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STATEMENT OF QUESTIONS PRESENTED

1. Whether operation of TMI-1 by individuals who were found by a Special Master and an Atomic Safety and Licensing Board Panel ("Licensing Board") to have demonstrated a lack of integrity, poor judgment, and a lack of regard and respect for the NRC regulatory process, provides reasonable assurance that public health and safety will be protected?

2. Whether operation of TMI-1 prior to correction of serious deficiencies in the Licensee's operator training program, identified by both the Special Master and the Licensing Board, provides reasonable assurance that public health and safety will be protected?

STATEMENT OF THE CASE

The Commonwealth sets forth herein only those facts and items of procedural history necessary for review of the Commonwealth's four exceptions to the July 27, 1982 Partial Initial Decision relating to operator cheating issues. See Public Service Electric and Gas Company, et al. (Hope Creek Generating Station, Units 1 and 2) ALAB-394, 5 NRC 769, 771 n.2 (1977). A complete procedural history of this proceeding can be found in Metropolitan Edison Company (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-32, 14 NRC 381, Partial Initial Decision (Procedural Background and Management Issues) (August 27, 1981), at ¶¶1-36, and in subsequent Partial Initial Decisions.¹

The management PID addressed particular safety concerns identified by the Commission in its August 9, 1979 Order and Notice of Hearing regarding Licensee's ability to manage and operate TMI-1 safely. More specifically, the following actions were required to be accomplished prior to restart:

1. The licensee shall take the following actions with respect to TMI-1:

* * *

- (e) Augment the retraining of all Reactor Operators and Senior Reactor Operators assigned to the control room including training in the areas of natural circulation and small break loss of coolant accidents including revised procedures and the TMI-2 accident. All operators will also receive training at the B&W simulator on the TMI-2 accident and the licensee will conduct a 100 percent reexamination of all operators in these areas. NRC will administer complete examinations to all licensed personnel in accordance with 10 C.F.R. 55.20-23.

* * *

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1. Subsequent Licensing Board decisions were issued on December 14, 1981, LBP-81-59, 14 NRC 1211 (Plant Design and Procedures and Separation Issues (Volume I) and Emergency Planning (Volume II)); and on July 27, 1982, LBP-82-__, 15 NRC ____ (Reopened Proceeding). Since all of these decisions were in sequentially numbered paragraphs, the decisions will hereinafter be cited simply as PID ¶¶ ____.

6. The licensee shall demonstrate his managerial capability and resources to operate Unit 1 while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities. Issues to be addressed include the adequacy of groups providing safety review and operational advice, the management and technical capability and training of operations staff, the adequacy of the operational Quality Assurance program and the facility procedures, and the capability of important support organizations such as Health Physics and Plant Maintenance.

The Commission amplified on these standards in its Order of March 6, 1980. Of particular relevance to the Commonwealth's exceptions is the following issue:

- (2) whether the operations and technical staff of Unit 1 is qualified to operate Unit 1 safely (the adequacy of the facility's maintenance program should be among the matters considered by the Board).

On April 23 and 24, 1981, two of Licensee's senior reactor operators cheated extensively on NRC licensing examinations administered pursuant to 10 C.F.R. Part 55. The Licensing Board was informed of these cheating incidents in late July, 1981, shortly before issuance of its partial initial decision on Licensee's management competence to operate TMI-1 safely. Rather than delaying issuance of the management decision, the Licensing Board issued the decision on August 27, 1981, but expressly retained jurisdiction to determine the extent to which the cheating episodes might affect its conclusions. PID at 45.

The Licensing Board subsequently appointed a Special Master to preside over a reopened hearing to consider the following broad issue:

the effect of the information on cheating in the NRC April examination on the management issues considered or left open in the Partial Initial Decision, recognizing that, depending on the facts, the possible nexus of the cheating incident in the NRC examination goes beyond the cheating by two particular individuals and may involve the issues of Licensee's management integrity, the quality of its operating personnel, its ability to staff the facility adequately, its training and testing program, and the NRC process by which the operators would be tested and licensed.

Memorandum and Order, October 14, 1981. In addition to this broad issue, the Licensing Board set forth a number of specific issues.² Of particular relevance to the Commonwealth's exceptions are:

- "1. The extent of cheating by TMI-1 operator license candidates on [various examinations].
* * *
3. The adequacy of Licensee's investigation of, and Licensee's response to, cheating or possible cheating in the examinations listed in Issue 1 above.
* * *
5. The extent of Licensee management knowledge of, encouragement of, negligent failure to prevent, and/or involvement in cheating in the above mentioned NRC and Licensee examinations.
* * *
9. The adequacy of Licensee's Plans for improving the administration of future Licensee qualification examinations for licensed operators and candidates for operator licenses, including the need for independent administration and grading of such examinations.
* * *
12. The sufficiency of management criteria and procedures for certification of operator license candidates to the NRC with respect to the integrity of such candidates and the sufficiency of the procedures with respect to the competence of such candidates.

Hearings on these issues were conducted in November and December of 1981. The hearings took 18 days (over 3500 transcript pages), during which 39 witnesses testified. On April 28, 1982, following the filing of proposed findings of fact and conclusions of law by the parties,³ the Special Master issued a detailed 196 page report containing a certification of the evidentiary record, recommended findings of fact, and recommended conclusions. The parties were then afforded an opportunity to file comments with the Licensing Board on the substance and import of the

-
2. The complete list of issues in the reopened hearing is set forth in the Report of the Special Master (April 28, 1982) ¶3 (hereinafter cited as Special Master's Report ¶____).
 3. The Commonwealth filed proposed findings and conclusions on selected issues in the proceeding. Commonwealth of Pennsylvania's Proposed Findings of Fact and Conclusions of Law on Issues Raised in Reopened Hearing on Operator Cheating (filed January 18, 1982).

Special Master's Report. On the basis of the Report, the evidentiary record, the parties' comments, and the parties' proposed findings of fact and conclusions of law, the Licensing Board issued its Partial Initial Decision on July 27, 1982.

The Licensing Board's decision differed in many substantial respects from the Special Master's Report. The Commonwealth filed the following exceptions to the Licensing Board's decision:

(1) The Licensing Board erred as a matter of law and abused its discretion by permitting the Licensee to utilize operators G and H⁴ as operators of TMI-1, pending a hearing pursuant to 10 C.F.R. Part 2, Subpart B, and 10 C.F.R. §55.40. PID ¶¶2116-21.

(2) The Licensing Board erred as a matter of law and abused its discretion by permitting the Licensee to utilize senior reactor operator DD (Mr. Husted), who is also a training instructor at TMI, as an operator of TMI-1, pending a hearing pursuant to 10 C.F.R. Part 2, Subpart B, and 10 C.F.R. §55.40. PID ¶2168.

(3) The Licensing Board erred as a matter of law in not requiring Licensee to ensure prior to restart that its training instructors have a "high level of competence in instruction, including knowledge of subjects taught, skill in presentation of knowledge, and preparation, administration, and evaluation of examinations" PID ¶¶2347(2), 2421(2).

(4) The Licensing Board erred in not requiring the audit of Licensee's training program to formulate a specific recommendation as to whether Mr. Husted should be retained as a training instructor. PID ¶2168.

Exceptions (1), (2), and (4) relate to the treatment of individual members of Licensee's staff and will be briefed together.⁵ Exception (3) relates to the standards that should be applied to Licensee's entire

4. Pursuant to a Stipulation of Confidentiality among the parties, certain Licensee personnel were referred to by letter designation in the proceeding and in the record below. Although confidentiality was waived with respect to the individuals in this document, letter designations will be used to avoid confusion.

5. Exceptions (2) and (4) both involve senior reactor operator and training instructor DD (Mr. Husted). These two exceptions will be combined for purposes of this brief.

training staff. The specific factual history of each of these two major issues is outlined briefly below.

A. Individual Operators

1. G and H

As part of the Licensee's response to the initial discovery of cheating on NRC-administered examinations, the Licensee employed a consultant, Professor Edward Trunk, to conduct an independent analysis of several sets of Licensee-administered exams to ascertain whether there were any indications of cheating. See generally Trunk, ff. Tr. 24, 831; J. Wilson, ff. Tr. 24, 478. Professor Trunk's reviews produced a large number of parallelisms between answers by Mr. G and Mr. H on a series of quizzes. These parallels are documented extensively in the record. Wilson, ff. Tr. 24, 478, at 4-9; Trunk, ff. Tr. 24, 831, at 6, 7, 9, 10, 11; Licensee Ex. 66a-h; Licensee Ex. 70a-e; TMIA Ex. 75, 77-80, 86-87. Of particular significance are parallels on three "Category T" make-up examinations. See, e.g., Trunk, ff. Tr. 24, 831, at 6.

"Category T" refers to the TMI-2 accident subject matter, examination on which was specifically imposed by the Commission as a restart requirement in short-term order item 1(e) of the Order and Notice of Hearing.⁶

Detailed discussions of the evidence of cheating on these and other exams and quizzes by G and H is contained in the Commonwealth's proposed findings and conclusions ¶¶51-55, the Special Master's Report ¶¶26-77, and the PID ¶¶2096-2121.

Both G and H testified extensively on the witness stand and repeatedly denied cheating. See Special Master's Report ¶29. But both the Special

6. See page 2, supra.

Master and the Licensing Board found both that G and H were guilty of cheating, and that they produced false testimony as witnesses. The Special Master concluded as follows:

One is forced to conclude that G and H cooperated on the quizzes. Neither memorization nor the use of lesson material can explain the number and nature of the similarities. There are simply too many instances which are unexplained. Moreover, the testimony seeking to explain them is false. The poor proctoring, the cooperation by others, and the general acceptance of cooperation, are all factors which reinforce this conclusion.

Special Master's Report, ¶77. The Licensing Board adopted the Special Master's conclusion that "some sets of responses independently established cooperation, others strongly suggested cooperation and ... the pattern established by all of them also establishes cooperation." PID ¶2115.

See also id. ¶¶2096-97. The Licensing Board further found that G and H's explanations of the parallels discovered in their exams were "incredible". PID ¶2114.

The Commonwealth urged that the Licensee not be permitted to operate TMI-1 using G and H, pending further proceedings pursuant to 10 C.F.R. §55.40(b). Commonwealth's Proposed Conclusions of Law (p. 47). The Special Master concurred in this recommendation:

G and H also engaged in systematic, extensive cooperation over a period of time. The evidence of their cooperation was clear, both from the number, and the nature, of their similar written answers. Despite this clear evidence they denied to Mr. Wilson that they had cooperated and they also denied it on the witness stand. Their denials were wholly implausible ... The Licensee and these individuals took the position that cooperation on the quizzes was cheating, and then contended, in the face of overwhelming evidence to the contrary, that no cheating occurred. The fact is that G and H are guilty of cheating as they and the Licensee have defined cheating. I see no alternative to concluding, and recommending, that the Licensee be prohibited from using G and H to operate TMI-1.

Special Master's Report, ¶311.

The Licensing Board, despite concluding that G and H cheated on a series of exams and probably cheated on others, and perhaps more importantly that G and H presented untruthful explanations for their actions under oath before the Special Master, recommended that an appropriate sanction would be the voluntary acceptance of two weeks' leave without pay.⁷ PID ¶¶2116-2121. The Commonwealth argues infra that this judgment constituted an abuse of the Licensing Board's discretion and that the Appeal Board should reject the Board's remedy and impose a more severe sanction in order to effectuate a more appropriate result.

2. DD (Mr. Husted)

Mr. Husted is an instructor in the TMI-1 licensed operator training department, as well as a licensed senior reactor operator. Tr. 26, 909 (Husted). Entering the evidentiary hearing, there was little evidence that Mr. Husted was directly involved in any instances of cheating at TMI-1. Information uncovered during the hearing, however, identified three areas in which Mr. Husted's integrity was called into question:

- (1) The alleged solicitation by Mr. Husted of information from Mr. P during the April, 1981 NRC exam.
- (2) Mr. Husted's apparent withholding of information relevant to potential cheating on the April, 1981 NRC exam; and
- (3) Mr. Husted's potential knowledge of or involvement in Mr. U's alleged use of Mr. Husted's office to facilitate cheating on the April, 1981 NRC exam.

These allegations are discussed in the Commonwealth's Proposed Findings, ¶¶6-24, 33-34.

7. Both G and H and the Licensee have already elected to accept this "remedy". See Licensee's Reply to Comments of Other Parties on Immediate Effectiveness of Licensing Board's Partial Initial Decision (Reopened Proceeding) Dated July 27, 1982, at 39. The Board's remedy was in the form of a "recommendation" due to its perceived lack of jurisdiction over individuals. The Commonwealth argues infra that the Board had jurisdiction over Licensee's use of individuals to operate TMI-1 pending individual enforcement actions.

The Special Master found that Mr. Husted solicited information from Mr. P during the NRC examination.⁸ Special Master's Report, ¶111. The Special Master also found that Mr. Husted refused to cooperate with the NRC investigation, deliberately withheld information from NRC investigators, and produced less than credible testimony on the witness stand. Id. ¶¶109-110, 316-17. While not recommending that Mr. Husted be relieved from licensed duties, the Special Master felt that some lesser sanction was appropriate. Id. ¶317.

The Licensing Board overturned the Special Master's conclusion that Mr. Husted cheated by soliciting information from Mr. P.⁹ PID ¶2149. However, the Licensing Board did find that Mr. Husted provided "incredible" testimony at the hearing. PID ¶2165. In addition, the Licensing Board concluded that Mr. Husted:

refused to cooperate with the NRC investigators. Moreover, later when he provided some information, he continued to withhold information within his knowledge; and he provided an incredibly inconsistent account of his reasons during the hearing.

* * *

His testimony on the matter was not only unbelievable, but it gave the sense that he didn't care whether he was believed or not.

8. This judgment was based in large part on witness demeanor. See Special Master's Report, ¶¶101-111.

9. The Board based its determination largely on differing opinions than the Special Master regarding the candor of various witnesses. Compare Special Master's Report, ¶¶109-10 with PID ¶¶2148-61. The Commonwealth did not take exception to this factual determination by the Licensing Board. However, the Commonwealth notes that a reviewing panel should not reject or modify the findings of the original factfinder lightly where the credibility of the evidence turns on demeanor. In re Duke Power Co. (Catawba Nuclear Stations, Units 1 and 2), ALAB-355, 4 NRC 397, 403 (1976).

PID ¶2165-66. Moreover, the Board concluded that

"if Mr. Husted is representative of the TMI-1 training department, his attitude may be a partial explanation of why there was disrespect for the training program and the examinations.

* * *

we question whether he is able, or if able, willing, to impart a sense of seriousness and responsibility to the TMI-1 operators.

PID ¶2167.

Despite these far-reaching findings, the Board recommends no sanction against Mr. Husted, who remains both a training instructor and a senior reactor operator at TMI. PID ¶2168. The Commonwealth argues infra that both the Special Master and the Licensing Board underestimated the import of Mr. Husted's conduct, which amounted to a complete disdain and disregard for the NRC regulatory process. The Commonwealth urges the Appeal Board to reject the Licensing Board's decision and to impose an appropriate sanction.

B. Licensee's Training Program

A major issue in the original as well as the reopened proceeding was the quality and effectiveness of Licensee's operator training program. During the original hearing, the Commonwealth participated actively and expressed substantial reservations regarding certain aspects of Licensee's operator training and staffing programs. See Commonwealth of Pennsylvania's Proposed Findings of Fact and Conclusions of Law on Management Issues (May 15, 1981). The majority of these reservations were resolved through the negotiation of certain commitments by the Licensee. See, e.g., Commonwealth of Pennsylvania's Reply Findings of Fact and Conclusions of Law on Management Issues (filed June 29, 1981). However, in securing these commitments, the Commonwealth made

clear that it expected major flaws in the training program to be remedied prior to restart. It is obvious that the Commonwealth has a substantial continuing interest in the quality of Licensee's operator training program.¹⁰

The Special Master found serious flaws in Licensee's training program. See Special Master's Report, ¶¶238-51. In particular, the Special Master found that the program was "poorly administered ... weak in content and ineffective in its method of instruction. I do not believe that the Licensee's training program responded adequately to the Commission's Order of August 9, 1979." Id. ¶251. More specifically, the Special Master found that:

the administration of the testing program was clearly inadequate. The weekly quizzes were not proctored on any regular basis ... Operators cooperated on the quizzes and it was unclear whether they were supposed to do their own work ... Second, the method of instruction emphasized the memorization of word formulas, rather than an understanding of the concepts which the formulas stood for. Operators were taught words without being taught what the words meant. Third, when operators showed that they were weak in a given area there was no apparent effort to actually teach them the materials in that area ... Fourth, many of the questions on the quizzes were unrelated to the candidates' ability to operate the reactor. This encouraged memorization and diminished the operators' respect for the training program.

Id.

The Licensing Board was equally harsh in its criticism of the training program. See PID ¶¶2321-46. The Licensing Board questioned

10. The Commonwealth filed no proposed findings and conclusions in the reopened hearing on operator training issues. However, the Commonwealth explicitly reserved its right to participate as a full party on all issues on appeal. Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-317, 3 NRC 175 (1976) (interested state may participate as a full party on appeal, regardless of scope of proposed findings, where the state participated actively in the proceeding below).

the "quality assurance and quality control over the delivery of instruction at TMI-1" and raised doubts about the "quality of instruction (including delivery of instructional material, composition of examinations, and grading)." PID ¶¶2332, 2334. These criticisms are fundamental to Licensee's training program. But the Licensing Board did not go so far as the Special Master in finding that the Licensee's training program was an inadequate response to the fundamental restart requirement regarding operator retraining. Rather, the Licensing Board imposed the following conditions on TMI-1, to be satisfied within the first two years after any restart authorization:

- (1) There shall be a two-year probationary period during which the Licensee's qualification and requalification testing and training program shall be subjected to an in-depth audit by independent auditors, approved by the Director of NRR, such auditors to have had no role in the TMI-1 restart proceedings.
- (2) Licensee shall establish criteria for qualifications of training instructors to ensure a high level of competence in instruction, including knowledge of subjects taught, skill in presentation of knowledge, and preparation, administration, and evaluation of examinations.
- (3) Licensee shall develop and implement an internal auditing procedure, based on unscheduled ("surprise") direct observation of the training and testing program at the point of delivery, such audits to be conducted by the Manager of Training and the Supervisor of Operator Training and not delegated.
- (4) Licensee shall develop and implement a procedure for routine sampling and review of examination answers for evidence of cheating, using a review process approved by the NRC Staff.

Conditions (1), (3), and (4) are clearly prospective remedies. The Commonwealth argues infra, however, that the quality of Licensee's training instructors (condition (2)) is a fundamental requirement that should be assured prior to restart, and that the existence of written procedures alone cannot provide such assurance.

ARGUMENT

I. THE APPEAL BOARD SHOULD SUBSTITUTE ITS DISCRETION FOR THAT OF THE LICENSING BOARD WHERE AN IMPORTANT PUBLIC POLICY IS AT STAKE.

It is well-settled NRC law that the substantial evidence rule is not strictly applicable to the Appeal Board in reviewing actions of a Licensing Board panel. In re Duke Power Co., supra. See also In re Duke Power Co. (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-302, 2 NRC 856 (1975), and authorities cited therein; In re Consumers Power Co. (Midland Station, Units 1 and 2), ALAB- , 6 NRC 892 (1977). As such, the Appeal Board is empowered to substitute its judgment for that of a Licensing Board:

Where the administrative record considered as a whole will fairly sustain a result deemed preferable by the agency to the one selected by its initial decision maker, the law is clear that the agency may substitute its judgment for its subordinates.

In re Duke Power Co. (Catawba), supra.

The Commonwealth does not suggest that the Appeal Board should reverse the Licensing Board lightly with regard to findings of fact. See, e.g., In re Duke Power Co. (Catawba). As noted in note 9, supra, a reviewing tribunal should not reverse the findings of an initial factfinder lightly, in particular where the factfinder was in a better position than the reviewers to evaluate the evidence (for example, where demeanor is critical to the credibility of the evidence). The Commonwealth specifically elected not to file exceptions to the Licensing Board's decision where the Commonwealth and the Licensing Board differed as to marginal questions of fact.

By contrast, the justification for Appeal Board reversal of a Licensing Board is greatest where the Licensing Board's exercise of judgment is contrary to the basic principles of the agency's regulatory

responsibility. The issues raised by the Commonwealth challenge the fundamental integrity not only of the individuals responsible for the operation of TMI-1, but of the entire NRC regulatory process. As explained more fully below, the Licensing Board decision suggests that integrity is not essential to safety. The Commonwealth asserts as a fundamental principal of public policy that a regulatory agency such as the NRC must insist on no less than the highest standards of integrity from the regulated industry. The complexity of the nuclear power industry necessitates a large degree of regulation based on self-monitoring, self-reporting, and at best, spot inspections. Without an absolute requirement of integrity, the assumption on which the reliability of the system depends is not met. To the extent that the Licensing Board's decision fails to adhere to this principle, the Appeal Board is compelled to substitute its discretion for that of the ASLB.

The Commonwealth notes that it does not urge the Appeal Board to exercise its discretion in this fashion entirely from an "outsider's" perspective. The Commonwealth itself regulates a broad array of industries on a multitude of complex issues. Many of these regulatory programs are dependent on the same trust in the integrity of the regulated industry as is characteristic of NRC regulation. But for the subject matter being regulated (nuclear power), such discretion would lie within the bounds of state police power. For this reason, the Commonwealth respectfully suggests that its "advice" to the Commission in this regard, see 42 U.S.C. §2021(1), is entitled to particularly great deference. The issues involved here relate not to the details of nuclear technology, which is rightfully within the unique expertise of the NRC (hence a proper subject for preemption), but to a fundamental question of the

standards of accountability and integrity to which an industry within the Commonwealth of Pennsylvania should be held. Under these circumstances, the Commission should consider with particular emphasis the recommendations of an "interested state" participant.

II. INDIVIDUALS WHO LACK THE REQUISITE INTEGRITY TO PERFORM THEIR DUTIES SAFELY SHOULD NOT BE PERMITTED TO OPERATE TMI-1.

A. The Integrity Of Reactor Operators Is Critical To Nuclear Safety.

The Commonwealth asserts that individuals G, H, and DD should not, based on the evidentiary record of the reopened hearing, and pending further proceedings against the individuals, be permitted to operate TMI-1. This position is based on the principle that an individual who has demonstrated a fundamental lack of honesty should not be entrusted with the serious responsibility of operating a nuclear power plant.

The need for operator integrity extends far beyond performance on exams and quizzes, to the routine, daily duties of the operator. High-level Licensee management officials agreed in sworn testimony before the reopened hearing that integrity is essential to the safe operation of a nuclear power plant. Tr. 23, 611-12; 23, 616 (R. Arnold); Tr. 23, 983; 24, 082 (H. Hukill). Mr. Robert Arnold, President of GPU Nuclear Corporation, stated:

I do not think you can use a technology that has the degree of complexity or the potential for affecting the public unless there is confidence on the part of the public and of those that are concerned or those that are involved with the technology in the integrity of the people that are doing those kinds of activities, that are in fact utilizing that technology.

Id. at 23, 612.

A brief review of the responsibility of reactor operators and senior reactor operators evidences the logic of this position. All licensed operators have hands-on responsibility for operating the facility. Licensed operators routinely monitor the operation of the plant, ensure compliance with technical specifications and operating conditions, fill out system status sheets and other safety-related records, and are

required to observe detailed operating procedures. See, e.g., Tr. 24, 082 (Hukill). Perhaps most importantly, licensed operators bear critical safety-related responsibilities during reactor emergencies. All of these duties must be performed with a high degree of accuracy, which in turn requires the absolute integrity of the individual operators.

While this concept is difficult to challenge from any perspective, the Commonwealth has a particularly focused interest in the integrity of Licensee's operations staff. During an emergency, the Commonwealth receives critical public health-related information from Licensee's operations staff in the reactor control room. On the basis of this information, the Governor and other Commonwealth officials make key public protective action decisions, such as whether to order evacuation. Thus, the Commonwealth's ability to fulfill its responsibility of making rational public health and safety decisions depends on its ability to receive trustworthy, reliable information from Licensee's operations staff. The Commonwealth has a right to expect high standards of integrity from these individuals.

The Atomic Energy Commission recognized early on in the regulation of users of radioactive materials that the integrity and respect of licensees was a critical requirement for the efficacy of its regulatory program. In Matter of Advance Industrial X-Ray Laboratories, 1 AEC 281, 284-85 (1960), the Commission stated: "The principle concern ... is whether the personnel would regularly and continuously comply with the regulations of the Commission, and [the prescribed operating procedures]." Similarly, in Matter of X-Ray Engineering Co., 1 AEC 553, 555 (1960), the Commission said:

Our regulations require meticulous attention to detail to assure the adequate protection

of the public health and safety, and a licensee who regards them as trivial demonstrates a lack of understanding of the Commission's, and Licensee's own, obligation with regard to the public health and safety.

In the Matter of Hamlin Testing Labs, Inc., the Commission reiterated this position even more forcefully:

We find in this licensee's past performance inadequate reason to believe that it would in the future meet the high standards of compliance which we must require, and respond to proper inquiries with the simple candor on which we must insist in order to discharge our own responsibility for public health and safety. Nothing less than candor is sufficient.

2 AEC 423, 428 (1964) (emphasis added). The Commission's decision to revoke the Hamlin license was based in large part on the Licensee's untruthful statements to AEC inspectors and falsification of records. Id. at 423-26, 429. In affirming the Commission's license denial in the Hamlin case, the U.S. Court of Appeals for the Sixth Circuit cited the extreme danger attached to the use of radioactive materials by unqualified persons, and the extent to which the public interest is critically involved in the use of such materials. Hamlin Testing Labs, Inc. v. U.S. Atomic Energy Commission, 357 F.2d 632, 635 (6th Cir. 1966). The Court further stated:

We can imagine no area requiring stricter adherence to rules and regulations than that dealing with radioactive materials ...

Id. at 638.

The Commission's policy regarding the standards of integrity and responsibility expected of licensees was enunciated most recently in the VEPCO "material false statement" line of cases. In ruling that scienter was not a requirement for finding a material false statement under Section 186(a) of the Atomic Energy Act, 42 U.S.C. §2236(a), the Atomic

Safety and Licensing Appeal Board analogized to cases under the Federal Food, Drug and Cosmetic Act, 21 U.S.C. §331(k), in which exacting standards of conduct were applied to persons "standing in responsible relation to a public danger." Virginia Electric Power Co. (North Anna Power Station, Units 1 and 2), ALAB-324, 3 NRC 347, 356 (1976), quoting United States v. Wiesenfeld Warehouse Co., 376 U.S. 86, 91 (1964). The Appeal Board stated:

It is not open to question that those who would construct and operate a nuclear facility ... stand in responsible relation to a public danger.

Id. at 356 (emphasis added).

The Commission upheld the Appeal Board's decision regarding the scienter issue. Virginia Electric Power Co. (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480, 486 (1976). In fact, the Commission went even further than the Appeal Board in imposing an independent duty on licensees to discover and present truthful information, since "licensees bear an unavoidable and heavy responsibility for helping insure that nuclear power is utilized safely." Id. at 486-87.¹¹ The Commission stated that its primary duty is to protect public health and safety, and that "full disclosure ... is vital if the Commission is to fulfill that duty." Id. at 488. See Power Reactor Development Corp. v. International Union of Electric, Radio and Machine Workers, AFL-CIO, 367 U.S. 396 (1961). On appeal, the U.S. Court of Appeals found that the Commission's stringent reading of Section 186 was consistent with its statutory mandate to assure that the utilization of nuclear material "will provide adequate protection to the health and safety of the public." Virginia Electric Power Co. v. U.S. Nuclear Regulatory Commission, 571 F.2d 1289

11. The Appeal Board in VEPCO had ruled that silence could not constitute a material false statement. ALAB-324, supra.

(4th Cir. 1978).

It is clear from the above cases that the Commission views extremely seriously the requirement for absolute integrity and responsibility from its licensees. The nature of the risks inherent in the operation of nuclear power plants requires no less in order to ensure that public health and safety will be adequately protected.

B. Lack Of Integrity Is An Appropriate Basis For The Commission To Revoke Or Suspend Operators' Licenses.

As discussed in the previous section, operator integrity and respect for the regulatory process are essential to reactor safety. Revocation and/or suspension of operators' licenses for failure to meet these standards of conduct would be an appropriate exercise of the Commission's authority.

Individual operators are licensed pursuant to Section 107 of the Atomic Energy Act, which states:

The Commission shall--

(a) prescribe uniform conditions for licensing individuals as operators of any of the various classes of production and utilization facilities licensed in this chapter;

(b) determine the qualifications of such individuals;

(c) issue licenses to such individuals in such form as the Commission may prescribe; and

(d) suspend such licenses for violations of any provision of this chapter or any rule or regulation issued thereunder whenever the Commission deems such action desirable.

42 U.S.C. §21.37. Section 182(a) of the Act provides that, in reviewing license applications, the Commission may consider "the character of the applicant ... or any other qualifications of the applicant as the Commission

may deem appropriate ..." 42 U.S.C. §2232(a).¹² Thus, in considering initial license applications, the Commission may evaluate whether the applicant has the requisite integrity to operate the facility safely.

These same standards may be evaluated by the Commission in determining whether to revoke an operators' license. Section 186(a) of the Act states:

Any license may be revoked for any material false statement in the application or any statement of fact required under section 2232 of this title, or because of conditions revealed by such application or statement of fact or any report, record, or inspection or other means which would warrant the Commission to refuse to grant a license on an original application, or for failure to construct or operate a facility in accordance with the terms of the construction permit or license or the technical specifications in the application, or for violation of, or failure to observe any of the terms and provisions of this chapter or of any regulation of the Commission.

42 U.S.C. §2236(a) (*emphasis added*). See Cities of Statesville, et al. v. Atomic Energy Commission, 441 F.2d 962 (D.C. Cir. 1969) (revocation power gives the Commission continuing police power over licenses).

Additional guidance can be derived from the Commission's regulations governing operators' licenses. 10 C.F.R. Part 55. The fundamental requirement for an operator's license is "evidence that the applicant has learned to operate the controls in a competent and safe manner and has need for [a] license in the performance of his duties." 10 C.F.R. §55.10(a)(6). This criterion basically requires competence. An

12. Section 103 of the Act, which strictly applies to commercial licenses, provides additional support for the principle that NRC licensees should be judged on the basis of character and attitude as well as ability. Section 103(b)(2) directs the Commission to issue licenses to persons "who are equipped to observe and agree to observe such safety standards to protect health and to minimize danger to life or property as the Commission may by rule establish." 42 U.S.C. §2133(b)(2).

additional requirement, in the opinion of the Commonwealth no less important, is that the operator demonstrate an understanding of the "necessity for a careful approach to the responsibility associated with the safe operation of the facility." 10 C.F.R. §55.23(1) (operating test requirements). The Commonwealth does not comprehend how an operator who lacks fundamental integrity or displays a callous disrespect for the NRC licensing and hearing process can meet this criterion. As in the statute, a license may be revoked or suspended for any material false statement or any other statement or reason which would warrant initial license denial. 10 C.F.R. §55.40.

Application of these principles to individuals during the course of AEC/NRC regulatory history is apparently scarce. The cases cited in Section II.A of this brief, however, evidence that the Commission takes seriously its authority to revoke or deny licenses on grounds of lack of integrity or disrespect for the regulatory process. See, e.g., Matter of Hamlin Testing Labs, Inc., supra; Matter of Advance Industrial X-Ray Laboratories, supra; Matter of X-Ray Engineering Co., supra.

In addition, substantial additional guidance regarding the appropriate exercise of authority in revoking or suspending operators' licenses can be derived from an analagous federal regulatory program. The legislative history of Section 107 of the Atomic Energy Act (quoted at page 19, supra) indicates that the Commission is to "license operators of utilization or production facilities in a manner similar to the Civil Aeronautics Authority¹³ licensing of airmen and the Federal Communications Commission licensing of radio operators." S. Rep. 1699, 83d Cong., 2d Sess., reprinted in 1954, U.S. Code Cong. & Ad. News 3456, 3476.

13. The Civil Aeronautics Authority was succeeded by the Civil Aeronautics Board. See Hard v. Civil Aeronautics Board, 248 F.2d 761 (7th Cir. 1957).

Regulation of airmen is a particularly compelling analogy since both airmen (pilots, navigators, flight instructors, inspectors, etc.) and nuclear facility operators deal with a complex and potentially dangerous technology with a high level of risk to public safety. Cases involving the licensing of airmen are extremely illuminating in defining the appropriate scope of discretion and authority over individual licenses. The following principles, distilled from these cases, are particularly relevant to the circumstances surrounding individuals G, H, and DD:

(1) The primary consideration in taking actions on individual licenses is public safety. Although it is natural and appropriate to balance the rights of the individual licensee against protection of public health and safety, the interests of the public must be paramount:

When a case is not in the criminal area one is naturally cautious for fear of punishing or depriving because of past acts. The regulation of air commerce, however, and the enforcement of the safety features of that regulation are not punishment to the extent they deprive. The justification is the general safety not only of the applicant but of the public. The rights and needed protection of that public are the proper subject of concern.

Doe v. Department of Transportation, Federal Aviation Administration, 412 F.2d 674, 680 (8th Cir. 1969). Accord Hard v. Civil Aeronautics Board, supra, 248 F.2d at 762, 763 (key to air regulation is the public interest; statutory goal spelled out as the "highest degree of safety"). This principle clearly is equally applicable to the regulation of nuclear power plant operations. E.g., Power Reactor Development Corp., supra.

(2) License denials or suspensions may properly be based on lack of integrity. In Garber v. Civil Aeronautics Board, the revocation of a flight instructor's certificate was upheld where the instructor falsely endorsed a flight instruction logbook. 276 F.2d 321, 322-23 (2d Cir.

1960). The Court found that while the remedy "may have been severe under the circumstances, we cannot find it was arbitrary where safety is at stake." Id. at 323, citing Walker v. C.A.B., 251 F.2d 954, 956 (2d Cir. 1958). Similarly, in Cowell v. National Transportation Safety Board, a certification revocation was upheld on the basis of false and fraudulent statements in the application (false logbooks grossly overstating flying time). 612 F.2d 505, 506 (10th Cir. 1980). In Cowell, the Court ruled that danger can be inferred from this demonstrated lack of integrity. Id. at 506. The Commonwealth asserts that the repeated cheating on quizzes and exams by G and H; Mr. Husted's concealment of information from the NRC and refusal to cooperate with the investigation; and the untruthful testimony presented by all three operators before an NRC administrative proceeding is closely analogous to the circumstances in these cases.

(3) License suspension or revocation may be justified notwithstanding demonstrated competence by the individual. As noted above, competence and character are distinct criteria in judging the suitability of an applicant or a licensee. The mere passage of an exam or other demonstration of knowledge, ability, or competence does not make up for the lack of requisite integrity or sense of responsibility to perform one's duties safely. Therefore, license suspension or revocation may be justified notwithstanding competence. Hard v. Civil Aeronautics Board, supra, 248 F.2d at 763-64 (no finding of lack of flying ability; 11 year record and over 8,000 flight hours); Somlo v. Civil Aeronautics Board, 367 F.2d 791, 793 (7th Cir. 1966) (pilot may not ignore licensing requirements even if fully qualified). Messrs. G, H, and DD ultimately passed their NRC licensing exams. This alone, however, does not assure

that they possess the requisite integrity and sense of responsibility to perform their duties safely.

(4) License suspension or revocation actions serve an important deterrence goal where public safety is at stake. The Commonwealth does not suggest that individual operators should be punished merely for exemplary purposes. However, the lax standards imposed by the Licensing Board clearly do not send a message to other operators and witnesses in NRC proceedings of the high standards of conduct necessary to protect public health and safety. Where otherwise justified under the circumstances, license actions against individuals serve important deterrent functions to prevent similar conduct in the future. In Cobb v. National Traffic Safety Board, the Court stated that the Board is "charged with maintaining safety standards; in doing so, the agency is obligated to prevent future violations by those involved and by others similarly situated." 572 F.2d 202, 204 (9th Cir. 1977) (emphasis added).¹⁴ See also Hard v. Civil Aeronautics Board, supra, 248 F.2d at 762 (Board action based in part on theory of deterrence against other pilots taking similar risks with other passengers' lives); Haines v. Department of Transportation, 449 F.2d 1073, 1076 (D.C. Cir. 1971) (potential danger is sufficient to justify agency action since regulation is intended to prevent danger to public). The Commonwealth does not believe that the two weeks' leave without pay imposed on G and H, or the lack of any sanction whatsoever against Mr. Husted, serves this important public policy of preventing similar conduct by other operators and witnesses in the future. In fact, overly lenient treatment may do just the opposite.

The Commonwealth asks the Appeal Board to bear these standards and principles in mind when reviewing the cases of G, H, and Mr. Husted,

14. In fact, a concurring Judge in Cobb chastised the Board for being overly protective of the pilots it regulates. 572 F.2d at 204.

below. Consideration of the important policy objectives of the NRC in fulfilling its statutory duty to protect public health and safety warrants a different result than that reached by the Licensing Board. Operators with a demonstrated lack of responsibility and integrity are not qualified to operate a nuclear power plant, notwithstanding functional ability and competence. Finally, tolerating the types of conduct displayed by G, H, and Mr. Husted not only fails to deter such conduct in the future, but may actually send a message to other operators that this type of behavior will not be dealt with severely.

- C. The Licensing Board Abused Its Discretion By Permitting The Licensee To Use G, H, And Mr. Husted To Operate TMI-1 And To Instruct Other Operators.

The Licensing Board itself appears to agree with the principle of demanding the integrity of Licensee's operations staff in the future. In its criticism of Licensee's procedures for certifying candidates as eligible to sit for NRC licensing examinations, the Board states:

the senior management official charged with signing the certification to the NRC is obligated to review the candidate's personnel file and to take into consideration any information reflecting on the candidate's integrity and attitude.

2351. Such steps, when implemented, should eliminate the possibility of certifying candidates for the NRC examination who have cheated on internal examinations on one or more occasions.

PID ¶¶2350-51 (emphasis added). See also id. ¶2059. Obviously, the Board agrees that lack of integrity alone, notwithstanding knowledge and competence, is a sufficient reason to deny a reactor operator's license. Yet the Board failed to apply this important principle retrospectively. The Commonwealth is at a loss to understand why operators who cheat in

the future will not even be permitted to sit for the NRC examination, while operators who have cheated in the past are to be allowed to operate TMI-1.

It is not necessary to detail the Special Master's and the Licensing Board's findings regarding G, H, and Mr. Husted, which are summarized in the Statement of the Case, above. The Licensee did not take exception to these findings. Moreover, from a reading of Licensee's Reply to the Comments of Other Parties on the Immediate Effectiveness of the PID (September 1, 1982), the Licensee accepts these findings. See id. at 39, 41. The Commonwealth asks the Appeal Board to focus on the ramifications of these findings, and the sufficiency of the remedies the Licensing Board fashioned on the basis of these findings.

1. G and H

The Board found on the basis of the evidence in the reopened hearing that control room operators G and H were guilty of cheating on a series of internal company examinations. PID ¶¶2096-2121. Yet the Board simultaneously found that an acceptable remedy would be a "two-week suspension without pay in lieu of an action against their licenses." Id. ¶2120. The Board explains this result by stating, in part:

We do not believe that the overall results demonstrate a poor understanding of the course material. We have, then, a question of ethics, not of competence. G and H have passed their NRC examinations under properly monitored conditions.

PID ¶2119 (emphasis added). The Board violates its own principle that lack of ethics alone, notwithstanding competence, is sufficient grounds for denying an operator's license. See Hard v. Civil Aeronautics Board, supra; Somlo v. Civil Aeronautics Board, supra.

The Licensing Board cites a number of mitigating factors to justify its actions against G and H. First, the Board states that the Licensee was largely responsible for G and H's cheating by "permitting an undisciplined training and examination environment." PID ¶2118. This rationale would place little or no independent accountability on individuals whose daily exercise of judgment is critically tied to the protection of public health and safety. According to the Board's standard, nuclear power plant operators do not have to be honest and responsible until explicitly so instructed in a written procedure. From a public policy perspective, this result is intolerable. Moreover, the Board's argument fails to explain why G and H alone, of all of the operators exposed to Licensee's training and examination environment, were guilty of cheating on such a continuous basis.¹⁵ Finally, the Board's logic here is adequately addressed by the Special Master, who argued:

The only mitigating factor concerning G and H is the possibility that they may have thought, because of the loose administration of the weekly quizzes, that cooperation was acceptable. The stance they took at the hearing, however, and stance which the Licensee took, was to deny that they were, or could have been motivated by such a thought. The Licensee and these individuals took the position that cooperation on the quizzes was cheating, and then contended, in the face of overwhelming evidence to the contrary, that no cheating occurred. The fact is that G and H are guilty of cheating as they and the Licensee have defined cheating. I see no alternative to concluding, and recommending, that the Licensee be prohibited from using G and H to operate TMI-1.

Special Master's Report ¶311 (emphasis added).

Second, the Board argues that G and H cheated on company, rather than NRC-administered exams. PID ¶2118. Although cheating on an official NRC licensing exam is clearly more significant than cheating on a weekly

15. See PID ¶2115. The PID discusses cheating or potential cheating by other operators in isolated instances. E.g. PID ¶¶2123-38 (GG, W, MM).

training quiz, this does not excuse dishonest conduct at any time, particularly where the conduct is repeated over a long period of time. Again, the daily and often mundane responsibilities of reactor operators must be conducted with responsibility and integrity, whether or not an NRC inspector happens to be present. Finally, the Board overlooks the fact that much of G and H's cheating occurred on the Category T exams, which were specifically mandated by the Commission as a restart requirement.

Third, the Board cites the "relatively small" proportion of answers produced by cheating. PID ¶2119. The Commonwealth does not comprehend this argument. G and H's conduct was of a conspiratorial nature, over a series of quizzes. As noted by the Licensing Board, "some sets of responses independently established cooperation, others strongly suggested cooperation and ... the pattern established by all of them ... establishes cooperation." PID ¶2115 (emphasis added). Of course, it is impossible to determine, absent candid testimony from G and H (which is lacking), whether the clear parallels discovered by Professor Trunk and the other parties represent only the tip of the iceberg. In any event, G and H's conduct clearly represents more than one or two isolated, opportunistic cases of cheating. It is apparent that G and H cooperated to "get through" the training program.

Perhaps more importantly, both the Special Master and the Licensing Board overlooked the significance of G and H's conduct after the cheating. Once it is concluded that G and H in fact cheated, it must also be concluded that G and H engaged in a cover-up. They misled (or lied to) Mr. Wilson during the company's internal investigation. See PID ¶2115. They repeatedly denied cheating under oath in the hearing before the Special Master. See Special Master's Report ¶311 (quoted above). The

Commonwealth treads lightly in terms of making accusations of potential criminal conduct, due to the applicable standards of proof in criminal proceedings.¹⁶ The Commonwealth notes, however, that the perjury provision of the Federal Criminal Code is applicable to testimony under oath in NRC proceedings. 18 U.S.C. §1621. Moreover, G and H's statements could be construed as a material false statement pursuant to Section 186(a) of the Atomic Energy Act, 42 U.S.C. §2236(a). At a minimum, such conduct in NRC proceedings should be severely discouraged through the application of agency sanctions. The Commission has a strong interest in "the integrity of the adjudicatory process ..." In re Carolina Power and Light Co. (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4) Order, CLI-78-18, 8 NRC 293, 294 (1978).

Lastly, the Board argues that actions against individuals would violate due process. PID ¶2116. This argument clearly must be rejected. The purpose of the reopened proceeding, inter alia, was to investigate the extent of cheating by TMI-1 operators, and to evaluate the response by both the Licensee and the NRC Staff to any discovered cheating. See Special Master's Report ¶3, Particular Issues 1, 2, and 3. The Licensee has the burden of proof on all of these issues. Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-315, 3 NRC 101 (1976). Since Licensee failed to meet its burden with respect to cheating by G and H and the appropriate response to this cheating, the Licensing Board had authority to fashion an appropriate remedy against the Licensee, i.e. to direct that Licensee not be permitted to operate TMI-1 until appropriate enforcement actions are taken against these individuals. The Licensing

16. License actions against G and H are clearly governed by "substantial evidence" standards rather than the more stringent criminal burden of proof. Sabinske v. Civil Aeronautics Board, 346 F.2d 142, 144 (5th Cir. 1965).

Board itself appears to recognize the potential for this result in PID ¶2121,¹⁷ but fails to exercise clear jurisdiction over the Licensee.

The Commonwealth has no quarrel with the Board's argument that license suspension or revocation actions with respect to individuals must be consistent with principles of due process and established NRC regulations. See PID ¶2116. If such is the case, proceedings may be instituted in accordance with 10 C.F.R. §55.40. This does not mean, however, that operators subject to such proceedings may operate the plant in the interim. The Commission clearly has the authority, where public health and safety is jeopardized, to take license suspension actions in advance of any required hearing. 42 U.S.C. §2137; 5 U.S.C. §558(c).

The Licensing Board's decision regarding operators G and H fails to protect important NRC policy objectives in assuring the integrity of the NRC regulatory process. This decision constituted an abuse of the Licensing Board's discretion, and should be reversed by the Appeal Board. Licensee should be prohibited from operating TMI-1 using G and H pending a hearing pursuant to 10 C.F.R. Part 2, Subpart B, and 10 C.F.R. §55.40.

2. DD (Mr. Husted)

Mr. Husted was judged innocent of actual cheating on the NRC exam by the Licensing Board, although this result was disputed by the Special Master. Compare PID ¶2149 with Special Master's Report ¶111. Yet even based on the Board's findings of fact, it is difficult to comprehend the lack of sanctions applied against Mr. Husted.

17. The Commonwealth strongly objects to the Licensing Board's offer to "void" its recommendation if Licensee and G and H accepted the proposed two weeks' suspension without pay. This, in effect, amounted to a "judicial plea bargain". Licensee cannot be permitted to avoid appellate review of the Licensing Board decision by quickly accepting the Board's improper offer.

The Board's findings regarding Mr. Husted (quoted in the Statement of the Case, above) are astounding, particularly in light of his position of responsibility in Licensee's organization. Mr. Husted's conduct amounted to more than a mere "flippant" attitude, as implied by the Licensee. See PID ¶2163. Mr. Husted refused to cooperate with the NRC Staff investigation of cheating at TMI, and subsequently withheld information within his knowledge. Id. ¶2165. Failure to punish such conduct jeopardizes the efficacy of all future NRC investigations. More importantly, Mr. Husted provided highly incredible testimony, under oath, before the Special Master. Id. ¶¶2165-66. As in the case of G and H, such conduct jeopardizes the integrity and validity of the entire NRC regulatory and adjudicative process, and conceivably amounts to criminal behavior in the context of 18 U.S.C. §1621 and 42 U.S.C. §2236(a).¹⁸ It is essential that the Commission not allow such behavior to proceed with a mere slap on the wrist from the Licensee.

The Licensing Board questioned whether Mr. Husted was "able, or if able, willing to impart a sense of seriousness and responsibility to the TMI-1 operators." PID ¶2167. Yet the Board imposes no sanction against Mr. Husted because his "conduct during the investigation and his testimony is not related to his status as a licensed operator." Id. ¶2168. This directly contradicts the Board's opinion that, prospectively, attitude and integrity are clearly related to licensed reactor operator status. In particular, as a senior reactor operator, Mr. Husted is responsible for directing the activities of other licensed operators. 10 C.F.R. §55.4(e). Moreover, the Board's findings regarding Mr. Husted

18. According to the Commission's ruling in the VEPCO case, Mr. Husted had an affirmative duty to come forward with evidence relevant to the Staff's cheating investigation. Virginia Electric Power Co., CLI-76-22, supra, 4 NRC at 486-88.

fall squarely within the principles established by the Atomic Energy Commission regarding the obligations of licensees to respect the regulatory process. Matter of Hamlin Testing Labs, Inc., supra ("We find in this licensee's past performance inadequate reason to believe that it would in the future meet the high standards of compliance which we must require ..."); Matter of Advance Industrial X-Ray Laboratories, supra ("principle concern ... is whether the personnel would regularly and continuously comply with the regulations ..."); Matter of X-Ray Engineering Co., supra ("a licensee who regards [the Commissions regulations] as trivial demonstrates a lack of understanding of the Commission's, and Licensee's own, obligation with regard to the public health and safety.").

Mr. Husted's behavior is equally clearly related to his ability to serve as a training instructor, where his attitudes may readily be transferred to other operators. The Licensing Board recommends that "the qualifications and delivery performance of Mr. Husted receive particular attention during the forthcoming review of the TMI training program." PID ¶2168. The Commonwealth requests that this recommendation be broadened to require a specific finding as to whether or not Mr. Husted should be retained as a training instructor, based both on his present qualifications and on his past conduct.

The Licensing Board's decision regarding Mr. Husted fails to safeguard important NRC public policy interests, and constitutes an abuse of discretion which should be reversed by the Appeal Board. Licensee should be prohibited from operating TMI-1 using DD pending a hearing pursuant to 10 C.F.R. Part 2, Subpart B, and 10 C.F.R. §55.40. Moreover, the independent audit of Licensee's training department should be required to include a specific recommendation as to whether Mr. Husted should be retained as a training instructor.

III. LICENSEE'S TRAINING INSTRUCTORS MUST BE CERTIFIED AS QUALIFIED PRIOR TO RESTART.

The serious findings of both the Special Master and the Licensing Board regarding the quality of Licensee's operator training program are outlined in the Statement of the Case, above. Having deferred to the Special Master and Licensing Board to make findings of fact on this issue in the reopened proceeding, the Commonwealth is compelled to confront the implications of those findings. If the Board's findings are accepted as correct, the major deficiencies in Licensee's operator training program should be corrected prior to restart. This result is mandated by the fact that operator retraining was included as a short-term item in the Commission's August 9, 1979 Order and Notice of Hearing, i.e. an item that must be satisfied prior to restart.

The Board proposes four conditions on the restart of TMI-1 to remedy the deficiencies it identified in Licensee's operator training program. These conditions are to be fulfilled within two years after restart authorization. PID ¶2347. Conditions (1), (3), and (4) are clearly prospective remedies.¹⁹ The Commonwealth does not comprehend, however, why the second condition should not be expanded and required to

19. These conditions state:

- (1) There shall be a two-year probationary period during which the Licensee's qualification and requalification testing and training program shall be subjected to an in-depth audit by independent auditors, approved by the Director of NRR, such auditors to have had no role in the TMI-1 restart proceedings.
- (3) Licensee shall develop and implement an internal auditing procedure, based on unscheduled ("surprise") direct observation of the training and testing program at the point of delivery, such audits to be conducted by the Manager of Training and the Supervisor of Operator Training and not delegated.
- (4) Licensee shall develop and implement a procedure for routine sampling and review of examination answers for evidence of cheating, using a review process approved by the NRC Staff.

be fulfilled prior to restart:

- (2) Licensee shall establish criteria for qualifications of training instructors to ensure a high level of competence in instruction, including knowledge of subjects taught, skill in presentation of knowledge, and preparation, administration, and evaluation of examinations.

The Licensing Board questioned the "quality assurance and quality control over the delivery of instruction at TMI-1" and raised doubts about the "quality of instruction (including delivery of instructional material, composition of examinations, and grading)." PID ¶¶2332, 2334. These criticisms are fundamental to Licensee's training program. Based on his analysis of the same findings, the Special Master concluded that Licensee's training program did not constitute an adequate response to the Commission's August 9, 1979 Order and Notice of Hearing. Report of the Special Master (April 28, 1982) ¶¶251, 336. The Board disagrees because Licensee's operators, by and large, performed adequately on NRC qualification examinations. Yet at the same time the Board severely criticized the validity of the NRC examination. PID ¶¶2352-72. More importantly, passing an examination is but one indicator of competence. Qualified operators must develop a firm base of knowledge from a quality training program. Based on the Board's own analysis, there is not currently reasonable assurance that such quality training was given at TMI-1.

The Licensee's answer to this argument is not responsive to the Commonwealth's concerns. Licensee's Immediate Effectiveness Comments and Reply Comments argue that "general criteria for qualifications of training instructors already exist and that detailed, specific instructor qualification criteria" will be developed prior to restart. Licensee's Reply Comments (September 1, 1982) at 43 (emphasis added). This completely

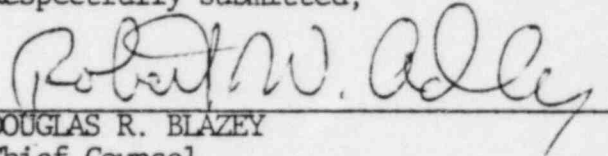
misses the point. The Commonwealth's Exception (3) would require the "Licensee to ensure prior to restart that its training instructors have a 'high level of competence in instruction, including knowledge of subjects taught, skill in presentation of knowledge, and preparation, administration, and evaluation of examinations.' PID ¶¶2347(2), 2421(2)" (additional emphasis added). The focus of the Commonwealth's exception is to require a determination prior to restart of whether Licensee's instructors are qualified according to appropriate standards. In light of the substantial doubts expressed by the Licensing Board and the Special Master regarding the quality of Licensee's training program, this analysis is necessary to ensure the quality of the training staff itself, and hence the quality of instruction received by the operators in response to the Commission's Order and Notice of Hearing. Licensee's response is that criteria have been developed by which training instructors are to be judged in the future. The development of written criteria alone cannot cure substantive defects in the training program. See PID ¶¶2323-32.

The Commonwealth views with approval the Licensing Board's proposals to impose a higher level of quality assurance on Licensee's operator training program. However, the Commonwealth believes that a fundamental deficiency regarding the qualifications of Licensee's training instructors should be resolved prior to restart. Qualified instructors are necessary to deliver quality training. Such training was imposed by the Commission as a short-term restart requirement, i.e. a requirement that must be met prior to restart.

IV. CONCLUSION

For the reasons stated above, the Commonwealth respectfully requests this honorable Appeal Board to rule in favor of the Commonwealth's exceptions and to grant the requested relief.

Respectfully submitted,



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Dated: September 30, 1982

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of:

METROPOLITAN EDISON COMPANY,	:	
	:	
(Three Mile Island Nuclear	:	Docket No. 50-289
Station, Unit No. 1)	:	(Restart)

CERTIFICATE OF SERVICE

This is to certify that the foregoing "Commonwealth of Pennsylvania's Brief in Support of Exceptions to the Atomic Safety and Licensing Board Partial Initial Decision Dated July 27, 1982 (Reopened Proceeding - Operator Cheating)" was served on the persons on the attached service list this 30th day of September, 1982, by deposit in the U.S. mail, first class postage prepaid.

Robert W. Adley

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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