department periodically review segments of Requal Program with licensed operators at beginning of training or requal week?
6. What do you believe is meant by the comment that the Training Department training prepares the operators to pass examinations but does not prepare them sufficiently to operate the plant.
7. What do you believe is meant by the comment that the content of the training is different from what operators experience in the plant.

8. How effective is the current requalification program for instructors?
9. How many requalification sessions, (OJT, classroom, or others) have been cancelled in the past year?
10. Has the Training Department evaluated comments in consultant reports concerning antagonism between trainers and operators?
11. Have any corrective actions been initiated?
12. Have ex-Navy operators expressed need to operate equipment?
If so, what plans does the Training Department have to implement?
13. How do you study for exams?
14. Is a tape recorder ever used to record walk throughs?

The substance of the answers to these questions is in NUREG-0680, Supplement 4, Section 4.

The interviews were used as further clarification to responses provided by GPUN management in the BETA and RHR reports.

9(d) All written documentation of the interviews is contained in NUREG-0680, Supplement 4.

9(e) The conclusions drawn from all this material appear in NUREG-0680, Supplement 4, Section 4.

Fire Brigade Training

9(a)-9(e)

The Staff interviewed Mr. John Paules on November 22, 1983 to determine the role of the Shift Foreman (SF) in response to local fires when Emergency Procedure 1202-31 was active. The interview was not directed toward his training, but to the role the SF would play during the initial and subsequent assessment period and critiques of the drill.

The results of the interview are contained in the Memorandum from D. G. Eisenhut to R. W. Starostecki dated June 20, 1984. This document has been made available in the PDR.

Interrogatory 14

State everything NRC has done to review and evaluate the simulator training program for TMI-1. Identify the reviewer(s) and provide all documentation of the reviews.

Response

RS
JJB
DSM

The TMI-1 Operator Requalification Training Program has been reviewed by the Staff. The Staff review is reflected in the following document: Memorandum for John Stolz from Harold R. Booher, Review of Revisions to the TMI-1 Licensed Operator Requalification Training Program Description, August 17, 1984. The Staff has requested that this document, with attachments, be placed in the Public Document Room in the docket for this case. Limited simulator training was also evaluated by the Staff, as reflected in memorandum of March 20, 1984, to W. T. Russell from L. S. Bender and J. J. Buzy.

In addition, as part of its inspection activities related to the readiness of plant staff for restart, the Staff has observed the use of the B&W simulator for training licensed operators in the use of symptom oriented procedures (IR 84-11). Similarly, the use of the GPUN basic principles trainer at TMI-1 for licensed operator training has been discussed by NRC Staff with GPUN trainees and operators.

Interrogatory 15

State everything NRC has done to review and evaluate the content of TMI-1 [licensee] oral examinations. Identify the reviewer(s) and provide all documentation of the reviews.

ND
JJB

Response

The NRC's efforts to review and evaluate the content of GPU-administered TMI-1 oral examinations are set forth in the following documents:

Inspection Report 81-16
Inspection Report 81-29
Inspection Report 83-10
Inspection Report 83-18
Inspection Report 83-29
Inspection Report 84-05
Inspection Report 84-09
Inspection Report 84-11
Inspection Report 84-19*
Inspection Report 84-25*
Memorandum of April 1, 1983 to J. Stolz from H. Booher
Memorandum of July 20, 1983 to G. Lainas from D. L. Ziemann

The reviewers are identified in the documentation. These documents (except for #84-19 and 84-25) have been placed in the Public Document Room in the docket for this proceeding.

Interrogatory 16

State everything NRC has done to assess whether the content of the GPU training programs conforms with current plant procedures. Identify the reviewer(s) and provide all documentation of the reviews.

ND
DSM

Response

A review was conducted of the licensee requalification program to determine if current plant procedures and modifications were included in the requalification lesson plans. The identification of the reviewer, and documentation of the review, are contained in IR 83-25.

* These two reports are still undergoing Staff management review and, when finalized, will be placed in the PDR. Staff counsel will notify counsel for UCS when these documents have been sent to the PDR.

In addition, training related to procedures is reviewed in Supplement 4 of NUREG-0680.

Interrogatory 17

In the Staff's view, does the format of GPU's exams encourage cheating?

ND

Response

No.

Interrogatory 18

Provide the basis for the answer to #17.

ND

Response

Annual examinations which are given at three separate sittings contain 50% new questions and are considered secure exams. Therefore, study of a previous examination, if available, would not in and of itself insure passing the next examination. Weekly tests, which are given at the end of each shift's requalification cycle, contain 20% new questions. These tests are used to insure retention of material presented during the requalification cycle, and do not emphasize security against cheating. The weekly tests are considered to be part of the tools of training.

Interrogatory 20

Has the Staff's practice of not reviewing the content of utility training programs changed in any significant respect since the close of the record in this proceeding? If so, describe the change(s) in detail.

RS
JJP
DSM

Response

The content of training programs has been inspected on a continuing basis by regional inspectors. The extent to which such "inspections"

were considered as "reviews" of the program depended on the scope and breadth of the inspection. More recent practice, over the last 1-2 years, results in a review of the utility's training programs on a continuing basis from both an inspection and operator licensing standpoint. NRC examiners and inspectors work together in reviewing examinations, and obtain insights as to the content of licensee training programs. Regionalization of operator licensing to Region I in June 1983 resulted in a more integrated approach to the review of training programs in Region I. Inspections of the facility's training program are discussed in the following inspection reports:

81-16	84-05
81-29	84-09
83-10	84-11
83-18	84-19
83-29	84-25

The Licensee Qualifications Branch continues to review training within the limits of the criteria presently called for by law, i.e., the Standard Review Plan (NUREG-0800) and those requirements in the Code of Federal Regulations.

Interrogatory 21

Does the Staff still limit its roll to comparing the performance level of candidates on NRC exams with a perceived industry norm and licensee's past record? ALAB-772, Sl. op. at 74. If not, explain how the Staff's role has changed.

Response

Pursuant to the Licensing Board's ruling of September 24, 1984, Interrogatory 21 is beyond the scope of the remanded proceeding. See Tr. 27539-40.

Interrogatory 22

Does the Staff believe that the current assignments of Dr. Robert Long, Dr. Richard Coe, Samuel Newton and Edward Frederick are appropriate in view of their past roles in the TMI-1 training program? Provide the basis for your answer.

FA

Response

The Staff did not review the appropriateness of the current assignments of Dr. Richard Coe or Samuel Newton since neither of them were implicated in any improper acts of Met-Ed or GPUN. For those individuals involved that the Staff considered, see NUREG-0680, Supplement 5 at Chapter 13.

Interrogatory 23

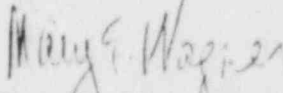
Does the Staff believe that the promotion by GPU of Mr. Husted to head of Nonlicensed Operator Training indicates the appropriate attitude toward training, in light of Mr. Husted's previous actions as found by the Special Master, ASLB and Appeal Board? Provide the basis for your answer.

MEW

Response

Pursuant to the Licensing Board's ruling of September 24, 1984, the Staff is currently not required to answer Interrogatory 23. See Tr. 27542-46.

For the NRC Staff,


Mary E. Wagner
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 17th day of October, 1984

JULIUS J. PERSENSKY

Professional Qualifications

Current Position: Section Leader - Personnel Qualifications Section
Licensee Qualifications Branch
Division of Human Factors Safety
U.S. Nuclear Regulatory Commission

Education: B.A., Psychology, 1966
M.A., Experimental Psychology, 1968
Ph.D., Applied Experimental Psychology, 1971

Experience: U.S. Nuclear Regulatory Commission 1981 - Present
U.S. National Bureau of Standards, 1971-1981

Publications: Numerous publications and reports involving the behavioral aspects of nuclear safety, product safety, person-machine interface, memory, and alcoholism (available on request).

Prior to NRC - Developed and/or evaluated training programs for the U.S. Postal Service, the U.S. Air Force, University of Cincinnati Medical and Nursing Schools.

At NRC - As Section Leader, have been responsible for review of staff prepared Safety Evaluation Reports in accordance with Chapters 13.2.1 and 13.2.2 of NUREG-0800 for applicants for operating licenses; review of staff prepared evaluations of licensee requalification training program modifications; oversight of contracts related to in the NRR Safety Technology Program; review of NRC-RES research programs on training; development and review of regulations and regulatory guides related to training.

DOLORES S. MORISSEAU

Professional Qualifications

Education: B.A. - Psychology, George Mason University - 1978
M.A. - Industrial Psychology, George Mason University - 1980

Employment/Qualifications:

1982 - Present: Training and Assessment Specialist
Licensee Qualifications Branch
Division of Human Factors Safety
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission

While at NRC, I have assisted in Pressurized Thermal Shock Training audits with senior staff members who are nuclear power subject matter experts. I was part of the special inspection team at TMI-1 in response to the RHR and BETA consultant reports.

I have also participated in training audits at Calvert Cliffs, Oyster Creek, Crystal River, and the Westinghouse Training Center in Zion, Illinois, assessing all phases of licensee training programs, including classroom and simulator training as well as examinations. As part of my routine case work at NRC, I evaluate requalification training programs for both commercial power plants and research and university reactors. I assisted in pilot testing guidelines and criteria for training programs developed by the Licensee Qualifications Branch prior to the work done for SECY-84-76A (the training rule called for by Congress).

In 1983, I was task leader for the DHFS portion of the GPUN vs. B&W lawsuit review.

My position at NRC also entails research in support of senior staff members, specifically in the areas of staffing, experience and education related to power plant staffing, training, and management. I am the technical monitor for three safety technology projects which include research in shift scheduling, operator surveys, and a study of licensing additional personnel in power plants.

1981 - Present: Northern Virginia Community College

I am a part-time lecturer in Psychology.

1980 - 1982: Research Associate, Kinton Inc.

I developed training material for the United States Navy's EPICS program under contract to the Navy Personnel Research and Development Center. This material was developed according to the Instructional Systems Development (ISD) model. The contract also required the validation of

both instructional and testing material, using potential EPICS program candidates as subjects.

1979 (Summer): Personnel Psychologist, OPM

While in graduate school, I was selected as a Federal Summer Intern by the Office of Personnel Management. In this capacity, I assisted with the development of unassembled exams, specifically the development of content valid exams for nurses and economists. I produced a large amount of highly detailed statistical work connected with data summaries from Subject Matter Expert Panels for these two examinations.

1976 - 1980: Undergraduate & Graduate, George Mason University

During these years, I was a full-time student. My undergraduate course work included Statistics, Tests and Measurements, Evaluation Research, Physiological Psychology, Industrial Psychology, and other psychology courses required for the major in this degree. My graduate course work included organizational development, human factors engineering, experimental and research design, industrial psychology, personnel testing and evaluation, advanced psychopathology, and other graduate courses relevant to the area of industrial psychology.

Publications:

McGuire, M. V., Walsh, M., Boegel, A. J., Morisseau, D. S., Persensky, J. J., Sorenson, R., "How Are Things Going? Obtaining Feedback in a Regulatory Environment" (Paper presented at American Psychological Association Convention - Toronto, 1984).

Gessner, Theodore L., and Morisseau, Dolores S., "Under the Golden Psi," Psychiatry, November 1980.

The Affects of Cold and Nitrogen Narcosis on Diverse Performance (Unpublished research).

Human Factors Exhibit, George Mason University - Spring 1979. Project Exhibit on Work Environment and Productivity.

JOSEPH J. BUZY

Professional qualifications

Current Position: Systems Engineer (Training & Assessment)
Personnel Qualifications Branch
Division of Human Factors Safety
U.S. Nuclear Regulatory Commission

Education: B.S. Marine Engineering - 1954
U.S. Merchant Marine Academy
Kings Point, N.Y.

Experience:

- o Military Service - 1954 - 1956 Served as Damage Control Officer and later Engineering Officer on U.S.S. Hollis APD-86.
- o Nuclear - 1956 - 1960: Employed by Bettis Laboratories under contract to the Naval Reactors Program as an operating engineer for the Large Ship Prototype, AIW. I was trained and qualified as Chief Operator on the submarine prototype SIW and assisted in training Navy personnel for SIW and later AIW. I later qualified as Chief Operator on AIW and was assigned as test coordinator during the AIW power escalation program. I was later transferred to Newport News Shipyard as a Bettis Laboratory representative during the construction and start-up testing of the U.S.S. Enterprise. I assisted in initial start-up of two reactor plants on the Enterprise.

1960 - 1963: Employed by the Martin-Marietta Corporation as an operations test engineer for the PM-1 plant. The plant was built for the AEC and Airforce in Baltimore, Maryland, and transported to Sundance, Wyoming. At the site I qualified as Shift Supervisor and was in charge of a combined military crew during the start-up and demonstration phases of the PM-1 plant. I trained and qualified a majority of the military crew who later operated the PM-1 plant.

1963 - 1978: Employed by the AEC as Nuclear Engineer in the Operator Licensing Branch. I was trained and qualified as an operator licensing examiner and responsible for developing and administering written and operating examinations under 10 CFR Part 55 for all types of reactor licensed under 10 CFR 55 and 115. I occasionally directed AEC consultants in development and administration of examinations. In 1970, I was appointed as Section Leader for Power and Research Reactors (P&RR). I trained and supervised several OLB examiners in addition to a group of six to eight consultant examiners. The P&RR section administered examinations at all research and test reactors, Babcock and Wilcox, Combustion Engineering, General Atomics (HTGRs at Peach Bottom and Fort St. Vrain) and the sodium cooled reactors, Fermi I and SEFOR.

Examinations also included use of simulators. The P&RR section occasionally provided personnel to conduct examinations at the Westinghouse and General Electric plants. The P&RR section also reviewed Section 13.2, Training, in the FSAR and developed safety evaluation reports in this area.

1978 - 1979: I was assigned to Region II, Atlanta, Georgia and participated in a Pilot Test Program for regionalization of OLB functions. I was responsible for all licensed operator and senior operator renewals as well as changes to requalification programs in Region II. I developed and conducted examinations on all types of reactors, including the use of simulators, in the Region. Shortly after the Three Mile Island, Unit 2, accident, I was detailed as part of the NRC team at TMI for several weeks. Due to large demands on the OLB staff at Headquarters, the Pilot Test Program was suspended in the fall of 1979 and I returned to Headquarters as the PWR (Westinghouse) Section Leader. I was employed in this capacity until February of 1982.

1982 - Present: I am currently assigned as a Systems Engineer (Training and Assessment). This position requires: review of licensee's applications in Chapter 13.2 of the FSAR and preparation of Safety Evaluation Reports, review of changes to the licensee's requalification programs, response to Regional reports to provide resolution on the interpretation of training requirements. I have been recently assigned as a reviewer of Shift Advisor training programs. I have also participated in review of the ATWS event at Salem and the review of PTS training at H.B. Robinson and Calvert Cliff. In addition, I have participated in the review of training programs at .MI.

Publications: I have contributed to several NUREGs published by the NRC.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
METROPOLITAN EDISON COMPANY, ET AL.)
(Three Mile Island Nuclear Station,)
Unit No. 1))

Docket No. 50-289
(Restart Remand
on Management)

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S FIRST SUPPLEMENTAL RESPONSE TO INTERVENOR UNION OF CONCERNED SCIENTISTS' FIRST SET OF INTERROGATORIES TO NUCLEAR REGULATORY COMMISSION STAFF" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, by deposit in the Nuclear Regulatory Commission's internal mail system, or, as indicated by double asterisks, by hand delivery, this 17th day of October, 1984:

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