

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

RELATED CORRESPONDENCE

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

DOCKETED
USNRC
Docket No. 50-209 SP:40
(Restart-Management Remand)
DOCKETED
USNRC
SEP -4 P4:45

TMIA RESPONSE TO LICENSEE'S FIRST SET OF INTERROGATORIES

TMIA RESPONSE TO GENERAL INTERROGATORIES

Interrogatory T-1(a) and (b)

Undersigned TMIA Counsel provided all information upon which TMIA relied in answering each interrogatory herein.

Interrogatory T-2

All relevant Atomic Safety and Licensing Board, Atomic Safety and Licensing Appeal Board, and Nuclear Regulatory Commission decisions; all relevant NRC regulations; the Milhollin Report; the BETA and RHR Reports; the Rickover Report; the Special Report of the Reconstituted OARP Review Committee; the 1980 Report of the OARP Review Committee; NRC inspection reports for TMI from the time of the Accident to the present; the TMI SALP Report (July 24, 1984).

Interrogatory T-3

TMIA does not understand the interrogatory and therefore cannot answer it.

Interrogatory T-4 and T-5

(1) See BETA Report and RHR Report findings listed in response

to Interrogatory Nos. T-25, T-26, T-27, and T-28 below.

(2) GPU is unable or unwilling to achieve and/or maintain an adequate level of instruction to ensure operators' training adequately prepares them to operate TMI safely. See In re Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), Partial Initial Decision (July 27, 1982) ("ASLB PID") ¶2324, 2334-2347, and all findings upon which such conclusions are based; Report of the Special Master, Atomic Safety and Licensing Board (April 28, 1982) ("Milhollin Report"), ¶241-248, 251, and all findings which support these conclusions, including but not limited to ¶26-77.

(3) GPU is unable or unwilling to achieve and/or sustain high quality training instructors. Training instructors have not been shown to have adequate training, education, honesty, integrity and a rigorous attitude to implement the training program to ensure operators are trained to operate TMI safely. ALSB PID at ¶2148-2168, 2334, 2347 and all findings which support these conclusions; Milhollin Report, ibid.

(4) GPU has failed to demonstrate that the training department management possesses the necessary honesty and integrity; sufficient training and education; and proper attitudes to implement an operator training program which ensures the necessary training and integrity of the operational staff. ASLB PID, ¶2324, 2396, 2401-2403, 2407, 2411-2412, and all findings which support these conclusions; Milhollin Report, ¶101-111, 183, 316-317, and all findings which support these conclusions; In re Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1), Partial Initial Decision (Aug. 27, 1981), ¶110; NUREG-0680, Supp. 5, at 11-8; In re Metropolitan Edison Co. (Three Mile Island Nuclear Generating Station, Unit 1), Atomic Safety and

Licensing Appeal Board (May 24, 1984) ("ALAB-772"), slip. op. at 71, n.56.

(5) GPU management does not have the necessary integrity, character and competence, and attitude of honesty and forthrightness with the NRC and the public to ensure that the operator training program is implemented rigorously and in accordance with all requirements and commitments, and that all conditions placed on the training program by the Licensing Board or the NRC Staff are in fact fulfilled. Milhollin Report, ¶338; all pending and completed investigations by the NRC's Office of Investigations regarding the so-called "integrity issues"; ASLB PID, supra.

(6) GPU has failed to identify and take adequate corrective action for problems, deficiencies and violations of its training program, including its failure to respond adequately to the cheating incidents; the training irregularities cited in its internal audits before the 1979 Accident and continuing up to the present; training failures cited by the NRC Staff in inspection reports; problems and failures cited in the ASLB PID, ALAB-772, the Milhollin Report, the BETA Report, and the RHR Report. See generally, Milhollin Report, ¶184-237; 250-251; 332-335; ASLB PID, ¶2252, 2246, 2270, 2306-2307, 2318-2319, 2323-2328, 2331, 2411-2412, and all findings which support these conclusions; NUREG-0680, Supp. 5, ¶t 7-1 to 7-11.

(7) GPU management has failed to instill a proper respect for the training program in the operators; training instructors; and training department management. See Milhollin Report, ¶19, 220-237, 248, 322-331, 338, and all findings which support these conclusions; ASLB PID, ¶2325-2328, 2416, 2396-2407, 2411-2412, and all findings which support these conclusions; TMIA Response to Interrogatory Nos. T-30 and T-31 below.

(8) GPU appears to rely on security measures instead of reform, improvement, revamping, or modification to its training program to discourage cheating on exams. See Reconstituted OARP Review Committee Special Report (June 1984), at 130, 169.

(9) GPU appears to have little or no appreciation of the lack of integrity in its program demonstrated by the cheating incidents as evidenced by the lack of disciplinary action against individuals involved in the cheating incidents and the misleading and/or incomplete information given to the Reconstituted OARP Review Committee about the cheating incidents. See Special Report at 66-67.

(10) The current management of the training department, including Mr. Hukill, Dr. Long, Mr. Newton and Mr. Frederick all appear to be tainted to one degree or another by the failures of the past training program, including its lack of integrity and rigorousness, as demonstrated by the Milhollin Report, ASLB PID and ALAB-772. Ibid. Mr. Frederick is not currently a licensed operator and is spending full-time studying instead of assuming management responsibilities for the training department.

(11) GPU has not willingly taken adequate disciplinary action against operators, instructors or supervisors involved in the cheating incidents. The NRC, the Commonwealth of Pennsylvania, or public embarrassment caused by NRC adjudicatory hearings or decisions have forced GPU to take action to take the disciplinary action it has taken.

(12) Operators do not believe the training program adequately trains them to operate TMI safely. RHR Report, supra.

(13) The criticisms outlined by the Appeal Board in ALAB-772, including the following:

(a) The deficiencies in operator testing demonstrated by the cheating incidents may be symptomatic of more extensive failures in GPU's training program overall, ALAB-772 at 63.

(b) The "fixes" by GPU may be largely ministerial and not solve the basic problems found by Judge Milhollin, including whether the training program encourages memorization for test-taking purposes and does not enhance operators' knowledge; the GPU and NRC exams are not an effective way to measure an operator's ability to run the plant; and the format and content of the examinations encourage cheating. Ibid.

(c) GPU has failed to explain or otherwise resolve satisfactorily the fact that one-fourth of those who took the April, 1981, NRC examinations were directly involved in cheating or implicated in some way in the cheating. Id. at 64.

(d) Several of the above-mentioned individuals are still in supervisory positions. Ibid.

(e) A number of employees, including training instructors, did not believe the courses or examination process were a serious matter. Ibid.

(f) There is some misgiving about the testimony of Dr. Long, currently overseeing the training program, because he did not detect or address the cheating incidents. Id., at n. 48.

(g) The lack of pride and enthusiasm among employees for the training program, and lack of professionalism of instructors. Id. at 66.

(h) The qualifications of the training instructors may

not currently be adequate. Id. at 69, n.53.

(i) The current usage of simulators in training and testing may not be adequate. Id. at 70, and n.54.

(j) There may remain a lack of communication between top management and the operating crews. Id. at 71.

(k) In light of the cheating incidents, GPU's assignment to key positions in the training program of Dr. Long, Mr. Newton and Mr. Frederick is not appropriate.

(l) Operators' skills have declined during the long period of plant shutdown and GPU's training program has not adequately resolved that problem. Id. at 72.

(m) The NRC Staff may need to take a more active role in GPU's training program in light of the past failings of the program. Id. at 73-74.

(n) GPU has not corrected the substantive problems in the examination, including but not limited to the following: some questions reflect training information rather than actual plant design; training is not oriented to operating the plant; and the training program unduly emphasizes passing the exam instead of learning how to operate TMI-1. Id. at 75.

Interrogatory T-6

The issue in this reopened portion of the management hearing is whether or not the GPU training program currently trains operators to operate TMI-1 safely. TMIA's opinions as to how to improve the training program so that it will in fact train operators properly is not an issue in this proceeding and not reasonably calculated to lead to the discovery of relevant evidence. Therefore, it is outside the scope of permissible discovery. 10 C.F.R. 2.740(b)(1).

Interrogatory T-7

TMIA does not consider memorization an appropriate method of instructing operators how to operate a nuclear power plant safely. Memorization is not an appropriate method for the following reasons:

(1) Operators must deal with unforeseen operational and technical problems in the operation of a plant. Memorization of rules will not help operators resolve these problems. Operators need to use concepts which explain systems, procedures, plant theory and basic principles of physics to ensure that they can respond properly and promptly to unanticipated events. See Rickover Report.

(2) Memorization does not teach operators what they need to know to operate the plant safely. The operators themselves make this point in response to questions posed them during the RHR audit. See RHR Report.

(3) The memorization method of instruction leads to operators' disrespect for the training program and for training instructors. Operators are simply taught words without being taught what these words mean. Milhollin Report, ¶247-251.

(4) Memorization will not aid operators in improving in those areas in which they demonstrate weakness. It will only help them memorize words or phrases to pass the exam. Ibid. Instruction and testing should aid students in those areas in which they are weak.

(5) An exam process based on memorization will not demonstrate the operators' capabilities in operating a reactor safely.

Interrogatory T-8

The remanded issue in these reopened licensing hearings is whether or not GPU's training program trains operators how to

operator TMI-1 safely. TMIA's views on what type or quantity of training is necessary to ensure operators are trained to run the plant safely is not relevant to this issue and not reasonable calculated to lead to the discovery of admissible evidence. 10 C.F.R. 2.740 (b)(1).

To the extent that this interrogatory requests information concerning TMIA's criticisms of GPU's current training program, see TMIA's Response to Interrogatory Nos. T-4 and T-5.

Interrogatories T-9, T-10 and T-11

Intervenor Union of Concerned Scientists (UCS) is the Lead Intervenor on the subissue of whether the curriculum of the GPU training program is adequate to train operators to operate TMI-1 safely. Interrogatory Nos. 9, 10 and 11 should be directed to UCS as lead intervenor.

Interrogatories T-12 and T-13

Intervenor UCS is lead intervenor on the issue of whether GPU examinations reliably measure the operators' ability to safely operate the plant. Interrogatory Nos. 12 and 13 should be directed to UCS as lead intervenor.

To the extent that the interrogatories request information which goes to the question of whether GPU has taken adequate actions to modify or change the format of its exams to discourage cheating, TMIA is unable to answer the question at this time prior to reviewing the current format of GPU's exams and GPU responses to TMIA's Second Set of Interrogatories and Second Request for Production to GPU.

Interrogatories T-14 and T-15

(1) Mr. Kuhns and Mr. Dieckamp, because they set the tone and values for GPU as a corporation, during the time it allowed the cheating incidents to occur; permitted training failings which existed prior to the accident to continue after the accident, even in the face of increased NRC and public scrutiny and concern; determined that GPU would deny any cheating had occurred and take a position in this litigation contrary to the facts of the situation; took little or no disciplinary action against the individuals involved in the cheating incidents and other training program failures; involved management in a number of serious ethical and regulatory failures, including but not limited to leak rate falsifications at TMI-1 and TMI-2. All these factors indicate the corporation's deep-seated and basic lack of integrity, honesty, and forthrightness in dealing with the NRC and with the public.

(2) Dr. Long; ASLB PID, ¶2321; ALAB-772, supra.

(3) Henry Hukill, ALAB-772, supra.

(4) Mr. Newton, ALAB-772, supra.

(5) Mr. Hukill, Dr. Long and Mr. Newton were in responsible positions in the organization at the time the cheating incidents occurred and were responsible to some degree for the incidents.

(6) Dr. Coe. His resume indicates that he has no nuclear experience.

(7) Michael Ross, Milhollin Report, ¶137-178.

(8) Mr. Shipman, Milhollin Report, ¶94-110.

(9) Mr. Husted, Milhollin Report, ¶101-111; ASLB PID, ¶2148-2168.

(10) Mr. Frederick, NUREG-0680, Supp. 5, at 11-8; ALAB-772, supra.

(11) Mr. I, Milhollin Report, ¶24.

(12) Mr. A, Milhollin Report, ¶24.

- (13) Mr. P, Milhollin Report, ¶107-110.
- (14) Mr. U, Milhollin Report, ¶112-132.
- (15) Mr. GG, Milhollin Report, ¶82-93.
- (16) In addition, if he is still employed by GPU, Mr. M, Milhollin Report, ¶82-93.

Interrogatory T-16

TMIA does not currently have GPU's criteria for training instructors, although it has requested this information in its discovery request. Therefore, at this time TMIA cannot answer this interrogatory.

Interrogatories T-17 and T-18

UCS is the lead intervenor on the subissue of whether the curriculum of the GPU training program, including the simulator training, prepares operators to operate TMI-1 safely. Interrogatory Nos. 17 and 18 should be directed to UCS as lead intervenor.

To the extent that the interrogatories request information about whether or not GPU has made adequate modifications or improvements to its simulation training program, TMIA is unable to answer the interrogatories prior to review of GPU's responses to TMIA's Second Set of Interrogatories and Second Request for Production to GPU concerning the simulation training program.

Interrogatory T-19(a)

GPU has not taken any or inadequate disciplinary or other action against the individuals listed in response to Interrogatory T-14 above.

In addition, GPU has failed to acknowledge or respond adequately

to the findings and conclusions of the RHR and BETA Reports. In fact, in the form of the Special Report of the Reconstituted OARP Review Committee, GPU has denied that the problems pointed out in these two audits exist. The first step to resolving the problems is acknowledging their existence and then planning and implementing thorough corrective action.

GPU has not taken adequate corrective action to remedy the problems outlined in the Milhollin Report, ASLB PID, and the Appeal Board decision. Specifically, TMIA refers to those problems and concerns listed in response to Interrogatory Nos. T-4 and T-5 above.

Interrogatory T-19(b)

The issue in these reopened management hearings is whether or not GPU's training program adequately trains operators to operate TMI-1 safely. TMIA's proposed responses to past problems are not relevant to this issue and are not calculated to lead to the discovery of relevant information. Therefore, the interrogatory is overbroad and outside the scope of this permissible discovery. 10 C.F.R. 2.740 (b)(1).

Notwithstanding this objection, TMIA responds that the recommendations contained in the Milhollin Report; ASLB PID, ¶2347; and the BETA and RHR Reports would aid in developing a proper response to the outlined problems.

Interrogatories T-20 and T-21

See TMIA's Response to Interrogatory No. T-4 and T-5; T-25 and T-26; and T-27 and T-28. See also, Milhollin Report, ¶248, 251.

Interrogatory T-22

The issue in these reopened management hearings is whether or

not GPU's training program adequately trains operators to operate TMI-1 safely. The information requested concerning TMI's beliefs on the appropriate operator attitude toward training is not relevant to this issue and not reasonably calculated to lead to the discovery of admissible evidence. 10 C.F.R. 2.740(b)(1). Therefore, the interrogatory is overbroad and beyond the scope of permissible discovery.

In addition, TMIA believes the interrogatory requests information about the legal standard employed by TMIA to determine whether operators have the proper attitude toward training. As such, it is objectionable because it requests information privileged under the work product doctrine.

Interrogatory T-23

See TMIA Response to T-19 above.

Interrogatories T-24(a) and T-24(b)

See TMIA Response to Interrogatory Nos. T-14 and T-15 above.

TMIA does not have a complete list at this time of all GPU employees responsible for the management and implementation of the training program. Therefore it is not able at this time to answer fully this question.

Interrogatory T-24(c)

The issue in these reopened hearings on management integrity is whether or not GPU's training program adequately trains operators to operate TMI-1 safely. TMIS's proposed resolution of its "dissatisfactions" with GPU employees responsible for the management and implementation of the training program is not relevant to this issue and not reasonable calculated to lead to the discovery of admissible evidence. 10 C.F.R. 2.740(b)(1). Therefore, the interrogatory is

overbroad and requests information outside the scope of permissible discovery.

See also TMIA Response to Interrogatory Nos. T-24(a) and (b) above.

Interrogatory T-25

See findings of the RHR Report listed in Interrogatory No. 67 in TMIA's Second Set of Interrogatories to GPU, at 26-28, except subsections (x), (aa) and (bb).

In addition, the findings that TMI operators were disturbed that stiff sanctions were promulgated and/or imposed on operators abusing drugs; TMI operators believe there is a double standard for disciplinary practices, one for operators and another for management; and there exists an insufficient supply of trainees.

Because the RHR Report assessed operator attitudes and issues at both TMI and Oyster Creek, it is in some cases difficult to determine the number of reactor operators (RO's) or senior reactor operators (SRO's) at TMI alone who held a particular view or criticism of the training program. In the event any of the concerns listed in Interrogatory No. 67 is incorrect as to the number of operators at TMI who held such a viewpoint (e.g., a minority held a particular view instead of a majority), TMIA's response is modified to the extent that it refers only to the operators' views or criticisms at TMI.

When GPU responds to TMIA's Second Set of Interrogatories and Request for Production, and produces the computer analysis of RHR's survey results, TMIA will be able to explain more specifically its concerns as related solely to the TMI operator training program.

Interrogatory T-26

TMIA relies on the following portions or statements of the

RHR Report:

- (1) Introduction, Paragraphs 2, 5 and 6.
- (2) The Executive Report --
 - (a) Capability Section, specifically 1.A.1, 1.A.2, B, D, 2.A, and 2.B;
 - (b) Table 1, Section on Operator Experience; Table 2; Table 3;
 - (c) Priority Issue #1, entire section;
 - (d) Priority Issue #2, Item 1;
 - (e) Table 4;
 - (f) Table 5, sections on Entry, College Credentials;
 - (g) Implementation -- A Chronic and Pivotal Issue, Paragraph 2;
 - (h) Table 6, section on Facility Cooperation;
 - (i) Table 9;
 - (j) Explanatory Materials
 - (i) Sections on Safety as Primary Mission, par. 3, 4, 5, and 6;
 - (ii) Changes since TMI-2 and Safety, par. 3;
 - (iii) Components of Safe Operation, par. 3;
 - (iv) Regulatory Environment, par. 4 and 5;
 - (v) Procedural Compliance, par. 4 and 5;
 - (vi) Role of Operator;
 - (vii) Concerns about Change, par. 3;
 - (viii) Disciplinary Sanctions, par. 1, 2 and 3;
 - (ix) Licensing, Requalification and Training, entire section;
 - (x) Career-Career Options;

- (xi) Supply of Trainees;
 - (xii) Job Security;
 - (xiii) Problem of Cooperation Between Departments, par. 1;
 - (xiv) Cause of Problem;
 - (xv) Remedies, par. 2;
 - (xvi) Interaction with Specific Departments, par. 1 and 3; end
 - (xvii) Management and Supervision, par. 1, 2, 4, 7, 8 and 9.
- (k) Table 12.

Interrogatory T-27

See findings of BETA Report listed in Interrogatory No. 71 in TMIA's Second Set of Interrogatories to GPU, at 29-30, except subsection (g).

In addition, the finding that GPU training resources should be focused on immediate problems related to nuclear power plants and not management development courses.

Interrogatory T-28

See BETA Report at the following:

- (1) Page 3, par. 2, section 1 beginning "Productivity throughout . . ."
- (2) Page 10, section 4, par. 1.
- (3) Pages 13, 14.
- (4) Page 16, par. 1 and 2.
- (5) Page 19, par. 3 and 4 (continuing on Page 20).
- (6) Page 52, par. 3 and 4 (continuing on Page 53).
- (7) Pages 54 to 58; page 59, section 1 Recommendation.
- (8) Page 106, par. 1 and 2; page 107, subsection f; page 108, par. 2, subsections (a) and (b).

Interrogatory T-29

(1) Members of the Reconstituted OARP Review Committee which authored the Report have previously done work for GPU and thus are not providing a truly independent evaluation of the training program or issues raised by the Appeal Board.

(2) The charge given by GPU to the Reconstituted OARP Review Committee was to take a "quick look" at the training program and provide a report which would aid GPU in convincing the Commission to restart TMI-1 prior to completion of these restart hearings. The Committee had little time and expended little effort in reviewing carefully the entire training program and GPU's recent modifications to improve the program. The Report therefore appears not to be substantiated by the interviews, research and reflection necessary to reach the completely favorable and uncritical conclusions of the Report.

(3) The Special Report rejects many findings made by the Appeal Board, the ASLB and Judge Milhollin, and appears to rest on basic philosophical assumptions which differ from those providing the basis for those decisions.

(4) The Report indicates that the Reconstituted OARP Committee does not appreciate or understand GPU's basic responsibility under the NRC's regulatory framework for the commercial nuclear power industry to be fully forthright, honest and accurate in all its dealings with the NRC and to instill in all its employees a similar rigorous attitude of honesty and integrity.

(5) The Report does not to any degree examine the actual implementation of GPU's program to train instructors. Nor does the Report analyze GPU's "paper" program in terms of whether the proposed methods of training instructors are effective and sensible

ways to ensure instructors are competent teachers with a good grasp of the subject matter they are teaching.

(6) The Report does not address whether, or if, the current GPU training program has addressed the problems and criticisms listed in the BETA and RHR Reports, the Milhollin Report, and the ASLB PID.

(7) The Report assumes that improved security procedures during the administration and grading of examinations will resolve the problem of cheating.

(8) The Report does not adequately analyze the actions GPU has taken to respond to recommendations made by the OARP Review Committee in its 1980 Report and whether they are effective. Although GPU states it has adequately responded to all OARP Review Committee recommendations, in fact, other internal reports indicate these alleged corrective actions have not been effective.

(9) The Report fails to answer or discuss a number of concerns raised by the Appeal Board. This leads TMIA to believe that the directions given to the Review Committee unduly narrowed the scope of its inquiry and foreclosed any inquiry into certain areas. See, e.g., Special Report at 47, 49-50, 64, 65-66, 69-70, 72, 73, 74.

(10) The Report does not analyze the root cause(s) for the cheating and therefore can only speculate as to whether GPU's current training program has adequately resolved this problem. See, e.g., Special Report at 56-57, 66.

(11) The Report generally analyzes GPU's "paper program" proposed for adequate training, and not its actual implementation. See, e.g., Special Report at 59-63.

(12) The Report assumes that only two GPU employees cheated, which seriously understates the cheating incidents and demonstrates

the Review Committee's lack of understanding of the seriousness of the issue. See, e.g., Special Report at 65-66. In fact, the Review Committee appears to show tolerance for cheating. Id. at 66-67.

(13) The Special Report misstates the record in stating GPU has removed individuals who have been found to have engaged in objectionable conduct. Id. at 67.

(14) The Report fails to look at the nature and substance of communications between GPU management and operating crew, and instead relies on GPU management's own evaluations of its communications.

(15) The Report fails to address the question of whether GPU management has developed the capacity itself to identify problems in its training program before they are discovered by the NRC, and to take appropriate corrective actions to resolve these problems.

Interrogatory T-30

The criticisms listed above are general criticisms which are based on the entire Special Report. To the extent that any criticism is based on a specific portion of the Special Report which GPU cannot readily identify, TMIA has identified that portion of the Special Report in connection with the specific criticisms listed in TMIA's Response to Interrogatory T-29 above.

Respectfully submitted,

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