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March 6, 1985

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
DOCKETING SERVICE  
BRANCH

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

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

LICENSEE'S PROPOSED FINDINGS OF FACT IN  
REPLY TO THE FINDINGS OF THE NRC STAFF,  
UCS, TMIA AND THE COMMONWEALTH OF PENNSYLVANIA  
ON THE ISSUE OF LICENSED OPERATOR TRAINING AT TMI-1

On February 13, 1985, Licensee filed its Proposed Findings of Fact and Conclusions of Law on the Issue of Licensed Operator Training at TMI-1 ("Licensee's Findings"). Licensee's Findings addressed the evidence produced during the reopened proceeding on training; they also anticipated and responded to the specific arguments subsequently raised by the other parties to the proceeding in their respective proposed findings of fact and conclusions of law.<sup>1/</sup> Licensee therefore takes this opportunity on reply to

<sup>1/</sup> See Union of Concerned Scientists Proposed Findings of Fact and Conclusions of Law on the Issue of Licensed Operator Training at TMI-1, February 25, 1985 ("UCS Findings"); TMIA's Proposed Findings of Fact on the Issue of Licensed Operator Training, February 26, 1985 ("TMIA Findings"); Commonwealth of Pennsylvania's Proposed Findings of Fact on the Issue of Licensed Operator Training, February 22, 1985 ("Commonwealth Findings"); NRC Staff's Proposed Findings of Fact and Conclusions of Law in the form of a Partial Initial Decision on the Remanded Issue of Licensed Operator Training at TMI-1, March 1, 1985 ("Staff Findings").

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respond only to several themes that run through the findings of some of the other parties.

UCS and TMIA urge the Board to find that the OARP Review Committee's work is fatally flawed. In large part, this position is based on alleged methodological inadequacies in the Special Report -- the Committee's initial response to the decision of the Appeal Board in ALAB-772. See UCS Findings, ¶¶ 20-113, 159-164; TMIA Findings, pages 4-6. Of course, this argument requires the rejection of all of the Committee's subsequent work, which UCS attempts to do. UCS Findings, ¶¶ 114-164; but see Staff Findings, ¶ 2906. But the argument fails for other reasons, as well.

As a preliminary matter, Licensee disagrees with UCS and TMIA's methodologically purist view that the Committee should not have been willing to reach any conclusions about training at TMI-1 after extensive discussions with knowledgeable senior and junior members of management and staff personnel, visits to the plant and the training facility, observations of some of the key training equipment (e.g., the BPTS), and review of considerable pertinent documentation, including the self-evaluation report prepared for INPO-accreditation of the licensed operator training program. See Licensee's Findings at ¶ 227-242. In Licensee's view, the approach used by the Committee -- a collective body of highly knowledgeable and sophisticated professionals -- was reasonable. Moreover, the Special Report was straightforward and careful in delineating the precise basis for the findings and conclusions contained in it. See Committee, ff. T. 31,749,

Special Report at 1-4, Tables A-1 and A-2; compare UCS Findings, ¶¶ 22, 30; see also Staff Findings, ¶ 290c.

Perhaps a more fundamental point, however, is that the intervenors' methodological stance fails to address the absence of any evidence of incorrect findings and conclusions made by the Committee as a result of the methodology utilized, other than the omission of the fact that Mr. Frederick failed an NRC TMI-1 SRO exam.<sup>2/</sup> To the contrary, the Committee's subsequent extensive effort and the independent evidence on training presented during the evidentiary proceeding irrefutably support the initial findings reached by the Committee. See Licensee's Findings, ¶¶ 243-257, 291-322. UCS may wish that the one factual omission in the Special Report was "representative" of the Committee's work as a whole. UCS Findings, ¶ 104; see also id., ¶ 180 (omission as "clearest example" of Committee's "carelessness"); id., ¶ 108 ("failure to correct these statements").<sup>3/</sup> But the facts in

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<sup>2/</sup> The significance of the Frederick factual omission was not in the absence of general knowledge about that fact -- it was a fact of public record, known to the NRC -- or in the current significance of the fact -- Mr. Frederick is no longer the Supervisor of Licensed Operator Training. Rather, the question was simply one of factual accuracy (and hence, presumably, credibility) of the Special Report. See Licensee's Findings, ¶¶ 86-87, 228 n.80; compare UCS Findings, ¶ 105 ("Special Report created a serious misimpression as to the status of this important individual"); see also Tr. 32,374-75 (Coe).

<sup>3/</sup> The Frederick factual error was readily acknowledged by the Committee members as soon as they took the witness stand. UCS makes an unfounded accusation when it suggests malfeasance by the Committee or by Licensee in not stating this correction in the prefiled testimony of the Committee. UCS Findings, ¶¶ 109, 110. UCS well knows that there was no attempt to mislead here -- as

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this case overwhelmingly establish that the Committee's Special Report was accurate and comprehensive. As UCS states, "the Committee's opinions are only as good as the facts on which they are based." UCS Findings, ¶ 37. These facts are very good indeed.

Another theme that characterizes the proposed findings of UCS, TMIA, and the Commonwealth is the argument that the OARP Review Committee failed to assess whether the cheating incidents are symptomatic of more extensive failures in the training program. UCS Findings, ¶¶ 117-125; TMIA Findings, pages 4, 8; Commonwealth Findings, ¶¶ 15-27. This finding can be reached only by ignoring the evidence. The whole thrust of the Committee's efforts was directed at determining whether the kinds of problems that led to the cheating incidents exist today at TMI. See,

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(Continued)

UCS describes, Dr. Uhrig was entirely forthcoming during his deposition by UCS about his unawareness of this fact. See UCS Findings, ¶ 109. To be precise, "the first opportunity to correct the record" was when the Committee took the witness stand and their testimony was introduced into the record. See id. at ¶ 109. In fact, Licensee wanted to be sure that all necessary testimony corrections were made at one time; this was accomplished at the beginning of the Committee's testimony. See Tr. 31,750-51 (Uhrig).

UCS also is wrong when it argues that the Committee showed an inability (or unwillingness) to be objective by failing to take into account Mr. Frederick's replacement as Supervisor of Licensed Operator Training by Mr. Ronald Maag. UCS Findings, ¶ 109 (arguing failure by Committee to reassess its views after special reliance placed on Mr. Frederick in Special Report). The Committee specifically testified that it extensively interviewed the individual, Mr. Maag, who was Mr. Frederick's replacement. Tr. 32,099-101 (Uhrig, Christensen, Kelly, Kimel, Gardner). Mr. Maag's credentials and his teaching ability also were assessed. Id.; see also Tr. 33,321 (Uhrig, Kelly); Committee Rebuttal, ff. Tr. 33,320, at 4.

e.g., Committee, ff. Tr. 31,749, Special Report at 8 ("The pertinent question for the Committee today is not the impact of cheating upon the 248-hour OARP or the GPU Nuclear training program of 1980; rather, it is the impact of the cheating on a vastly improved 1984 training program that has provided approximately 1250 hours of classroom and simulator training to the reactor operators in the last five years."); accord, Staff Findings, ¶¶ 294a, 294b. Thus, during its initial assessment and its subsequent evaluation, the Committee carefully reviewed the current program, including measures taken by Licensee in response to the cheating that occurred. See Licensee's Findings, ¶¶ 64-96; 291-322. Critical to this response was Licensee's self-examination of potential causes and implications of cheating. This introspection resulted in numerous activities to prevent future cheating incidents. Of course, exam safeguarding practices were a very important element in the response. But in addition, methods for increased communications between operations and training, for example, were instituted. See id., ¶¶ 65-75. The OARP Review Committee considered this evidence and assessed whether these actions were responsive to the evidence on cheating, as found by the decisions of the Special Master, the Licensing Board, and the Appeal Board. See Tr. 31,916 (Uhrig); Committee, ff. Tr. 31,749, Special Report, Table A-2 (documents 14, 16 and 25); Licensee's Findings, ¶¶ 318-322. The Committee reached the conclusion that the measures taken by Licensee, including the fundamental measure of improving the training

program so that it is highly job-relevant and is perceived as such by its users, the operators, were satisfactory. See generally Licensee's Findings, ¶¶ 291-323.<sup>4/</sup>

<sup>4/</sup> UCS and TMIA fault the Committee for failing to interview cheaters about why they cheated. UCS Findings, ¶¶ 122-124; TMIA Findings, pages 5 (¶ 7) and 8 (¶ 19). The cheating that occurred at TMI was of different types: O & W (extensive cheating on 1981 NRC exam); G & H, GG (1980-81 company quizzes); VV (1979 company requalification take-home exam); Shipman (1981 NRC exam, but providing only one answer spontaneously at coffee machine). See LBP-82-56, 16 N.R.C. 281, 313-15 (¶¶ 2139-2147)(1982). In these various circumstances, with isolated cheaters, the psychological phenomenon of cheating being highly situational would appear to be particularly well demonstrated. See Licensee's Findings, ¶ 291. Moreover, as obvious as it may seem, it is difficult to interrogate individuals about why they cheated when they do not admit to having engaged in such conduct, i.e., G and H, GG, VV. LBP-82-56, supra 16 N.R.C. at 307, 312 and 345 (¶¶ 2115, 2136, 2278) (1982); LBP-82-34B, 15 N.R.C. 918, 934, 952 and 1008 (¶¶ 29, 85-86, 226); see also LBP-82-56, supra, 16 N.R.C. at 344, 346 (¶¶ 2274, 2278). Thus, the only question is whether the Committee could not assess whether a fundamental and unidentified problem exists today because it failed to interview three individuals who admitted cheating (or misconduct) in 1980 and 1981, i.e., O and W, and Shipman. There is absolutely no evidence to support this view. To the contrary, having reviewed the Special Master's Report, and the 1982 Licensing Board decision, the Committee was aware of the self-ascribed reasons for at least Mr. W and Mr. Shipman's conduct. See LBP-82-34B, supra, 15 N.R.C. at 921-32 (¶ 19) (W), 955-56 (¶¶ 97-99) (Shipman); LBP-82-56, supra, 16 N.R.C. at 313-14 (¶¶ 2139-2141) (Shipman). (Mr. O never really acknowledged cheating, although he admitted facilitating it and findings were made as to why he may have conducted himself as he did. See LBP-82-34B, supra, 15 N.R.C. at 930-931 (¶¶ 15-17).)

Furthermore, the intervenors presented no evidence to suggest that the potential causes of cheating perceived by and responded to by Licensee were not, in fact, why cheating occurred. The record below certainly supports this view. There, as the intervenors have on previous occasions reminded us, a number of operators testified about a lax atmosphere in the examination room, questionable relevance of some of their training, and other problems which communication improvements and the other measures taken by Licensee were designed to address. See, e.g., LBP-82-34B, supra, 15 N.R.C. at 1018-20 (¶¶ 247-251). In LBP-82-56, the Board summarized as follows:

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Finally, Licensee believes that one factual error in numerous findings which support conclusions does not fatally flaw the conclusions. But multiple factual errors and mischaracterizations or distortions of the evidence do raise serious questions about the weight, if not the validity, that should be accorded proposed findings and conclusions. Licensee believes that there are such multiple factual errors and mischaracterizations or distortions in the proposed findings of fact and conclusions of law filed by UCS,<sup>5/</sup> TMIA,<sup>6/</sup> and the Commonwealth of Pennsylvania.<sup>7/</sup>

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(Continued)

Licensee responded to the cheating revelations by investigating the circumstances surrounding the cheating on the NRC examinations, investigating its own company-administered examinations, disciplining errant employees, meeting with and explaining to employees the company's policy on training and testing integrity, upgrading its procedures for certifying license candidates to the NRC and by participating in this proceeding. The Licensee also has made major changes in its company training and testing program . . . .

LBP-82-56, supra, 16 N.R.C. at 293 (§ 2052); see generally Licensee's Findings, §§ 64-96.

In short, UCS and the Commonwealth offer no facts or even suggest any potential omitted considerations to support their proposition that the Committee's review of the decisions on cheating, combined with its extensive examination of the training program, may have failed to identify any "root causes" of cheating.

<sup>5/</sup> See Appendix A.

<sup>6/</sup> See Appendix B.

<sup>7/</sup> See Appendix C.

These parties also propose a number of wholly unsupported, totally speculative findings.<sup>8/</sup> Such findings should be ignored.

Respectfully submitted,

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<sup>8/</sup> The following findings are proposed without any record support: See UCS Findings, ¶ 256 (discussion about potential for learning interference without any citations referenced); UCS Findings, ¶¶ 266-267 (discussion of Mr. Frederick involving totally unsupported speculation about improper reasons for Mr. Frederick's marginal pass grade on oral exam); UCS Findings, ¶ 273 (totally unsupported accusatory speculation about quality of Olive oral exam); UCS Findings, ¶ 282 (unsupported statement that relationship of training to job performance is much closer in an industrial setting such as TMI than in other situations; Licensee notes that Dr. Regan suggests this in his testimony, see Regan, ff. Tr. 32,693, at 2; however, Dr. Regan also acknowledges knowing virtually nothing about training at TMI. See Licensee's Findings, ¶¶ 99 (especially n.28) and 278 n.105; see also Tr. 32,743-51, 32,780-82 (list of documents Dr. Regan stated he had not seen, including LBP-82-56 and LBP-81-32); UCS Findings, ¶ 186 (wholly unfounded speculation about insincerity of Dr. Long's testimony); TMIA Findings, ¶ 52 (concerning quality of Committee's effort; compare Licensee's Findings, ¶¶ 227-257); Commonwealth Findings, ¶ 20 (concerning effective communications; only citation is to contrary position held by OARP Review Committee); Commonwealth Findings, ¶ 6 (last sentence finds Drs. Long and Coe and Mr. Newton without necessary qualifications to determine root causes of cheating without any supporting evidence).

## APPENDIX A

UCS' inaccuracies include the following:

(a) UCS Findings, ¶ 10. Without any substantiation, UCS characterizes Mr. Kelly's clarification regarding the OARP Review Committee's lack of reliance on the NRC exams as impugning the Committee's credibility. But see Tr. 31,966, 32,085-87 (Kelly).

(b) UCS Findings, ¶¶ 99 (subparagraph 4) and 60. UCS' description of the Committee's assessment of Licensee's job/task analyses and behavioral learning objectives ignores substantial evidence on the subject, thereby distorting the Committee's considerable effort to examine this issue both before and after the issuance of the Special Report. See Licensee's Findings, ¶¶ 228, 237, 255 n.82; Tr. 33,287 (Uhrig); compare UCS Findings, ¶ 136 (alleged inadequacies in review of job/task analysis) with Licensee's Findings, ¶¶ 228, 237, 255.

(c) UCS Findings, ¶ 99 (subparagraph 7). UCS incorrectly states that the record fails to indicate whether Mr. Kelly reviewed "exam construction, balance of questions, potentially excessive memorization, technical accuracy, or any other matters at issue in this proceeding." Mr. Kelly specifically testified that he reviewed Licensee's exams for their scope and content. Tr. 33,283 (Kelly). He also identified his extensive experience in conducting such reviews, as well as in writing licensed operator examinations. Tr. 33,284 (Kelly); see also Tr. 32,085-87 (Kelly); see Licensee's Findings, ¶ 239. The Committee also evaluated the exam construction procedure. See,

e.g., Committee, ff. Tr. 31,749, Special Report at 23-24 ("The procedures as outlined and described constitute an excellent set of parameters for the construction, administration, evaluation, and interpretation of important written exams.")

(d) UCS Findings, ¶ 99, n.19. UCS unreasonably interprets Mr. Kelly's affirmative answer to a question as indicating that he did not review the training program descriptions prior to issuance of the Special Report. This interpretation ignores the question which Mr. Kelly answered affirmatively at the referenced citation, which expressly states, "prior to the issuance of the special report . . ." Tr. 33,283 (Kelly).

(e) UCS Findings, ¶ 114. UCS inaccurately states, "When the Committee issued the Special Report, it had no knowledge that it might be called upon to do any further work." In fact, Dr. Uhrig testified that prior to the August, 1984 meeting, he had no "direct" knowledge of that fact (i.e., a specific request); however, the Special Report itself reflects the Committee's awareness of the potential need for further work by the Committee. Committee, ff. Tr. 31,749, Special Report at 3; see also Tr. 31,971-73 (Uhrig).

(f) UCS Findings, ¶ 137. UCS denigrates Dr. Gardner's review of lesson plans to assess their currency, stating incorrectly that Dr. Gardner "admitted" a lack of competence to make this assessment. Dr. Gardner described his competence as an evaluator of the effectiveness of lesson plans from an educational and psychological point of view; however, he stated that

he had become familiar with the subject matter, especially having looked at the curriculum prior to reviewing the lesson plans, although he was not an expert in the pertinent technical content. Moreover, he has done this kind of review many times. Tr. 31,944-95 (Gardner). With Mr. Kelly, however, Dr. Gardner did review lesson plans overall, including technical content and currency. Tr. 31,945 (Gardner); see Licensee's Findings, ¶ 250. Dr. Gardner expressly rejected UCS' invitation to state that the Committee failed to undertake an effort to determine whether the documents that underlie the lesson plans are accurate reflections of physical reality. Tr. 31,946 (Gardner); see also Tr. 31,946-48 (Kelly). Dr. Gardner also explained his thorough review of the procedure for writing lesson plans (using behavioral learning objectives), visiting classes to see the plans implemented, discussing the matter with the instructor, and reviewing the plans that were used in the classroom. Tr. 31,944 (Gardner).

(g) UCS Findings, ¶ 139. UCS inaccurately states that Dr. Gardner did not compare his evaluations of instructors with Licensee's evaluations. But see Licensee's Findings, ¶¶ 252-253; Tr. 32,076-77 (Gardner).

(h) UCS Findings, ¶ 154. UCS incorrectly states that the Committee did not ask operators about their perception of instructor attitude. But see Licensee's Findings, ¶ 245; Tr. 32,068-69 (Kelly).

(i) UCS Findings, ¶ 210. UCS mischaracterizes Mr. Leonard's criticism of open-ended questions. Mr. Leonard

clearly meant that such questions are disfavored because they do not elicit a sufficiently precise response, not because they fail to suggest the correct answer in the question. See Tr. 32,509 (Leonard).

(j) UCS Findings, ¶ 216. UCS' statement that the "examination construction process has few significant controls" ignores Mr. Leonard's testimony during cross-examination by UCS itself. See Tr. 32,491-506 (Leonard); see generally Licensee's Findings, ¶¶ 183-186.

(k) UCS Findings, ¶ 229. UCS miscites Mr. Leonard for the proposition that Licensee "does not know whether those who are graded marginal on oral examinations perform better or worse than those who pass with flying colors." Mr. Leonard in fact stated that while Licensee has no "systematic" method for compiling statistics and doing "formal" evaluations correlating exam performance with job performance, "the results of the annual exams, both written and oral, are routed to Mr. Ross and members of the Operations Department." Moreover, "when any situation arises in which performance is questioned, that information is available to determine if it is a repeated problem, [and] if there is a concern regarding continued poor performance by an individual." Tr. 33,455 (Leonard).

(l) UCS Findings, ¶ 253. UCS is incorrect in its assertion that "Licensee has failed to describe any mechanism through which it assures that operators understand the changes [in plant design] and will take appropriate actions." See Licensee's Findings, ¶¶ 143-144, 166-177.

(m) UCS Findings, ¶ 258. Incredibly, UCS states that Licensee has provided the Board "with no information on how extensively [computers] are used." But see Licensee's Findings, ¶¶ 44-48, 127, 135, 140-142.

(n) UCS Findings, ¶ 271. UCS attempts to impeach Mr. Newton on the question of whether Training discussed Mr. Olive's case with Mr. Ross and, in particular, the impact of individualized instruction for Mr. Olive on the training department. (It should be noted that this concern is ironic, given UCS' advocacy of individualized instruction, and its criticism of Licensee for not having such instruction. See UCS Findings, ¶ 258.) Mr. Newton was not contradictory. The proper reading of Mr. Newton's testimony is that Training "questioned," in the sense of discussed, making a special effort for Mr. Olive; Training did not "question," in the sense of challenge, Mr. Ross' recommendation that the effort be made. Compare Tr. 32,431 (Newton) with Tr. 32,429-30, 32,432 (Newton).

(o) UCS Findings, ¶ 277. UCS erroneously declares that it "just is not true" that Mr. Olive, according to Mr. Ross, had "an extensive background in proven operation, and proven supervision." UCS ignores the context of Mr. Ross' statement, in which Mr. Olive's extensive Navy experience, both in operation and supervision (including as a Navy prototype instructor), is described. Tr. 32,450-51 (Ross).

(p) UCS Findings, ¶¶ 278-279. UCS inaccurately asserts that Mr. Leonard "did not know that Mr. Walsh had failed earlier, and he made no efforts to follow Mr. Walsh's performance on

the subjects that he had failed." Mr. Leonard never said that he did not know that Mr. Walsh had failed earlier; rather, he stated that he did not know without refreshing his memory with which specific subject areas Mr. Walsh was having difficulty. Tr. 33,434-435 (Leonard). Moreover, testimony was presented on Mr. Walsh's current successes in the training program. See Licensee's Findings, ¶¶ 151-152. Similarly, UCS asserts that Mr. Leonard "had no direct knowledge of the areas in which [Mr. Moore] had performed poorly" and thus concludes that the comparison by Mr. Leonard and Mr. Ross to later performance "is suspect." The record indicates, however, that Mr. Leonard had no direct memory, not knowledge, of the specific areas in which Mr. Moore had performed poorly. Tr. 33,435-439 (Leonard); see generally Licensee's Findings, ¶¶ 153-155.

(q) UCS Findings, ¶ 285. In commenting that performance evaluations of operators would not contribute significantly to evaluating and improving a training program, Mr. Ross explained that a review of an operator's overall performance involves his attendance, the way he communicates with other departments, and how he handles stress -- all of which fall outside the scope of the training program. Tr. 33,420-21 (Ross). He also noted other mechanisms for evaluating training. Id. It is unreasonable to suggest, as UCS does, that Mr. Ross thinks on-the-job performance is irrelevant to training; Ross' active involvement in the program is totally inconsistent with this proposition. See, e.g., Licensee's Findings, ¶¶ 31,168.

## APPENDIX B

TMIA'S inaccuracies include the following:

(a) TMIA Findings, ¶ 5. Contrary to TMIA's assertion, the Committee (Mr. Kelly) did review written exams before preparing the Special Report. See Tr. 33,276 (Kelly); Licensee's Findings, ¶ 239.

(b) TMIA Findings, ¶ 15. TMIA misleadingly states that "the Committee relied upon their 1980 evaluation of program content in reaching their favorable conclusions on the current training program." TMIA fails to note that this "reliance" on past information about training at TMI was a way by which the Committee could reliably assess, over time, the responsiveness of Licensee to recommended ways in which the training program could be improved. See Committee, ff. Tr. 31,749, at 12-15, 22; id., Special Report at 28-41; see Licensee's Findings, ¶¶ 301-303, 323. The Committee's previous evaluation also provided a benchmark by which the current program could be assessed, and it provided the Committee with extensive familiarity with Licensee managers, staff, and programs that had been in place in 1979-1980, and were currently associated with Training at TMI. It was not used in lieu of determining how the program is run today. See, e.g., Committee, ff. Tr. 31,749, at 12-22.

(c) TMIA Findings, ¶ 18. TMIA erroneously infers that Dr. Gardner could not determine if the attitudes reflected in the RHR Report had changed, since he interviewed operators without specifically questioning them on the report. But see Licensee's Findings, ¶¶ 245, 254; Tr. 32,039-40 (Gardner, Kelly); Tr. 33,294-95 (Gardner).

(d) TMIA Findings, ¶ 22. Contrary to suggestion, Dr. Long did not state that in 1981, the Training staff was "justified" in its belief that trainees knew they were supposed to do their own work. Dr. Long's actual statement, in explanation of the failure to safeguard the examination process prior to the discovery of cheating, was that Training personnel, naively, believed that everyone recognized that cheating was unacceptable and that one was expected to do one's own work on an examination. See Long & Coe, ff. Tr. 32,202, at 3.

(e) TMIA Findings, ¶¶ 32, 34. TMIA states, without citation, that Mr. Newton "either failed to detect the attitude problems of Husted and Frederick, or else he simply chose to ignore them." This is a totally unsubstantiated statement at odds with the evidence. Mr. Husted's attitude problem existed during a distinct time period -- the cheating hearing. See LBP-82-56, 16 N.R.C. 281, 318-19 (¶¶ 2163-2168) (1982). The record suggests this attitude problem did not exist before the hearing or manifest itself afterwards. See Long & Coe, ff. Tr. 32,202, at 16-19. Mr. Newton obviously was aware of these facts. See id. at 17-18 (references to Mr. Newton's involvement in Husted assignments). In the case of Mr. Frederick, TMIA has ignored Dr. Long's written testimony, which states that the promotion of Mr. Frederick was reviewed by Training with Operations, who "expressed some lingering concern about assuring that what some perceived as an old 'know-it-all' attitude problem has been corrected." Id. at 14. Furthermore, to say that Mr. Newton either failed to detect or chose to

ignore any attitude problem of Mr. Frederick is also to ignore all of the record evidence indicating that Mr. Newton simply disagreed that such a problem, even if it once existed, remained. See, e.g., Tr. 32,415-422, 33,059-060 (Newton).

(f) TMIA Findings, ¶ 41. TMIA minimizes Licensee's efforts to improve operator attitude by incorrectly stating that the absence of any resignations among the operators for several years is the primary basis for Licensee finding operator attitude positive. But see Licensee's Findings ¶¶ 213, 215, 222, 245, 321; see also id., ¶¶ 320, 321 n.123; Tr. 32,020 (Kelly).

(g) TMIA Findings, ¶ 51. TMIA mischaracterizes the instructors' views about the replacement of Mr. Frederick with Mr. Maag. Contrary to TMIA's suggestion, Mr. Newton expressly stated that the instructors did not consider management's actions to be unfair; instead, they were concerned that "maybe the entire process was unfair." Tr. 33,490-91 (Newton). "But it didn't appear as though management had any other alternative." Id.

## APPENDIX C

The Commonwealth's inaccuracies include the following:

(a) Commonwealth Findings, ¶¶ 3-4, 6. The Commonwealth cites Dr. Long for the proposition that "the 'primary cause' of cheating was the failure to provide full-time proctoring for written examinations." Dr. Long, however, stated that "a primary element in the failure to safeguard the examination process was the failure to provide full-time proctoring for written examinations." Long & Coe, ff. Tr. 32,202, at 3.

Moreover, while Dr. Long stated that there was no formal study of the causes of cheating, he further explained that GPU Nuclear did "assess what the lessons to be learned from the cheating incident and from all of the evidence that had been taken were and identify any additional areas that we needed to address." Tr. 32,345 (Long); see also Long & Coe, ff. Tr. 32,202, at 2-12.

(b) Commonwealth Findings, ¶ 13. The Commonwealth mischaracterizes the record when it states that the Committee did nothing to determine whether the attitudinal problems cited in the RHR Report had been solved. See Licensee's Findings, ¶¶ 245, 254; see also Commonwealth Findings, ¶¶ 21-23; Tr. 32,040 (Kelly).

(c) Commonwealth Findings, ¶ 14. The Commonwealth improperly implies that Licensee tried to bias the Committee by failing to give to the Committee, prior to the issuance of the Special Report, a copy of the RHR Report, and, in contrast, by providing to the Committee prior to the filing of its testimony

a copy of Licensee's response to the RHR Report. In fact, the Committee received the RHR Report and Licensee's response thereto at the same time. Tr. 33,296 (Gardner). The Committee also was told about the RHR Report prior to issuance the Special Report; however, they were not concerned about reviewing it because it was an outdated morale study. Tr. 32,038 (Uhrig); Tr. 32,039 (Gardner). Both documents were read by members of the Committee. See Committee, ff. Tr. 31,749, at Attachment 7; Licensee's Findings, ¶ 254. However, the Committee relied on its own operator interviews, rather than the RHR Report operator interviews which, in the words of the Commonwealth, were "stale." Tr. 32,040 (Au, Gardner). (The RHR Report also contained various methodological infirmities. See Licensee's Findings, ¶ 221.) In contrast, Licensee's response to the RHR Report was a document read and relied on by the Committee. This document reflects Licensee's responsiveness to the RHR Report's recommendations. Id.; see Licensee Tr. Exh. 1.

(d) Commonwealth Findings, ¶¶ 24-25. The Commonwealth incorrectly states that testimony by Messrs. Ross, Newton, and Leonard contradicts the Committee's impressions of favorable operator attitudes towards training. From this, the Commonwealth infers that the operators were not being candid with the Committee. The testimony of Licensee's managers concerned operators' reactions to employment decisions made about Messrs. Frederick, Husted, and H. See Tr. 33,484-508 (Newton, Ross); Tr. 33,520-22 (Newton, Ross). In contrast, the

Committee's interviews focused on operators' perceptions of the implementation of the training program. See, e.g., Tr. 32,063-65 (Kimel); Tr. 32,068-69 (Kelly). In short, there is no contradiction.

(e) Commonwealth Findings, ¶ 25. The Commonwealth inaccurately cites Mr. Kelly for the absolute proposition that the Committee found "no" negative aspects of operator attitudes. Mr. Kelly testified, however, that "the low morale was no longer there in general and operator attitudes were good about the training program." Tr. 32,040 (emphasis added); see also Tr. 32,270-71 (Kelly discussion of fact that resentment towards requalification process less at TMI than at other sites.)

March 6, 1985

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

ERRATA

1. After page 231: insert page 232 (¶¶ 298 and 299) (attached)
2. Page 63, line 16: insert "not" before "re-"
3. Page 75, line 16: change "June 1983" to "August 1982"
4. Page 75, last line: change "when" to "after"
5. Page 207, last line: insert ¶¶ 229, 254, 257 in blank
6. Page 215, n.103: change "33,138" to "33,338"

298. In August, 1981, the TMI training staff moved into new quarters (20,000 square feet). According to the Committee's testimony this move provided more office, classroom and library space to accommodate various training programs, and allowed for more efficient personnel access to the training operation because the facilities are outside of the plant security area. Moreover, a second building, to be completed in 1985, will about double the available training quarters. The replica simulator, along with additional office space for Training and Communications personnel, will be housed in the new space. Id; see ¶¶ 43-56, supra.

299. The BPTS was delivered to TMI and became operational in early 1984. The Committee found that the BPTS provides licensed operators with ongoing refresher training in PWR basic operating principles in an environment that encourages learning. The simulator's design, checkout, and training program development were supervised by an experienced TMI licensed SRO who continues to supervise the implementation of the simulator training programs. Committee, ff. Tr. 31,749, at 9-10. The Committee was very favorably impressed with the use of the BPTS in the training programs. See 46, supra; see, e.g., Tr. 32,079-81 (Kimel, Kelly, Christensen).

March 6, 1985

DOCKETED  
MAR 8 1985

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Proposed Findings of Fact in Reply to the Findings of the NRC Staff, UCS, TMIA and the Commonwealth of Pennsylvania on the Issue of Licensed Operator Training at TMI-1" and "Errata" were served this 6th day of March, 1985, by hand delivery to the parties identified with an asterisk and by deposit in the U.S. mail, first class, postage prepaid, to the other 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 )  
 )  
METROPOLITAN EDISON COMPANY ) Docket No. 50-289 SP  
 ) (Restart Remand on Management)  
(Three Mile Island Nuclear )  
Station, Unit No. 1) )

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