UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

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

TMIA'S BRIEF IN SUPPORT OF EXCEPTIONS TO PARTIAL INITIAL DECISIONS OF AUGUST 27, 1981 AND JULY 27, 1982- MANAGEMENT ISSUES AND REOPENED PROCEEDINGS

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I. INTRODUCTION

Questions concerning Licensee management's ability to safely operate TMI-Unit 1 contributed heavily to the Commission's July 2, 1979 decision to order TMI-1's operating license suspension. Virtually every investigation into the TMI-2 accident, including the NRC Staff's investigation, NUREG-0600, the Staff's investigation into information flow, NUREG-0760, the Report of the Special Inquiry Group (Rogovin Report), the Report of the President's Commission on the Accident at Three Mile Island (Kemeny Commission Report), and Congressional reports (Udall Committee Report; Hart Committee Report), has blamed Met-Ed management for contributing to the severity of the accident, and in particular, for creating conditions at the plant which caused the accident to occur.

As the D.C. Circuit noted in Office of Communication of United Church of Christ v. Federal Communication Commission, 359 F.2d 994, 1007, (D.C. Cir. 1966), "[w]hen past performance is in conflict with the public interest, a very heavy burden rests on [a] renewal applicant to show how renewal can be reconciled with the public interest." That case concerned the renewal of an F.C.C. license. It is certainly even more compelling that when a utility who has been given the awesome privilege and responsibility of running a nuclear power plant, abuses that privilege by risking the health and safety of hundreds of thousands of people causing its license to be suspended, a very heavy burden must rest on the licensee to show how lifting the license suspension can be "reconciled with the public interest."

Licensee has not come close to meeting its burden regarding management issues in this case. Consequently, the PIDs, developed from the evidence on this record, are entirely inadequate to sustain an ultimate conclusion supporting restrart. Indeed, the PIDs continually contradict the record, continually contradict the findings of the Special Master who presided over the reopened proceedings, and continually contradict themselves. In addition, the PIDs fail to resolve issues specifically mandated for consideration by the Commission's Order and Notice of Hearing, CLI-79-8, 10 NRC 141 (1979), ("August 9 Order"), and Order, CLI-80-5, ("March 6 Order").

II. MAIN PROCEEDINGS

A. The Licensing Board's conduct during the main proceedings amounted to arbitrary and capricious conduct, and a violation to the due process rights of TMIA, and prohibited proper development of the record. Exceptions 12,42, 23, 83.

12. The Board errs in ¶ 97 in blaming TMIA for its inability to cross-examine Mr. Manganaro.

42. The Board erred in relying upon Staff testimony in ¶ 314 in that the Staff was inherently biased against TMIA's position and did not properly perfom its independent regulatory function at the hearing, and misinterpreted the hearing issues and law.

43. The Board was implicitly and explicitly biased against the intervenors, exhibited by comments on the record, and in affording continual deference to the Licensee and Licensee witnesses, to the prejudice of the intervenors in general, TMIA in particular.

83. The Board violated due process, was grossly arbitrary and unfair, and violated its legal obligation in finding fault with intervenors for making findings on issues for which they were not present to cross-examine, or for not cross-examining on Board issues with which the intervenors had no contentions.

It is impossible to tackle the substantive content of the first PID without simultaneously addressing the underlying failures of this hearing process. The obstacles placed before TMIA throughout these hearings created a hearing process so shamefully deficient as to amount to a flagrant denial of basic due process.

The Licensing Board's terse references throughout the PID to TMIA's "failures" as an intervenor whether concerning presentation of TMIA contention 5, ¶ 278, or in cross-examination, ¶ 97, or even in not pursuing Board Issues, ¶ 491, pointedly illustrate the Board's callous disregard for TMIA's hardships. TMIA did not "fail" as an

intervenor. The hearing process itself, however, was a fiasco.

It was clearly the Board's responsibility to insure that procedural due process required by law was accorded all parties. At a minimum, concepts of procedural due process prohibit an adjudicatory Board from making a party's participation in the hearing process so extraordinarily burdensome that it, in effect, precludes that party from participation. In this case, the Board did just that.

To begin with, there were such a wide imbalance of resources between the TMIA and the opposing Licensee and Staff, that effective participation by TMIA was hampered from the outset. The proceedings pitted the Licensee's well-financed and experienced counsel who were able to vigorously participate at every step on every issue, consistently supported by the NRC staff whose perspectives were without excpetion limited by the information available to them via the utility, clearly not perfoming their independent regulatory function, against, first, TMIA's inexperieced, inexpert, and practically unfunded counsel, and then against a volunteer member of TMIA with no scientific, legal training, thrust in the midst of a complex ongoing hearing when TMIA's counsel were forced to withdraw. Rather than attempting to level this imbalance, however, the Board actively made it worse.

B. Due to TMIA's lack of resources and arbitrary Board rulings, proper development of the record on TMIA Contention 5 was imposible.

20. The Board erred in the method by which TMIA was forced to present its case on TMIA Contention 5, as described in ¶ 278.

22. The Board violated due process in not appointing an independent expert to assist TMIA in the development and presentation of TMIA 5, or making the Staff available for technical assistance contributing to the arbitrary rejection by the Board of TMIA work request exhibits.

The Board was well aware that TMIA could not afford technical assistance or help. They recognized this handicap and its possible consequences early in the discovery phase of the proceedings. In its Memorandum and Order dated March 25, 1980, which responded to TMIA's Motion for Emergency Funding, the Board stated,

> "... TMIA raises a problem which greatly concerns the board; whether the issues of management and financial competence will be full aired. The board itself regards this issue as being very important. Obviously the Commission is determined that this issue be carefully resolved in the proceedings. See Commission Order, CLI-80-5, March 6, 1980. The staff's

> status report dated January 11, 1980 (preliminary SER) promises that the competency issues will be pursued by the staff, (Sections C6 and C7) but, until the final SER or its equivalent is completed and tested at the hearing, the board will not know how complete and balanced the staff's evaluation is.
>
> In the meantime, it seems that TMIA is correct in stating that it was pursuing the competency issues more actively than any other intervenor. We are advised by counsel for TMIA that, because of lack of funds, it will not now proceed with its deposition plans, and TMIA warns that the record will be deprived of important input on the management and financial competency of the licensee. TMIA urges the board to use whatever powers are at its disposal to insist that parties with available funds, specifically the NRC staff, do more than they have in developing these issues. March 21 letter, p. 2." Slip. Op. 1-2.

At the outset of the proceedings, TMIA repeated its plea for technical assistance several times. But these numerous requests fell on deaf ears. Tr. 3661, 3804 (Selkowitz). Its ability to present a case on a highly technical issue was thus severely curtailed, having to present its entire affirmative case by eliciting testimony from hostile witnesses. Tr. 2583-4 (Adler).

The Board's concern as expressed in its Memorandum and Order turned out to be no more than sheer rhetoric. Specifically, it unjustifiably accused TMIA of defaulting in its obligation to comply with onerous discovery requests, and ordered TMIA to present an affirmative case on TMIA Contention 5 first, before Licensee testimony was presented, and before the Staff's SER was even issued. TMIA thus proceeded to present its case under protest. Tr. 2583 (Adler). See, also, Tr. 3035-6 (Selkowitz). This procedure was extraordinarily unfair, and violated the fundamental Atomic Energy Act rule that the burden of proof in NRC licensing proceedings, particularly as here, where the culpability of the Licensee caused the need for the hearings in the first place, rests solely on the Licensee.

> 1. The Board's arbitrary rejection of TMIA evidence, and biased statements on the record prejudiced TMIA's case on deferred safety-related maintenance.

29. The Board's assertion in ¶ 292 that TMIA agreed at any point to rely upon Mr. Colitz to define safety-related work requests, is directly contradicted by the evidence on the record.

30. The Board erred in ¶¶ 293-295 in relying upon Mr. Colitz's opinion as to what maintenance activities are safety-related, and errs in stating that TMIA offered no alternative means of identifying what maintenance items are safety-related.

21. The Board's lack of standards by which to accept evidence due, inter alia to its own inexpertise and refusal to appoint an independent expert in the specific area of safety-related work requests resulted in the arbitrary rejection of TMIA Exhibits or acception for limited purposes only, and severely prejudiced TMIA's case, specifically: TMIA Ex. 14, 25, 26, 27, 29,(a-d), 32, 33(a-m), 34(a-k), 35, 37, 38, 40, and 41.

32. The Board's conclusion in ¶ 295 that it liberally applied the question of whether a system worked on may be nuclear safety-related for the purpose of admitting evidence is unsupported by the record.

A major subissue of TMIA's contention 5 concerned allegations of deferred maintenance on safety-related items and stemmed directly from the Kemeny Commission's findings that maintenance deferral was a precipitating cause of the accident. TMIA accumulated the evidence to support its case during the discovery phase, by perusing thousands of work request documents supplied by the Licensee. TMIA identified hundreds of what it believed were work requests evidencing instances of poor maintenance practices at TMI-1. Tr. 3036 (Selkowitz). TMIA then faced the task of extracting only those work requests which could be classified as "safety-related." Though at this point without technical assistance, TMIA approached this task logically, in light of the precipitating cause of the accident and license suspension. At Tr. 2576, TMIA's counsel stated the following:

> "And the Kemeny Commission in its findings in respect to the accident at TMI-2 concluded that there were components at the plant which were not identified as "safety related components,but which impacted upon safety related components,and because the maintenance on those components had been deferred, that the deferral was one of the precipitating causes of the accident. Now, that is a conclusion of the Kemeny Commission, and from that standpoint safety related from our viewpoint has a much broader meaning. And when we question [Licensee witness] Colitz, we intend to question him about the consequences of a particular component failing to operate correctly. That particular component itself may not be a safety related component,but if the failure of that component to operate correctly can result in a major safety problem at the plant, then we view it as safety related. That is the approach we are going to take."

Thus, the Board is wrong to suggest in ¶ 294 that TMIA offered no alternative means of determining safety-relatedness.

Further, the Board is wrong to assert in ¶ 292 that the parties, including TMIA, initially agreed to rely upon the expert opinion of Licensee witness Colitz to determine whether particular maintenance activities were safety related. At Tr. 2575, TMIA counsel clearly stated that Mr. Colitz was to be called only to describe systems

and components in order to enlighten the Board, so that the Board could justly arrive at its own conclusions regarding safety relatedness. The Board itself understood that TMIA may not have agreed with Mr. Colitz's definition of safety relatedness. Tr. 2577 (Smith). In fact, the Board rejected efforts by the Licensee to question Colitz on his opinion as to safety relatedness, using TMIA's argument that to permit Licensee to elicit such testimony from TMIA's hostile witness would violate the law. Tr. 3121 (Smith). See, also, Tr. 2576, 2583 (Adler); Tr. 3035

The Staff's approach was ridiculously narrow. It objected to the relevance of every work request, unless specifically linked, with independent evidence, to management's capabilities. TMIA moved for the Staff's disqualification for not fulfilling their statutory obligation to protect the public interest. See, Tr. 3044-3045 (Swanson); Tr. 3048 (Adler).

The Board initially seemed to indicate an intent to apply a broad standard in defining safety-relatedness. Yet application of their "liberal approach" was not discernable from the record. In fact, when the Board was confused or unsure, it consistently adopted the Licensee or Staff approach. But it should be emphasized that the Board was often confused, and admitted the need for expert help. See, discussion, Tr. 3604-5, 3668. Yet rather than obtaining clearly needed assistance, the Board prejudiced TMIA's case by arbitrarily rejecting specific work requests or admitting them for limited purposes only, so that a pattern of deferred maintenance became impossible to establish. At Tr. 3727, Chariman Smith stated, "the Board is not going to accept the exhibit and we're hard put really to explain why. But there has to be a couple points somewhat subjective, somewhat arbitrary." Further, at Tr. 3732, Chairman Smith stated "there are no standard that have been presented to us that we can reliably look to to see what the standard is to receive into evidence. So this is our ruling and it could very well be wrong. And we are not going to defend it anymore."

In addition, the Board arbitrarily rejected work requests when it admittedly did not have sufficient information as to the exhibit's relevance to make a fair ruling. See, discussion, Tr. 3672-3675; 3775. The Board's biased disregard for TMIA's handicaps

in trying to develop, on the record, a pattern of deferred maintenance is perhaps best exemplified by Chairman Smith's casual remark, ..."if you win some, you lose some, I don't see how it is going to make a big difference"... Tr. 3662. The Board's conduct violated one of the most fundamental precepts of administrative law - that the discretion of an administrative agency may not be exercised arbitrarily and capriciously. See, National Airlines, Inc. v C.A.B., 321 F.2d 380, 383 (D.C. Cir. 1963) ("arbitrary exclusion of evidence").

2. The Board's conclusion that no evidence of deferred safety-related maintenance or repair was produced, is arbitrary and capricious.

23. The Board erred in not properly developing the record on TMIA 5 after TMIA's attorneys withdrew from the case.

35. The Board's conclusion in ¶ 300 that it found no evidence that Licensee improperly deferred safety-related maintenance and repair is unsupported by the record.

82. The Board violated due process by imputing TMIA's new intervenor with total knowledge of the proceeding until that point to the extreme prejudice of TMIA, and in not communicating certain essential information to her.

The Board rests its finding in ¶ 300 primarily upon Licensee's rebuttal testimony to TMIA Contention 5. Licensee presented its rebuttal testimony in February, 1980 - several month after TMIA's initial case. By that time, TMIA's counsel had been forced to withdraw due to TMIA's inability to finance them any longer. The case was inherited by Louise Bradford, a volunteer member of TMIA who worked at night and thus was able to attend hearings during the day.

Ms. Bradford was recognizably unfamiliar with the hearing issues, but rather than providing her with any constructive assistance or advise, the Board imputed her with total knowledge of what had transpired in months of hearings before she became involved. (Free transcript delivery to TMIA had ceased one month earlier). She scrambled to learn TMIA's case in her "free" time. But obviously, she could not be expected to understand, let alone analyze and prepare cross-examination for Licensee' rebuttal testimony. Yet the Board, who certainly knew its obligations under the Commission's August 9, 1979 and March 6, 1980 orders, and considered TMIA's allegations

important enough to investigate on its own whether alleged examples of improperly deferred safety-related maintenance presented by TMIA indicated a lack of attention on the part of the Licensee, ¶ 290, barely questioned Licensee witnesses when they appeared to present the rebuttal testimony. See, generally, Tr. 13,534-13,636.

33. The Board's summary conclusion in ¶ 296 that the Licensee's written testimony satisfactorily indicates no significant improper maintenance deferral is unsupported by the record, contradicted by the decision itself, and fails to inform the reader of the factual basis for these ultimate conclusions.

Licensee's answer to TMIA's evidence on maintenance deferral, explained in its rebuttal testimony, consists merely of conclusions unsupported by documentation. Their explanations contain facts purely within their knowledge, and without having been subject to any real cross-examination, it is impossible to know the validity of these facts. See, Shovlin, et al., ff. Tr. 13533. The Board has erred in providing unquestioned support for the theories advanced by the Licensee in this testimony, and for merely reciting, in the PID, the list of exhibits and corresponding page numbers where discussed in Licensee's testimony to support its conclusion. ¶ 296. By drawing this major conclusion, based on factually unsupported evidence, and with no discussion of factual basis for doing so, the Board has violated the fundamental rule that the grounds upon which the administrative agency acted be clearly disclosed and adequately sustained. S.E.C. v. Chenery Corp., 318 U.S. 80 (1943).

34. The Board ignores TMIA's arguments of potential safety problems associated with delays in completing TMIA's work request Exhibits 23, 33(a-m), 34(a-k), and 40, and improperly relies upon Licensee and Staff unsupported statements that the work was or will be done in an acceptable manner.

The Board's conclusion in ¶ 300 that no evidence exists from which to conclude Licensee has improperly deferred safety related maintenance, is directly contradicted by the Board's own findings in ¶ 298 and 299. In ¶ 298, the Board concludes that TMIA Exhibits 33 and 34, dealing with air handling filters in the machine shop ventilation system, indicates that maintenance deferral on these items constituted a potential long run safety problem. (emphasis added). Similarly, regarding TMIA Exhibit 40 which concerns a spurious alarm problem, the Board determines without any perceivable analysis that the spurious alarm creates no significant problem, disre-

garding TMIA's arguments in its proposed findings (PF) ¶ 16, yet concludes that "a delay of almost four years seems long in view of the fact that it should be fixed eventually." While the Board may not have used the terms "deferred maintenance," the clear implication of this statement is obvious. Similar problems are apparent in the Board's analysis of TMIA Exhibit 23, at ¶ 297, particularly a failure to address TMIA's concerns in PF ¶ 25, and reliance without discussion upon the Staff conclusion that satisfactory administrative controls were in place. There is absolutely no support in the record or in the decision that these items will be corrected, or that similar problems will be corrected in a timely manner so as not to risk the public health and safety.

3. The Board's conclusion that the Licensee's new priority system for completing maintenance work is satisfactory, is arbitrary and capricious, and unsupported by the record.

24. The Board's conclusion in ¶ 284 that the manner of assigning priorities is "radically different" is not supported by the record.

26. The Board improperly fails to discuss TMIA's arguments concerning confusion as to the new priority definitions by Licensee's management and witnesses, described in ¶ 287.

An important subissue to TMIA's maintenance deferral contention concerned the effectiveness of Licensee's system of assigning priorities to specific work request items. Even Licensee does not dispute that the "old" system was deficient. ¶ 285. One of the main problems concerned the priority definitions themselves - they were brief, ambiguous, and provided little guidance to the individual responsible for assigning the priority. Upon reading the highly touted "new" definitions, ¶ 287, one can see that these definitions are still brief, ambiguous, and provide little guidance to the individual responsible for assigning the priority.

In addition, the more serious problem of the priority system's implementation, or "human interface" with the system, can not be corrected by mere procedural or definitional changes. First, it was certainly true that in the past, those at the plant had ambiguous notions of what the priority system was even supposed to stand for. Tr. 3068, 3101, 3105 (Shovlin). But testimony revealed that this is still indeed

the case. Tr. 3615 (Leakway). Second, it is obvious that the new definitions do little to eliminate the tremendous amount of subjectivity required of one assigning priorities. See, e.g., Tr. 3071-2 (Shovlin). For example, the new definitions require a determination as to the predictable amount of time the job will take to complete. Yet Licensee has no guidelines or reliable method to assist employees in making such a determination. See PF 26-31, so a highly subjective judgement is required.

Moreover, the method of assigning priorities has not improved, and the Board's claim that the method is "radically different" is contrary to the evidence in the record. The prior system had been routinely abused. Tr. 3076 (Shovlin); Keimig and Haverkamp, ff. Tr. 16,412, at 65, Att. A No. 16. See, PID ¶ 285, 286. And the record indicates that the new system is hardly different. Under the old system, the initiator of the work request would physically assign the priority designation, meaning that he wrote his designation on the work request. ¶ 285. However, the Board fails to mention that the initiator's immediate supervisor always reviewed the designation and always had the opportunity to physically change it. Tr. 2677, 3076 (Shovlin). The new Priority 1 definition merely writes this procedure into the definition. As Plant Maintenance Manager Shovlin explained, when the work requests reached him, he always had an opportunity to physically change the priority.

Under the new system a practically identical process is in place. Now the initiator "recommends" a priority designation, which means he physically writes his recommendation where indicated on the job ticket, but his superiors must approve the recommendation as before. The Plant Maintenance Manager or his designee now does the official "assignment," ¶ 287, by so indicating on the job ticket. Therefore, now, instead of crossing out a priority designation he believes improper, the Plant Maintenance Manager merely changes the priority by filling in another blank. The process is virtually identical as before, with the only perceivable differences being of form, not substance. The new process does nothing to correct the abuses of the old system.

31. The Board grossly erred in failing to discuss anywhere in the decision the problems associated with a lack of guidelines defining what work could or would have an impact on nuclear safety.

Another strikingly important problem which the new priority system certainly does not solve, and whichis entirely disregarded by the Board, concerns the lack of guidelines to assist individuals completing job tickets who must determine whether malfunctions have effects on nuclear safety. Not only does the new Priority 1 definition include items which are "nuclear safety hazards," but the new job ticket, as did the old work request, requires an individual to check a box indicating whether the work will impact upon nuclear safety.

Testimony revealed that the Licensee has a nonexistant or at best inadequate concept of safety-related maintenance work and no guidelines to assist an individual in job ticket completion. See, PF 7, 8, and 23. Nor did the Staff provide a useful definition. In fact, even in its testimony on the Board question concerning the auditability of maintenance practices in 1978, the Staff fails to explain by what criteria it selected the 23 "safety-related" (or safety significant) work requests which it inspected, and which provided the basis for their comfortable conclusion that "no items of non-compliance were detected." Keimig, Haverkamp, ff. Tr. 16,412, at 6, 9. And the Board itself took issue with the Staff's illogical concept of safety-relatedness. Tr. 3900

The Board seemed to recognize this fundamental problem in ¶¶ 300 and 305 (footnote 27), but brushes it off as a mere record keeping problem without discussing the obvious implications of Licensee's obscured perception of such a vital concept. The Board grossly errs in not addressing this issue.

4. Licensee's past record-keeping problems have not been corrected, and The Board errs in arbitrarily supporting restart despite acknowledged problems.

Perhaps the most blatant failure of TMI-1's maintenance department, on which the evidence was particularly strong, concerned its failure to keep accurate maintenance records. A number of work requests, which were characterized as Licensee's "official legal documentation of work performance," Shovlin, et al., FF. Tr. 13,533 at 35,

evidenced this problem.

For example, a number of TMIA Exhibits showed that work completion dates were inacurate or not noted at all. Tr. 3533 (McGary); Tr. 3724 (Eisenhower); TMIA Ex. 16, Tr. 3528 (Shovlin); TMIA Ex. 17, 18, Tr. 3560. Some were marked "cancelled" or "purged" with no further explanation as to how the problems were corrected. TMIA Ex. 40, Tr. 3796-99; TMIA Ex. 21 and 22, Tr. 3596-3602; TMIA Ex. 24, Tr. 3630.

> 27. The Board improperly fails to discuss how the new priority system will solve the admitted past maintenance problem of accumulation of duplicate work requests and fails to evaluate such accumulation in the context of management competence.

TMIA Ex. 33 a-l, m, (Tr. 3709 for discussion) represents a series of twelve work requests, all cancelled in favor of a thirteenth. The accumulation of duplicate work requests such as those exhibited by TMIA Ex. 33 had reached such proportions at TMI-1 by the fall of 1979, that in October of that year, a review of all priority 1-A, or "urgent" work requests was ordered. The company had lost track of the maintenance work which, by its own definition, needed immediate attention. In discussing this issue, the Board fails to mention the most relevant point regarding maintenance practices at TMI-1 today - that the same maintenance department managers who permitted a problem of this magnitude and significance to develop, are managing the department currently. See, discussion, § II, B, 1, infra. The Board's decision provides no assurance that these individuals are any more competent than they were in 1979, nor how the new priority system addresses the problem of management incompetence. ¶ 285.

> 41. The Board's reliance in ¶ 314 upon the unsubstantiated and insufficient Staff conclusions is arbitrary and capricious.

> 42. The Board erred in relying upon Staff testimony in ¶ 314 in that the Staff was inherently biased against TMIA's position and did not properly perform its independent regulatory function at the hearing, and misinterpreted the hearing issues and law.

> 44. The Board erred in not properly developing a complete record in the issue of auditability of maintenance records, into which it was motivated to inquire further based upon testimony and TMIA Exhibits.

The Board revealed on the record of these proceedings that in its opinion, record-keeping issues were "unimportant." Tr. 3598. The Board's attitude

persisted throughout the hearings, and is evident throughout the PID. For example, the Board had the Licensee and the Staff submit additional testimony on the auditability of safety-related maintenance practices during the year 1978. Yet the Board had already expressed on the record that the Staff not only lacked proper concern about the record-keeping issue, but did not have a correct concept of safety-related maintenance work. Tr. 3900 (Smith). The Board then used the Staff testimony, on which there was no cross-examination, (See Tr. ff. 16,412)to conclude that Licensee's records were auditable, while recognizing in the same paragraph that TMIA has brought foward examples of inaccurate and incomplete maintenance records. Thus, their conclusion that "none of the problems disclosed safety problems in the actual work" is unsubstantiated by any reliable or credible evidence. Moreover, it is directly contradicted by the Board itself in ¶ 316-319 - items which the Board believed were "worth noting." Each of these "items" concern significant safety problems which have resulted from poor record-keeping practices. The Board's conclusion in ¶ 314 is extremely arbitrary.

> 11. The Board fails to discuss in ¶ 94 the many problems associated with the maintenance department's new computerized system.
>
> 38. The Board errs in ¶ 305, ftnt. 27 in not deeming inconsistencies among work requests in QC and nuclear safety-related designations as a safety-related problem reflecting upon management incompetence.
>
> 40. The Board's conclusion in ¶ 310 that it appears the new computer system will be effective, is arbitrary and unsupported.

The Board is not even convinced that the highly touted "computer system" will insure the correction of past record-keeping problems, relying again on the Staff to investigate six months after restart, ¶315, after Licensee has gained "experience" with it. Thus, the Board's representation that it is reasonably assured the computerized system will correct past deficiences, is clearly unsupported. This is particularly true in light of such past problems as misplaced record and inaccurate completion of job tickets which the new system does nothing to correct, and in fact could exacerbate. See, PF 73-78.

Further, the Board actually acknowledges problems with the new system, and fails to require the Licensee to resolve them at all, let alone before restart. See ¶¶ 316-319. Thus, the PID clearly has left open unresolved safety items, violating not only the August 9 Order, but the Atomic Energy Act's mandate that a reactor may not operate in the absence of actions which are required to assure safety. The Board's decision to support restart with these outstanding problems is arbitrary and capricious, and without justification in law or fact.

Thus, it appears that the issue of safety-related record-keeping practices was either so insignificant to the Board that it relied in its decision exclusively on testimony presented by those it had previously found unqualified to present anaccurate portrait of the problem, or it was an issue the Board purposely neglected. In either case, the Board must be faulted for its reckless disregard of a serious safety-related issue raised in these proceedings.

5. The Board's shoddy treatment of questions raised by TMIA's evidence of excessive overtime at TMI-1 is arbitrary and capricious, and contrary to law.

The Board's treatment of TMIA's allegation concerning Licensee's use of excessive overtime in the performance of safety related maintenance lacks any reasoned analysis whatsoever. Certainly, overtime should be prohibited at a nuclear power plant where individuals are working on safety-related systems and the risk of carelessness due to fatigue is probable. The Board never confronts this question, ¶ 332, and in light of evidence developed at the hearing, the Board's analysis of the overtime issue is remarkably arbitrary.

50. The Board in ¶ 334 mischaracterizes the testimony of witnesses Reismiller, McMurdy, and Eberle.

51. The Board's dismissal of the testimony of witnesses Reismiller, McCurdy, and Eberle in ¶ 338 and ¶ 341 is arbitrary and capricious, and abuse of discretion, and an error of law.

53. The Board's conclusion in ¶ 341 that no overtime abuses existed is unsupported by the record.

Three witnesses testified on the issue. The Board summarily dismissed the testimony of all three, ¶ 339, incorrectly characterizing the testimony as too "subjective." Actually, all three witnesses corroborated one another on many points. Not one of the three refuted such points as: extreme cases of excessive overtime did exist, Tr. 4150-51 (McCurdy) Tr. 3998, 4001 (Eberle); at least rumors of complaints concerning excessive overtime existed, Tr. 4003-4 (Eberle); Licensee did not limit the amount of overtime which could be worked per week, Tr. 4155 (McCurdy).

But on those significant issues where the testimony differed, the Board failed to even examine the witness' credibility, or the reliability of the testimony. Witness McCurdy, who did not testify specifically as to excessive overtime, is a shift maintenance foreman who in fact schedules overtime himself. His self interest in not testifying to abuses in the system is obvious.

The most damaging testimony came from witness Reismiller, who left the company under feelings of duress due to forced compulsory overtime. Tr. 4165. Moreover, he is an individual who, while working for the company, would have been particularly sensitive to workers' feelings on the issue. Mr. Reismiller was involved in the International Brotherhood of Electrical Workers for many years, was union president at one time, and union steward from 1962 to 1977. If worker discontent existed at the time, he would have been aware of it.

He testified that during scheduled refueling outages, workers were told to work twelve hours a day, seven days a week. Tr. 4166. At one point, the union requested an alternate policy of three nine-hour shifts. Management apparently did try this once, but later changed back to the original policy because he was told, "there was not enough men." Tr. 4167.

Reismiller testified that he knew of one individual who had worked thirty-four hours, and one who had worked forty hours straight during normal operations. ¶334. But during refueling, workers were expected to work longer hous than usual, and if they chose, could work as long as they wanted to over and above twelve hours. Tr. 4168. He knew of men who did work those long hours. Tr. 4167. When the union complained that mandatory twelve hours was not a safe policy, the policy was changed to permit

working no longer than sixteen hours without permission. But even these guidelines were not followed. Tr. 4169. (Reismiller)

The overtime policy was enforced quite simply- if an individual did not work it or could not work it a letter was placed in his file. See, Shovlin, et al., ff. Tr. 13,533, attachment 10. Reismiller's longest consecutive stretch was twelve hours a day, seven days a week for three to three and one-half months. This was bad enough. However, he also described a circumstance where he had been scheduled for overtime, was ill and called in sick, but was told that he better come in anyway. When his supervisor realized the genuineness of his illness, he was sent home, but a letter was still placed in his file. Tr. 4177. Too much overtime, he testified, made people edgy. Tr. 4179. The longer the hours, the more careless they became because of fatigue. Tr. 4183. Beside the long hours, however, he testified that during refueling outages, Met-Ed went so far as to cancel or conveniently not inform workers of safety meetings where industrial safety issues were discussed. Tr. 4183, 4196.

Complaints of too much forced overtime eventually prompted Reismiller to request a meeting with the top management of GPU. Tr. 4170. He met with Robert C. Arnold, then Vice President of Met-Ed, and with Jack Herbein, then Station Superintendent. Generally, Reismiller testified, Arnold was far from responsive to those complaints, stating that "it's their job to get this on line as fast as possible," and to "serve the public," and as Reismiller was told, "the faster the plant is back on line, the faster we are making money." Tr. 4183. When Reismiller asked Arnold about hiring more people, Arnold explained he had no authority to do this, Tr. 4171, emphasizing that overtime is "a way of life at a power plant - there are peaks and valleys in a work schedule, in a peak, you can use them, but in a valley, there would be nothing for them to do." Tr. 4178. The Board failed to call either Arnold or Herbein to testify as to what management's response was to union complaints. Instead, it summarily rejects Reismiller's testimony, clearly abusing its discretion.

49. The Board mischaracterizes TMIA's arguments in ¶ 343 and fails to evaluate whether excessive overtime existed at TMI-1, or whether overtime created problems of fatigue which could impact on safety.

54. The Board's mooting of overtime issues raised by TMIA by the policy set out in IE Circular 80-02 is arbitrary and capricious and an abuse of discretion in that the Board fails to provide any reasoned analysis for many questions raised by evidence on the record, fails to confront facts on the record and the legal inferences which those facts suggest. ¶ 343.

Mr. Reismiller's testimony is a serious indictment upon management's commitment to safety. Although Licensee states that "under no circumstances were they forced to work overtime," Shovlin, et al., ff. Tr. 13,533, at 71, direct force is not the Licensee's only means to insure compliance. Reismiller testified many were coerced into working for fear of getting a letter in their file. Tr. 4178. Maintaining that workers could be excused from work with sufficient notice, Shovlin, at 71, does not answer the questions raised in Reismiller's testimony, such as how much notice would be required, would a worker receive a letter anyway, and were people fatigued after twelve hours of work, seven days a week? Such issues were never addressed by the Board.

Instead, the Board moots the entire overtime issue. ¶ 343. Clearly, the policy set out in IE Circular 80-02, which sets waivable guidelines, moots none of the most serious questions concerning management attitude toward overtime, its enforcement policy, its committment to safety, and in particular, how and why the abuses in the system developed. Further, given this company's history of failing to follow even required procedures, (See discussion, [illegible] infra), the Board errs in relying on this new "policy" to assure future safe use of overtime.

Moreover, if the Board chose not to believe these witnesses, it erred in not stating why and in cancelling the other two witnesses scheduled to testify on the overtime issue. The Board abused its discretion in not conducting a sua sponte Board inquiry into the matter. ¶ 339. Plainly, the Board's decision on this most important safety issue must not stand.

15. The Board's conclusion in ¶ 106 supporting the adequacy of the plant maintenance program is unsupported by the record.

37. The Board's conclusion in ¶ 304 that Licensee has properly responded to correct its poor past system of maintenance records is not supported by the record or the decision.

For the above stated reasons, the Licensing Board has erred in finding the Licensee's maintenance program at TMI-1 adequate to support restart.

C. The Board does not resolve the following Board Issues to provide reasonable assurance that Licensee management is capable of safely operating TMI:
Board Issue 1: Whether Metropolitan Edison's command and administrative structure, at both the plant and corporate levels, is appropriately organized to assure safe operation of Unit 1.
Board Issue 6: Whether the relationship between Metropolitan Edison's corporate finance and technical departments is such as to prevent financial considerations from having an improper impact upon technical decisions.
Board Issue 10: Whether the actions of Metropolitan Edison's corporate or plant management (or any part or individual member thereof) in connection with the accident at Unit 2 reveal deficiencies in the corporate or plant management that must be corrected before Unit 1 can be operated safely.

Neither TMIA nor any other intervenor had contentions relating to Board Issues 1, 6, or 10. However, because of the gravity of these issues and the manifest failure of the Board to properly develop a balanced record on each of them, TMIA was forced to pursue them in its findings and later documents.

The evidence gathered in the reopened proceedings is particularly germane to Board Issues 1 and 10. This evidence is discussed in § III, infra, and compels the conclusion that the Board's findings and conclusions regarding Licensee's current management structure, current managers, management's response to the accident, and management's capability to safely operate Unit 1 in general, is not supported by any relevant or reliable evidence. But this evidence only strengthens an otherwise powerful conclusion that based on the record of the main proceedings, the Board has not sufficiently resolved these most fundamental concerns of the Commission to find management competent to safely run TMI-Unit 1.

All three Issues were litigated primarily during February, 1981. This is significant only in considering why TMIA did not suddenly adopt these issues as its own as they were being litigated. As explained in § II, B, 2, supra, at this precise timeperiod, TMIA's new intervenor was scrambling to learn TMIA's maintenance case, as was her primary responsibility. Although TMIA did take an interest in these issues, it is obvious that under the circumstances, TMIA was literally incapable of developing a record on the Board Issues also. Furthermore, it was not TMIA's responsibility to do so. Yet the Board feels obliged to attack TMIA when raising points disputing the

adequacy of the record on these issues, which consists of, virtually without exception, Licensee or Staff testimony. (See, e.g., ¶¶ 97, 491). Many of TMIA's concerns were expressed in its findings. All of these concerns were ignored by the Board in its decision.

1. The Board fails to resolve Board Issue 1 to provide reasonable assurance that Licensee's management structure is appropriately organized to assure safe operation of Unit 1.

1. The Board's assertion in ¶ 41 that management and high-level technical personnel at the hearing came and underwent extensive questioning by the Board and the parties is contrary to the record.

2. The testimony cited by the Board to support the new management structure in ¶¶ 55, 58, and 60 is unreliable, self-serving, and inconclusive.

5. The Board's statement in ¶ 64 that Messrs. Crocker and Allenspach have expertise to evaluate the management and command structure of a nuclear utility is contrary to the evidence.

8. The Board's conclusion in ¶67 with regard to Licensee's administrative and command structure is contrary to the record.

15. The Board's conclusions in ¶¶ 105-106 supporting the adequacy of the plant management structure are unsupported by the record.

16. The Board errs in its exclusive reliance upon Licensee and Staff witnesses in ¶¶ 120, 121, without discussing or considering their objectivity and credibility problems.

17. The Board in ¶ 121 improperly relies upon inadequate and unreliable Staff testimony to support a conclusion of management competence.

The Board insists that, based upon the endorsements of the witnesses and the qualifications and attitudes of GPU's top managers, the command and administrative structure of GPU Nuclear Corporation at both the plant and corporate levels is appropriately organized to assure safe operation of Unit 1, and that all individual managers are competent. However, the record is devoid of any credible evidence to support this conclusion.

Each witness who endorsed the new structure lacked expertise, objectivity, or credibility. NRC witnesses included the authors of the document on which the new management structure is based. Tr. 12,014 (Crocker). However, these individuals admitted under direct questioning that they had had no management training and were in fact unable to say that the new GPU structure was the "optimum" for the company. Tr. 11,991 (Crocker). Another NRC witness whom the Board cites in support of the

reorganization is Richard R. Keimig, whose qualifications show absolutely no management training or background. Keimig, ff. Tr. 11,946 at 7. The other witness the Board mentions is Mr. Donald R. Haverkamp, on-site resident inspector at TMI, whose objectivity in evaluating GPU's management structure was questioned. See, discussion, Tr. 12,025-30). Further, he has no expertise in the area. He has stated that since the accident at TMI-Unit 2, he has personally observed no other utility- including any which has itself undergone management reorganization as a result of problems evidenced by Met-Ed management during the accident. Tr. 12,025, 12,030 (Haverkamp).

On behalf of the Licensee, Messrs. Miles and Wegner, members of the Basic Energy Technology Associates, Inc. (BETA) were called to testify on management capability. Again, the backgrounds of these two individuals, as well as the other two individuals which compose BETA, indicate no management training or experience in the area. Wegner ff. Tr. 13,284, Att. 1.

Mr. William Lee, President and Chief Operating Officer of Duke Power Company, and Chairman of the Board of Directors of the Institute of Nuclear Power Operations (INPO), also testified on behalf of the Licensee. While there are no grounds in the record to question Mr. Lee's expertise in nuclear plant management, there are obvious problems with his objectivity and credibility considering his prominent position in the nuclear industry. Lee, ff. Tr. 13,251 at 2, 3. But also, Mr. Lee made such incredible statements about management's response to the accident at Unit 2, such as "they behaved strongly and well during the accident," Tr. 13,274 (Lee), and that Messrs. Dieckamp, Arnold, and Herbein and Miller demonstrated effective abilities to respond to a crisis environment with objectivity and calm. Lee, ff. Tr. 13,251, at 4. Such testimony can not be considered credible.

The only other individuals who testified on this topic were the managers themselves. Thus, the Board's decision relies exclusively on Licensee and Staff witnesses and concludes that Licensee's corporate structure is appropriately organized. Clearly, the Commission's mandate placed upon the Board the obligation to inquire well beyond the self-serving, rubber stamp endorsements of the Licensee

and Staff witnesses.

3. The Board's conclusion in ¶ 59 that individual members of the organization appearing before them seem to have a clear understanding of their responsibilities , etc., is irrelevant to a conclusion of management competence and improperly relied upon by the Board.

7. The Board's rejection in ¶ 66 of TMIA's proposed findings 58 and 59 is arbitrary and capricious.

18. The Board's conclusions in ¶¶ 127 and 128 are irrelevant and can not support a finding of management competence.

19. The Board grossly errs in finding the following managers competent: Herman Dieckamp, ¶ 129; Robert C. Arnold, ¶ 130; Jack Herbein, ¶ 142; Daniel Shovlin, ¶ 156.

The Board was extremely lax in its analysis of the competence of many top management personnel. The Board's reliance on such criteria as a management witness' "demeanor and poise," or lack of "arrogance or situational resentment," or "truckling", ¶127 is particularly irrelevant in light of direct evidence on the record that a number of these individuals were in the past incapable of properly managing or had severe integrity problems. For example, in discussion of TMIA Contention 5, Licensee admits that the past maintenance department under Daniel Shovlin's direction was inadequate. See, discussion, § II, B, 3,4. In its present endorsement of Mr. Shovlin, however, ¶ 156, the Board fails to even mention his past experience or his possible role in the development of prior maintenance problems at TMI. Such first hand direct evidence is significantly more meaningful in evaluating his competence than a recitation of his resume, or the vague, innocuous statement by the Staff that senior management at TMI and GPU are "probably above the norm," or the similarly general endorsement by BETA under its "objective standards." ¶¶ 122, 123. Similarly, competence and integrity problems of Herbein and Deickamp as they relate to their performance during and after the accident ,do not factor, to any significant extent,if at all, in the Board's glowing endorsements of either corporate manager. The Board's failure to meaningfully analyze the competence of any individual discussed in ¶¶ 116-162,sustains the conclusion that the questions raised by the Commission in Board Issue 1 remain unresolved. (See, § III for further discussion of individuals Arnold, Ross, Herbein).

2. The Board fails to resolve Board Issue 6 to provide reasonable assurance that financial considerations will not have an improper impact on technical decisions.

56. The Board fails to evaluate the issue of financial/technical interface, in ¶¶ 387-401, in light of relevant testimony of prior financial/technical interface.

57. The Board's exclusive reliance upon Licensee's unreliable conclusory testimony and the Staff's unsupported conclusions that financial considerations have no undue influence on safety, is arbitrary and capricious, contrary to law, and an abuse of discretion. ¶¶ 389-390.

58. The Board's conclusion in ¶ 401 that Licensee has provided reasonable assurance that the relationship between its corporate finance and technical departments is such as to prevent financial considerations from having an impact impact upon technical decisions is contrary to the evidence and unsupported by the record.

The Board was instructed by the Commission to examine whether Metropolitan Edison Company would permit financial considerations to have an improper impact upon technical decisions. The Board relied almost exclusively upon the testimony of Herman Deickamp, President of GPU, in evaluating this issue, supported by Staff conclusions which were primarily based upon interviews with GPU management individuals. Tr. 12,059. Interviews with Licensee's management personnel, and the testimony of Deickamp are plainly self-serving, and therefore the Board errs to rely exclusively upon this unreliable evidence to support its conclusion that financial considerations will have no improper impact upon technical decision. The Board had previously heard other testimony directly relevant to this topic concerning the issue of excessive overtime - such evidence contradicting Deickamp's assertions that Licensee would willingly shut the plant down if financial situations warranted it. The Board was obligated to at least discuss this relevant testimony in the context of this Board question. Their failure to do so is a significant error.

In particular, the Board erred in not closely examining Deickamp's emphatic insistence that at GPU, safety always takes precedence over economics. ¶¶ 391, 392; Tr. 13,497, 13,498. This he supports by boasting of increased manpower and financial expenditures at GPU. Such testimony is insufficient to sustain the Board's conclusion. The statistics cited in ¶ 398 could indeed support conclusions directly opposite from those the Board has drawn. The fact that manpower levels and Operation and

Maintenance expenditures are high relative to the industry could just as logically mean that the Operation and Maintenance Departments are inefficient, or that the equipment is in much greater disrepair than in most other plants.

Also, diverting a large share of the budget to inhouse manpower is meaningless without some evidence that the plant would benefit from this policy. Indeed, the plant may very well benefit more by increasing B&W personnel support. Further, using the industry norm as the standard for comparisons in ¶¶ 398 and 400 is useless without some evidence indicating what the industry norm is. In fact, the only evidence on this record regarding the "industry norm" concerned pre-accident events. Tr. 12,104. With no evidence that the industry norm has improved, these comparisons are certainly unreliable to support the Board's conclusion in ¶ 401. The evidence as examined by the Board on this issue is inherently unreliable and irrelevant, and thus totally unsupportive of the Board's conclusion. The Board has clearly not fulfilled its obligations to the Commission in evaluating Board Issue 6.

3. The Board fails to resolve Board Issue 10 to provide reasonable assurance that Licensee has corrected all management problems revealed by the Unit 2 accident.

59. The Board violated its duty to properly examine Board Issue 10, as described in ¶ 461.

60. The evidence and testimony cited by the Board in ¶ 462, and ¶¶ 465-467 to support Licensee's view that management acted competently during the Unit 2 accident is utterly unreliable.

Perhaps no other Board Issue has been treated so arbitrarily as Board Issue 10. Licensee's expert witnesses on the issue were neither credible nor reliable, particularly in light of the contradictory information available in the various accident investigations. (See, § I) Mr. William Lee, President of Duke Power Company, was of the opinion that Licensee's management responded to the accident with "great skill and steadfast purpose." Yet he never even arrived on the accident scene until fully one week after the accident was over. ¶ 465. Mr. Wegner of BETA, who similarly conducted no reliable investigation into the accident, blames the entire industry for the accident rather than individual performance. His impressions also contradict the conclusions of the official investigations. Finally, Licensee employees, Messrs.

Keaton and Long, who were only involved in post-accident events, offered entirely self-serving testimony, the credibility of which the Board itself cast doubt upon. ¶ 466.

62. The Board erred in not accepting into evidence TMIA Exhibits 49 and 50, as described in ¶ 469, and rejecting TMIA's Motion to Reopen the Record on July 9, 1981.

70. The Board erred in footnote 47, ¶ 490, in not requesting witnesses on its own to pursue the conclusion of the Udall report.

The Board devoted a great deal of attention to management communication problems and reporting failures during the accident, particularly with regard to whether information was withheld from State and Federal officials. Staff Ex. 5,NUREG -0760, concluded that while Licensee was "not fully forthcoming," information was not intentionally withheld. The Board took official notice of every other federal government report on the information flow topic - with the exception of the Report of the U.S. House Interior Committee, or Udall report. The Udall report was the only investigation which concluded, based on a careful analyisis of the evidence, that management officials Gary Miller and Jack Herbein, deliberately withheld information from State and Federal officials. The Udall report's conclusion, but not its supporting analysis, was received, despite TMIA's attempts to have the Board receive the entire document. Finally, when an ACRS fellow issued a paper endorsing the Udall report over NUREG-0760, TMIA moved to reopen the record to admit both the Udall report and the ACRS paper. The Staff endorsed TMIA's motion. Despite TMIA's offering the Udall report's author as a supporting witness, the Board denied TMIA's motion. ¶ 490. Tr. 22961-22,966.

The Board blatantly erred in denying TMIA's motion. The Board relies on the fact that NUREG-0760 analyzes the same raw material as the Udall report, but just reaches different conclusions. However, the Board ignores the more significant point that 0760's use of selective facts has allowed it to ignore clear signs of deliberate and intentional withholding of information by management from State and Federal officials during the early stages of the accident. In addition, 0760's conclusions are often based on testimony which is directly contradicted by other testimony and facts.

The credibility of the Udall report over 0760 is heightened when one considers that 0760's author, Mr. Victor Stello, has admitted to the Commissioners that "an argument could be made for intentional or deliberate withholding of information because of conflicts in the record." Tr. of December 21, 1981 public meeting, at 8, 15. Moreover, Mr. Stello stated at this briefing that he was personally in total agreement with the conclusions of the Udall report. Clearly then, the Board's conclusion in ¶ 468 that there are no remaining differences between the positions of IE and the Licnesee indicating an irresponsible management attitude by Licensee toward its nuclear related activities, has lost credibility.

Thus, TMIA maintains that to finally answer unresolved questions surrounding information flow, as the Commission mandated, the Appeal Board should conduct a sua sponte review, and thoroughly examine on its own the raw materials available. The Board's failure to do so, given the implications of management's involvement, was a gross error.

Specifically, the already existent evidence on the issue reveals that Gary Miller and Jack Herbein, both of whom until recently held critical safety-related posts with the Licensee, and were involved in subsequent improper conduct relating to certifying false statements to the NRC, (See, § III) , were responsible for controlling what information reached State and Federal officials. Miller, who was Station Superintendent and Emergency Director during the accident, was responsible for providing information to Herbein, who was the information source for the State and NRC. Herbein was the top corporate official at the scene of the accident on March 28. Although remaining off-site, he was responsible for briefing both State officials and the press throughout the day.

A close examination of what others have testified to being aware of and discussing with others on March 28 lends much support to the proposition that Miller was aware of much more than he has been willing to admit to and that he reported to State and Federal officials. One crucial point was the significance attributed to the early morning events.

65. The Board erred in ¶ 476 in not pursuing a further inquiry with Mr. William Dornsife into what information he was told March 28.

67. The Board's conclusion in ¶ 478 that it could identify no evidence in any investigation that Licensee's actions indicate a management decision or a conscious desire to mislead, is unsupported by the record.

In a 9 A.M. phone conversation, Miller told William Dornsife of the Pennsylvania Bureau of Radiological Protection that a) the PORV had been stuck open causing a LOCA; b) the HPI was initiated; c) the pressurizer may have voided; d) probably a slight amount of failed fuel; e) all safeguard systems operated. Dornsife has stated that based upon that report, he believed the plant was stable. IE interview, 10-1-80, pp. 14-15. But Miller failed to mention the following facts: a) the PORV had been open for two hours and twenty minutes, or at least an extended period of time. Dornsife only recalls knowledge that it was open for a longer period of time than normal Id., pp. 11-14, which did not necessarily imply a serious situation; b) the HPI had been throttled; c) hot leg or thermocouple data, or the existence of super-heated conditions; d) that core uncovery was suspected; e) that emergency systems were not functioning in accordance with procedures and that in fact, the plant was in a condition wholly outside procedures; f) they did not know how to bring the plant stable. Immediately after speaking to Dornsife, Miller called QA manager George Troffer in Reading , "Right now, in addition to the plant obviously experienced a pressure and temperature change fairly fast. I didn't say this to them... I'm just saying it to the group." Staff Ex. 5, Att. 112.

63. The Board erred in ¶ 475 in not relying on Mr. Gerusky's IE interview for the truth of his assertions.

73. Board mischaracterizes and ignores TMIA's arguments in ¶¶ 494-497 concerning the competence of Messrs. Miller and Herbein.

74. The Board conclusion in ¶ 497 that Mr. Herbein's poor judgement is no basis for finding him incompetent is arbitrary and capricious and an abuse of discretion.

76. The Board's reliance in ¶ 497 upon the fact that new emergency procedures will solve the problems which arose during the accident, is not supported by the evidence in the record.

The false impression of stability was reiterated by Miller and Herbein in a meeting with the Lt. Governor and Thomas Gerusky at 2:00 P.M. in the Lt. Governor's

office. It should be noted that Herbein's decision to pull Miller off-site at that time has been deemed a serious misjudgement, jeopardizing the public's health and safety. Staff Ex. 5 at 46. the Board never examined the intelligence of Herbein's decision, and never questioned him for his reasons. It should also be noted that Licensee not only failed to reprimand Herbein for this reckless decision, but saw fit to reward him by placing him in the highly critical position of GPU Vice-President for Nuclear Assurance, and that the Board fully supported Licensee for doing this. In light of evidence that he also withheld important information from the State, this is pointed illustration of Licensee's lack of concern for the public's health and safety, and failure to attach significance to an individual's obvious integrity deficiencies.

The Board, who never called on Gerusky, declines to discuss his statements to IE . ¶ 475. In his 10-1-80 interview with IE investigators, Gerusky made the following observations:

> "Their attitude was, "Don't bug us, we know what's going on and we can handle it." "the accident was over, in effect, and now all it was was clean-up."
> "I don't know what you people are interested for." "We are going to handle it, its none of your business."
> "I think they gave the impression that they had things under control."
> "I was very disgusted, that it was a typical utility trying to play down a nuclear plant problem."
> "I think it was more of an attitude than anything else."

This attitude, reflected by Miller and Herbein as the company management representatives, can be cured neither by removing Miller and Herbein as Licensee has finally done, nor by merely instituting new procedures. (See, § III for a discussion of Licensee's consistent disregard for even required procedures) Miller and Herbein's removal does nothing to exonerate the corporate entity which was ultimately responsible for conveying vital information that day.

> 68. The Board in ¶ 490-497 was derelict in its duty to resolve Board Issue 10 by not thoroughly investigating Herbein's role in the communication failures during the accident, and how this reflects on his current qualifications , and errs in blaming intervenors for not litigating or questioning on the issue.
>
> 72. The Board's conclusion in ¶ 493 that the public's health and safety would not be adversely affected by failing to conduct its own investigation into Herbein's role in information disclosure, is arbitrary and capricious and an abuse of discretion.

As far as Herbein's role, the Board's analysis is inexcusable. The Board blames the intervenors for not litigating the issue. ¶ 506. The Board grossly errs in hiding behind the inability of any unfunded intervenor to put an entire case together to develop a record on an issue which the Commission had directed the Board to consider. The Appeal Board should view the Board's conclusion in ¶ 491 as a total abdication of its responsibility to the Commission and the public. There is possibly no more important issue than whether Licensee chose to place an individual in a top nuclear safety related position,3d in line as Emergency Support Director, who had deliberately lied, and misled State and Federal officials during an emergency situation. The Board errs in attaching no significance to this issue.

Another major fault with the Board's decision on this Board issue is the failure to examine how individuals interpreted what exactly was going on on March 28, 1979, why things were misunderstood, how they handled what was happening, why they responded inappropriately, and what was, in their mind, their primary concern. Each of the investigations which the Board has read concluded that individuals responded inappropriately to the open PORV, the hot-leg and thermocouple data, the pressure spike which occurred at approximately 2:00 P.M. It took fully 16 hours before a relatively stable cooling mode was achieved, and for the plant personnel to be certain of what was happening.

61. The IE conclusion that there are no remaining items raised by IE's investigation of the accident which indicate an inadequate response, does not support a Board finding in ¶ 468 that management has corrected all deficiencies revealed during the accident.

78. The Board erred in ¶¶ 504-506 in accepting the record as is.

The Board's treatment of management's response as it related to their competence in handling the accident, is minimal. They do cite the Rogovin Report conclusion that the inability of the utility's management to comprehend the severity of the accident was a serious failure of the company's management.¶ 483 But the only other discussion can be found in ¶ 468 which cites the IE conclusion that no noncompliance items reamin open. This provides no factual support for the conclusion that management

now has the technical competence to understand and properly cope with an accident.

77. The Board erred in ¶ 501 in not pursuing the issues of whether Mr. Herman Dieckamp made one or more false statements in his mailgram to Congressman Udall and its conclusions that Dieckamp believed the statement to be true when made is contrary to the evidence.

Further evidence of the Board's failure to recognize individual performance problems in connection with the accident, concerns a mailgram sent to Congressman Morris Udall, Chairman of the House Committee on Interior and Insular Affairs on May 9, 1979, by Mr. Herman Dieckamp, President of GPU. The mailgram stated that "there is no evidence that anyone interpreted the 'Pressure Spike'... in terms of reactor core damage at the time of the spike nor that anyone withheld any information." Staff Ex. 5, at 45, App. B at 117-1.

The IE investigation concluded that the NRC was not informed of the pressure spike until March 30, 1979, two days after the incident occurred. (The spike evidenced a hydrogen explosion which occurred at 1:50 P.M. on March 28). Dieckamp was not specifically cited for making a material false statement under § 186 of the Atomic Energy Act because the statement was neither made in a licensing application or a statement of fact required under § 182 of the Act. Yet it is clear that the statement can be considered materially false under normal standards. Tr. 13,061 (Smith). The Board noted at Tr. 13,060, that "the IE people really leave it dangling," and "as far as the Board is concerned, and as far as I would imagine the intervening parties and the public, it seems to me that there should be a further inquiry or further explanation."

Yet not only does the Board fail to conduct a further inquiry, it never even questioned Mr. Dieckamp on the incident when he appeared as a witness later that month. See, Tr. 13,438 et seq. Neither the Licensee nor the Board has acknowledged wrongdoing by Dieckamp, let alone sanctioned him. Clearly, questions surrounding this incident must be resolved and the Board errs in not doiing so. ¶ 498-503.

Thus, the Board has not resolved the issues raised in Board Issue 10.

III. REOPENED PROCEEDINGS

A. The Board's decision can not be used as a basis to support restart.

THOSE FOUND TO HAVE ENGAGED IN IMPROPER CONDUCT INCLUDING ACTUAL CHEATING OR GIVING NONTRUTHFUL TESTIMONY

By Judge Milhollin (Special Masters Report)		Additional Sanction Recommended
Robert C. Arnold, Pres., GPU Nuclear	¶237	
John Herbein, former VP, GPU Nuclear	¶ 233	
Gary Miller, former head Start-Up & Test	¶ 220-237	
VV, former Supervisor of Operation, U-2	¶ 220-237	
Michael Ross, Manager Operations, U-1	¶ 137-178	
Mr. Shipman, Sen. Op. Engineer, U-1	¶ 94-110	Qualified removal licensed duties
Mr. Husted, training instructor	¶ 101-111	Unspecified sanction
O, Shift Super.	¶ 10-25	Referral for criminal prosecution
W, Shift Super.	¶ 10-25	Referral for criminal prosecution
I, Shift Super.	¶ 24	
A, Shift Super.	¶ 24	
P, Shift Super.	¶ 107-108	
U, Shift Fore.	¶ 112-132	Unspecified sanction
GG, Shift Fore.	¶ 82-93	Unspecified sanction
G, CRO	¶ 26-77	Removal licensed duties
H, CRO	¶ 26-77	Removal licensed duties
MM, STA	¶82-93	

By the Licensing Board (Partial Initial Decision)		Additional Sanction Recommended
John Herbein, former VP GPU Nuclear	¶2306	
Gary Miller, former head Start-Up & Test	¶2272-2320	
VV, former Supervisor of Operation, U-2	¶ 2272-2320	
Mr. Shipman, Sen. Op. Engineer, U-1	¶ 2139-2146	
Mr. Husted, training instructor	¶ 2148-2168	
O, Shift Super.	¶ 2090-2095	
W, Shift Super.	¶ 2090-2095	
GG, Shift Fore.	¶ 2133-2137	
G, CRO	¶ 2096-2121	Two wks. susp. without pay
H, CRO	¶ 2096-2121	

The above chart illustrates two principle themes which have developed from the evidence on cheating episodes and related issues, known as the "reopened proceedings." First, that according to Licensee's definition of management, i.e., "exempt (non-union) employees" Tr. 23,622-25 (Arnold) or shift foremen and above, cheating and false testimony involved primarily the middle and upper ranks of the operations department and management. Secondly, there is a wide difference between how the evidence was interpreted by the Special Master who presided over the hearings, and the Board, who merely reviewed the printed record.

Specifically, there is a significant difference between the type of conduct which the Special Master recognized as lying and cheating, warranting punishment, and that which the Board recognized as such. Upon reviewing the PID and the Special Master's Report (SMR) in light of the record of these proceedings, it is clear that the Board is not only blind to patently obvious wrongdoing by operators or management responsible for the safe operation of a nuclear power plant, but that it sees no worth in disciplining those who even acknowledge to having committed wrongful acts. Further, the Board has violated fundamental legal principles by reversing the Special Master's findings which were based on witness credibility.

In sum, the final PID's conclusion that management is competent to operate Unit 1, and that the training department is adequate to insure safe operation, is unreasoned, arbitrary, and unsupported by the plain facts on the record. It can not be used as a basis to support restart of Unit 1.

B. Cheating and wrongdoing at TMI was far more widespread than recognized by the Board, and the Board erred in reversing the findings of the Special Master.

Cheating and other wrongdoing at TMI-1 was widespread and involved all levels of the operations and management staff. In the face of substantial evidence and the Special Master's conclusion, the Board has refused to recognize certain highly significant instances of wrongdoing. A number of the Board's conclusions are without justification in law or fact, and are based on invalid legal principles.

1. The Board's reversal of Judge Milhollin's findings on TMI-1 Manager of Operations Michael Ross, in which Judge Milhollin found that Ross improperly kept the NRC proctor out of the exam room during the April 1981 licensing exam, and improperly broadened the answer key, is arbitrary and capricious and contrary to law.

TMIA has consistently supported the Special Master's findings and conclusions on the Michael Ross issues, located in the SMR, ¶¶ 137-178. See, TMIA's Comments on Special Master's Report and Atomic Safety and Licensing Board's Tentative Final Draft Decision, at 2, 3, May 24, 1982. His findings are entirely supported by the record, and are based substantially upon an evaluation of the credibility of the witnesses who testified on the issue.

The Board's first PID on management issues, issued after months of hearings, fully supports the competence of each corporate and plant manager. (See, discussion, §II, C, 1) Judge Milhollin's conclusions challenge the PID's findings on Ross, and are extremely damaging to the Licensee. Ross supervises the entire operations staff at TMI-1. PID ¶ 76. As the Board stated in the first PID, and restated in the July 27, 1982 PID, "Ross may be the most important person of the TMI-1 operating team with respect of public health and safety." ¶ 2192. If the Board had accepted the findings and conclusion of Judge Milhollin on either the "keeping the proctor away" issue, or the "broadening the answer key" issue, it clearly could not support restart with Ross continuing as TMI-1 Manager of Operation. In addition, the Board would have been required to examine why Ross was placed in so crucial and influential position, why he has remained there, and what were the effects of his attitude and lack of integrity on the operations staff he supervised.

Moreover, the Board would have had to renege on its prior glowing approval of Ross in the first PID. ¶ 154-156. This would have reflected poorly on the Board's own credibility and would have raised doubts about the plausibility of the Board's method of analysis of all TMI-1 corporate managers under Board Issue 1. Thus, the Board's interest in rejecting Judge Milhollin's findings and conclusion on Ross was especially keen, since the reliability of the first PID's conclusion regarding the competence of individual managers was at issue.

Under the circumstances, only a highly disinterested and impartial Board would have found support for Judge Milhollin's credible and well supported findings. Given this Board's record of bias in favor of the Licensee and its interest in not disturbing the first PID, which supports restart, it is not surprising that it exonerated Ross of all wrongdoing, violating fundamental legal principles to do so.

a) The Board errs in reversing Judge Milhollin's findings which are entitled to great weight.

Exceptions 1, 72, 78, 80, 86 *

The Board itself selected Judge Milhollin to preside over the reopened proceedings because of their "informed confidence in his ability and fairness," and because of his expertise in the field of education and examination at high academic levels. The Board recognizes the thoroughness and careful reasoning and documentation of the SMR. ¶ 2034.

Apart from the purely legal considerations, common sense would dictate that Judge Milhollin's expertise in the field of education, combined with his knowledge of nuclear regulation make him extremely competent to asses the evidence pertaining to examination content and procedure. But in addition, Judge Milhollin did not utilize his expertise as a mere reviewer of the printed evidence. He presided over the hearings, took an active role in examining the witnesses, and observed witness demeanor. This Appeal Board, upon reviewing the record, need not adopt the findings of the Board, but may subsitute its own judgement as we have urged it to do throughout this document. Duke Power Co., ALAB-355, 4 NRC 397, 403 (1976). But it is also true that "where credibility of the evidence turns on the demeanor of a witness, the [Appeal Board] will give the judgement of the hearing Board which saw and heard his testimony, particularly great deference." (emphasis added). Id. It is certainly equally compelling that the judgement of a Special Master, performing the identical hearing functions as a hearing board , be entitled to equally great deference if based upon witness demeanor.

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* Exceptions to the Partial Initial Decision of the Reopened Proceedings are listed in Appendix A.

Indeed, the NRC rule reflects a fundamental administrative law principle. The Supreme Court has ruled that the findings and conclusions of the judge who presided over the administrative hearings may not be ignored, and "the evidence supporting a conclusion may be less substantial when an impartial, experienced examiner who has observed the witnesses and lived with the case has drawn conclusions different from the Board's than when he has reached the same conclusions." Universal Camera Inc., v National Labor Relations Board, 340 U.S. 474, 496 (1951). And when the hearing judge's findings rest directly on his own personal observation of a witness' demeanor, findings and conclusions reversing the Special Master become significantly less substantial, or "tenuous at best." See, e.g. Ward v. N.L.R.B., 462 F.2d 8, 12 (5th Cir. 1972); Dolan v. Celebrezze, 381 F.2d 231 (2d Cir., 1967).

In this case, the Board reverses a number of Judge Milhollin's findings and conclusions, particularly those which are damaging to the Licensee, and which could not be used to support a restart decision. Many of these findings turn directly on witness credibility. His findings on the Ross issues are based substantially upon an evaluation of the credibility of the witnesses who testified, particularly Ross and YY.

b) The Board errs in reversing Judge Milhollin's finding that Ross deliberately kept the proctor out of the room to facilitate cheating.

Exceptions 69, 71, 73, 74, 75, 76, 77

The relevant facts to this issue are as follows:Ross participated in a review of test questions and proposed answer keys with the NRC proctor and two training instructors, Boltz and Brown, during the "B" set of NRC exams on April 23, and 24, 1981. The utility officials had all taken the "A" set of exams on April 21 and 22, 1981 - thus, all were license candidates and were reviewing answer keys on the exams they had just taken and which were fresh in their mind. A number of current operators, Ross' subordinates, testified that sometime during or after the two day review, Ross told them in a conversation in the shift supervisors office, such things as "don't worry, you did all fight," or "I took care of that job," after which everyone "chuckled." SMR ¶ 143.

STA, Mr. KK, believed that he thought that Ross meant that he had made the answers more "fair." STA, Mr. RR, thought Ross was untruthfully bragging, meaning to cheer people up. Staff Ex. 27, at 27-28.

Mr. YY, however, who is no longer employed at TMI, heard the same conversation. He testified, unequivocally and in contradiction to the Board's analysis in ¶ 2201, that based on his knowledge of Ross, he believed Ross meant that he had kept the proctor out of the room to facilitate cheating. Tr. 26,015, 16, 26,. (YY).

Unlike the Board, Judge Milhollin had the unique opportunity to observe Mr. Ross' demeanor testifying as an individual standing accused of gross and improper conduct. Ross, of course, denied any wrongdoing. Judge Milhollin also had a chance to assess Ross' credibility in the context of other witness' testimony on the same subject, including that of YY, Mr. Bruce Wilson (the proctor), Mr. Ross' subordinates who would very understandably not wish to "point the finger" at their boss (using the Board's own words in ¶ 2043), and other Licensee employees. On this basis, and by thoroughly analyzing the entire evidentiary record, Judge Milhollin reached his conclusions, finding, among other things that Ross was a totally non-credible witness. SMR ¶ 147.

Judge Milhollin's conclusions on the credibility of Ross' denial of wrongdoing are supported by an analysis of his testimony in light of what independent evidence indicates he knew at the time. Evaluation of such circumstantial evidence is entirely appropriate. As the 4th Circuit has noted, "direct evidence of a purpose to violate a statute is rarely obtainable." N.L.R.B. v. Redmont Wagon and Mfg. Co., 176 F.2d 695 (4th Cir., 1949). As the Special Master shows, Ross' testimony is inconsistent with known facts. SMR 147.

One can draw one of two conclusions - either he was not being honest, and he certainly had a motive not to be , or he forgot the facts. But ultimately, the conclusion rests on an evaluation of Ross' demeanor at the time of his testimony. Only Jugde Milhollin observed Ross' demeanor. He concluded Ross was not credible in his response to YY's allegations. The Board's rejection of Judge Milhollin's conclusion, deciding to attribute the problems and inconsistencies in Ross' testimony to "faulty

recollection," ¶ 2208, is arbitrary and capricious, and totally without support.

The Board's reasoning in ¶ 2209, apparently based on an explanation supplied by the Licensee , mischaracterizes Ross' testimony. The Board insists that the credibility problems of Ross' statement that he never learned whether changes in the answer key were ever adopted, found particularly non-credible by the Board and Judge Milhollin, ¶ 2208, have been cured by Ross' statement at Tr. 24.334. The Board says that Ross testified that he did at least "assume" changes were made. However, Ross merely says the he "assumed" that Boltz and Brown "assumed" changes were made. Ross never made the statement the Board has attributed to him.

The Board also raises the point that perhaps Ross' testimony appeared non-credible because he never understood the charges against him, and therefore could not formulate a credible defense. This is equally without justification. YY's written statement, which he adopted as his testimony at the hearing, Tr. 26,008, (YY), was available to Ross weeks before the hearing. Ross had ample opportunity to read and understand these allegations,which did not change throughout his oral testimony. Ross answered questions at the hearings on YY's alegations, without objection, and counsel for Licensee never requested Ross to return to the stand after YY had testified,or objected to the questioning of either Ross, YY, or Mr. Bruce Wilson, the NRC proctor. There is no basis whatsoever for the Board to imply that Ross could not meet YY's charges.

Further, the Board's analysis of YY's credibility which Judge Milhollin found honest and forthright, SMR ¶ 151, is without any basis. The Board never observed YY's demeanor, yet finds his accusations incredible, contradictory, and unreliable. ¶ 2205. To buttress its argument, the Board misconstrues much of YY's testimony. For example, the Board in ¶ 2203 says that YY "seems to state that any unfair advantage to the test candidates was an incidental result of normal procedures." To the contrary, YY never said that he believed <u>improperly</u> broadening answer keys was "normal." Tr. 26,022. Also, the Board incorrectly states that YY's statement is "equivocal." ¶ 2201. The Board is wrong. YY's statement, which was based on his <u>personal knowledge</u>

of Ross, stated quite plainly that he believed Ross meant that he had, in fact, kept the proctor out of the room to facilitate cheating, despite how others may have interpreted the remark. Tr. 26,015, 16 (YY). The Board believes that YY's statement was contradicted by the statements of KK, GG, and RR. ¶ 2206. With regard to GG, he has never testified that he even heard the remark in the shift supervisor's office. Tr. 25,688-9 (GG). As to KK and RR, the Board attaches no weight to the fact that these people are still employed at TMI and under Ross' direct supervision, and thus would have a tremendous interest in interpreting events according to their own interest. But even more, the Board fails to mention that in RR's written statement, he indicates that everyone "chuckled" after hearing Ross make his announcement. Staff Ex. 27, at 27-28. SMR ¶ 143. Chuckling connotes glee, even a sinister glee. It is not the type of reaction one would expect of those in the shift supervisors office if they had also interpreted Ross' statement to mean he had "fairly broadened the key." RR's statement is also consistent with YY's impression of Ross' being "almost ecstatic." Tr. 26,011 (YY).

As Judge Milhollin points out at SMR ¶ 152, nor is it reasonable to conclude that Ross was untruthfully bragging, i.e., pretending to have an improper motive, merely to cheer his crew. "The absence of a proctor was not a benefit to the candidates in the smoker's room. P... was angry about the absence of a proctor... He said it 'put him in the uncomfortable position where he could be solicited by other examinees.'" Id. P's sentiment was consistent with that of other operators who had complained about someone being available outside the exam room to answer questions. Tr. 26,218(O). "It is difficult to see how Mr. Ross could believe that honest operators would welcome the absence of a proctor." Id. It makes no logical sense that Ross would have chosen this approach to boost morale. Therefore, the only conclusion one can draw is that he intentionally did what YY said he did.

Further, the Board does not support its assertions with evidence of malice by YY towards Ross, or any reason why YY would not be truthful. In fact, YY's credibility is strengthened when one considers the risks YY took by voluntarily contacting the NRC when he did, and the personal jeopardy he has been in since the initial call,

evidenced by his insistence on total confidentiality. Judge Milhollin's analysis speaks for itself.

The Board fails to give any adequate explanation of the grounds for reversing the Special Master's credibility determination, and thus, the Appeal Board, under the principles of Duke Power Co., supra , must support the findings of Judge Milhollin on the issue of Ross' intentionally keeping the proctor out of the room in order to aid candidates to pass the exam.

c) The Board erred in finding that Ross did not improperly broaden or attempt to broaden the answer key.

Exceptions 81, 82, 83, 84, 85.

To examine whether the evidence supports a finding that Ross improperly broadened the answer key, Judge Milhollin selected twelve questions from the 'A' exam, which Ross had both taken and reviewed, where answer key changes were made or suggested during the subject review. He found that on the answer key to question B.5.a of the RO 'A' exam, a major change was made. SMR ¶ 156. The Board disputed this finding. ¶ 2220. Upon reviewing both Judge Milhollin's analysis and the Board's the Appeal Board will note that the record is unclear as to which answer to B.5.a. is correct, ¶ 2220, or what response the NRC was looking for, in light of the confused and stilted language of the answer key. However, the Board is clearly incorrect when it adopts Licensee's weak and illogical "solution to the puzzle," ¶ 2217, which suggests that the addition of the phrase "(lowers seal #1 Δ P)" placed above the first clause of the first sentence, represents the reviewers response to the 2d part of the question, and replaces the deleted 2d sentence . It is obvious that the parenthetic phrase (lowers seal #1 Δ P) is intended to clarify the phrase "Lowers pressure in the #1 seal area," and is merely a redundancy of that phrase. It does not satisfy the 2d part of the question. As Judge Milhollin correctly pointsout,the reviewers eliminated the 2d part of the question, arguing that it was not part of training at TMI. Nothing was subsituted for the deleted portion of the answer. TMIA stands by Judge Milhollin's analysis.

Similarly, TMIA supports Judge Milhollin's analysis of the attempted answer key

change on question C.2.b. The Board has concluded that the suggested answer key change by Ross and Boltz was improper. ¶ 2222, SMR ¶ 166, yet they also conclude, with absolutely no factual support, that the suggestion was made in good faith. Perhaps if no other evidence existed to indicate bad faith, the Board's unsubstantiated assumption might be considered reasonable, this is not the case, as the Special Master's analysis correctly demonstrates. The proposed change made no logical sense, did not reflect the training program, and could have helped practically no one but the reviewers themselves. SMR ¶¶ 161-166. The Board's predetermined decision to exonerate Ross, is a wholly arbitrary and capricious conclusion.

Further, Ross should be held fully responsible for the improper changes and suggestions. The fact that no accusations were made against Boltz or Brown, ¶ 2198, is irrelevant. Not only was Ross the most senior Licensee official to review the exams, SMR ¶ 178, he was the only one of the three, against whom incriminating allegations were made. As Judge Milhollin correctly concludes, Ross's conduct as Manager of Operations of TMI-1 must be imputed to the Licensee. The Board's findings must be reversed.

2. The Board erred in reversing the finding that Mr. Husted, TMI-1 training instructor, solicited an answer from P during the April, 1981 NRC SRO exam.

Exceptions 43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58

The Board's dismissal of the alleged solicitation of P by Husted during the April NRC exam, in a 50% unproctored room in which they sat alone, is unsupported by the facts which turn directly on credibility evaluations.¶ 2157. The evidence reveals that two highly professional and totally credible NRC investigators, Messrs. Ward and Baci, were told by P during the NRC's investigation, that Husted solicited him. Both Ward and Baci appeared at the hearings, and Ward recited the events as they happened. Baci disagreed with none of Ward's testimony. Ward had concluded that P was forthright at the time, based on their observations of P's demeanor. Tr. 25,320 (Ward).

P changed his story during the hearings, and denied not only that the solicitation occurred, but also that he ever told this to the NRC investigators. Tr. 26,691-2 (P). P's account of the NRC interview is highly confusing and incredible, particulary

compared to Ward's account which he recalled "with particular clarity." Tr. 25,462-5 (Ward). Ward stated that P was reluctant to discuss Husted's solicitation, and in fact, Ward had to trick him into the admission. But once P's admission was made, Ward said that P had no reluctance to divulge the nature of the test question. Id. Ward made a definite inference that the question came off the exam. Tr. 25,463-4 (Ward). His testimony was very specific and does not permit an inference of confusion or misinterpretation. ¶¶ 2121, 2155.

P's account on the other hand, is hardly credible and even the Board calls it "illogical." 2155. He suggests that the investigators suggested to P that Husted had asked him a question during the exam, and then, they just dropped the subject without getting an answer. Tr. 26,691-2. P also suggests that he dropped the subject, despite earlier expressions of anger concerning the fact that his exam room was unproctored, and this made him vulnerable to solicitation. Staff Ex. 27, at 40.

Judge Milhollin does extensive analysis of P's credibility, including observations of P's demeanor, and finds that P was not forthright in his testimony. Husted, who denies the solicitation, is found by Judge Milhollin and by the Board to be entirely noncredible and uncooperative. ¶ 2165. The Board refuses to even analyze P's or Husted's credibility with respect to this incident. ¶ 2158.

Further, the Board infers, without basis, that Husted may have merely been asking P for a clarification. ¶ 2156. Husted's own testimony, however, can not sustain such a finding. He stated at Tr. 26,944, that when the proctor was not in the room and he needed a question clarified, it would not have been a burden for him to leave the room to find him. In fact, he stated, "It is nice to get up and stretch once in a while when you are taking a nine hour long exam or a six hour exam. Tr. 26,944.

Moreover, the Board concludes that Mr. Ward's story is uncorroborated and entitled to no weight, since Mr Baci, who sat beside him at the hearing, did not speak on this issue. ¶¶ 2153, 2154. This is absurd. The Board provides absolutely no explanation why it believes a highly credible and competent investigator like Mr Baci would sit in silence beside another investigator as he testifies falsely about an incident

involving both of them. The Board completely fails to disclose the factual basis for this conclusion, violating the fundamental administrative law principles of S.E.C. v. Chenery Corporation, 318 U.S. 80 (1943). The Board errs in finding Mr. Ward's testimony uncorroborated.

While Ward's testimony is technically hearsay, it is well established in administrative proceedings that hearsay can be accepted as reliable, probative evidence if other better evidence is unavailalbe. Willaport Oysters, Inc. v. Ewing, 174 F.2d 676 (9th Cir. 1949); N.L.R.B. v. Remington Rand, 94 F.2d 862 (2d Cir. 1938). Both P and Husted are non-credible witnesses. Husted in particular has evidenced such complete disrespect for the NRC regulatory process that the Board concludes, "his attitude may be a partial explanation of why there was disrespect for the training program and the examinations." ¶Tr. 2167. In such a circumstance, it is clear that Mr. Ward's unequivocable and corroborated testimony, although hearsay, should be accepted, and the Board should find that Husted indeed solicited P during the April NRC exam. The Board's arbitrary reversal of Judge Milhollin's findings without adequate, independent reasons for doing so, is an error of law.

3. The Board erred and violated due process in relying on evidence outside the record to exonerate MM.

Exception 30

Only a limited number of operators testified at the hearings. Despite the Board's unsubstantiated conclusion that "it is probable that almost all, perhaps all, of the cheating of any important relevance to this proceeding has been identified." ¶2041. TMIA believes that the cheating episodes discussed in the decision are just as likely, if not more likely, to be representative of episodes which were not the subject of investigation. (See, § III, E) When the Board arbitrarily and capriciously finds that cheating incidents did not happen, and makes assuptions consistently in favor of the Licensee, it not only violates the public trust, but also prejudices the intervenor's case, violating their basic right to effectively participate in the hearing process. One way the Board was able to do this in the reopened proceedings was by "recognizing" the

standing of the individual operators mentioned in the SMR, to comment on the report, and by using those self-serving explanations to exonerate them. (See, Memorandum and Order, dated May 31, 1982). TMIA objected to the solicitation and use of such comments. See, TMIA Comments, supra, at 2, 3.

One of the clearest examples of this abuse of process, concerns operator MM. Judge Milhollin found that MM was involved in cheating on the quiz of December 19, 1980. SMR ¶ 82-93. MM submitted comments in response to the Board's solicitation, containing self-serving, unsupported explanations, upon which the Board relied in exonerating MM. ¶ 2132, Footnote 232. The Board's reliance on these comments violates and is an affront to due process. As the Supreme Court has ruled,"... nothing can be treated as evidence which is not introduced as such. Morgan v. U.S., 298 U.S. 468, 480 (1936). See, also, Republic Aviation Corp. v. N.L.R.B., 324 U.S. 793, 800 (1945); Seacoast Anti-Pollution League v. Costle, 572 F.2d 872, cert. den. 99 S.Ct. 92 (1978). In this case, substantial prejudice resulted. U.S. v. Pierce Auto Freight Lines, 327 U.S. 515 (1946). The Board has drawn a major conclusion that based on the cheating it has found, the overall integrity of the operations staff is adequate, and no safety consequences due to cheating exist at the plant. Thus, it authorizes restart.

Obviously, the Board seriously prejudices the case of theintervenors by finding that any particular individual has not cheated, based on materials outside the record, when the evidence on the record clearly establishes that the individual has cheated. SMR ¶¶ 88-93. The Board's findings on MM must be reversed.

4. The Board's conclusion that W copied from GG is unsupported and prejudicial to TMIA.

Exceptions 31, 32

The Board admits that cooperation existed between GG and W on the same quiz question as that involving MM. The relevant issue is, who was the aggressive cheater. Lic. Exs. 66 l and 66 m show that the first word of GG's response was deleted before the response identical to W's was given while the same was not true for W. Tr. 24,569 (Wilson). In addition, W, who denied copying from GG, had no motive to render untruthful testimony. W has admitted to cheating on the April 1981 exam as well as to cheating

on weekly quizzes Tr. 26,145-6 (W). It makes no logical sense that he would untruthfully deny copying in this instance. GG also denied copying, but in light of other evidence, Judge Milhollin found GG's credibility "undermined." SMR ¶93.

The Board's admittedly weak inference that W copied from GG is totally without support. ¶ 2134 Once again, the Board makes anarbitrary assumption favorable to Licensee despite evidence in the record to the contrary. This finding should be reversed and the finding of Judge Milhollin's adopted.

5. The Board errs in not finding that U stationed himself outside the exam room to aid candidates in answering questions.

Exception 40, 62, 63, 64, 65, 66, 67, 138

U was assigned to training during the entire week of the April NRC exam. Under normal circumstances, he would have been taking classes with the Cat. IV trainees. Staff Ex. 27, at 37. However, as shift foreman and a member of management, he had some degree of freedom as to where he would study. U testified that after taking the 'A' set of exams, he spent Thursday and Friday of that week in the training center, while the 'B' set of exams were in progress, or the purpose of studying for an oral exam which he understood at the time to be scheduled some four months later. Tr. 26, 829-30. Other operators testified that they could not imagine doing such a thing immediately after having taken the grueling two day NRC exam. Tr. 25,713, Tr. 25,771 (G),(GG).

T, who was also assigned to training that week testified that operators so assigned were given no direction concerning their training assignments. T spent some time in the training department studying "heat transfer." He moved from office to office and spent about two hours in Husted's office with U on one of the two days the B exam was in progress. Tr. 26,601,2. He recalls that U was in the office about 50% of the time that he, T, was there. Tr. 25,617. T chose to study in the control room on one of the days in question, Id., however, U headquartered himself in Husted's office on both days. T testified that everyone connected with training was in the training offices during the day he spent there. Tr. 26,600.

U testified that while he was in Husted's office, about 50 people stopped in. Tr. 26,827 (U). Empty classrooms were available and the control room seem also to have

been an option, and a logical one since STA's and other knowlegeable people would have been available to answer questions.

Contrary to the Board's claim, Husted often allowed operators touse his office as a place to study. The office contained an extra table. Tr. 26, 920. U however, had never used Husted's office for this purpose before. Tr. 26,876 (U). U would have one believe that he, who was supposedly so diligent that he began studying for an oral exam scheduled for four months later, Tr. 26,829-32 (U), chose a location which was the least conducive to study, where he had never studied before and has never studied since. Tr. 26,876 (U). Judge Milhollin correctly finds U's stated reasons for being in Husted's office not credible. SMR 119. Judge Milhollin also recognizes that Husted's office was a good place from which to give exam assistance. SMR ¶119.

OO testified that U approached him at the coffee stand with an offer of help on the exam. OO was an extremely cautious witness, careful not to make statements of which he was unsure. He had nothing to gain from his admission of U's offer. Judge Milhollin found OO to be a most credible witness.

The Board decides that Judge Milhollin's credibility determination of OO is not reasonable, stating, "OO's subjective interpretation of U's unstated purpose in approaching OO is too far removed from our ken to be the basis for a reliable conclusion." ¶ 2177. Yet the Board itself concedes that Husted's office was a good place from which assistance on the exam could be given, ¶ 2176, and recognizes that U himself testified that he may have unknowingly provided someone with a short answer during the examination, that providing a short answer would not in his view be cheating, and that it is "not unlikely" that an exam-taker could have received an answer while U and others were in the hallway outside the examination room. ¶2178.

Thus, the basis of the Board's conclusion rests on its finding that OO misinterpreted U's action. It completely ignores the evidence on the record which supports the strong inference that U was not in Husted's office to study, and that he stationed himself in that office during the B exam to assist examinees, and in fact, offered assistance to OO.

Moreover, the evidence sustains the Special Master's conclusion that while in Husted's office, U called KK, and STA and asked him a technical question for the purpose of assisting an exam candidate. SMR ¶¶ 123-128. U testifies that he may very well have called KK with a question, but not the one described by KK. Tr. 26, 844, 26,846. (U). In addition to evidence recited by Judge Milhollin, his conclusion is reinforced by the fact that KK's clear memory of the incident results from the fact that it was the first and only time that he had received a telephonic query about a technical matter, while at TMI. Tr. 26,479 (KK).

While Judge Milhollin found insufficient evidence to establish that U was "stationed" in Husted's office by management or others, the possibility that U stationed himself in the exam room was not discussed in the report, nor the possibility that management did have knowledge of Us activities at some point during the exam itself. The evidence supports this conclusion.

A number of witnesses testified that they heard that someone was available and OO heard before the exam that someone would be posted. SMR ¶ 113. OO never specifically stated when he heard this rumor, and it is certainly possible the OO did not acquire this knowledge until 20 minutes before the commencement of the RO/B exam when U discussed the A exam with the B examinees. Tr. 26,880. Mr. Husted had just that morning given U permission to use his office. Tr. 26,916 (Husted). It is reasonable to infer that U did not take on his role as voluntary assistant to examinees until immediately before the RO/B exam, and there is certainly no reason to assume that anyone in particular had placed him in Husted's office.

KK's statement that "the person [stationed outside the examination room] was performing his duty... with at least the knowledge of someone higher up in the company", Staff Ex. 27 at 30, is found by Judge Milhollin to be unsubstantiated. However, the statement is consistent with other testimony if one does not necessarily infer that anyone had arranged for him to be there, nor that management had pre-exam knowledge that someone would be there. It is actually likely that a management person acquired his knowledge during the B exam, since during the exam review, Licensee

reviewers frequently went in search of documentation to support their arguments. Tr. 24,161, and Husted's office contained such documentation. Thus, it is equally likely that one of the reviewers discovered, during an excursion in search of documenting material, that U had stationed himself in Husted's office for the purpose of aiding exam candidates. Keeping in mind the number of accounts linking Mr. U to questionable behavior which circulated in the wake of the April NRC exam, the evidence supports a conclusion that U was indeed stationed in the vicinity of the exam to help answer questions, and that he did just that, and that management likely knew about it at least during the course of the exam.

The Board finds support for this conclusion, but then rejects it. The Board's reasoning deserves special comment. The Board decided that U's "non-denial" should not be used to prove his involvement in this incident, reasoning that when the "principle hard evidence against a suspected malfeasant is his own testimony, ... [the Board should not select testimony which] inculpates the witness while rejecting testimony that exculpates him." ¶ 2184. As demonstrated above, a careful examination of the record reveals an abundance of evidence pointing directly to U's culpability, in addition to his own "non-denial."

Even more significant, however, this new principle, which rests on no discernable grounds other than the Board's twisted logic, is firm evidence of the Board's eager readiness to sanction cover-ups and lies by this company in the name of the public interest. The Board's rationalization is perhaps more fully explained in ¶ 2144 concerning events surrounding Mr. Shipman (see, § III, C) where the Board resists sanctioning Shipman because he "volunteered the very information now bringing about the sanction" ..."and [t]here is a public interest in encouraging such disclosure." ¶ 2144. U, like Shipman, testified at these hearings under oath. Each had an unqualified obligation to tell the truth. Each testified without hesitation.

Even the 5th Amendment to the U.S. Constitution, which protects an individual from making incriminating statements, holds that once an individual waives his 5th Amendment rights and tesifies, his statement may be used against him.

By formulating this arbitrary standard, the Board is thus telling the operators and the public that it is acceptable to cover-up cheating and to be untruthful about it, even under oath. It will not require the witness to tell the truth, if his testimony is incriminating. It will only require the truth if the testimony will not be damaging to the testifier.

The Board has thus refused to acknowledge the substantial evidence of U's guilt on the basis of an invalid and irrelevant principle. The Board's finding must be overtured.

C. The quality of the testimony rendered by Licensee witnesses included untruthful statements from the upper management down to the lowest level of the operating staff, and was so poor that it evidenced a unmitigated lack of respect for theentire NRC process, and a severe lack of integrity by the whole company.

In the face of overwhelming evidence to the contrary, the Board fully supports the overall quality of the operators' testimony at the hearing. ¶2043 The evidence of untruthfullness and disrespect for the NRC process ranges across the board- from the highest levels of uppoer management to the lowest levels of the operating staff. It dates back to at least 1979 when the Licensee submitted a material false statement to the NRC, and carried through the NRC investigation into the hearing itself.

1. The Board errs in failing to recognize or attach significance to the non-credible testimony given by Robert C. Arnold, President of GPU, in connection with the 1979 VV/O incident.

Exceptions 111,113,114, 115 117, 118, 123

The incident involving VV and O in 1979, perhaps most clearly demonstrates upper management's willingness to lie to the NRC. The incident itself is factually described in ¶¶ 2272-2274. It was an early indication of the need for better procedures and a better attitude toward training and testing by management. Robert Arnold, GPU President , expressed the view that a disciplinary action against an individual had two purposes: to provide instruction to the individual,to provide instruction to the rest of the organization. Tr. 23,620-21. (Arnold). The VV/O incident was the perfect opportunity to accomplish these purposes through disciplinary action. Yet all the evidence supports the view that Mr. VV was not disciplined for his conduct, nor was this incident ever revealed to the operating staff.

Gary Miller, Station Superintendent, and Jack Herbein, Met-Ed Vice President, the two management representatives who were primarily responsible for the investigation of the incident, recommended to Arnold that VV be suspended for two weeks for his involvement in the cheating incident. Arnold rejected this suggestion, and at his insistence, Miller assigned VV to a special group charged with obtaining a better understanding of the events which led to the TMI-2 accident. TMIA Ex. 54. VV assumed the responsibility for 'technical interface' with the Department of Energy's Research and Development program at TMI-2, and with the Bechtel companies who would do the actual decontamination of Unit 2. Arnold asserted that this wasa demotion and would be viewed as such by VV and the organization as a whole. Tr. 23,620-1; 23,738, 23,772. (Arnold). If indeed he and everyone else thought that VV was demoted, and understood why, it would comport with the view espoused by Arnold that discipline should instruct the individual and instruct the organization. Tr. 23,738 (Arnold).

However, at the time these decisions were being made, VV was not told that he was being reassigned for disciplinary reasons. Tr. 23,775-776 (Arnold). There is no documentation anywhere in Licensee's records to show that the reassignment was disciplinary, or that it was connected with VV's performance in the training program. TMIA Ex. 53,54, 62, 66, 71, 72. The only written record of VV's reassignment characterizes it as temporary and as motivated by the valuable contribution which VV could make to the Accident Investigation Documentation Group. TMIA Ex. 54. SMR ¶ 236.

VV had been Supervisor of Operations for Unit 2, and as such, he had played a key role when that plant went on line. Both Arnold and Miller spoke in glowing terms of VV's technical ability and his knowledge of the damaged reactor. Tr. 23,757 (Arnold). Miller stated the VV was unique in his technical capabilities and that he (Miller) did not expect to find another individual as technically competent as VV. Tr. 24,401, 24,423, 24,458 (Miller). It is not surprising therefore, that Licensee , faced with an unprecedented situation in the aftermath of the accident, chose to utilize VV in a position where his skills and keen knowledge of the plant would be most useful.

What is surprising, however, is Licensee' belated characterization, without documentation, of that reassignment as a demotion. In fact, if it were a demotion, it occurred without VV's knowledge. Although Arnold testified that VV was informed of the demotion, there is absolutely no documentation to support such a claim. VV, who had no discernable motive to lie, testified that he did not consider the move a demotion, but rather as a lateral transfer. Tr. 26,642(VV). It also appeared that VV's fellow employees were unaware of any demotion. It is apparent that neither VV nor his fellow employees had the impression that VV's reassignment was disciplinary, or connected to VV's training requirements. It is thus clear that Arnold's testimony to the contrary, is non-credible as Judge Milhollin implies in SMR ¶237.

Arnold also states that at the time of the VV/O incident, he never reviewed the file of VV. Tr. 23,707-8. This is simply not plausible. Arnold would have us believe that he rejected the recommendations of the Station Superintendent and Vice President of Met-Ed , and chose a sanction so severe that the consequences of this sanction could have , as the Board points out, an adverse and lasting effect on VV's career. ¶ 2284. That the President of Met-Ed would take such an action against an employee with 9-10 years service , Tr. 23,751 (Arnold), without first reviewing in detail all of the information surrounding the precipitating incident, and in opposition to senior officials of the plant, is incredible.

Further, that this should have been done without informing VV of the reasons for taking such action belies Arnold's own definition of the purpose of discipline, and simply makes no sense. Contrary to the Board's assertion in ¶ 2286, informing VV that his reassignment was disciplinary in nature would not have humiliated him, it would have informed him that cheating was unacceptalbe, and would not be tolerated by management.

It is clear that Mr. Arnold was not being truthful when he testified to his ignorance of the facts surrounding the 1979 incident, and VV's recertification. The Board erred in not concluding that Mr. Arnold rendered untruthful testimony, and in not finding him incompetent to manage TMI-1.

2. The record is replete with other examples of non-credible testimony evidencing extreme disrespect for the NRC process by company employees.

Exceptions 7, 38, 102

The Board's findings with regard to Gary Miller's false certification to the NRC includes an evaluation of his testimony which both the Board and Judge Milhollin found unbelieveable. ¶¶ 2303-2307. His testimony regarding O's knowledge also was not credible. SMR ¶ 227. As already discussed, the testimony of Michael Ross, TMI-1 Manager of Operations, Mr. Husted, training instructor, and other operators P, U, GG, is not credible. (No analysis of MM's credibility can be done since he did not appear at the hearing and was not subject to cross-examination).

Additionally, G and H are found by both the Special Master and the Board to be highly non-credible witnesses. SMR ¶ 26-77., ¶ 2096-2114. Judge Milhollin casts doubt upon the credibility of A and I's testimony. A and I sat immediately behind O and W when O and W blatantly copied from each other on the April NRC exam. Yet both claim they saw no cheating. SMR 24. Also, Mr. Shipman's insistence that he does not remember who asked him the question during the April 1981 NRC exam, is not credible. See, SMR ¶¶ 97-100. Mr. Brown of the training department gave testimony which was found by both the Board and the Special Master to be convoluted and incredible. ¶ 2338, SMR ¶ 39. All of these individuals are still company employees, and most are in supervisory or managerial positions.

Finally, there is Licensee witness John Wilson, who conducted the company's investigation into the cheating episodes. It was Mr. Wilson's investigation which Licensee chose to present at the hearings to represent their current response to cheating. It reveals the very essence of Licensee's attitude toward the cheating incidents and the NRC licensing hearings. Judge Milhollin's scathing attack on Wilson, his investigation, and his credibility is fully supported by the record. SMR ¶334.

Wilson, presented as an independ nt, impartial investigator, was found to be merely an advocate for the Licensee's interests. Even the Board found that Wilson "worked harder in developing exculpatory information than he did in developing evidence of cheating." ¶ 2252. As Judge Milhollin's detailed analysis correctly illustrates, Wilson's testimony was frought with untruths, he unhesitatingly lied in order to advance

the company's interest. To this day, the company supports Mr. Wilson and his testimony.

The Board, clearly, should have considered the current level of Licensee's integrity in light of Mr. Wilson's report, his testimony at the hearings, the number of personnel and the number of operators who chose to give untruthful testimony at the hearing, or untruthful reports to the NRC. Apart from the cheating episodes themselves, the evidence clearly demands an even broader conclusion than Judge Milhollin's. The overall level of integrity of the operating staff and Licensee management is inadequate.

D. In the Board's recommended sanctions against Licensee personnel involved in wrongdoing, the Board errs in failing to attach significance to evidence on integrity and attitude problems of Licensee personnel.

Exceptions 42, 59, 67, 112, 115, 117, 118, 119, 148, 149, 150

As both Arnold and Henry Hukill, Vice Pesident, TMI-1, have stated in testimony, operator integrity is essential to the safe operation of the plant. Tr. 23,611, 12, 16 (Arnold), Tr. 24,082 (Hukill). The same is true of course regarding the integrity of management. Integrity of an individual operator or manager is a primary element in the composition of an individual's overall competence to safely operate a nuclear power plant. Technical competence means nothing if the individual does not have the necessary level of integrity to make safety-related judgements with the public health and safety in mind.

It is apparent that to this Licensing Board, an individual may cheat, lie, cover-up, and blatantly disrespect the NRC process, and still maintain an appropriate level of integrity to either manage or operate a nuclear power plant. The PID is replete with examples.

The Board prefaces its decision by saying, "some of the inferences and conclusions depend upon judgement and ethical orientation and expectations of the fact finder." ¶ 2037 (emphasis added). Upon reading the decisions, it becomes clear just what the Board's "ethical orientation and expectations" are. As has already been discussed in § III, B 5, supra., the Board is perfectly willing to excuse lying about and covering up one's cheating activities. The Board fails to attach any significance whatever to Judge Milhollin's many findings of non-credibility, and his overall conclusion about

the poor quality of the testimony. SMR ¶ 8. The Board is only to conclude in ¶ 2045 that no safety consequences resulted from the cheating episodes because it either believes cheating and disrespect for process and procedure does not create a lack of integrity, or a lack of integrity does not impact on safety. Obviously, neither version is credible. The results of the October 1981 NRC exam do nothing to adddress, let alone moot the ethical questions raised by these episodes. ¶ 2341. they certainly do nothing to address the problems of upper management. When one considers the percentage of Licensee witnesses whom the evidence supports were either involved in wrongdoing, or gave non-credible testimony, most of whom are insupervisory or management positions, compared to the percentage that the Board chooses to sanction (See chart, § III A) it is clear that proper ethics have little or no relevance to this Board's definition of competence. This illustrates a major failure of the Board's decision, and places the ethical judgement of the Board itself in question. This Board has given a clear signal to the Licensee, to all nuclear facilities, and to the public, that it will tolerate lies, half-truths, and cheating, and only when forced by incontrovertable evidence, will impose sanctions which are little more than a slap on the wrist.

In deciding whether to sanction an individual for wrongdoing, the Board's approach is to separate ethical considerations from "competence." As long as an individual appears technically skilled, the Board excuses him,despite integrity and attitude deficiencies, for any wrongdoing. For example, the Board supports the Licensee's approach to dealing with VV after his involvement in the 1979 cheating incident, particularly that his actions were not advertised at the plant. The Board states that such actions "would have humiliated VV," and have been "destructive to VV's effectiveness." ¶ 2286, since his skills were sorely needed at TMI. ¶2286. (It should be noted that the Board also apparently believes that informing VV himself of his own demotion would have had the same effect. ¶ 2286. This assertion makes no logical sense and is unsupported).

The Board's separation of integrity and competence was also a major theme in the first PID. In their earlier decision, the Board failed to recommend any sanction against

Miller and Herbein for their involvement in stifling information flow during the TMI-2 accident. In fact, the Board glowingly approves Licensee's decision to promote Mr. Herbein to GPU Vice President for Nuclear Assurance, stating "the Board has no information bringing into question Herbein's competence and as TMIA urges us to do we find that he has the background and technical expertise." ¶ 142 (emphasis added).

Regarding Mr. Miller, whose ethical judgement during the accident was questioned by even the NRC's investigation into the accident, (See, discussion, § II, C 3), the Board fully supported Licensee's decision to place him as head of start-up and test at Unit 1. With the revelation of his involvement in the material false statement incident, the Board finally has decided his "ethical judgement" may be deficient. But even so, the Board refuses to recommend even his suspension from this highly critical position, reasoning, "in the interest of safety, we would not deprive Licensee of available talent." ¶ 2319 (emphasis added).

Similarly, the Board finds Mr. Husted competent to remain as a training instructor, despite its doubt whether he is able, or willing, to impart a sense of seriousness and responsibility to the TMI-1 operators. ¶ 2167. Mr. Husted, it seems, is also "technically competent." ¶ 2168. Given Husted's history of soliciting an answer on an NRC exam, failing to cooperate with the NRC investigation, and giving false testimony at the hearing, the Board has grossly abused its discretion by not ordering Husted immediately removed from the training staff, and licensed duties.

Regarding Arnold's involvement in the VV/O incident, the Board fails to even address the problems raised by the evidence and Judge Milhollin regarding Arnold's non-credible testimony on this topic. Thus, the Board has conveniently avoided the issue of appropriate sanction. Nor has the Board attached any significance to untruthful testimony rendered by any other witness in these proceedings to warrant sanction. In fact, it finds a public interest in not sanctioning Mr. Shipman for his untruthful testimony. ¶ 2144. The Board, for example, admits to doubts regarding Mr. Shipman's honesty, ¶ 2047, 2144, 2145, but nonetheless exonerates him, ignoring the fact that he continues to shield a cheater. The Board reasons that he should not be punished,

since he "volunteered" the information, and there is a "public interest in bringing about such disclosures." As already discussed, this type of reasoning is without any basis. (See, § III, B, 5) But in addition, his voluntaryreport came only after an investigation was already in progress, months after the incident occurred. Mr. Shipman's continued cover-up raises serious question about his ethical judgement and he should not be permitted to hold an operating license. The Board's "sanctions," a letter of reprimand and the Board's own stated suspicion about his candor, are woefully insufficient in light of the nature of Mt. Shipman's offense , and his position of management and responsibility at TMI.

Exceptions 26, 27, 28, 29, 35

Similarly, the Board's recommended sanction against G and H, and failure to sanction GG at all, are wholly inadequate and represent an abuse of discretion. The Board , though forced to the inescapable conclusion that G and H cheated, manages to find some "mitigating factors" surrounding these episodes of cheating which in the Board's opinion, lessen the impact of the cheating. ¶ 2118. No consideration whatsoever is given to the fact that G and H repeatedly gave untruthful testimony at the hearing.

First, the Board considers that the exams on which cheating by G and H occurred were company rather than NRC exams. ¶ 2118. This fact is also an "ameliorating circumstance" used by the Board to impose no sanction against GG. ¶ 2135. The Board is wrong to attach any significance to this point. Cheating is cheating, no matter who administers the examination. The integrity of the operators is no less questionable because they seized the opportunity to cheat on one type of exam rather than the other. Further, the Board's analysis belies its claim that operators rely on company exams to test knowledge, ¶ 2044, and ignores the fact that G and H, VV, GG, and O and W all cheated on company exams. Company exams are the only vehicle which tests an operator's knowledge of ongoing changes in the plant and this knowledge is vital to the safe operation of the plant. The Board's distinction is wholly arbitrary.

Second, the Board asserts that the proportion of answers produced by cheating is relatively small. This misconstrues the evidence. The cheating by G and H was extensive. It persisted over several months. On specific exams the point value attributed to those questions on which they cheated, amounted to greater than 50% of the total score of one exam and almost 50 % of another. And this only covers the word for word copying which is the only type of cheating the Board recognizes in this decision.

Third, the Board does not believe that the overall results demonstrate a poor understanding of the course material. Not only is this irrelevant, but is contradicted by the record. That the Board could have reached this conclusion after reading the testimony of G and H and their various exams which are part of the record, is remarkable. See, SMR ¶ 26-77 By their own testimony they were exposed repeatedly to some of the information on which they were examined. In other instances they were unable to explain underlying concepts which they claimed to have learned by rote memorization. This last condition was by no means discrete to G and H, SMR ¶ 247, and was in part the infromation upon which the Special Master relied in his finding that the training program is inadequate. See, SMR ¶ 26-77, 242-247.

Fourth, the Board excuses G and H since they have now passed their NRC exams under properly monitored conditions. This is also irrelevant and totally misses the point. No one would expect they would engage in word for word copying again. But the basic questions about their ethical conduct have not disappeared. In addition, there was considerable testimony that examinees are still force fed information and encouraged to memorize. Tr. 25,083, (OO), Tr. 25,905 (H). And when questioned concerning the underlying concepts of responses, G and H exhibited a remarkable ignorance. SMR, Id. Given the past performance of these two, there is no assurance that they even have an understanding of the actual workings of the plant, let alone the necessary level of intergrity to make safety related decisions.

Fifth, the Board insists that "we have, then a question of ethics, not of compe-

tence." ¶ 2110. As Mr. Arnold pointed out, "his management must and does inherently rely on the honesty of others, and that he has assumed a basic honesty in his operators. ¶ 2065. Thus, the position of an operator is one of trust. The Board would have us believe that G and H, who cheated repeatedly and perjured themselves at the hearing, are worthy of that trust. The sanction proposed by the Board does nothing to restore faith that these two operatorswill act with integrity in the future. The Licensee and G and H have quickly moved to accept this sanction. This Appeal Board must recommend that the operating licenses of G and H be removed immediately.

Similarly, although GG was not caught engaging in the same widespread and repeated cheating as were G and H, and questions of his technical abilities were not raised, he did cheat and untruthfully denied doing so. SMR ¶ 93. Clearly some sanction is warranted. Again, the Board makes some sort of distinction between "ethics" and "competence," ¶ 2135. See, also, ¶ 2119. Moreover, the Board then determines that it "will not find him ethically disqualified for lack of candor." ¶ 2136. The Board's failure to impose any sanction on GG, even a lesser sanction than license removal as recommended by Judge Milhollin, SMR ¶ 313, is an abuse of the Board's discretion.

In sum, what this Board does not seem to recognize is that it can not have people running a nuclear power plant who are willing to lie to the NRC. One of the most blatant examples of the Board's attitude concerns Miller, Herbein, and Arnold's involvement in falsifying VV's certification to the NRC in 1979.

Exceptions 14, 15, 68, 120, 122, 123

The details of this incident are well explained by the Board in ¶¶ 2287-2320. Miller and Herbein are clearly implicated in the decision to send this letter to the NRC. Arnold's implication is inferred from clear evidence on the record. (See earlier discussion regarding VV, § III, C). Further, he is ultimately responsible for covering-up the incident until the letter itself was produced along with accompanying relevant evidence during the discovery phase of these hearings. (The incident belies the Board's claim that at these hearings, Mr. Ross was the highest member of TMI-1 management whose ethical conduct was questioned, ¶ 2046, and also that Arnold made a full disclosure on all matters of possible relevance to the cheating incidents. ¶ 2050).

The Board recommended sanction against none of these upper management personnel, recommending only further investigation. Further investigation of this incident is utterly pointless. The facts could not be more clear, and the Board has an obligation to follow through on those facts, particularly as they concern those most heavily implicated.

That Miller and Herbein have now been removed from nuclear-related positions, does not absolve them of guilt. Licensee has never indicated that either transfer was a diciplinary action. Nor do these transfers exonerate Arnold or the corporate entity itself. Also, that Miller and Herbein are no longer in nuclear safey-related positions ignores the fact that the Licensee kept Miller in a highly critical position until October 1, 1982, and kept Herbein in a top corporate management, safety-related post until after the SMR was issued. Arnold and the corporation are soley responsible for this. The incident has severely undermined corporate management's integrity.

The Board has diminished the significance of this incident because, it claims, it is not directly relevant to TMI-1. (VV was TMI-2 Supervisor of Operations). The Board is apparently unaware that O, involved in the later April 1981 cheating episodes with W, was a member of TMI-1's operation staff both at the time of the 1979 VV incident and the 1981 cheating incident. Further, at the time the exam in question was completed and submitted, the training programs at Units 1 and 2 were shared. Thus, the incident has direct relevance to this proceeding.

Clearly, the Board has a responsibility to recommend severe sanctions against Miller, Herbein, Arnold, and the company for its involvement in this incident. That it has failed to suggest the need for any sanction at all is an unquestionable abuse of discretion.

E. The Board's belief that probably almost all, perhaps all, of the cheating of any important relevance to this proceedings has been identified.

Exceptions 2, 4, 6, 8, 89, 90, 91, 92, 137, 138, 139

As the evidence gathered in this reopened proceeding reveals, cheating and wrongdoing by company officials cut across all levels of the management and operations staff. Despite the amount of wrongdoing revealed by the evidence in this proceedings,

there is no assurance that all important incidents have been discovered, in contradiction to the Board's assertion in ¶ 2041. The Board supports its view by asserting that the hearing itself was a form of investigation. ¶ 2042. However, TMIA's experience has revealed that there were serious voids in the reopened hearing process.

One of the main problems was restrictions on the intervenors' abilities to discover relevant evidence. First, the discovery phase, as did the hearings themselves, proceeded at an extraordinary expedited pace, making it impossible for either the parties or the Special Master to comprehend, assimilate, and make appropriate connections between all documents gathered and testimony presented. This became more apparent as time went by.

Secondly, the issues were restricted soley to post-accident events. As testimony revealed, cheating rumors have dated back to pre-accident times. Staff Ex. 28, Enc. 1-2,3. Thirdly, the parties were forced to rely necessarily on the Staff and Licensee investigations, some not even produced until the discovery phase and the hearings themselves were in progress, to pursue leads during discovery and during the hearings, as well as for direct evidence. As Judge Milhollin has shown in great detail, both the Staff and Licensee investigations had major deficiencies. See, discussion in SMR ¶¶ 185-219, 288-302.

I and E, in particular, produced the reports on which many of the issues developed at the hearings were based. During I and E's first investigation examining the April 1981 O and W cheating episode, it was unsuccessful in removing management from the interview. Although the Board and the Staff concluded that management's presence was inhibiting, but that the overall effectiveness of the investigation of O and W was not affected, this is mere speculation and likely incorrect. As Judge Milhollin correctly points out, the presence of management prevented the investigation from recieving evidence of management involvement on a confidential basis, and , "the effect of management's presence at the first investigation was probably not cured by excluding management from the subsequesnt investigations; a person who had withheld or falsified information at the first investigation would have been unlikely to admit

later that he had done so." SMR ¶ 291.

Further, the fact that O and W did not admit their guilt until their 3d interview, which was conducted without management present, supports the contention that management was inhibiting. See, Staff Ex. 27. W stated that he respects Mr. Hukill, who sat in on the interviews, and did not want to admit his guilt in front of him. Tr.26,164 (W).

However, the most telling point here is that it is highly unlikely that any of the other 11 interviewees, though honest, would have responded with specific details of operators' or managements' involvement in cheating, to the extremely broad and unfocused questions asked by the IE investigators regarding their general knowledge of cheating at that time, with management looking over their shoulder. Indeed, no specific evidence was obtained from these eleven interviewees regarding actual cheating incidents. (Among those interviewed were OO and U.)

In addition to these and other deficiencies discussed by Judge Milhollin, SMR ¶¶ 288-302, it should also be emphasized that the Staff could have used such forensic techniques as the polygraph and handwriting analysis, but chose not to use them. Given all these problems with the Staff's investigation, and the already recognized deficient quality of testimony at the hearing, it is impossibe to know that all or most important instances of cheating have been revealed. It is equally likely that a number of instances remain uninvestigated.

F. The Board's response to the cheating episodes and Licensee's training and testing deficiencies, consist of imposition of a QA/QC program, which includes independent audits throughout a probationary two year period of Licensee's training and testing program, ordering the establishment of training instructor qualification criteria, an internal auditing procedure, and a procedure for reviewing NRC exam answers to detect for cheating, do nothing to correct the substantial problems in Licensee's training and testing program revealed by these proceedings.

The training program had been an issue in the main proceedings because its deficiencies had been blamed as contributing to the accident's escalation. The Commission had issued specific orders requiring the upgrading of the training program at TMI. The Board had concluded in the first PID that the training program satisfied the Commission's requirements, basing the finding on expert testimony, but "necessarily relying on the NRC operator exams as a final, independent, and accurate measure of

operator competence." ¶ 2321. The record which developed in the reopend proceeding concerning the failures of Licensee's training and testing program, as well as the cheating episodes themselves, diectly challenges the conclusions reached in the first PID supporting the adequacy of Licensee's training and testing program.

Exceptions 124, 125, 126, 130, 132, 133, 134, 135, 154,

In the July 27, 1982 PID, the Board has reaffirmed its intention to rely on the NRC exam as a final measure of operator competence. ¶ 2321. This reliance is misplaced as the evidence in the reopened proceeding has revealed. Specifically, in reaching this conclusion, the Board has chosen to ignore the questions raised at the reopend hearings concerning operator integrity and judgement, which are not addressed by the NRC exam process. In fact, the Staff witnesses testified that despite operator integrity problems revealed by these proceedings, they will continue theri practice of relying on Licensee to certify the integrity of their operating staff. t is clear that the integrity and ethical judgement of Licensee management itself has been proven inadequate by issues raised in these hearings, suchas: management's decision to submit a material false statement to the NRC, covering up the evidence of cheating by two operators, one of whom was a member of management himself, and the readiness by members of management to give false and misleading evidence concerning this incident; relying on superficial investigations and supporting misleading reports and testimony to exonerate employees suspected of cheating; and , in the face of overwhelming evidence, continuing to deny that anyone other than O and W are guilty of wrongdoing.

As the evidence clearly demonstrates, Licensee is totally unfit and incapable of accurately assessing the integrity of their operators. Therefore, the NRC's reliance on the Licensee as certifier of operators integrity, and in turn the Board's reliance on the NRC process is misplaced. In addition, reliance on the NRC exam can not reveal certain deficiencies in Licensee' trainig and testing program which ultimmately must prepare operators to operate the plant.

First, the Board recognizes that Licensee failed to extend QC to procedures

which would insure company exam integrity. However, the Licensee and the Board attribute Licensee's failure to develop procedures which would prevent cheating to naivete and believes that since Licensee is now aware of failures of exma integrity, instituting new procedures will correct the problem. The Board fails to note that at the time that the Licensee was develcping its revised procedures, Licensee management was already aware of the 1979 cheating incidents, and Miller evaluation of training as it related to VV's cheating. TMIA Ex. 71. The training department recieved m ch criticism by the various investigations into the accident, and was subject of the Commission's August 9 Order. Training deficienceis were discussed in detail during the earlier part of the hearings. To continue to claim naivete in the face of all this information, is not credible. It is clear that despite new procedures, Licensee is not competent to make the necessary adjustments to assure the integrity of its training program. The Board's contrary findings are arbitrary and capricious.

The Board also implies that the failures of the training program are attributable to "weaknesses" in instruction, from instructors, and admonishes the Licensee for its failure to extend QA/QC to training "at the point of delivery." First, the Board fails to acknowledge evidenc on the record which plainly shows failures of instruction, not mere weaknesses. SMR ¶ 242-247. Secondly, the Board is incorrect to blame instructors for these "weaknesses" and to now excues Licensee for not imposing QA in this area on its own. During the main proceedings, Dr. Knief testified "it is the responsibility to the Manager of Training to ensure that TMI-1 personnel receive sound instruction in programs to which Licensee is committed," and,"The Manager of Training is also responsible for ensuring that TMI instrutors are qualified to teach the subjects to which they are assigned and that they employ sound teaching methods ... the effectiveness of teaching methods and the quality of the course materials is monitored by the Manager of training... Finally, the Manager of Training must implement those corporate policies, as well as policies established by the Director of Training and Education applicable to the training program.: Tr. 12,140, at 10-11 (Knief). The Board has summarized the statement of Herbein, in the first PID,

"Mr. Herbein, Vice President for Nuclear Assurance, characterized the role of the Nuclear Assurance Division as a key one, particularly in light of the lessons learned from the TMI-2 accident, such as the importance of training, quality assurance, and nuclear safety assessment," ¶ 110. to now assert that the instructors are responsible for the failures of the training program and that the Licensee was unaware until the Reopened Hearings of the importance of QA with regard to training instruction, is not reasonable and is contrary to the evidence.

The Board's imposition of "conditions" to insure the effectiveness of QA/QC in the training department, is a faulty remedy. First, Condition #1, which allows a two year probationary period during which time the training program will be audited, violates the Commission's August 9 Order. The Commission was clear that any condition necessary to insure the safe operation of the plant be imposed before restart. Second, by imposeing condition #2, requiring training instructor qualification criteria, ignores the fact that Licensee has already committed itself to do this- and it has blatantly failed to do so, as evidenced clearly by some of its current instructors. See, discussion, III, B, 2; C,2 Long,Knief, ff. Tr. 12,140 at 54. With regard to conditions 3 and 4, Licensee has historically shown itself incapable of recognizing the most blatant cheating and other wrongdoing. To this day, Licensee fails to admit that G, H, and VV cheated, that Miller made a material false statement to the NRC with Herbein's concurrence. To assume that they will now suddenly develop the objectivity to effectively police themselves, ignores their history of failure in that regard, particularly their refusal to comply with Commission Orders or its own procedures unless under intense scrutiny, their failure to take independent action to correct deficiencies unless under intense scrutiny, or their refusal to recognize deficiencies even when under direct scrutiny.

For example, in February 1981, Dr. Long appeared before the Board and gave testimony concerning Licensee' training and testing program. He was asked specifically about the Licnesee's policy of administering exams in an open book format. The Commission had informed Licensee late in 1980, that the open book format was unaccep-

table and the Board wasted to know what Licensee's response to this item. Long testified that the language in the new administrative procedures had been changed impluing that exams would no longer be administered 'open book.' However, it became obvious during the reopened hearing the Licensee continued to administer take home open book exams until the NRC began its investigation of cheating. The Board takes Licensee to task for not following its own procedures. ¶ 2323 , and imposes a condition on restart, whereby the Licensee's training program will be audited by independent auditors for a period of two years after start up. This episode provides support for the conclusion that Licensee is incapable of following its own porcedures and will do so only under intense scrutiny.

There are many other examples of Licensee's disregard for its own procedures and inability to police itself. For example, A.P. 1006 states that when quizzes are constructed "a variety of question types may be used, but questions requiring analysis or detailed discussion should predominate." Lic. Ex. 62 at 14. As Judge Milhollin points out in his analysis of G and H's weekly quizzes, Licensee chose to ignore the procedure.

The examples of Licensee's failures of compliance are not limited to the training department, however. On May 22, 1982, two utility workers at TMI-1 were exposed to high levels of radiation while performing a preventive maintenance task in the auxiliary building. An NRC investigation into this incident revealed that the cause of the accident was a failure to follow Preventive Maintenance Procedure U-17. (See NRC STAFF CONSOLIDATED REPLY TO TMIA'S MOTION FOR EXTENSION OF TIME AND WAIVER OF PAGE LIMITATIONS AND MOTION TO SUSPEND BRIEFING, attachment at 8-9.) This same document contains evidence that Licensee is not capable of policing itself even when problem areas are identified, again, unless exposed to scrutiny. Prior to the accident, maintenance for both TMI Units was united into a single department. the Commission ordered separation of the departments. These hearings revealed many problems with the old maintenance system which Licensee freely admitted. See, discussion, e.g. §II B 4 . Licensee presented testimony on its upgraded maintenance procedures at Unit 1.

GPU Nuclear Corporation, the management entity which has been examined in these hearings, was fully aware of Unit 1's maintenance problems. The company upgraded the TMI-1 procedures because of these hearings and the Commission's August 9 Order. Obviously, the same problems existed at TMI-2. Yet, Licensee has not remedied them. As the Board has correctly pointed out, "if the Licensee does not itself exercise the requisite quality control, quality assurance, and feed-back mechanisms to assure high-quality training and testing, it is beyond the power of regulators and regulations to put on appropriate program in place." ¶ 2327. Licensee seems to be consistently unable to recognize its deficiencies on its own, or to correct recognized deficiencies on its own- the very essence of quality control.

Exceptions 5, 12, 19, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, 110154, 156.

Similarly, the overwhelming evidence reveals that Licensee fails to conduct credible or reliable investigations when presented with evidence of clear wrongdoing, or even to recognize certain conduct as wrongdoing. Judge Milhollin did an extremely detailed analysis of Licnesee's failures in the conduct of its investigations into cheating incidents. TMIA fully supports his analysis and conclusions. SMR ¶¶ 200-219.

One of the clearest examples of Licensee's blindness with regard to employee wrongdoing of course is the incident involving VV and O, and Licensee inadequate response. Part of that incident remains uninvestigated- that concerning whether O knew he was helping VV cheat. Judge Milhollin correctly found that O knew that the answers he was completing for VV were part of an exam requirement, and that Miller knew of O's knowledge. Miller denies this.

The evidence clearly sustains Judge Milhollin's conclusions, particularly if one considers his remark at the hearing that the handwriting on the cover sheets to the document which O had assisted him on, was very similar to the handwriting contained within the exam which was not VV's. But because VV's confidentiality was protected throughout the hearing, only Judge Milhollin had a cover sheet with VV's actual name on it. Thus, TMIA could not determine this crucial issue for itself.

However, at the time TMIA was preparing its proposed findings, we contacted Chairman Smith telephonically, requesting that we be allowed to examine the originals of the exam. Chairman Smith responded by saying that he would examine them and if he felt the matter significant, he would contact TMIA. We never heard from him., and because of the pressure to produce findings on time, TMIA was unable to pursue the matter. Thus, a significant issue remains uninvestigated. O, of course, later cheated on the April NRC exam.

O's culpability is apparent from other evidence, also. VV testified that he was pressed for time. Tr. 26,678. The evidence supports a conclusion that O completed the exam for VV, signed his name to it, and turned it in, and not the inference that VV could have merely been asking O to answer some "questions"for him. It makes no logical sense that an individual with VV's reputed technical competence, would come to the plant, pressed for time, request O to answer some questions , wait for O to finish, attach the cover sheet and submit the exam to the training department. Also, the exam does contain errors. It would seem that if VV had waited for O to complete the answers, he would have certainly reviewed them for accuracy. Section H(k), the section which O completed alone, received a score of only 64%. VV testified " ... the type of question that he answered for me, he would not have had to look up any answers. It was common knowledge." Tr. 26,679 (VV).

The evidence supports a conclusion that O was always aware that he was assisting VV complete the exam. Further, it evidences the failure of Miller and the training department, who have always accepted O's denial of culpability, to ignore clear evidence of an individual's culpability in wrongdoing. That O was later caught engaging in widespread cheating on the April, 1981 exam is consistent with a lack of integrity which the training department should have recognized in 1979. It still refuses to do so, and pointedly illustrates that this Licensee refuses to recognize obvious cheating and wrongdoing. It certainly can not be depended on to prevent future cheating episodes, despite new procedures. The Board's reliance on such new procedures is completely arbitrary.

IV. CONCLUSION

Exceptions 11, 21, 126, 152, 158, 149, 159

The Board has shown that it is willing to ignore obvious evidence of cheating and to excuse Licensee for its wrongful conduct, because of a predetermined decision to support the restart of this reactor. It has a substantial interest in maintaining the credibility of its findings and conclusions in the PID of August 27, 1981. But, the evidence revealed in these reopened proceedings compel the conclusion that this company is not competent to operate a nuclear power plant, and that a number of the findings in the first PID must be overturned. See, TMIA Comments, supra.

The public health and safety should be the only consideration in determining restart - not, as the Board indicates, the happiness of the operators. Neither the Licensee, nor its operators, have a right to an operating license. It is a privlege. This Licensee has abused its privlege and has not redeemed itself.

For all of the above stated reasons, restart of TMI-Unit 1 must not be authorized.

Respectfully submitted,

THREE MILE ISLAND ALERT, INC.

By _____
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_____
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Intervenors

Dated: September 30, 1982

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

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

TMIA'S EXCEPTIONS
TO PARTIAL INITIAL DECISION
(REOPENED PROCEEDING)

1. The Board errs in its legal conclusions concerning the weight to be afforded the factual and legal conclusions reached by the Special Master in his Report. ¶¶ 2035, 2036, 2037, 2038.

2. Exceptions relevant to ¶¶ 2039 and 2040 are analyzed, infra.

3. The Board's conclusion in ¶ 2041 that it is probable that almost all, perhaps all, of the cheating of any important relevance to this proceeding has been identified, is without factual support, is arbitrary and capricious, and is contrary to the evidence.

4. The Board's assertion that the hearing was a form of investigation, is contrary to the evidence.

5. The Board's conclusion that the Licensee sincerely tried to uncover and report every instance of cheating, is irrelevant, and is contrary to the evidence. ¶ 2042.

Appendix A

6. The Board's conclusion that every suspicious parallelism has been identified, is unsupported by the record, and is contrary to the evidence. ¶ 2042.

7. The Board's conclusion that the testimony of the operators was thorough, and that they have performed well, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2043.

8. The Board errs is relying on the fact that 30-40 operators apparently did not cheat, as this is irrelevant. ¶ 2043.

9. The Board errs in ¶ 2043 in not adopting the Special Master's finding that the "... overall integrity of the operations staff has been found to be inadequate."

10. The Board's conclusion in ¶ 2044 that rational candidates would use the qualification exams as a preliminary test of their ability to pass the NRC operators licensing examinations, is irrelevant, is arbitrary and capricious, and is totally without support.

11. The Board's conclusion that no safety consequences resulted from the cheating episodes, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2049.

12. The Board's reliance on Licensee's reconfirmation of its commitment to abide by License Condition 9, is arbitrary and capricious. ¶ 2045.

13. Exceptions relevant to ¶¶ 2046-2049 are more thoroughly analyzed, infra.

14. The Board errs in relying on Mr. Arnold's disclosure of the VV incident to support a finding that Licensee has tried to make a full disclosure on all matters of possible relevance to the cheating incidents. ¶ 2050.

15. The Board's conclusion in ¶ 2051 is arbitrary and capricious, is contrary to the evidence, and is unsupported by the record.

16. Exceptions relevant to ¶¶ 2052-2060, are more thoroughly analyzed, infra.

17. The Board's conclusion that the Licensee cooperated fully in the reopened proceeding, is contrary to the evidence. ¶ 2060.

18. The Board errs in concluding that the evidence has not brought the adequacy of the course content into question. ¶ 2061.

19. The Board's failure to find bad faith or inherent incompetence in upper-level TMI-1 management from the cheating episodes, based on the evidence recited in ¶¶ 2063-2066, is arbitrary and capricious, and is unsupported by the record.

20. Exceptions relevant to ¶¶ 2067-2086, and 2089, are more thoroughly analyzed, infra.

21. The Board errs in concluding that it is unnecessary to bring every miscreant to justice, to resolve every uncertainty, and to produce a more reliable record. ¶ 2087.

22. The Board errs in ¶ 2088 in concluding that further proceedings would be disruptive based upon concern for

the operators, as opposed to concern for the health and safety of the public.

23. The Board errs in not endorsing Judge Milhollin's recommendation that O and W should be referred for criminal prosecution. ¶ 2093.

24. The Board errs in not referring the case against O and W to the Deparment of Justice. ¶ 2095.

25. The Board arbitrarily fails to discuss Judge Milhollin's evaluations of witness demeanor in its conclusions regarding witness credibility. ¶ 2114.

26. The Board errs in not endorsing Judge Milhollin's recommendation that Licensee be prohibited from using G and H to operate TMI-1. ¶ 2116.

27. The Board's conclusion in ¶ 2119 that the overall results do not demonstrate a poor understanding of the course material is contrary to the record.

28. The Board improperly relies on the fact that G and H have passed their NRC exams to support a finding of their competence at operators. ¶ 2119.

29. The Board's conclusion that its remedy is responsive to the G and H cheating episodes is arbitrary and capricious. ¶¶ 2120, 2121.

30. The Board's conclusion that MM did not cheat on the December 1980 quiz is arbitrary and capricious and not supported by the record. ¶¶ 2132, 2137.

31. The Board's inference in ¶ 2134 that W copied from GG is not supported by the record.

32. The Board's conclusion that it is very understandable why GG would not prevent W from copying, is arbitrary and capricious, and totally unsupported. ¶2134.

33. The Board's conclusion that GG's lack of candor does not make him ethically disqualified is arbitrary and ca[illegible]cious. ¶ 2136.

34. The Board's reliance on MM's statements outside the record violates due process and is severely prejudicial. ¶ 2132, footnote 232.

35. The Board errs in imposing no sanction on MM or GG. ¶ 2138.

36. The Board's finding that Mr. Shipman voluntarily reported the incident is contrary to the evidence. ¶ 2139.

37. The Board's finding that Mr. Shipman convinced Mr. Hukill and Mr. Arnold is contrary to the evidence. ¶ 2141.

38. The Board's conclusion in ¶ 2142 that Mr. Shipman's statement is not incredible is arbitrary and capricious and unsupported by the record.

39. The Board errs in rejecting Judge Milhollin's reasoning regarding Mr. Shipman's testimony concerning his memory of the events. ¶ 2143.

40. The Board's statement that there is a public interest in encouraging such disclosures, in ¶ 2144, is irrelevant, without support, and in any event, inapplicable in this case.

41. The Board's conclusion in ¶ 2145 that Mr. Shipman will never name the unidentified questioner or will never give a credible reason why he cannot name him, is an unrea-

sonable inference, is arbitrary and capricious, and is unsupported.

42. The Board errs in not recommending Mr. Shipman's removal or suspension. ¶¶ 2144, 2145, 2147.

43. The Board's failure to find evidence to support Judge Milhollin's conclusion that Mr. Husted solicited the answer and that P denied it untruthfully, is arbitrary and capricious. ¶ 2149.

44. The Board's legal conclusion regarding the weight to be afforded Judge Milhollin's witness demeanor evaluations is contrary to law. ¶ 2150.

45. The Board fails to attribute proper weight to Judge Milhollin's observation of witness demeanor. ¶ 2150.

46. The Board errs in ¶ 2151 in drawing nc inferences unfavorable to P or Mr. Husted because P was angered by the lack of NRC proctoring during the exam.

48. The Board's conclusion that the meaning of P's remarks was disputed is contrary to the evidence. ¶ 2151.

49. The Board's failure to assign evidentiary weight to Mr. Baci's silence is arbitrary and capricious. ¶ 2153.

50. The Board's conclusion that there is no independent corroboration of Mr. Ward's testimony is contrary to the evidence. ¶ 2154.

51. The Board's finding in ¶ 2156 that Mr. Ward's accusations are not sufficiently supported by reliable evidence, is contrary to the evidence.

52. The Board errs in concluding that Mr. Ward's testimony lacks any probative value whatever. ¶ 2157.

53. The Board errs in ¶ 2158 in failing to assess the credibility of either P or Mr. Husted.

54. The Board errs in not adopting Judge Milhollin's conclusion that P untruthfully denied observing cooperation on the weekly quizzes. ¶ 2160.

55. The Board's conclusion in ¶ 2161 that P is not untruthful is arbitrary and capricious.

56. The Board errs in reaching no conclusion unfavorable to P. ¶ 2162.

57. The Board errs in concluding that there is no reliable evidence that Mr. Husted himself cheated. ¶ 2166.

58. The Board's finding that Mr. Husted voluntarily came forward with some information is contrary to the evidence. ¶ 2166.

59. The Board errs in imposing no sanction on Mr. Husted in ¶ 2168, as the Board's reasoning is unsupported by the record and is arbitrary and capricious.

60. The Board's decision to give rumor testimony independent weight only as it relates to Licensee's response to the rumors, and no weight whatever insofar as it would tend to incriminate U, is arbitrary and capricious and contrary to law. ¶ 2173.

61. The Board errs in failing to give rumor testimony the independent weight it said it would in ¶ 2173, in evaluation of the evidence.

62. The Board errs in not adopting Judge Milhollin's credibility evaluation of U. ¶ 2174.

63. The Board's finding in ¶ 2175 that it was a rare occasion that Mr. Husted's office was available for studying is contradicted by the record.

64. The Board's failure to decide the subissue in ¶ 2176 is arbitrary and capricious.

65. The Board errs in failing to adopt Judge Milhollin's conclusion that U approached OO with an offer of help during the April NRC exam, as it is directly contradicted by the record. ¶ 2177.

66. The Board's statement that the principal hard evidence against U is his own testimony ignores the evidence, and the Board errs in hesitating to use his testimony in determining his guilt. ¶ 2184.

67. The Board errs in giving U "the benefit of the doubt" in light of overwhelming evidence to the contrary supporting his guilt. ¶ 2185.

68. The Board's assertion that the allegations against Ross have the most serious implicaton of the entire inquiry on cheating is unsupported. ¶ 2192.

69. The Board mischaracterizes Judge Milhollin's analysis which led him to the conclusion that YY's charges were substantiated. ¶ 2193.

70. The Board errs in concluding that Licensee's motion to reopen the record had merit. ¶ 2194.

71. The Board's characterization of YY as Ross's sole accuser in ¶ 2198, and its finding that other than YY's testimony there would be no direct evidence against Ross in ¶ 2199 are contrary to the evidence.

72. The Board's disagreement with Judge Milhollin's conclusions is arbitrary and capricous and contrary to law. ¶ 2199.

73. The Board's finding that YY's statement is equivocal is contrary to the record. ¶ 2201.

74. The Board misconstrues YY's testimony. ¶¶ 2201, 2203, 2204, 2205.

75. The Board's conclusion that YY's testimony and perceptions of the meaning of the conversation attributed to Ross is too subjective, internally contradictory, and unreliable, is arbitrary and capricious. ¶ 2205.

76. The Board in ¶ 2206 attributes improper weight to the testimony of GG, KK, and RR, and ignores evidence concerning these individuals.

77. The Board's statement that Ross has not been confronted with all the specifics of YY's accusations ignores the evidence. ¶ 2207.

78. The Board's credibility determinations concerning Ross in ¶ 2208 are arbitrary and capricious and unsupported by the record.

79. The Board errs in ¶ 2209 in concluding that Ross did not know changes were made.

80. The Board's conclusion that neither Ross's testimony on the answer key changes, nor on the proctoring is incredible, is unsupported in the record, and is arbitrary and capricious. ¶ 2209.

81. The Board mischaracterizes Judge Milhollin's analysis in ¶ 2217.

82. The Board's conclusion that the change was not incorrect or improper is contrary to the evidence. ¶ 2220.

83. The Board's conclusion that the attempt to change the answer key was not unconscionable, is contrary to the evidence. ¶ 2222.

84. The Board's conclusion that it is understandable why only lithium hydroxide would come to mind to some is arbitrary and capricious, and without factual support. ¶ 2223.

85. The Board's conclusion that the changes in the answer key to question B.5.a were made in good faith, is contrary to the evidence, and is arbitrary and capricious. ¶ 2224.

86. The Board's conclusion that there is no aspect of Mr. Ross' testimony bringing his candor into question, and that all of the charges made against him are unfounded, is arbitrary and capricious and unsupported by the evidence. ¶ 2225.

87. Since the Board dismisses YY's characterization of Ross' conduct, it errs in failing to at least analyze the evidence and implications regarding the possibility that Ross may have been bragging. ¶2225.

88. The Board errs in rejecting Judge Milhollin's findings as to the cheaters at TMI. ¶ 2227.

89. The Board's recitation of the facts in ¶¶ 2229 and 2230 mischaracterizes the evidence on the record.

90. The Board's conclusion in ¶ 2231 that this episode has received more attention than it warrants, that it

seems to be a situation where the regulatory scheme worked as intended, and that after the initial confrontation, the participants acted without friction, is arbitrary and capricious, and unsupported by the record.

91. The Board's implication in ¶ 2232 that it was management's duty to be present at NRC interviews with operators is without justification in law or fact.

92. The Board's conclusion that the incident is without important significance in ¶ 2234 is arbitrary and capricious and contrary to law.

93. The Board errs in not recognizing the seriousness of Licensee's failure to ask O and W why they cheated. ¶ 2236.

94. The Board's finding that the company made clear its attitude that cheating will not be tolerated and that this message was clearly understood, is not supported by evidence in the record. ¶¶ 2237, 2240.

95. The Board's statement that it is not clear what if anything was done about OO's report of rumors, is contrary to the evidence. ¶ 2238.

96. The Board's conclusion that Licensee took appropriate actions to meet with its operators, is arbitrary and capricious. ¶ 2240.

97. The Board errs in not adopting Judge Milhollin's conclusion that "If the Licensee had been trying to find Mr. Shipman's questioner, such a step would have been strange to omit," and in not concluding that Licensee failed to conduct

the interviews because it was deliberately not trying to identify cheaters. ¶ 2242.

98. The Board errs in finding that Mr. Arnold's judgment to defer investigation was rational. ¶ 2245.

99. The Board errs in not adopting Judge Milhollin's conclusion that the Licensee selected for investigation only matters unlikely to implicate management. ¶ 2246.

100. The Board errs in concluding that Mr. Wilson's opinions on cheating have little value. ¶ 2250.

101. The Board's finding that the nature of the evidence available in either direction could explain why Mr. Wilson presented no evidence showing the presence of cheating, is unsupported. ¶ 2252.

102. The Board's conclusion that Mr. Wilson did not misrepresent G and H's explanation, is contrary to the evidence. ¶ 2253.

104. The Board's conclusion that Mr. Wilson's investigation in ¶ 2259 was diligent, is contrary to the evidence.

105. The Board's conclusion that the rumors heard by OO merely fell into the cracks during the company investigation, is unsupported by the record and is arbitrary and capricious. ¶ 2261.

106. The Board's finding that the Licensee could not afford to waste time in organizing its investigation, and that turning to Mr. Wilson was understandable, is unsupported by any evidence. ¶ 2266.

107. Attributing anything other than a failing grade to all aspects of Licensee's investigation, is arbitrary and

capricious, and is unsupported by the evidence. ¶¶ 2267, 2268, 2269, 2270, 2271.

108. The Board errs in stating that the events involved in the VV/O incident do not directly relate to the reasons for reopening the evidentiary hearing. ¶¶ 2190, 2272.

109. The Board's conclusion that Mr. Miller did not know that O was deceiving him is arbitrary and capricious, and is unsupported by the record. ¶ 2276.

110. The Board errs in not finding that Mr. Miller knew that O knowingly aided VV to cheat. ¶ 2276.

111. The Board errs in relying on Mr. Arnold's testimony that it was widely recognized in the company that VV's reassignment was an action unfavorable to VV's career. ¶ 2281.

112. The Board errs in not adopting Judge Milhollin's conclusion that Mr. Arnold's handling of the VV episode was deficient. ¶ 2283.

113. The Board errs in concluding that there were no other examples of poor performance by VV identified which at the time could have been the immediate cause of his reassignment. ¶ 2283.

114. The Board's conclusion that it is likely that most of VV's peers in middle management saw his reassignment as a demotion, or at least as an impediment to advancement, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2284.

115. The Board's conclusion that in most success-oriented hierarchies, removing a management person from a direct in-line operations position to a non-supervisory supporting staff position would be regarded as an adverse action, is totally without factual support. ¶ 2284.

116. The Board's inference that Licensee is a success-oriented hierarchy is contrary to the evidence. ¶ 2284.

117. The Board errs in supporting Mr. Arnold's stated approach concerning actions taken against VV. ¶ 2285.

118. The Board errs in finding that VV's reassignment was an adequate remedy. ¶ 2286.

119. The Board mischaracterizes TMIA's arguments and the Special Master's report, and its conclusion that a demotion would have been destructive is arbitrary and capricious, and totally without support. ¶ 2286.

120. The Board's conclusion in ¶ 2287 that there is a need to inquire further whether Mr. Miller has made a false material statement in connection with the recertification of VV, is arbitrary and capricious.

121. The Board errs in concluding that the episode has only indirect relevance to the Board's jurisdiction. ¶ 2310.

122. The remedies proposed by the Board in ¶¶ 2311-2319 are inadequate, contrary to law, and violative of the Commission's August 9, 1979 Order.

123. The Board errs in concluding that there is no evidence of any improper conduct at any level higher than Mr. Herbein's level. ¶ 2320.

124. The Board's conclusion that the course content is in compliance with 10 CFR § 55, is irrelevant, is arbitrary and capricious, and is unsupported by the record. ¶ 2334.

125. The Board's conclusion that there was no failure of instruction is arbitrary and capricious, and is unsupported by the record. ¶¶ 2337, 2341.

126. The remedies proposed by the Board in ¶ 2347 are inadequate, contrary to law, and violative of the Commission's August 9, 1979 Order.

127. The Board's conclusion that, if properly implemented, a formal certification procedure including signed statements, founded on the trainer's evaluation of candidates by means of properly administered and graded examination, will enhance the credibility of Licensee's certification process, is unsupported by the record, and is arbitrary and capricious. ¶ 2350.

128. The Board's conclusion that when implemented, such steps should eliminate the possibility of certifying candidates for the NRC examination who have cheated in internal examinations on one or more occasions, is arbitrary and capricious, and is unsupported by the record. ¶ 2351.

129. The Board's statement that they trust that the VV incident was an anomaly and that the present management of TMI-1 would not condone the procedure involved in that incident, is totally without support, and is arbitrary and capricious. ¶ 2351.

130. The Board's conclusion that the new grading procedure was an improvement over the previous grading procedure

and that it was adequate for the October 1981 examinations is totally without support and is arbitrary and capricious. ¶ 2361.

131. The Board mischaracterizes the Special Master's Report in its definition of the issues examined. ¶ 2363.

132. The Board errs in concluding that the Special Master failed to take into account the oral portion of the exam in his criticism of the content of the examination. ¶ 2364.

133. The Board errs in concluding that the portion of the Special Master's Report on the substantive quality of the NRC exam has gone well beyond the jurisdiction delegated to him and the Board. ¶ 2366.

134. The Board errs in not adopting Judge Milhollin's findings that the information sought on NRC exams is so detailed that no operator could have supplied it without memorization. ¶ 2367.

135. The Board's remedies concerning problems with NRC exams are inadequate, and in violation of the August 9, 1979 Commission Order. ¶ 2372.

136. The Board misconstrues and fails to adequately address the problems identified by TMIA and the Special Master in his report regarding the review proocess. ¶ 2375.

137. The Board's conclusion that the hearings themselves constituted completion of the investigation, and any inference that the Staff's response reflects favorably on

Staff attitude, is arbitrary and capricious, and is contrary to the evidence. ¶ 2393.

138. The Board's statement that the rumors surrounding U were elusive in nature, is contrary to the evidence. ¶ 2394.

139. The Board's conclusion that the Staff's response was adequate and appropriate, is arbitrary and capricious. ¶ 2394.

140. The Board's conclusion that Mr. Hukill, Mr. John Wilson, and management were merely naive, is irrelevant, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2396.

141. The Board's conclusion that the Licensee's training program was well designed to train qualified operators and that there was a rational plan to implement the program, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2399.

142. The Board's conclusion that the Licensee was unstinting in the resources devoted to the training program, is arbitrary and capricious, and is without any factual basis in the record. ¶ 2400.

143. The Board's conclusion that the cheating episodes are not a reflection on upper-level management's competence, good intentions, and efforts is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2400.

144. The Board's conclusion that the integrity of Licensee's training and testing program failed because there

was not a clear appreciation of which personnel or which component of Licensee's management had responsibility for the integrity of the program, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2401.

145. The Board's failure to conclude that the instructors failed to instruct, or that the students failed to learn, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶ 2410.

146. The Board's conclusion in ¶ 2410 that the operators have been reexamined by the NRC under suitably controlled circumstances and that Condition 9 for the staffing of Unit 1 has been met, 14 NRC at 580-81, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence.

147. The Board's conclusion that the monetary penalty can provide reasonable assurance that the Unit can be operated without endangering the public health and safety, that the penalty will be long remembered and will emphasize the importance of the corrective administrative procedures to those charged with implementing them and to those charged with obedience to them, and will attract the attention of all interested parties, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence. ¶¶ 2411, 2412.

148. The Board errs in not imposing sanctions against any company personnel except G and H. ¶ 2414, 2415.

149. The Board's conclusions in ¶ 2417 dealing with the unhappiness and demoralization of the operators, are totally irrelevant, arbitrary and capricious, unsupported by the record, and contrary to the evidence.

150. The Board's conclusion in ¶ 2418 that the sanctions are appropriate, is arbitrary and capricious, is unsupported by the record, and is contrary to the evidence.

151. The Board's recommendations, penalty, and conditions in ¶¶ 2419, 2420, 2421, and 2422 are inadequate, contrary to law, and in violation of the Commission's August 9, 1979 Order.

152. The Board's failure to invalidate the conclusions of the Partial Initial Decisions of August 27, 1981, 14 NRC 381, and December 14, 1981, 14 NRC 1211, is arbitrary and capricious, is unsupported by the record, is contrary to the evidence, and is in violation of the Commission's August 9, 1979 Order.

153. The Board errs in totally ignoring the issue of staff attitude, discussed in the Special Master's Report at ¶ 282.

154. The Board errs in ¶ 2072 in concluding that new NRC procedures will insure the integrity of operator licensing exams.

155. The Board errs in distinguishing between ethics and competence. ¶¶ 2119, 2135.

156. The Board errs in making no direct finding against Mr. Miller. ¶ 2318.

157. The Board erred in denying TMIA's Motion to Direct Execution of Affidavits and to Enter Documents into Evidence, dated January 1, 1982.

158. The Board evidenced a strong bias against the intervenors and in favor of the Licensee by continually finding arbitrary excuses for the Licensee's wrongdoing and incompetence.

159. The Board errs in authorizing restart of TMI-1.

Respectfully submitted,

Louise Bradford

Louise Bradford, TMIA

Dated: August 20, 1982