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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)
METROPOLITAN EDISON COMPANY)
(Three Mile Island Nuclear)
Station, Unit 1))

Docket No. 50-289SP
(Restart -- Management
Phase)

THREE MILE ISLAND ALERT'S APPEAL OF THE LICENSING
BOARD'S PARTIAL INITIAL DECISION ON THE REMANDED
ISSUE OF LICENSED OPERATOR TRAINING AT TMI

July 1, 1985

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Statement of Facts

In ALAB-772, the Appeal Board reviewed the entire record in the restart proceeding on the technical and managerial capability of GPU Nuclear Corporation (GPUN or Licensee). The Appeal Board remanded the training issue back to the Licensing Board to determine whether the instruction is adequate to train operators to operate TMI-1 safely. ALAB-772, 19 NRC 1201.

On June 28, 1984, the Licensing Board presided over a prehearing conference among the parties for the purpose of defining the issues and providing for prehearing procedures in the proceeding remanded by the Appeal Board in ALAB-772. At that conference, in addition to Licensee and the NRC Staff, the Commonwealth of Pennsylvania (Commonwealth), Union of Concerned Scientists (UCS) and three Mile Island Alert (TMIA) were parties to the restart proceeding that expressed an interest

in participating in the remand on training. Tr. 27,281
(Commonwealth); 27,280 (TMIA); 27,280-81 (UCS).

On May 3, 1985, the Board concluded that Licensee prevailed in the proceeding mandated by ALAB-772, despite Licensee's failure to prevail on all subissues remanded to the Board. LBP-85-15, 21 NRC ___, (1985), slip. op. at 215-216. The Board conditioned its favorable conclusion on Licensee's implementation of a plan to evaluate the performance of trained operators and senior reactor operators in the job setting for revision of its TMI-1 licensed operator training program. Id. at 216.

I. THE BOARD ERRED BY IGNORING THE IMPACT OF GPUN'S CURRENT AND HISTORIC INADEQUACIES IN OPERATOR TRAINING ON MANAGEMENT CAPABILITY

Prior to the start of the remanded proceeding, the Board excluded TMIA's proposed Subissue 4: How does the history of GPU's problems with training and its current training program reflect on the competence and integrity of GPU management. Because the wording of TMIA's proposal suggested to the Board that TMIA might pursue matters that were res judicata, the Board simply approved TMIA's lead on the training issues to the extent that ALAB-772 authorized an inquiry into cheating and integrity as they relate to training. Mem. and Order on Lead Intervenor, supra at 3; see also Tr. 31,757-58, 31,784-85 (Chairman Smith).¹

1. Despite Board's ruling that management findings not placed in issue by ALAB-772 were res judicata, Licensee was not required to limit its presentation to issues specifically mentioned in ALAB-772. LBP-85-15, 21 NRC ___, slip. op. at 11. However, in light of this ruling, it should have been permissible for TMIA

The Board stated that

. . . it is not apparent . . . where in the remand order we are permitted to trace problems with the training program to questions of management competence and integrity. . . . Id.

However, one need not look far to find support for TMIA's claim that management's competence and integrity were in issue during the remanded proceeding. Indeed, the Appeal Board was quite explicit:

. . . the proper focus of this special proceeding is on whether licensee has demonstrated its ability to operate TMI-1 in a safe and responsible manner in the future. The efficacy of action intended to remedy identified deficiencies in past conduct is a necessary element in that equation. (citation omitted).

* * * * *

The deficiencies in operator testing, as manifested by the cheating episodes, may be symptomatic of more extensive failures in Licensee's overall training program.

ALAB-772, 19 NRC at 1232-1233.

Clearly the Appeal Board felt it was important to identify the underlying cause of the cheating, in order to determine whether Licensee had taken adequate measures to cure the problem. Licensee's past actions which caused the cheating to occur, plus its inadequate measures to correct the conditions which gave rise to the cheating, were within the scope of the remand. In addition, the parties had the opportunity to pursue a particular past problem insofar as that problem could shed

to inquire into "every matter within the reach of the testimony submitted by the [Licensee] and accepted by the Board." [Footnote omitted]. Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2) ALAB-422, 6 NRC 33, 94 (1977).

some light on the adequacy of the current program. See ALAB-774, 19 NRC 1350, 1356 (1984).

Perhaps the most important issue to emerge during the TMI-1 restart proceedings is the issue of management competence and integrity. ALAB-772, 19 NRC at 1206. Inasmuch as the larger safety issue to be decided by the Commission is the competence and integrity of Licensee management, TMIA's Sub-issue 4 is squarely within the scope of the remand.

The most reliable way in which to predict future behavior of Licensee's management is to review their response to problems in the past. It is particularly disconcerting when management has been aware of problems for a long time (as is the case with training at TMI) and fails to take corrective action. Clearly, Licensee's unwillingness or inability to correct the conditions which led to wrongdoing on the part of their employees is a direct reflection on management's competence.

Previously, the Licensing Board ignored the Special Master's conclusion with regard to operator attitudes toward their training and testing, and management's responsibility for that attitude, and reached the conclusion that the cheating was caused by a lack of "quality assurance." July 27, 1982 PID at ¶2344-2347. But even accepting that characterization, the Licensing Board should have recognized that without the proper management "attitude" toward quality assurance, even the most well designed program is not likely to succeed. Midland Power Company (Midland Plant, Units 1 and 2).

ALAB-106, 6 AEC 182, 184 (1973). As the Appeal Board stated, such problems might be "symptomatic of more extensive failures in Licensee's overall training program." ALAB-772, 19 NRC at 1233.

But despite the Appeal Board's directive to be mindful of Licensee's previous conduct when evaluating its current training program, the Licensing Board made it quite clear that it had little interest in the past actions of management. See eg., Tr. 32,226 (Smith), Tr. 32,288 (Smith).

The Board also failed to grasp the significance of poor attitude and morale of TMI employees as it relates to safety, and management's role in fostering those attitudes. The one exception to this, however, was the Board's near obsessive conviction that the hearing process itself was contributing to low morale of TMI operators. Throughout the hearing the Board, particularly the Chairman, pursued this narrow aspect of the issue, frequently interrupting cross-examination to do so.

II. PROCEDURAL VIOLATIONS DURING THE REMAND HEARING

(a) During the hearing, the Licensing Board repeatedly used the lead intervenor concept to prevent TMIA's cross-examination of Licensee's witnesses. See eg. Tr. 32,410-411 (Bradford). Although TMIA agreed to use the lead intervenor concept to consolidate its cross-examination with UCS when feasible, TMIA did not agree to waive its right to pursue its

separate interests. See Board Memorandum and Order on Lead Intervenor, July 13, 1984; See generally 10 CFR 2.714(e) and Part 2 App. A. III (a)(4).

For example, during TMIA's cross-examination of Licensee's witness Samuel Newton, Director of Training and Education at TMI, the Licensing Board terminated the examination on ground that TMIA was merely "putting a gloss on" something UCS had already covered. Tr. 32,646. However, TMIA's inquiry was distinctly different from that of UCS. TMIA was attempting to show that Newton's testimony that Operations and Training were trying to make more training personnel available for Licensee's on-the-job training program was contradicted by his earlier written statements that he was unwilling to provide added training personnel. Tr. 32,642 (Bradford, Newton). UCS had only previously questioned the witness on the technical competence of the operators to perform a required training duty. Tr. 32,473-477.

Although both TMIA and UCS were focusing on the same aspect of Licensee's training program at about the same time (i.e., "oral check-outs"), TMIA was attempting to explore management's willingness to respond to its internal auditing group's recommendations. The Board, nonetheless, cut TMIA off from pursuing its entire line of inquiry. Tr. 32,650. Had TMIA been permitted to continue, it was prepared to show that Newton's unwillingness to respond to the auditing group's

recommendations in the area of providing more training personnel to perform the check-outs was a persistent problem. Tr. 32,648-49 (Bradford, Jordan, Smith).

(b) The Appeal Board was particularly concerned about the lack of communication between management and TMI employees, noting that the "Committee suggested taht there was a lack of communication between top management and the operating crews." The Appeal Board directed the Licensing Board to determine whether "the post-cheating changes in the training program adequately ameliorate this situation." ALAB-772 at 71. The Licensee recited a list of so-called communication channels it has established since the cheating incident. Both Licensee and the OARP Committee claim that these new channels of communication have appreciably improved morale at TMI. ff. Tr. 32,202 at 6-12 (Long); ff. Tr. 31,749 attachment at 75-81 (Committee. The Board reached a like conclusion although there is no evidence in this record to substantiate such a claim. PID at ¶ 50.

TMIA attempted to probe the adequacy of the Committee's response to this remanded issue. TMIA established that the Committee had neither reviewed documentation of, nor attended an Interface Meeting. Tr. 31,975-976. Nevertheless, the Committee endorsed this "face-to-face" communication between Licensee and its employees. Tr. 31,977 (Bradford, Kimel).

To challenge this endorsement, TMIA attempted to introduce TMIA Exhibit 1. TMIA Exhibit 1 documents an incident which occurred during an Interface Meeting. (This incident is described more fully below.)

The Board recognized the document as relevant to the issue at hand, namely communication. Tr. 31,984. The document clearly dealt with an Interface Meeting as those meetings were described by the Committee. ff. Tr. 31,749 attachment at 76. It challenges the proposition that there is an open environment at TMI as claimed by Licensee and its consultants. As such, the document challenges the concept that the supposed open environment will overcome the problems of poor employee attitude and morale which have existed at TMI since the accident and before.

Although the Board allowed limited cross-examination of the witnesses based upon the exhibit, it did so only after forcing TMIA to reveal the purpose it intended for the document. This discussion took place in the presence of the witnesses, thereby alerting them to the vulnerable portions of their testimony which TMIA sought to challenge.

Given this sequence of events, it is not surprising that the witnesses were evasive. As an example of this, when the witnesses were asked if TMI employees were likely to consider procedural non-compliance a serious matter, all but one member of the Committee asserted that they lacked the expertise to answer the question. Tr. 31,989-90 (Bradford, Committee).

The question went to the basic concept of the Committee's charter (whether Licensee has demonstrated its ability to operate TMI-1 in a safe and responsible manner in the future). This admission of ignorance on the part of the Committee represents a serious challenge to the credibility of the Committee's review. ALAB-772, 19 NRC at 1232.

The evasiveness of the Committee's responses, having been cued by the protracted discussion of the relevancy of the document, could only be overcome by admission of the document into evidence. The Board's rejection of this document was improper. Exhibit 1 was the only documentation produced at the hearing which was probative of the effectiveness of Licensee's communication with its employees.

Having once alerted the witnesses through relevancy challenges, the Board then interrupted TMIA's cross-examination and the Chairman proceeded to pursue the issue ostensibly to "see if we can come to the end of it." Tr. 31,993 (Smith). By this method, the Board effectively rehabilitated the testimony, suggesting to the witnesses that Mr. Hukill, Vice President and Director, TMI-1, might be sensitive to a "normal . . . natural tension" between an employee and his immediate boss. Tr. 31,994 (Smith). The Board attempted to modify the perception that Hukill was responsible for impeding the free flow of communication. The Board's prejudicial rulings not only

prevented TMIA from developing its case, but also resulted in a void in the record with regard to the effectiveness of management's communication with its employees. Tennessee Valley Authority, ALAB-463, infra, 7 NRC 341, 368 (1978).

(c) Shortly after the issuance of the Board's July 27, 1982 PID, the Licensee contracted with Rohrer, Hibler, Replogle Inc. (RHR) to perform a survey of employee attitudes at its nuclear plants. The contractor issued a report which was highly critical of management in several aspects. Additionally, the RHR Report outlined three major areas of employee concern, identified as a result of the survey. UCS Exh. 6 at 7. Employees had raised particular concerns about their perceptions of opportunity for career advancement at TMI.

Licensee responded to the recommendations of RHR. Lic. Exh. 1, items 28-31. However, Licensee did not establish a method whereby reactor operators (RO), who wished to advance to the status of shift foreman, but who failed to pass the NRC examination senior reactor operator (SRO) examination necessary for that position, would not lose their RO status. This failure to provide operators an opportunity to resume their former status if they are unsuccessful in an attempt to upgrade their status, is demonstrated in UCS Exh. 9.

Mr. H. K. Olive, a shift foreman at TMI-1, made two unsuccessful attempts at completing his SRO oral examination. Shortly before his third attempt, he was told by Mr. Hukill

that if he was not successful, his "future employment with the Company would then depend on what other positions are available for which he is qualified." UCS Exh. 9 at 1.

TMIA proffered this argument to the Licensing Board, who rejected it. Tr. 32,667-672 (Bradford, Smith). The Board foreclosed TMIA's line of questioning despite the fact that it was directly relevant to the remanded issue; "Top management needs to keep aware of the real and perceived problems of its employees. . . . Do the post cheating changes in the training program adequately ameliorate this situation?" ALAB-772, 19 NRC at 1236. In fact, this is another example of the Board's unwillingness to probe beyond the Licensee's facile presentation of its so-called reforms.

(d) Dr. Robert L. Long, Vice President, Nuclear Assurance, GPUN, presented extensive testimony both with regard to Licensee's acceptance of its responsibility and the corrective actions Licensee had established. Long was the only corporate management witness who testified at the hearing. At the time of the cheating, he was Director of Training and Education for GPUN. Long's assurances to the Licensing Board in early 1981, later proved to be erroneous. Subsequently, Long was promoted to his current position.

In challenging Dr. Long's testimony, as well as the efficacy of Licensee's solutions, TMIA attempted to demonstrate that even before RHR performed its survey, Licensee was

well aware of the seriousness and pervasiveness of the problem it faced. To that end, TMIA introduced three documents, TMIA's Exhibits 4, 5 and 6.

Exhibit 4 is a memorandum from Long to Robert Arnold, then President of GPUN, dated August 30, 1982, outlining Long's perception of the problems which resulted in the cheating incidents. Exhibit 6 is also a memorandum from Arnold, dated June 4, 1982, with attachments. A review of both of these exhibits reveals that the concepts contained in the attachments to Exhibit 6 are subsumed in the commentary of Exhibit 4. Additionally, in the memorandum from Long to Arnold, which is the first page of Exhibit 6, Long particularly draws Arnold's attention to the attachments to that document. It is clear that Long attached significance to those documents.

At the hearing, Long belittled the significance of the attachments to Exhibit 6, particularly Attachment 4 of that exhibit. Long said, "I think we can't characterize this (the results of a brainstorming session) as something employees believe." Tr. 32,325. However, these same beliefs, as expressed by operators, were recorded as a result of the RHR Report. UCS Exh. 6 at 34-35.

The Board rejected TMIA Exh. 6, (Tr. 32,202 (Smith)), therefore TMIA was not able to question Long as to the weight that he attached to the comments contained in the various attachments to Exh. 6. Nor was TMIA able to pursue with Long the discrepancies between his assertions at the hearing that

he gave scant credence to these comments, and his recommendation to Arnold concerning the relevance of Attachments 3, 4 and 5.

Thus TMIA was improperly precluded from challenging the credibility of Long, both in his corporate position as Director of Training TMI, and his credibility as a witness for Licensee.

III. THE ADEQUACY OF LICENSEE'S WRITTEN EXAMINATIONS AND EXAM SECURITY

A. Written Examinations

The Board found that Licensee's "licensed operator training program effectively provides timely training . . . designed to resolve industry problems that are applicable to TMI." PID at ¶176. The Board points to the special training provided to operators in connection with "major changes in plant procedures encompassing Once Through Steam Generator (OTSG) Tube Rupture" which were "implemented in conjunction with repairs done to the OTSG at TMI-1."

TMIA questioned Michael J. Ross, Manager, Plant Operations, TMI-1, about the training on the changed OTSG procedures. Ross denied that the procedures were changed as a result of the repair. He said that Licensee had "been trying to improve our steam generator procedure as it relates to the operator. . . . We made what I consider to be some inroads in the industry in that area, and we did train them in that area after that." Tr. 32,855-856 (Ross). Ross' statements

at the hearing are contrary to the statement in his written testimony which confirms that the procedural changes were necessitated by the repair of the OTSG. Newton et al. ff. Tr. 32,409 at 33.

Samuel L. Newton, Manager, Plant Training, testified that the training operators received on the OTSG procedural changes would be reflected in the annual requalification examination. Tr. 33,524 (Newton). The witnesses were then asked if the operators' training on the procedural change, requiring that the tube to shell temperature differential be lowered from 100°F to 70°F, would be reflected in the requalification examination. They said that the requalification exam is a sample of all of the topics taught during the year. Tr. 33,557-527 (Leonard). The information is not reflected in UCS Exh. 31, which is a 1984 requalification exam. The information regarding how to maintain the reduced tube to shell temperature differential is essential as long as the plant is operating with the repaired OTSG. The five operators who sat for the 1984 requalification exam, which is UCS Exh. 31, were not tested on this important information.

B. Examination Security

The OARP Review Committee concluded that the Licensee's examination security is "the most detailed, comprehensive system that we have ever seen for preventing cheating in academia or elsewhere." ff. Tr. 31,409 attachment at 26. The Board cannot "envision a way to improve" the exam security procedures. PID at 82.

On June 24, 1985, TMIA received a copy of Inspection 50-289/85-12.² Pages 11-12 of that report reveal that on April 2, 1985, less than three months after Licensee was optimistically proclaiming the infallibility of its security system, the system failed. A microfiche copy of an auxiliary operator exam was discovered in a parking lot. Despite the determination by the Director of TMI-1 that the "security of the examinations were not compromised," the incident raises grave questions about the adequacy of the much-heralded security system.

Licensee would have the NRC believe that that breach of security occurred, not as the result of someone bent on defeating the system, but rather it was an "extra copy" which just happened to find its way to the parking lot. This is hardly reassuring, and does not comport with testimony of Drs. Long and Coe, who said "Access to Category 1 examination materials are restricted on a need-to-know basis and the policy also includes provisions for locked storage, assuring security passwords for data processing systems, limited access to exam materials, (and) numerical accounting of exam copies. ff. Tr. 32,202 at 19-20. (emphasis added.)

Mr. Bruce P. Leonard, Operator Training Manager, felt that if an exam security process is "not administered

2 TMIA is hereby providing the Appeal Board a copy of the relevant portion of the Inspection report. TMIA notes that the NRC was notified of this incident April 2, 1985, prior to the issuance of the Licensing Board's PID on the training remand. This issue bears direct relevance to the training remand, nevertheless neither the Staff nor Licensee made the appropriate Board notification.

correctly and not controlled correctly, it's possible it can be violated." Tr. 33,475 (Leonard). It is not known what caused the recent breach in security, but what is made very clear; by this incident the Board's confidence in the reliability of the security procedures is misplaced.

IV. THE BOARD'S CONCLUSION THAT EMPLOYEE ATTITUDES ARE "SATISFACTORY" IS UNSUPPORTED BY THE RECORD

A. Mr. Ross' Observations of Employee Attitude

The Board relied on the observations of Michael Ross, Manager of Operations, of improved employee morale, based on his daily contact with the operators, as evidence of positive operator attitude toward training. PID at ¶56. At the hearing, Ross was asked his opinion of the RHR Report; he said he thought the report was "very good and very positive" with regard to employee attitudes. Tr. 32,573 (Ross). Ross' view of the attitudes of employees, as they are reflected in the RHR Report, does not square with the views of other Licensee management personnel. Tr. 32,315-16 (Long). The Board found Ross' opinion "unrealistically defensive." PID at ¶58, and further explained that Ross "is hardly a disinterested observer." PID at ¶67. Although the Board has essentially admitted that Ross is not a reliable witness with regard to operator attitude, nevertheless, the Board has relied on Ross' testimony as evidence that attitudes have improved. PID at ¶56.

Ross also stated his opinion that morale at TMI is

much improved. He based this opinion partially upon the low rate of attrition among operators at TMI-1. Tr. 32,939; Tr. 33,460 (Ross). And the Board found that the low attrition rate among operators to be "objective and persuasive evidence" of improved morale. PID at ¶64. However, it was revealed that TMI operators are to receive a bonus for staying at TMI until after the plant is restarted. Tr. 33,467 (Ross). It is just as likely that the low attrition rate is a result of this bonus rather than from improved morale; and Ross testified that the bonus was, in fact, a retention incentive. At the reopened hearing on cheating, Hukill testified that a similar bonus was given to operators in 1981. Hukill said that the 1981 bonus was specifically intended to boost employee morale. Tr. 23,960-62 (Hukill). Ross' statement that low attrition among TMI operators indicates improved morale, becomes even less convincing with the knowledge that the operators are being paid to stay at TMI until after restart is accomplished.

The Board's failure to address the negative implications of the bonus on the low attrition rate among Licensee's employees demonstrated the Board's unwillingness to consider contrary evidence. Moreover, the Board's willingness to accept Ross' testimony on favorable operator attitudes is contradictory to its earlier observation that Ross is biased (not "a disinterested observer") and holds an "unrealistically defensive" opinion - unique among Licensee's management -- that RHR demonstrates "positive" employee attitudes. Finally, the Board fails to consider TMIA's finding that operators had "poor attitudes," and that although management had been aware of these attitudes since the accident, the attitudes persist. TMIA's Proposed Finding, ¶40-47.

Instead, the Licensing Board simply accepts Licensee's testimony despite its obvious frailties. The Board failure to consider evidence and explain and support its findings necessitates that the Appeal Board reverse the Licensing Board's conclusion that "operator attitudes are today satisfactory. . . ." PID at 59 ¶73. Pacific Gas & Electric Co., (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-504, 8 NRC 406, 412 (1978); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2) ALAB-422, 6 NRC 33, 41, 66 (1977); Cincinnati Gas & Electric Co., (William H. Zimmer Nuclear Power Station) 3 NRC 8, 10-11 (1976).

The Board admits that it is unable to find convincing evidence in the record which would allow it to make an unconditional finding: "the finding is not made with the assurance we would prefer.: PID at 59 ¶73.

The Board's assertion that "[t]he important point . . . is that all agree that attitudes change," misses the point completely. PID at 59 74. ALAB-772 required the Licensee to carefully assess operator attitudes today, and the Board to scrutinize Licensee's efforts in this regard. ALAB-772, 19 NRC at 1235, and 1233-36. The Licensee utterly failed in making that assessment despite the Appeal Board's clear directive. More importantly, the Licensing Board accepted Licensee's clearly deficient showing as "satisfactory."

B. The Review Committee's Comments Concerning Employee Attitude

The OARP Review Committee also expressed their view of TMI-1 operator attitudes. They convinced the Board that operators "recognize the value and have respect for the licensed operator program, recognize and accept their responsibility as licensed operators to participate in the program, and believe

it is an effective program." PID at ¶68. The Committee made an equally optimistic appraisal of operator attitude in their original 1980 report. ALAB-772, 19 NRC at 1234. In light of what was learned about employees' lack of respect for training and bitter resentment toward management in the 1980 time frame, the question arises; are employees willing to express their true feelings regarding management and training to such enthusiastic advocates of GPUN management?

In addition to their past errors in judgment, the Committee's current positive assessment of employee attitudes is suspect for yet another reason; the Committee reached its favorable conclusion on employee attitude, which was initially contained in the Committee's 1984 eighty-seven page Special Report, without ever having interviewed an operator. PID at ¶ 289-293. Subsequent to the issuance of the Special Report, the Committee did interview some operators, but having already made a judgment on this issue, it is likely that the operators were questioned in such a way that the elicited response fit the prejudged conclusion. In fact, the Committee essentially admitted that its later review was biased in favor of its earlier conclusion:

We recognize that the special report was based exclusively on -- well, not exclusively but certainly to a large extent, on material provided to us by GPU management and by orientation discussions, orientations by and discussions with GPU management.

We felt that we had to undertake individual efforts, meeting with operators, meeting with instructors, sitting in on classes -- the kind of things that we have described here, in order to buttress our qualifications to speak with authority at this hearing. And that was the main purpose of the additional effort that was undertaken.
Tr. 32,104 (Uhrig) (emphasis added).

All parties with the exception of Licensee, agree that in order for a survey of attitudes to be valid, it must be structured and documented. Staff witness Morisseau testified that structured interviews are essential in assuring accurate results. She said that in order for data to be reliable, one should keep some kind of written record. Tr. 33,163 (Morisseau). UCS's witness, Dr. Regan, said that "attitude surveys are unbelievably sensitive to the wording of the questions." Tr. 32,822 (Regan).

The Committee's approach was anything but structured. Mr. Frank Kelly conducted a number of these interviews. He was often assisted by Drs. Gardner and Christenson. There was no written list of questions used during these interviews, and the Committee did not keep notes of the various interviews. Tr. 31,846 (Kelly). It is unlikely under these circumstances that each employee interviewed was asked the same questions in the same way.

The Board admits that the OARP Committee did not thoroughly analyze the concerns raised by ALAB-772. PID at ¶ 296. In fact, the Board spends much time explaining what the Committee did not do. See eg., PID at ¶ 296. (Committee did not evaluate Licensee's use of instructor evaluation sheets; nor did they use the sheets to evaluate any instructors; nor did the Committee attempt to determine accuracy of the evaluations by comparing them to the instructors they observed; Committee failed to evaluate post-instruction competence of

operators). PID at ¶301 (Committee did not observe any TMI-1 operators at the B&W simulator in Lynchburg). PID at ¶307 (Committee neither relied on nor structured its questions in such a way as to address concerns revealed by RHR, BETA or Draft INPO Report). PID at ¶308 (Committee did not compare job/task analysis for TMI-1 operators to assure their adequacy or accuracy to on-the-job training or behavioral learning objectives).

Indeed, the only thing the Committee clearly relied upon was the background and experience of its members to assess mostly information provided by Licensee's management. PID at ¶310.

Not surprisingly, the Board concluded that it was impossible to separate the Licensee's evidence from that of the OARP Committee's. PID at ¶361. Further, the Board could not accept the OARP Committee's conclusion that Licensee's training program was adequate to train operators to safely operate the plant -- the "ultimate question" the Appeal Board expected these consultants to address. PID at ¶361; ALAB-772, 19 NRC at 1234-35. Moreover, the Board blithely admits that the OARP Committee only provided responses to some of the various subissues identified by the Appeal Board. PID at ¶30.

The Appeal Board did not restrict Licensee's use of outside consultants to the OARP Review Committee. The Appeal Board stated that it remanded the training issue back to the Licensing Board "for further hearing on the views of licensee's outside consultants (including the OARP Review Committee). ALAB-772 at 77. The remand was made necessary because of the outside consultants (including the OARP Review Committee.) ALAB-772 at 77. See Public Service Co. of N. H., ALAB-471, supra,

7 NRC at 498 ("When a party has relevant evidence within his control which he fails to produce, that failure gives rise to an inference that the evidence is unfavorable to him").

The remand was made necessary because of the Licensing Board's previous reliance on "the post-cheating testimony of only licensee and the staff. ALAB-772 at 64. Licensee- bears the burden of proof that the failings of its training program have been cured by its remedial action. Licensee chose to present its case largely through the testimony of its own management and the OARP Committee. The Licensing Board, as stated above, is not able to draw a conclusion favorable to Licensee based solely on the testimony of the OARP Committee. The Appeal Board has previously rejected the notion that the Licensee's largely unsupported claims of adequacy would be sufficient to warrant a conclusion favoring restart. Licensee has obviously failed to meet its burden of proof, and the Licensing Board's finding to the contrary is unsupported by the evidence and is wrong as a matter of law.

(c) Attitude of TMI Employees as Reflected in the RHR Report

Although Licensee's awareness of their employees' poor attitude toward their training and management in general, dates back to the 1979 accident, Tr. 32,231, 32,268, 32,279 (Long), it was not until after the close of the cheating hearing in 1982 that management attempted to systematically assess the extent of the problem through the use of an outside consultant, Rohrer, Hibler, Replogle, Inc. (RHR). As the Licensing Board noted, "The RHR report contained many references critical of management and indications of serious problems of employee attitude." PID at ¶ 54. In proposed findings, Licensee questions

"whether operator attitude toward training constitutes valid evidence of the quality of the program." Licensee's Proposed Findings at 212. By focusing solely on the content of the program, Licensee is once again ignoring the role that operator attitude plays in the safety of the plant. RHR has provided the following formula for safety, which assigns equal weight to an operator's capability and his attitude:

Safe performance = Operator Motivation (Attitude) +
Operator Capability.
UCS Exh. 6 at 6.

No matter what the quality of the training, without appropriate employee attitude, there can be no assurance of safety.

The Board has noted what it feels are infirmities in the RHR Report, and claims the report "is not in a skilled survey format." PID at ¶ 56. In particular, the Board notes that the survey form contained no provision for a "No opinion" response. Id. It is unfortunate that the instruction sheet which was made available to the employees who completed the survey was not introduced into evidence.³ However, careful review of UCS Exh. 7 (the raw data of the RHR Report) discloses the fact that not all 43 operators surveyed at TMI completed every question. It would seem that there was a method whereby the survey respondents were able to register a "No opinion" response.⁴ Furthermore, no party has disputed the claim of

3 Licensee offered to provide the instruction sheet, Tr. 32,575 (Bauser), but failed to do so.

4 On the extreme right hand side of the data sheets there appear numbers; it is apparent that these numbers correspond to the number of employees who answered a particular question.

Rohrer, Hibler, Replogle, Inc. that it is "the country's largest firm of psychological consultants to business." UCS Exh. 6 at 5. It is not likely that a firm with such extensive experience would administer an unskilled survey. In any case, despite its criticisms of the RHR Report, the Board was forced to admit "that in about late 1982 there were serious problems with operator attitude and management communications at TMI." PID at ¶ 58.

The Board speculated that employee attitudes are "changeable" and that "swings probably occur in much shorter cycles -- weeks, months -- depending upon perceived good and bad news." PID at ¶ 74. There is absolutely no evidence to support such a finding; in fact, the evidence supports an opposite view. Long admitted that there has been a problem with employee attitude since the 1979 accident and before. The reopened hearing on cheating revealed bitter resentment of employees toward their management; and the RHR Report demonstrates that those negative attitudes have persisted until at least late 1982. These are not the signs of transitory feelings, as stated by the Board, but instead they are indications of a deeply entrenched negative attitude on the part of TMI employees.

The record shows that throughout the hearing, the Board failed to recognize the importance of probing the cause for poor employee attitude and morale. Tr. 32,238 (Smith).

On the last day of the hearing, Chairman Smith stated:

. . . the difficulty is that I don't think all of the parties have agreed as to what is the importance of employee morale in this hearing to begin with, and that is I have not heard from the parties a clear-cut position from anybody as to what is the relevance of that issue anyway.

But assuming that it is relevant, then the question is relevant to that.
Tr. 33,465 (Smith).

There was, however, one exception to this state of affairs. The Board, specifically the Chairman, exhibited an inordinate concern that employee attitude and morale was adversely affected by the hearing process, and by intervenors' participation in that process. This concern manifested itself in frequent outbursts by the Chairman, which, by their vociferousness, had a perceptibly chilling effect on the development of legitimate areas of inquiry. Tr. 32,212-213; 32,317-318; 32,319-323; 32,395-400.

These attacks were most frequently at TMIA and its representative. However, TMIA was not the sole recipient of such outbursts. Any party who raised a question which, in the Chairman's view, might impact adversely the interests of an individual in Licensee's employ, was subjected to similar intimidating treatment by the Chairman. The Administrative Procedure Act, 5 U.S.C. 556, 10 C.F.R. 2.743(c) and federal common law support the principle that irrelevant evidence must be segregated and excluded from consideration in an adjudicatory proceeding. United States v. Abilene & S. Ry Co., 265 U.S. 274, 288-89 (1924); Int. Commerce Comm. v. Diffenbaugh, 222 U.S. 42, 46 (1915).

Judge Smith's extreme concern with the procedural due process rights of Licensee's employees, his protection of the reputations of GPU managers, and his belief that the adjudicatory process itself was responsible for poor operator attitudes clearly were not within the scope of the remanded proceeding.

Because of the Board's failure to grasp the importance of employee morale and attitude as it relates to plant safety, there is no reliable evidence on the record that the situation at TMI has improved since the time of the RHR survey.

The Board's solution to this lack of information is to restart Unit-1 in hopes that any "lingering" poor attitudes will be "relieved." PID at ¶76. The Licensing Board has speculated that the communication systems put in place by Licensee "must have had" a favorable effect on the attitudes of TMI employees. PID at ¶74. This speculation by the Board falls far short of the record evidence necessary to make such a finding, and upon which to base a conclusion as significant as the one drawn by the Board.

V. MANAGEMENT-EMPLOYEE COMMUNICATIONS

A. Management's Solution Is Form Without Substance

It is axiomatic that "actions speak louder than words." Therefore, to understand what is actually being communicated to TMI employees by their management, and how those communications affect the attitude and morale of employees,

it is necessary to look beyond self-serving company statements to management actions.

The various investigative reports which issued in the wake of the accident at TMI-2 identified "inappropriate operator action" as a cause for the severity of the accident. The OARP Review Committee, in their 1980 report on training at TMI, found that "pre-accident neglect" of the training program by management to be the probable cause of the operators' inappropriate actions.

The operators at TMI agreed that the training department had been neglected. In the summer of 1979, TMI employees felt that their training was worthless; they said that it was "bullshit training," "not worth a damn." Tr. 32,228 (Bradford). In an effort to quell public concern and in hopes that TMI-1 would be allowed to restart, Licensee management committed their operators to an unprecedented retake of the NRC licensing examination. To prepare the operators for the exam and in response to an NRC order, a special "accelerated retraining program" (OARP) was put in place at TMI. The OARP was a one-time intensive program of short duration. Although the OARP Committee, who reviewed the program in 1980, found the program adequate, evidence developed during the reopened hearing on cheating demonstrated that the OARP program was incapable of curing the ills of the long-neglected training department.

Frank Kelly, a consultant to GPU who administered a preparatory examination to TMI trainees, was impressed by

the OARP training. In particular, Kelly found that the trainings offered in heat transfer and fluid dynamics were "quite practical in nature" and presentations of this and other material were "very good." (Kelly) ff. Tr. 12,609 at 5. Kelly further observed that "overall class attention was at a high level." Id. Review of evaluations by instructors of their classes, completed in October 1980, reveals that trainees were, in fact, dissatisfied with their training and uncooperative during class. These problems were most evident during classes on heat transfer, thermodynamics and fluid flow, but were apparent in other classes, also. TMIA Exhs. 3A-M. These evaluations present a view of TMI training quite different than that described by the OARP Committee and Kelly in his December 1980 testimony. At the remand hearing on training, the Committee, including Kelly, were asked if they had seen these forms; no member of the Committee had reviewed them.

In addition to the resentment expressed by employees, management had received other more direct indications that operators had little respect for the training offered at TMI. In July 1979, James R. Floyd, Supervisor of Operations TMI-2, with the help of a SRO from TMI-1 (O), cheated on a requalification make-up exam. By all accounts, Floyd was one of the most technically proficient individuals at TMI. It was said of Floyd, "He knew where every valve and switch was," Tr. 24,422 (Miller) and he "is a very, very capable technical person." Tr. 23,725 (Arnold). Despite his apparent competence, Floyd

had no respect for the training department. He rarely attended lectures; he did not complete training assignments; he turned in as his own the work product of another operator and made no attempt to disguise the fact that the work was not his own. In short, Floyd displayed contempt for the training offered at TMI. Management's response to this incident was not that of a management concerned that their employees receive adequate training. Rather than taking action to upgrade the training and enact stringent exam security measures in order to prevent a recurrence of cheating, management went to considerable length to cover up the incident. (See OI Report generally.) No action was taken against Floyd.

B. Management's Disparate Treatment Among Employees
Has Fostered Negative Attitudes

In April 1981, in accordance with Licensee's commitment, the NRC administered a licensing exam to all TMI-1 operators. Two SRO's (O and W) cheated extensively on the exam. One of the SRO's involved in the 1981 cheating had previously been involved in the 1979 Floyd cheating incident.

O and W were fired when they admitted the cheating. Other employees were angry about the treatment of the two operators. They felt that management had not adequately prepared operators to take the exam. Tr. 26,543 (I); Tr. 25,703-704 (GG). Operators also thought that the company was wrong when it fired O and W; they were good operators and their punishment was too severe. TMIA Exh. 6 att. 4. The operators felt that

management would not "stand behind them" and would sacrifice its employees for the sake of public opinion. TMIA Exhs. 4, 5 and 6.

The treatment of O and W was in sharp contrast to the company's treatment of Floyd. In the case of Floyd, the company made a material false statement to the NRC in order to cover up his wrongdoing. See OI Report. Having made the false statement, the company took the remarkable position that Floyd had not cheated. Even after Floyd was found to have cheated by the Special Master and the Licensing Board, the company continued to maintain its position that Floyd had not cheated. Licensee management had to maintain this position; admitting in 1981, that in 1979 management had known of Floyd's cheating and had nevertheless certified him as fit for relicensing, would expose the company to criminal charges in connection with the material false statement to the NRC. Therefore, Licensee adopted the illogical position that Floyd had not cheated when he submitted another operator's work as his own. Licensee did not fire Floyd, who continued in Licensee's employment until he resigned in April 1983.

C. Employees' Perception of Management's Willingness to Sacrifice Them to Public Opinion

The perception of TMI employees that Licensee management will not protect them and will, in fact, sacrifice its employees for the sake of public relations, is an accurate one. An additional example of Licensee's willingness to

sacrifice its employees who are the victims of management's neglect, involved the agreement between GPUN and the Commonwealth of Pennsylvania.

After the issuance of the July 27, 1982 PID, the parties filed exceptions to the Licensing Board's decision. The Commonwealth took exception to Licensee's continued use of two operators (G and H) found by the Licensing Board to have cheated on company exams. Additionally, the Commonwealth took exception to the company's continued use of a licensed operator instructor, who had refused to cooperate with NRC investigators during the investigation into cheating at TMI.

Licensee and the Commonwealth entered into a stipulated agreement at the urging of Licensee, Tr. 32,322 (Au), whereby Licensee agreed not to use the two operators to operate the plant. The stipulation further stated that Husted would not be utilized by the company to train licensed operators and trainees. Although the appellate process was not yet complete, Licensee voluntarily entered into the agreement without regard for the rights of the employees involved. Licensee sacrificed their employees' rights in order to remove a possible bar to restart of TMI-1.

In light of the facts above, it is not surprising that employees perceive that their management not only will not protect them, but will actually sacrifice employees by bargaining away due process rights in an attempt to protect management.

TMIA Exh. 6.

The low morale of operators is not a result of the hearing process and intervenor participation in that process, as stated by Chairman Smith, Tr. 32,395-396, Tr. 32,399-400 (Smith), but rather a product of management's historic neglect of the training department, management's commitment to reexamine all TMI operators without adequate preparation and management's willingness to sacrifice employees in an effort to improve its own public image. Management, by these actions, has created an unhealthy climate of suspicion at TMI. Since the issuance of the Special Master's Report and the ASLB decision of July 27, 1982, management has documented the feelings of "fear, distrust and paranoia" among their employees. TMIA Exh. 6 at 2. The various systems of communication put in place by management are intended to alleviate these problems. However, management's actions have further eroded its credibility with its employees.

D. Management's Asserted Solution to Negative Employee Attitudes Are Form Without Substance

Despite Licensee's claim that it now has in place methods of communication whereby management understands and responds to the concerns of its employees, Licensee is, in fact, continuing its policy of saying one thing while doing another.

Since 1982, Licensee claims to have put in place various channels of communication whereby management and employees can discuss and resolve problems. In memoranda sent to all employees, management has declared an open door policy

whereby employees with problems or complaints have access to the highest echelons of company management. See letter from P. R. Clark, ff. Tr. 31,749, attachment at 78-79.

Additionally, Henry Hukill, Vice President TMI-1, meets annually, on an individual basis, with each member of the operations department. The stated purpose of these meetings is to discuss any job-related problems an individual might have. Hukill also restates the company's commitment to safety during these meetings, emphasizing to employees their personal responsibility to protect the safety of the public. Hukill stresses the need for operators to comply with procedures and to report any non-compliance to management or to the NRC should their management appear unresponsive. ff. Tr. 32,202 at 6-8 (Long); ff. Tr. 23,944 at 13 (Hukill).

(e) Current Communications Received By Employees

Another method of communication between management and employees is the "interface meeting." These meetings bring trainees from various departments (operations, maintenance and chemistry) together with representatives of management. ff. Tr. 32,202 at 9 (Long); ff. Tr. 31,749 attachment at 76. The stated purpose of these meetings is to keep employees informed of changes in the plant which affect their jobs. The interface meetings also serve as a forum in which employees may raise questions and air complaints about their jobs. Tr. 31,977 (Kimel).

When Ross and Newton were asked about the purpose of the interface meetings, they said the meetings were intended to inform employees of changes which might affect their jobs and to allow them to raise questions or complaints. Newton said that a typical question would be "When is the north parking lot going to get paved?" Tr. 33,080 (Newton). Surely Licensee cannot seriously believe that discussion of superficial issues, such as the need to pave a parking lot, will dispel the resentment employees harbour toward management, and restore management credibility.

The OARP Review Committee was favorably impressed by Licensee's efforts to restore management's credibility with its employees. However, the Committee did not probe the effectiveness of this communication; instead, the Committee relied on briefings from management and their own review of the various memoranda from management to employees. ff. Tr. 31,749, attachment at 81.

At the hearing the Committee was questioned about their knowledge of the interface meetings. No Committee member had reviewed documentation of an interface meeting, although they were certain such documentation existed. No Committee member had attended an interface meeting, Tr. 31,975-976; nevertheless they were convinced that the meetings were a way to break down the barriers between management and their employees, and give employees an opportunity to express job

or training related concerns. Tr. 31,976-977 (Bradford, Kimel).

The Committee was then shown TMIA Exhibit 1. The exhibit is a memorandum from H. D. Hukill, Vice-President TMI-1, to D. M. Shovlin, Manager of Maintenance, dated March 16, 1983, with attachments. In the memorandum, Hukill outlines an incident which occurred during a March 14, 1983, interface meeting at which Hukill was present and wherein C. Q. Whitman, a maintenance employee, voiced concerns about specific instances of procedural non-compliance. In his memorandum to Shovlin, Hukill said, ". . . C. Q. Whitman raised serious allegations regarding procedural compliance, which I am compelled to investigate to determine if his allegations are true and supported by facts." TMIA Exh. 1 at 1. Specifically, according to the memorandum, Whitman indicated that if a problem arose during performance of a maintenance job, he would go to his foreman for instruction. The foreman would often instruct him to resolve the problem in the best way possible, even though this would not be in accordance with procedures. "[B]oth he and his foreman would then sign the job ticket indicating that the work had, in fact, been performed in accordance with the procedure." Id. Hukill further noted in his memorandum to Shovlin that the allegation was made "in front of an audience of about fifty people." Id.

To satisfy Mr. Hukill's request that the allegations be investigated, a meeting was held with Whitman on March 17,

1983. At the meeting, the company was represented by G. L. Hahn, R. D. Natale and Mr. Shovlin. Mr. Whitman was accompanied by C. E. Newton, a union representative. TMIA Exh. 1, attachment 2 at 1. During the meeting, Whitman described two specific incidents in which maintenance work performed on plant systems was not in compliance with the procedures for those jobs, and nevertheless the job ticket was signed as if the job had been performed according to procedure. Id.

Although Shovlin acknowledged that Whitman had confirmed during the interview that both he (Whitman) and his foreman had ticketed the job in a way which did not comport with the way in which the job was actually performed, Shovlin, in his report to Hukill, states as follows:

. . . Review of the job tickets associated with the two jobs identified by Mr. Witman (see attached) shows that all work performed was thoroughly documented and completed in accordance with approved procedures, vendor manuals, direction by vendor representatives and plant engineering staff. I find that any allegation by Mr. Witman in these instances are unfounded and that no further action is required. Mr. Witman will be advised of the results of my investigation.

TMIA Exh. 1 at 4.

The problem with Shovlin's purported resolution of this serious allegation by Whitman is obvious. Having been told that both Whitman and his foreman had falsely signed off on the job ticket, reviewing that document would not reveal the discrepancy between the way in which the work was actually

performed and the way in which the work was documented. Furthermore, it was not necessary to make such a comparison; Whitman volunteered this information both at the interface meeting and again in the interview by company representatives.

Mr. Hukill, of course, was aware that reviewing the job tickets was not an adequate resolution on the investigation into the misrepresentation contained in those documents. Mr. Whitman's initial allegation to Hukill in the interface meeting was that the job tickets misrepresented how the work was actually performed. Hukill told Shovlin in his summary of the interface meeting:

. . . Mr. Whitman further went on to state that both he and his foreman would then sign the job ticket indicating that the work had, in fact, been performed in accordance with the procedure.

TMIA Exh. 1 at 1. Hukill should not have accepted as rational Shovlin's conclusion that the allegations raised by Whitman "are unfounded" and "no further action was required."

Management's illogical resolution of this serious matter is an indictment of management's integrity and belies the claim (and the Board's acceptance thereof) of effective communication as the basis for improved operator attitude. For Shovlin to believe that his department's illogical "resolution" of the matter would be sufficient for Hukill, reflects on the level of integrity that Hukill expects from Shovlin (and others). A member of an organization that expects vigorous attention to reality would never proffer the "resolution" proffered here by

Shovlin to Hukill. As importantly, Shovlin's resolution of this matter (and Hukill's apparent acceptance of such) demonstrates that management does not want open communication from employees. On the contrary, management is again sweeping under the rug serious safety problems; and this attitude must be apparent to employees.

Management's handling of the interview itself demonstrates that safety significant complaints are not handled in a meaningful way and that these new communication efforts are not effective in improving attitude. During the March 17, 1983 interview, Whitman was asked on two occasions whether he had ever been told to "deliberately violate procedures," to which Whitman responded "No." However, Whitman insisted that on both occasions, procedures were not followed. TMIA Exh. 1, att. 2. It is unlikely that a foreman would explicitly instruct a subordinate to deliberately violate a procedure; but by instructing the worker to complete the job in a way which is not in compliance with the procedure, and then instructing him to sign the job ticket as if the job had been completed in accordance with the procedure, the effect is obviously the same.

Mr. Whitman's concern was a very basic one. He said, ". . . How can I justify to the NRC that I followed the procedure channels if I'm not following procedure." ". . . what happens to me if I don't follow a procedure because a foreman tells me not to. Do I go to jail or what?" " Id. This question was never satisfactorily answered. Company representatives

told Whitman, "Your responsibility is to inform your foreman if you feel nuclear safety is being violated," and, "If you have concerns like you expressed to Mr. Hukill you should express them to your foreman or supervisor first. If you can't get an answer you follow the chain of command." Id.

Since Whitman's complaint involved his job foremen, a complaint to those individuals would be pointless, and as demonstrated by the so-called investigation, the management of maintenance had very little interest in actually investigating the safety violations.

In addition, not only was Whitman's question not answered; but when he admitted on numerous occasions his own culpability, he was told that "employees are going to have to back their statements up," TMIA Exh. 1 attachment 2 at 2, clearly implying that management was rejecting the validity and credibility of Whitman's description of his (and his foremen's) non-compliance with procedures and false ticketing.

Uhrig testified that the issue raised by Whitman was serious and should be dealt with in a serious manner. Tr. 31,988 (Uhrig), implying that by raising the issue at the interface meeting, Whitman was being frivolous. Whitman's allegations were not frivolously made; they involved information adverse to Whitman's self-interest. Yet management representatives refused to acknowledge that his allegations were valid.

Ross, Manager of Operations, essentially agreed with the way in which the Whitman allegation was handled by management. Although Ross would have used "less vigor" in telling the employee to use the chain of command, not the interface meeting, when making complaints, Tr. 32,875 (Ross), he, too, would have recommended that serious issues affecting safety be raised through channels. Tr. 32,875 (Ross) Both Licensee and the OARP Committee apparently feel that the way in which a problem is raised is more important than resolution of the problem, missing entirely the point that how a safety issue comes to the attention of management is little consequence, only that it is brought to their attention. Furthermore, the fact that employees are not using the method established by management to bring safety related concerns to the attention of management is an indication that the established method is faulty.

At the hearing, when questioned about the so-called investigation, Ross said, ". . . Mr. Shovlin would be doing just what I would be doing, finding out what happened, whether it was real and whether corrective action was, in fact, necessary." Tr. 32,869 (Ross). Ross mischaracterized the statements Whitman made during the March 17 interview in the same way that Shovlin had done, and stated that "Mr. Whitman later said, you know, he really didn't violate procedure." Tr. 32,870 (Ross.) As discussed above, Whitman continued to

assert throughout the meeting that he had not been in compliance with the procedure.

Licensee is forced to admit that the treatment of Mr. Whitman by management could be viewed as "inappropriately intimidating," and "discouraging of the free flow of information," but justifies this treatment by stating management's need to maintain the "chain of command" concept. Lic. PF at ¶71.

As stated above, this emphasis on the "chain of command" is little more than a "red herring" intended to divert the Board's attention from the far more serious procedural violation reported by Whitman.

Management, by its communication with employees as discussed above, has created an atmosphere of suspicion and fear at TMI. These negative attitudes cannot be dispelled by the insincere, superficial means Licensee has proposed.

Despite this obvious inconsistency, the Licensing Board nevertheless has accepted Licensee's facile assurances that its communications with its employees are open and candid and that this new communication will restore management's credibility in the eyes of its employees. The Board "accepted, almost in its entirety Dr. Long's testimony" in this regard. PID at 40. In so doing the Board ignored record evidence to the contrary and as well ignored TMIA's Proposed Findings 48-51, which drew the Board's attention to the contradictory facts in the record.

The Board states that it "recognizes the legitimate concerns" raised by the intervenors with regard to the effectiveness of management/employee communications; however, the Board went on to largely ignore those concerns. The Board has approached its discussion of intervenor concerns by examining the attitudes of the employees as reflected in the RHR Report. Unable to reach a firm conclusion as to the effectiveness of communication, the Board is equally uncertain that attitudes of employees have improved. Despite these seemingly insurmountable problems, the Board nevertheless reached the remarkable conclusion, which is totally unsupported by record evidence, that the communication system is sound and that it will have a beneficial effect on employee attitude and morale.

VI. MANAGEMENT'S REFUSAL TO ACKNOWLEDGE RESPONSIBILITY FOR THE CHEATING

The Board's discussion of the factual basis for its conclusion that management of Licensee has "acknowledged their failures and their responsibility to prevent cheating," PID at p. 214, is based largely upon the written testimony of Dr. Robert L. Long, Vice-President and Director-Nuclear Assurance Division, and former Director of Training and Education. PID at B1-39, the Board stated:

Dr. Long testified at length during the remanded hearing, and we have no basis to believe that he is not candid. GPU-Nuclear management's acknowledgment of its responsibility for cheating pervaded the testimony and pleading during the original cheating proceeding. Dr. Long's testimony has reinforced the Board's view that

management fully understands and accepts its responsibility.

PID at ¶39. In reaching this conclusion, the Board, in fact, ignored Long's oral testimony, which contradicts many of the self-serving statements in the written testimony, and, instead, the Board reached for a conclusion consistent with its earlier July 27, 1982 partial initial decision, as the following discussion demonstrates.

In justification for management's lack of safeguards against cheating, Long, in pre-filed testimony, claimed naivete, stating that

. . . there was a belief among the training personnel based on their knowledge of operators, that everyone recognized that one is expected to do one's own work on an examination. . . .

ff. Tr. 32,202 at 3. However, the record evidence does not support this claim. At the hearing, Long, in fact, admitted that both site management and training personnel were aware of the 1979 cheating incident involving the TMI-2 Supervisor of Operations and a TMI-1 senior reactor operator. Tr. 32,281 and 285. Had Licensee management been genuinely concerned about the integrity of its training program, that 1979 cheating incident should have provided the incentive for a thorough examination of all aspects of the training program, including the need for security. Even without Long's admission, the facts surrounding the 1979 cheating are well documented in the recently released Office of Investigation (OI) Report of that

incident.⁵ The report demonstrates that the facts of the 1979 cheating were widely known both within the training department and by the highest levels of site management. Not only did the Licensee cover up that incident of cheating, but they made no attempt to assure themselves that it would not recur.

In addition, the NRC pointed out to Licensee the need for greater exam security in a December 1, 1980 letter from Paul Collins, then Chief of Operator Licensing Branch NRC, to Henry Hukill, Vice President TMI-1. The Licensing Board also drew Long's attention to the issue of exam security in February 1981, when it questioned Long during the earlier phase of this hearing, regarding Licensee's compliance with the August 1980 NRC directive. Tr. 12,599; Tr. 12,740 (Little, Long). These facts directly contradict Long's statements in his written testimony that:

. . . there was a belief among the training personnel based on their knowledge of operators, that everyone recognized that one is expected to do one's own work on an examination.
ff. Tr. 32,202 at 3,

and

. . . I as well, overlooked the need to critically review the processes in use to prevent cheating during the examination and testing activities of the T&E department.
Id. at 2.

Long's continued denial of knowledge of the need for security prior to the 1981 cheating incident is contrary to

5 See TMIA MOTION TO REOPEN THE RECORD FOR THE PURPOSE OF RECEIVING ADDITIONAL INFORMATION, May 22, 1985.

the facts. It is amazing that Long would make so bald an assertion to the very Licensing Board that alerted him to the need for security in February 1981.

In the written testimony, Long goes on to say that:

. . . operations and management training personnel should have been monitoring closely the attitudes and concerns of each individual license holder, to insure that we understood and addressed any fears, uncertainty or gaps in the operators' acceptance of the importance of the NRC exam and their preparations for it. . . .

ff. Tr. 32,202 at 3. This statement is equally lacking in credibility, and is inconsistent with Long's oral testimony.

. . . operators were resentful of the reexamination process long before that [April 1981] . . . we knew we had a problem from the time it was announced that they were going to be reexamined . . . we had a problem with persuading them that that was the right thing, the fair thing, the appropriate thing to be doing. And we continued to be sensitive of (sic) that and work on that. . . .

Tr. 32,289.

At the hearing Long was questioned about an interview he and other corporate management personnel had conducted some time in the "July - September 1979 timeframe." Tr. 32,224-30 (Long). The corporate investigative team interviewed Gary Miller, then Station Manager for TMI. During the interview Miller discussed the inadequacies of the training program and his understanding of the operators' perceptions of those inadequacies. Miller characterized the program as "bullshit training," he said that the training was viewed as "not worth a damn." Miller further stated, "I don't think they (the

operators) perceive it will change." Tr. 32,224-30. The OARP was a response to the inadequacies of the training program which existed in 1979. However, this response failed miserably to instill respect for the training program in the operators. At the cheating hearing, operator I testified that in his opinion the poor training was responsible for the cheating in April 1981. Tr. 26,588-89 (I).

Licensee was well aware of these attitudes on the part of their operators, Long said, ". . . we knew we had a problem from the time it was announced that they were going to be reexamined . . .," yet despite this knowledge, Licensee made no attempt to correct the false impression created by the February 1981 testimony of Dr. Christenson and Mr. Kelly when they testified as to the "pride and enthusiasm" of the operators in the training program. See ALAB-772 at 66.

As demonstrated in the discussion above, Long's written testimony is not supported by the testimony he gave at the hearing, nor by the facts. Long was attempting to materially mislead the Board when he claimed that management's naivete allowed them to "overlook" the problems which ultimately led to the 1981 cheating. Management took this dishonest approach rather than admit that they were well aware of the problems with poor operator attitude and disrespect; that they had attempted to address those problems; and that they had failed.

The approach that management took in this proceeding not only impeaches the credibility of both Long and Licensee management, but more importantly, it renders the Board's

conclusion that management is now accepting responsibility for their failures invalid. The Board made no attempt to reconcile the contradictions between Long's oral and written testimony. Rather, the Board quoted Long's pre-filed testimony without regard to the contradictory testimony which he gave at the hearing. Of course, there can be no reconciliation between the two testimonies. It cannot be controverted that management was well aware of serious and widespread attitude problems and that Long's testimony that management was unaware of attempts to cheat or other difficulties was designed to mislead and misrepresent the truth.

CONCLUSION

For the foregoing reasons, the Licensing Board's decision finding Licensee's training program to be adequate to train operators to operate the plant safely must be reversed and remanded.⁶

Respectfully submitted,



Louise Bradford
for Three Mile Island Alert, Inc.

⁶ TMIA previously moved to disqualify Judge Smith from further participation in the TMI-1 restart proceedings on grounds of bias and prejudice. By its Order of April 5, 1985, the Commission decided that Judge Smith had correctly denied the motions seeking his disqualification. CLI-85-05, 21 NRC ____ (Apr. 5, 1985). As part of its appeal to enjoin the Commission's May 29, 1985 restart order, TMIA is seeking review of the Commission's April 5 decision. TMIA, et. al. v. U. S. Nuclear Regulatory Commission, Nos. 85-3301, 85-3302, 85-3310, 85-3315 (June 17, 1985). Although TMIA has not briefed the issue for this appeal of LBP-85-15, TMIA does not waive any of its claims of bias and prejudice against the Licensing Board.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

ATTACHMENT

DOCKETED
USNRC

JUN 5 1985

'85 JUL -3 P12:24

Docket/License No. 50-289/DPR-50

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

GPU Nuclear Corporation
ATTN: Mr. H. D. Hukill
Director, TMI-1
P. O. Box 480
Middletown, Pennsylvania 17057

Gentlemen:

Subject: Inspection 50-289/85-12

Between April 8, 1985, and May 6, 1985, Messrs. R. Conte, F. Young and R. Urban conducted a routine safety inspection of activities at your facility. The inspectors documented the results of the inspection in the attached NRC Region I Inspection Report. At the conclusion of the inspection, Mr. Conte summarized the inspection findings to you and other members of your staff as noted in the inspection report.

Within the scope of the inspection, no conditions adverse to nuclear safety or regulatory requirements were identified. Your cooperation with us is appreciated.

Sincerely,

Harry B. Kister
Harry B. Kister, Chief
Project Branch No. 1
Division of Reactor Projects

Enclosure:
NRC Region I Inspection Report
Number 50-289/85-12

cc w/encl:
R. J. Toole, Operations and Maintenance Director, TMI-1
C. W. Smyth, TMI-1 Licensing Manager
R. J. McGoe, Manager, PWR Licensing
G. F. Trowbridge, Esquire
TMI-1 Hearing Service List
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector (2 copies)
Commonwealth of Pennsylvania

licensee utilized the same shielding that inspectors previously found to meet NUREG-0737 requirements as noted in NRC Inspection Report 50-289/82-13.

As noted in previous inspections, the inspector found that applicable procedures effectively cautioned or warned operators on the hazard of operating certain manually operated isolation valves during the post-accident period and, in particular, during the long term boron precipitation control evolution. The procedures required that operators position other potentially inaccessible valves before opening DH-V6A/B (letting RB sump water into DH piping). The licensee revised the DH system emergency standby line up procedure to require DH-V12B to be locked open.

The inspector noted that the precautions and limitations section of DH system operating procedure (1104-4) were confusing with respect to operator guidance on throttling DH flow. It appeared that this section was inflexible on the use of valves for throttling when the DH Pump took suction from the RB sump; namely, it stated that DH-V19A/B were to be used to prevent pump runout. However, the boron precipitation control section of this Operating Procedure (OP) rightly cautions against the use of DH-V19A/B since they are manually operated and are in a potentially inaccessible area during the post-accident boron precipitation control evolution. Based on discussions with licensee personnel, the inspector learned that engineering personnel cautioned against the use of DH-V4A/B (the alternate means of throttling DH flow), since these valves are gate valves not normally designed for throttling. The legitimate engineering concern was not clearly stated in the procedure.

The inspector concluded that licensee management did not completely provide limitation/precaution guidance to operators in the operating procedure on use of DH-V4A/B versus DH-V19A/B considering radiological hazards and engineering concerns for the various preplanned evolutions in this procedure. Licensee representatives acknowledged the inspector's comments, and they initiated a revision to the operating procedure to clarify the guidance to the operators (PCR Nos. 1-02-85-295 and 296).

The inspector had no additional comments. Based on the above and previous reviews of licensee actions related to TAP II.B.2, Plant Shielding and TAP II.B.3 (in part) related to Post-Accident Sample System Shielding, the inspector considered TAP II.B.2 to be closed.

5.0 Control of Examinations

On or about April 2, 1985, the licensee reported that a microfiche copy of TMI-1 auxiliary operator examinations had been found in the motorcycle parking lot near the TMI-2 Administration Building. In conjunction with Training Department Management, the Director of TMI-1 immediately confirmed that the security of the examinations were not compromised since

the microfiche were records of graded final examinations in accordance with Procedure 6200-ADM-2600.01. However, the Director of TMI-1 expressed concern to the TMI Information Management Department (IMD), that a review should be performed to identify the circumstances that led to the particular microfiche being in an uncontrolled state.

The IMD documented their review in internal memorandum No. 7132-85-057, dated April 11, 1985. The microfiche contained April and May 1984 examinations for 19 TMI-1 auxiliary operator requalification examinations along with answer sheets, seating charts, review sheets, and attendance forms. The archival copy and working copy of the same microfiche were in the records storage vault at the TMI-2 Administration Building. The training department copy of that microfiche was also in the vault awaiting distribution to the Training Department. The copy found in the parking lot was an extra. The IMD never determined why personnel made the extra copy (perhaps for better quality to be discarded later at the local waste receptacle). The licensee representatives classified the information on the microfiche as "sensitive," apparently because of personal data on the forms, not for examination security purposes.

The IMD corrective actions included the establishment of an internal procedure to destroy by shredding or other means all extra copies of such documents. They placed the subject microfiche on file in the vault along with the above noted IMD report.

The inspector discussed the event with cognizant licensee management. He reviewed 6200-ADM-2600.01, Revision 2-00, dated November 30, 1984, "Control of Examination," and the above referenced internal memoranda.

The inspector concluded that licensee management properly reviewed the event and took appropriate corrective action. Management showed initiative in the timely reporting of the matter to the NRC resident office. Based on this review, the inspector concluded the licensee met the requirements of the control of examination procedure and, thereby, continued to implement their commitments made to the applicable Licensing Board in this area. The IMD developed adequate corrective actions to preclude loose copies of the GPU classified "sensitive" documents.

In a related event, the licensee reported that a TMI-2 contractor Security Guard was caught seeking help from another individual during a General Employee Training Examination on April 15, 1985. The training instructor/proctor immediately confiscated the examination and sent the guard back to the work supervisor. The licensee later reported that the individual was sent back to the contractor as unacceptable for employment at TMI.

The inspector discussed the event with the Director of TMI-1. The inspector concluded that licensee representatives properly implemented the Control of Examination Procedure.

The inspector has no further comments on these matters.

- E. Eisen, Project Engineer
- C. Hartmen, Manager, Plant Engineer
- H. Hukill, GPUN, Director, TMI-1
- C. Incorvati, GPUN, TMI Audits Supervisor
- R. Neidig, Jr., TMI-1 Communications
- M. Nelson, Plant Review Group
- S. Otto, TMI-1 Licensing Engineer
- L. Ritter, Administrator, Plant Operations
- M. Ross, Plant Operations Manager
- C. Smyth, TMI-1 Licensing Manager
- R. Toole, Operations & Maintenance Director, TMI-1

As discussed at the meeting, the inspection results are summarized in the cover page of the inspection report. The licensee representatives indicated that none of the subject matter discussed contained proprietary information. Also, discussed were licensee plans for making the plant physically ready to support criticality.

Unresolved Items are matters about which information is required in order to ascertain whether they are acceptable items, violations or deviations. Unresolved item(s) discussed during the exit meeting are documented in paragraphs 4.1 and 9.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE APPEAL BOARD

'85 JUL -3 PM 2:24

In the Matter of)
METROPOLITAN EDISON COMPANY)
(Three Mile Island Nuclear)
Station, Unit 1))

Docket No. 50-289
(Restart -- Management
Phase)

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

I hereby certify that copies of THREE MILE ISLAND ALERT'S
APPEAL OF THE LICENSING BOARD'S PARTIAL INITIAL DECISION ON
THE REMANDED ISSUE OF LICENSED OPERATOR TRAINING AT TMI, were
served this day, July 1, 1985, on the parties named in the
attached service list, by deposit in the U.S. Mail, first class
delivery.

Louise Bradford

Louise Bradford

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