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September 21, 1984

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289 SP
	)	(Restart-Management Remand)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

LICENSEE'S ANSWERS TO UNION OF CONCERNED  
SCIENTISTS' SECOND SET OF INTERROGATORIES  
AND DOCUMENT REQUESTS TO GENERAL PUBLIC UTILITIES

Licensee General Public Utilities Nuclear Corporation (GPU Nuclear), pursuant to 10 C.F.R. § 2.740b, hereby submits the following answers to "Union of Concerned Scientists' Second Set of Interrogatories and Document Requests to General Public Utilities." The provision of answers to these interrogatories is not to be deemed a representation that Licensee considers the information sought to be relevant to the issues to be heard in this remanded proceeding.

INTERROGATORIES

1. State on what days and for what hours the Reconstituted OARP Review Committee (hereafter "Committee") met during the weeks of May 28, 1984 and June 4, 1984. If all five members were not present at all times, indicate which members were present.

ANSWER. In response to the ALAB-772 decision, GPU Nuclear asked individual members of the Reconstituted OARP Committee to meet at TMI on May 30, 31, and June 1, 1984. In attendance were Drs. Uhrig, Christensen and Gardner and Mr. Kelly. Dr. Kimel joined the Committee on June 6, 7 and 8; also, Dr. Uhrig was absent on June 1. The days began with a 7:00 a.m. breakfast orientation meeting, with meetings at the TMI Training Center running from 8:15 a.m. to 5:00 p.m. Evening Committee meetings were conducted from 7:00 p.m. until 10:00 p.m. On June 6, 7 and 8 the entire Committee reconvened in Parsippany and its schedule times paralleled the aforementioned TMI meeting schedule, although Dr. Uhrig was absent on June 8. Also, on June 7, Dr. Kimel spent part of of the day at TMI and re-joined the Committee in Parsippany late that afternoon. Dr. Uhrig stayed on through June 9 to complete the initial draft of the Special Report. Dr. Uhrig returned to Parsippany during the week of June 12 to complete the semi-final draft and conducted telephone discussions with Committee members about the Report. Editorial changes were made by the Chairman, with input and agreement from the Committee members, to finish the Report.

2. If any person(s) other than members of the committee were present during any of these meetings, interviews or review of the committee (excluding the person interviewed), provide the name(s) and identification by job title if a member of GPU or subsidiary organizations and include address if not associated with GPU or subsidiaries.

ANSWER. Dr. Long, Vice President Nuclear Assurance, Dr. Coe, Director of Training and Education, and Mr. Newton, Manager of Plant Training were present intermittently during the Committee's meetings, initially to brief the Committee and subsequently to answer questions and provide documents, as requested.

3. Provide any written directions, memoranda, letters or any other documents from GPU to the committee or its members indicating the subjects that they were to consider, the scope of their review, any limitations in time or resources, and any other communication between GPU and the committee.

ANSWER. There are no such documents, other than standard GPUN contracts for "consulting services."

4. The June 12, 1984, Special Report of the Committee (hereafter "Special Report") states page 3: "Whether or not the committee undertakes the more definitive study is a matter for GPU Nuclear to decide at a later date."

a. Has GPU decided to undertake the "more definitive study" referred to above?

ANSWER. No.

b. Name the person(s) who decided whether or not to undertake the "more definitive study" and provide any GPU memoranda, letters and other documents related to the decision.

ANSWER. Dr. Richard P. Coe in consultation with Dr. Long. There are no such documents.

c. If GPU decided to undertake the "more definitive study," provide the "more definitive study," and any and all drafts thereof.

ANSWER. N/A.

d. If the "more definitive study" has been undertaken but no written material is yet completed, describe the manner in which the "more definitive study" is different from the Special Report in scope, subject matter covered, persons interviewed, documents reviewed, facilities inspected, and any other pertinent differences.

ANSWER. N/A.

e. If the "more definitive study" has been undertaken, provide any written directions, memoranda, letters and other documents from GPU to the Committee concerning the subjects to be considered, the scope of the review, any limitations on time or resources and any other communication between GPU and the committee.

ANSWER. N/A.

5. Provide any and all drafts of the Special Report and sections thereof.

ANSWER. See documents provided pursuant to TMIA (second set) document request no. 1.

6. Provide all notes of the Committee and members thereof.

ANSWER. The only notes retained by the Committee were notes made by Dr. Uhrig on ALAB-772. These notes are available in the document discovery room in response to TMIA (second set) document request no. 1.

7. Identify all persons other than the Committee members who were given copies of the Special Report in draft or final form prior to its submission to NRC.

ANSWER. Mr. Clark, Dr. Long, Dr. Coe, Mr. Hukill, Mr. Newton, Mr. Leonard, Dr. Knief and counsel.

8. Identify any persons who reviewed or commented on the Special Report prior to its submission to NRC and provide copies of any notes or other documents that these persons wrote or had written that are related to their review or comments.

ANSWER. Dr. Long, Dr. Coe, Dr. Knief, Mr. Newton, Mr. Leonard and Mr. Hukill reviewed the factual accuracy of the information contained in the Special Report. Mr. William Werner proofread the two drafts and the final report for grammatical errors. There are no documents pertaining to these reviews.

9. State which individual Committee members were assigned to which "areas of responsibility" (p. 4). Provide all "individual reports" (p. 4) and describe the manner in which and the time period during which the "individual reports" were reviewed by the full Committee.

ANSWER. See Rev. 0 and Rev. 1 of the Special Report provided in response to TMIA (2d set) document production request no. 1. The Committee used an iterative process to prepare the full report, with the Chairman receiving input from the Committee members on their assigned areas of responsibility.

10. During what specific period of time was the Special Report actually written?

ANSWER. Drafting began about June 6; the report was finished by June 28.

11. Was any person(s) other than members of the Committee involved in the preparation, drafting and/review of the Special Report? If so, identify and describe his/her function.

ANSWER. See answer to Interrogatory 8. In addition, GPU Nuclear provided clerical support to the Committee.

12. Which "training facilities" were inspected by the Committee? (p. 3) What did such "inspections" consist of, specifically? What member(s) of the Committee conducted which inspections?

ANSWER. The Committee collectively and individually conducted inspections of the TMI Training Center. The initial inspection was a guided tour for the Committee by GPUN training personnel. All other inspections consisted of individual Committee members moving throughout the Training Center unescorted.

13. During the preparation of the Special Report, did the Committee observe any actual training? If so a) describe what was observed, b) state the time and the duration of the observation(s), c) state what member(s) of the Committee who

conducted the observation(s), d) provide any written documentation of such observation(s).

ANSWER. No, although Dr. Gardner did attend a class being given to engineers on TMI plant systems.

14. During the preparation of the Special Report, did the Committee review the content of any GPU administered examination? If so a) identify which examination(s) were reviewed, b) describe what the review consisted of, c) state what member(s) of the committee conducted the review(s), d) provide any written documentation of such review(s).

ANSWER. Yes. See Licensee's Answer to TMIA Interrogatories (Second Set), Interrogatory 42.

15. During the preparation of the Special Report, did the Committee review any GPU Operating Procedures, Emergency Procedures or ATOG guidelines to determine whether the training program is consistent with said procedures and guidelines?

ANSWER. No.

16. If the answer to #15 above is "yes" a) identify the procedures and guidelines reviewed, b) describe the nature of the review, c) provide any written documentation of such review, d) provide the results of the review, e) identify which member(s) of the committee conducted the review(s).

ANSWER. N/A.

17. During the preparation of the Special Report, did the Committee or any members thereof review the content of any NRC examinations for any purpose? If so, a) identify the reviewer(s), b) describe the nature and purpose of the review, c) state the amount of time devoted to the review, d) identify the examination(s) reviewed, e) provide the results of the review, f) provide any written documentation of the review.

ANSWER. No.

18. The Special Report states at pp. 5-6 that the cheating incidents involve "a very few individuals." The Appeal Board concluded that one-fourth of those who took the April, 1981, NRC exams were either directly involved in cheating or were implicated in some manner that could not be satisfactorily explained. ALAB-772, Sl.op. at 63-64. Does the committee consider this to be "a very few individuals?"

ANSWER. See Committee response to TMIA Interrogatory (2d Set) 51. See also LBP-82-56, 15 N.R.C. 281, 291 (1982) (¶ 2043).

19. State specifically which persons by name or letter designation are considered by the committee to constitute the "very few individuals" referred to on p. 6.

ANSWER. See Committee response to TMIA Interrogatory (2d Set) No. 51.

20. The Committee reproduces at pp. 11-12 and "endorses" the two-page section on training taken from a report prepared by Admiral Rickover et al. in November, 1983. The Committee states (p. 10) that this section "comprehensively summarizes the development of the training activities since 1979-1980 when the OARP Review Committee was preparing its report." (p. 10) State specifically which elements of the training program as described in the reproduced excerpt from the Rickover Report were developed or significantly changed after the OARP's original Report and thus were not considered by the original OARP.

ANSWER. The 1984 Special Report, in Chapter III, summarizes the changes made by GPUN in training since issuance of the 1980 OARP Committee Report. This summary can be compared to the Rickover Report statements on pages 11-12 of the Special Report, since the Rickover Report was issued about six months prior to the preparation of the Special Report.

21. The Special Report states (p. 13) that the current T-E staff and budget is more than an order of magnitude increase since the TMI-2 accident. How much has the staff and budget been increased since the time that the OARP testified before the Special Master?

ANSWER. The Committee did not testify before the Special Master. (Mr. Kelly did testify independently before Judge Milhollin). Members of the Committee did testify before the Licensing Board in 1981. The 1981 budget expenditures for TMI

training was about \$2.5 million; see 1980 OARP Report, sum of items in Tables 4-1 and 4-2; manpower level was about 30. In 1984, the TMI training budget is about 3.5 million; manpower level is about 60.

22. The Committee states (p. 16) that it is "not privy to the basis for assignments and promotions within GPU Nuclear" and thus cannot "second guess" GPU's decisions regarding Messrs. Long, Coe, Newton and Frederick, for example. Did the Committee ask GPU or any GPU employee for the "basis for the assignments and promotions" of the named individuals? If so, what was the response? Provide any documentation.

ANSWER. No.

23. Has the Committee considered in any way the roles of the individuals named in #22 above in the cheating incidents and in the implementation of the training program as described by the Special Master, ASLB and Appeal Board. If so, describe the manner in which the Committee considered such roles.

ANSWER. Yes. The Committee is aware of the assignments held by Dr. Long and Messrs. Newton and Frederick during the time of the cheating incidents. Dr. Coe was not with GPU Nuclear during that time. The Committee has reviewed the decisions of the Special Master, the Licensing Board and the Appeal Board. The Committee's findings on these individuals took into account these decisions. See Special Report at 16-19.

24. Did the Committee reach any conclusion concerning whether the individuals named in #22 above have demonstrated the attitude required to effectively implement a training program? If so, provide all material considered by the Committee in reaching such conclusion(s).

ANSWER. The Committee did reach a conclusion about the individuals named in Interrogatory 22. See page 19 of its Special Report.



25. Does the Committee believe that any of the individuals named in #22 bear any responsibility or should be held accountable in any way for the "widespread disrespect" for the training and testing program found by the ASLE? See 16 NRC at 318-319. If so, identify who bears responsibility and who should be held accountable and in what manner.

ANSWER. The Committee believes that the training management bears some responsibility for any disrespect of training that may have existed at TMI. The Committee notes Dr. Long and Mr. Newton's most recent acknowledgement of this responsibility. See Licensee's Answer to TMIA's Second Set of Interrogatories, Interrogatory Answers 5 and 6. However, the Committee's overall conclusion about these individuals is reflected in the Special Report at 16-19.

26. Does the Committee believe that any individuals beyond the actual cheaters (O, W, G and H) bear any responsibility or should be held accountable in any way for the "widespread disrespect" for the training and testing program. If so, identify who bears responsibility and should be held accountable and in what manner.

ANSWER. The Committee has considered this issue only in the context of the TMI licensed operator training program. See answer to Interrogatory 25.

27. Does the Committee agree with the Appeal Board that ". . . the underpinnings of the Board's earlier decision (i.e., the consultants' predictive testimony) were shaken" by the evidence in the reopened proceeding on cheating? ALAB-772, Sl.op. at 65 n.49. Explain why or why not.

ANSWER. Yes; however, subsequent program improvements, in general and those specifically designed to respond to the identified deficiencies associated with the cheating, have resulted in a very strong licensed operator training program.

28. The Special Report states: "The Committee believes that any deficiencies that existed at the time of the cheating have been corrected." (p. 19) Describe the deficiencies that existed at the time of the cheating.

ANSWER. The Committee was referring to deficiencies in the exam process, e.g., proctoring, exam security, ground rules for exams, procedures for determining if individuals have cheated.

29. State specifically how each deficiency described in #28, above has been corrected.

ANSWER. There are new procedures that address these issues. See Special Report, Table A-2, documents 27 and 37.

30. The Appeal Board stated: "One or more of the instructors evaluated by The OARP Committee were involved in the cheating episodes.... Would that alter the committee's generally favorable perceptions of the instructors?" ALAB-772, Sl. op. at 68, citations omitted. Provide the Committee's answer to the quoted question posed by the Appeal Board.

ANSWER. See Special Report at 71-72.

31. The Special Report describes a detailed rating sheet for evaluation of instructors. (p. 21) During the preparation of the Special Report, did the committee itself evaluate any instructors according to this rating system?

ANSWER. No.

32. If the Committee did so evaluate any instructors, a) provide the rating sheet(s), b) identify the evaluator(s), c) describe the method of evaluation, d) provide any written documentation of such evaluation(s).

ANSWER. N/A.

33. During the preparation of the Special Report did the Committee review the content of the questions used in any aspect of GPU's training program?

ANSWER. See response to Interrogatory 14.

34. If the Committee reviewed the content of exam questions, a) provide the questions reviewed, b) identify the reviewer(s), c) describe the process of evaluation, d) describe

the criteria used by the reviewer(s), e) provide or describe the evaluation(s), f) provide any written documentation of the review and/or the criteria used.

ANSWER. See responses to Interrogatory 14 above and TMIA (2nd set) Interrogatory 42.

35. During the preparation of the Special Report, did the Committee review any examinations (either GPU or NRC) to determine whether "the licensee and NRC examinations are an effective way to measure an operator's ability to run the plant?" ALAB-772, Sl.op at 63.

ANSWER. Yes. See responses to Interrogatory 14 above and TMIA (2nd Set) Interrogatory 42.

36. The Special Report states: "All licensed operator requalification examinations are "closed book." (p. 26) Which examinations may be "open book?" Describe the procedures for open book examinations.

ANSWER. No examinations which form all or part of the basis for certifying satisfactory completion of the requalification program are open book. This topic is addressed in the licensed operator requalification program description, which requires that weekly quizzes be administered as closed book exams. While there is no explicit prohibition against open book tests for other segments of replacement and requalification training programs, it is the practice of the Operator Training Section to administer closed book tests. This can be determined by reviewing the exam or test coversheet. Open and closed book exams, tests and quizzes must meet the requirements addressed in Control of Examinations, 6200-ADM-2600.01 and Control of Examinations for Units I and II, 6210-ADM-2604.01.

37. May any examinations be "take-home"? If so, identify.

ANSWER. No. Provisions exist such that examinations may be administered on shift; however, they still must be administered in accordance with the requirements of the Control of Examinations procedure.

38. During the preparation of the Special Report, did any members of the Committee observe the administration of any examinations: If so, a) identify the observer(s), b) state what examination(s) on what dates were observed, c) state the duration of the observation, d) provide or describe the results of the observation, e) provide any written documentation.

ANSWER. No.

39. The Special Report states at p. 28: "Curricula incorporating all of these topics [as listed in Recommendation A] have been developed..." State what the Committee did during the preparation of the Special Report to review and evaluate the content of the "curricula incorporating all of these topics." Provide all documentation of any such review(s) and evaluation(s) and identify the reviewer(s).

ANSWER. The Committee was briefed by GPUNC that a comparison of the topics listed in Recommendation A had been made and had established that these topics were included in the current program. There are no documents.

40. The Special Report states at p. 29 that "the NRC has reviewed many aspects of the program..." Identify the NRC reviews that were considered by the Committee during the preparation of the Special Report.

ANSWER. The NRC reviews referenced in the Special Report are identified in Table A-2, references 2 and 17.

41. Provide the Data-Design Laboratories report referred to on p. 29 of the Special Report.

ANSWER. See document provided pursuant to TMIA Document Request 12.

42. Recommendation D on p. 30 deals with the B and W simulator programs. State what the Committee did during the preparation of the Special Report to evaluate whether the simulator programs are a) "complementary to other operator training", and b) "responsive to changes that may occur in the TMI Control Room design and/or procedures." Provide all written documentation of such evaluation and identify the evaluator(s).

ANSWER. Dr. Christensen visited the control room and discussed with operators and Technical Functions personnel the design changes made in the control room since the TMI-2 accident. He then met with Dr. Long, Mr. Leonard, Mr. Irizarry and Mr. Boltz about the simulator training program. See Special Report, Table 3-1. There is no documentation.

43. State what the Committee did during the preparation of the Special Report to evaluate the Basic Principles Training Simulator (p. 31) and its use in GPU training programs. Provide all written documentation of any such evaluation and identify the evaluator(s).

ANSWER. Mr. Boltz and Mr. Irizarry briefed Mr. Kelly about the BPTS. There is no documentation.

44. The Special Report at pp. 32-33 briefly describes a "program for instructors developed and implemented since the fall of 1980." Did the Committee review the content of this program during the preparation of the Special Report? If so, a) provide all documentation which was given to the committee during the preparation of the Special Report describing the program, or elements thereof, b) provide all written documentation of the review.

ANSWER. Dr. Gardner reviewed the program in detail with Dr. Ronald A. Knief, then Manager of Educational Development, and references 29, 30, and 31 in Table A-2 of the Special Report. Three of the other Committee members received a summary briefing on this subject.

45. The Special Report states on p. 33: "Instructor schools need to be established and all training personnel qualified in accordance with clearly stated criteria." Does the Committee believe that such schools have been established? If so, state what the Committee did during the preparation of the Special Report to review the curricula, methods of instruction and instructors at such schools. Provide all documentation given by GPU to the Committee during the preparation of the report and reviewed by the Committee in connection with such schools, identify the reviewer(s) and provide all documentation of the review(s).

ANSWER. See response to Interrogatory 44.

46. With reference to the sentence quoted in #45, above, does the Committee believe that "clearly stated criteria" for qualification of training personnel have been established? Provide the criteria.

ANSWER. The Committee believes that there are clearly stated criteria for the qualification of Training personnel. See references provided in response to Interrogatory 44.

47. State what the Committee did during the preparation of the Special Report to evaluate the instructors at TMI-1. State a) which instructors were evaluated, b) who performed the evaluation, c) what the evaluation consisted of, d) whether the instructors were observed or interviewed, e) if interviewed, provide the questions and answers, f) provide all written documentation of the evaluations.

ANSWER. The Committee did not conduct any licensed operator instructor evaluations during the preparation of the Special Report.

Respectfully submitted,

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Dated: September 21, 1984

September 21, 1984

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETING & SERVICE  
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In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart-Management Remand)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Answers to Union of Concerned Scientists' Second Set of Interrogatories and Document Requests to General Public Utilities" and "Licensee's Answers to Union of Concerned Scientists' Third Set of Interrogatories and Document Requests to General Public Utilities" were served this 21st day of September, 1984, by deposit in the U.S. mail, first class, postage prepaid, to the parties on the attached Service List.

Deborah B. Bauser  
Deborah B. Bauser

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter )  
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METROPOLITAN EDISON COMPANY ) Docket No. 50-289 SP  
 ) (Restart Remand on Management)  
(Three Mile Island Nuclear )  
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