

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE COMMISSION

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

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

TMIA COMMENTS ON LIST OF INTEGRITY
ISSUES IN RESTART PROCEEDING

By memorandum dated January 20, 1984, TMIA was notified of a request by the Commission that the parties to the restart proceeding submit comments on whether the "List of Integrity Issues" prepared by OGC and OPE is accurate and complete, whether such issues are considered to be important, resolved or unresolved, which unresolved issues must be resolved before a restart decision, and what needs to be done to resolve them.

In light of the Commission's January 27 vote, TMIA seriously questions whether a majority of the Commission will meaningfully consider these comments, as it appears quite clear to us that a decision to restart TMI-1 has been made irrespective of the facts which the Commission already has before it. We expect this may amount to another tremendous waste of our time and scarce resources. However, out of respect for the two Commissioners who are genuinely concerned with reaching a fair,

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well-reasoned and accurate resolution of these issues TMIA submits these comments.

The Commission should note that TMIA has taken the liberty to substantially change and expand upon many of the issues which were attached to the January 20 memo. We believe that to provide meaningful comment, it was necessary to identify the scope of outstanding issues in precise detail. While we may have forgotten to include some open questions, we believe the following list is at least illustrative of the types of issues still unresolved in this case. Each issue which bears on the integrity of Licensee must be resolved before this Commission allows restart. As a matter of principle, and as a matter of law, no other course is acceptable.

List of Integrity Issues

I. Items Raised In Original Management Hearing

A. The Company's Response to the TMI Accident, Including Whether Licensee Withheld Information During the Accident (the "Information Flow" Issues).

This issues is important and unresolved. See TMIA's Brief in Support of Exceptions, dated September 30, 1982, at pp. 23-30.

The Licensing Board failed miserably in its obligation to resolve the "information flow" issue, as directed by the Commission in the context of Board Issue 10 (no intervenor had a specific contention on this issue) for the following reasons: the Board relied in large part on NUREG-0760 whose selective review

of facts allowed the Board to ignore clear signs of deliberate and intentional withholding of information; the Board refused to accept into evidence the "Udall" report, or even to take official notice of the report, which found deliberate withholding of information from State and Federal officials by company management, and whose analysis was supported over that of NUREG-0760 by then ACRS fellow Edward Abbott; the Board never questioned key management officials on this subject during the ASLB hearings, and refused to do any independent analysis of the issue, despite its importance; and while recognizing the incomplete hearing record, blamed the intervenors, none of whom had contentions on the issue, for its own failure to develop the record. Thus, some of the most important questions have remained unanswered.

Clearly, management analyzed a great deal of data on March 28, recognized they were in the midst of a severe situation, and they failed to tell the outside world what they knew. It strains credulity to attribute this to ignorance or stupidity. It is more likely the manifestation of the same type of "it's none of your business" attitude observed by Thomas Gerusky of the State's Bureau of Radiation Protection during a meeting with GPU officials the day of the accident. IE interview, 10/180. See, TMIA Comments on December 21, 1981 Commission meeting, at p. 13.

New policies and procedures simply can not change such an attitude. The "information flow" issue is of further importance in evaluating the current integrity of GPU, since to this day the company has never recognized, nor has ever meaningfully

investigated reporting failures. Indeed, GPU's response to the issue was to retain and promote the two key management officials implicated in deliberate withholding of information from the State, Gary Miller and John Herbein. Despite their eventual removal, no wrongdoing by these or any other officials has ever been acknowledged.

In addition to the information flow issue, a major aspect of Licensee's response was presented in testimony to the ASLB by Messrs. Keaton and Long, who headed up Licensee's own internal task force investigation into the accident, and whose testimony, relied heavily upon by the ASLB, "offered a positive view on the actions taken by Licensee's management in connection with the TMI-2 accident." PID ¶464.

Yet Licensee never presented its task force report to the ASLB, and never presented it to the Commission until Commissioner Gilinsky specifically requested it from the company at the October 14, 1981 oral argument on immediate effectiveness issues. Moreover, not only was the Faegre and Benson report on the Hartman allegations explicitly concealed from the ASLB in connection with Licensee's testimony on Board Issue 10, it was never presented to the Commission in response to Commissioner Gilinsky's request, and was never even alluded to in Licensee's final accident investigation report issued three months after issuance of the Faegre and Benson report.

In reviewing the final task force report, it becomes apparent that its true significance lies not with the final conclusions, per se, but rather how the conclusions in the final

version, produced over a year after the first draft was presented for comment to company management, changed from the original report. After each draft was submitted to management for comment, the task force rescinded significant findings of culpability which had been previously reached, unanimously, by members of the task force. See, TMIA Interim Comments on B&W Trial Record, pp. 20 et seq; Section E, supra.

Unaware of course that any earlier drafts of any report even existed, neither the ASLB nor the parties ever questioned Mr. Keaton on some of the more notable modifications made in the various drafts.

FURTHER ACTION REQUIRED: The Appeal Board or the Commission should take sua sponte review of the information flow issue, and thoroughly examine the materials available before restart, and should reopen the record regarding the "Keaton" investigation.

ISSUES STILL OUTSTANDING:

o What were company officials aware of and what did they discuss internally compared with what they reported to State and Federal officials the day of the accident?

o What exactly did Station Superintendent Gary Miller know and when did he know it? e.g., how could crucial information have been withheld from him once the "command team," set up to interpret and stabilize the accident, started meeting, and what information known to the command team was withheld from the State?

IE's explanation is that the command team functioned poorly, but this conflicts with the Udall and then ACRS fellow Edward Abbot's analysis.

o Did Miller believe the core had been uncovered on March 28? IE unconditionally and unexplicably concludes at p. 20 of NUREG 0760 that Miller did not believe the core had been uncovered, despite his own testimony that he and others believed the core could have been uncovered, the testimony

of others in the control room, and the fact that strategy sessions were focused on trying to keep the core covered.

o What was understood about superheated steam conditions on March 28?

IE concludes, unsupported by testimony, that the significance was not understood, providing no alternative explanation as to what the hot leg and thermocouple readings could have meant to those on-site. NUREG 0760 at 19.

o What information did Miller, Herbein, and Kunder deliberately withhold from the Lt. Gov. during their meeting with him and other State officials the afternoon of March 28?

o Why was a false impression of stability communicated to the State, both in Miller's phone conversation early in the morning in which he later admitted to George Troffer of Met-Ed headquarters in Reading to withholding information, and in his meeting with the Lt. Governor that afternoon?

IE fails to mention, and the ASLB, at PID ¶475, fails to attach evidentiary significance to the impressions of Thomas Gerusky of the state's Bureau of Radiation Protection that he and others were being lied to.

o Was Miller aware of the pressure spike before he left for the Lt. Governor's office at 2 P.M. on March 28? If he knew, why did he not report this to the Lt. Gov, or to the Commission?

o What are the reasons and the significance of licensee's denial of access of B&W engineers to the site on the afternoon of March 28?

IE does not discuss this.

o What was the involvement of George Kunder, currently head of TMI-2 Plant Operating Review Committee (PORC), and also named the "mystery man" by workers at Unit 2, according to Richard Parks, who accompanied Miller and Herbein to the Lt. Governor's office at 2 P.M. on March 28, in withholding information?

o What individuals in the control room the day of the accident, including Michael Ross, Unit 1 Manager of Operations, and Daniel Shovlin, Unit 1 Maintenance Manager, were aware of the possibility of core uncover?

o Why did GPU's own employees fail to report accident conditions fully and accurately to their own management in a timely manner?

o Why did the in-core thermocouple data recorded with a digital voltmeter prior to 9 A.M. on March 28, disappear and then reappear on or about May 7, 1979?

o Why there was no reporting to the Commission about the high temperatures indicating core uncover, for at least two days?

o Why was the "pressure spike," which occurred at 1:50 P.M. on March 28, indicating a hydrogen explosion and core uncover, not reported to the Commission until two days after its occurrence?

o Who was responsible for the decision to withhold information regarding the pressure spike from the Commission until March 30.

o Why was it not public knowledge until May 7, 1979, during the course of a House Interior Committee visit to TMI, that the pressure spike was observed contemporaneously with its occurrence at 1:50 P.M. on March 28?

o Were any current GPU Nuclear, GPU, GPU Service Corp. or TMI-1 personnel involved in any withholding of information, and were the precise circumstances of each instance of withholding?

o What were the precise roles of senior GPU management in reporting failures?

o Did licensee's response to the accident indicate a lack of forthrightness inconsistent with its responsibilities to the NRC, the Commonwealth, and the public health?

o What is the significance of Mr. Stello's expression of agreement with the Udall report conclusion, at the December 21, 1981 Commission meeting?

o What is the significance of GPU's position that the company's failure to pass on the information they had resulted from a lack of perception of the severity of the accident coupled with a perception that unless PAG guidelines were approached, it was not necessary to discuss plant operational uncertainties with the State.

o Has any company official yet been able to credibly explain how these experienced engineers could have interpreted their emergency reporting requirements in such a convoluted fashion?

o How does the company's explanation as to why information was not communicated, i.e. its convoluted interpretation of Licensee's emergency procedure reporting requirements, impact on its integrity?

o Why has GPU never meaningfully investigated this issue internally, particularly in light of B&W Ex. 339 which set forth a plan of investigation for the Keaton task force, but resulted in no more than limited discussion in the report itself?

o Was the "reporting failure" issue considered one in need of resolution and action?

o How are company responses resulting in the retention and promotion of Miller and Herbein until 1982, the later to Vice President of GPUN for Nuclear Assurance, consistent with NRC, State, or public health requirements?

o What is the overall impact on the integrity of the corporate entity for Licensee's decision to promote Miller and Herbein after being implicated in reporting failures?

o Did Keaton, Long, and the Licensee deliberately deceive the ASLB in failing to present the "Keaton" final report and earlier drafts, when Licensee presented testimony to the ASLB which testimony, relied heavily upon the ASLB, "offered a positive view on the actions taken by Licensee's management in connection with the TMI-2 accident?"

PID ¶464.

o Why did Licensee fail to present its task force report to the ASLB, and to the Commission until Commissioner Gilinsky specifically requested it from the company at the October 14, 1981 oral argument on immediate effectiveness issues?

o Why was the Faegre and Benson report on the Hartman allegations explicitly concealed from the ASLB in connection with Licensee's testimony on Board Issue 10?

o Why was the Faegre and Benson report on the Hartman allegations explicitly concealed from the Commission in response to Commissioner Gilinsky's request?

o Why was the Faegre and Benson report on the Hartman allegations never even alluded to in Licensee's final accident investigation report issued three months after issuance of the Faegre and Benson report?

o What is the significance of Licensee's failure to include the "Hartman" issue in its Final Accident Investigation report, which was issued internally two months after the Faegre and Benson report was issued, or to follow up with a further investigation into the leak rate issue after Faegre and Benson, which was unable to interview anyone but Hartman, was produced?

o Who did Keaton and Long interview, when, and for what purpose?

o Why did management direct the Keaton's task force investigation into the accident?

o Did Messrs. Kuhns and Dieckamp's present false statements during the December 5, 1983 Commission meeting in describing the purpose of the internal accident investigation, in light of B&W 342?

o What are the implications of management's continuing failure to accept public blame for the accident, evidenced by its lawsuits against B&W and the NRC?

o Explain the significance of any discrepancies between the findings and conclusion of the Keaton report, and the allegations regarding responsibility for the accident contained in complaints filed by Licensee in its suits against the NRC and B&W.

- o Were improper modifications made to NUREG 0600, when the draft report was submitted to GPU for comment?
- o Did Licensee submit false statements to the NRC in its sequence of events report regarding the throttling of HPI at 5:41 that morning?
- o If Licensee position is that HPI was not throttled, why has it not changed its official sequence of events report to reflect this view?
- o Did management wilfully attempt to constrain the NRC's inquiry of the Hartman allegations by sitting in on interviews?
- o Did management wilfully attempt to constrain the NRC's Special Inquiry Group investigation of the accident by sitting in on interviews?
- o Do company officials have the appropriate ethical orientation to insure vital information is communicated to the State, Commission, and the public at all times?
- o Do the removal of Miller and Herbein have any effect on absolving the corporate entity responsible for GPU's response to the accident?

B. Is Licensee Committed to Establishing an Adequate Training Program?

ISSUES STILL OUTSTANDING

- o Does the delay in obtaining a TMI-1 replica training simulator reflect adversely on management's attitude toward training?
- o Does the amount of time that TMI-1 operators will spend annually in simulator training reflect adversely on management's attitude toward training?
- o Does management's failure to establish a training program that is equivalent to a college curriculum reflect adversely on management's attitude toward training?
- o Does failure to require operators to attain a 100% test score on the NRC's operating license exam reflect adversely on management's attitude toward training?

The above four issues are important and unresolved. These are issues currently before the Appeal Board, on appeal by the Aamodts. They are obviously key to proper resolution of issues raised by the accident and subsequent evidence concerning the quality of Licensee's training and testing programs revealed

during the "cheating" hearings. They go to the very heart of Commission concerns in the August 9, 1979 Order establishing the hearings process.

FURTHER ACTION REQUIRED: The Appeal Board or the Commission should take sua sponte review of the issues before restart, as the ASLB did not credibly resolve them.

o Does Licensee maintain an adequate awareness of operator attitude, foster morale and insure an appreciation of the significance of operator actions?

The B&W record, testimony in the "cheating" hearings, and most recently the BETA and RHR reports, show that Licensee has a long history of not maintaining an adequate awareness of operator attitude, fostered morale, or ensured an appreciation of the significance of operator actions, and that this attitude continues to the present day. See below.

o Why was there no investigation regarding why operators reduced HPI during the April 23 precursor event?

The B&W trial record showed that during the April 23 event, operators reduced HPI after initiation, Keaton dep. at 141, precisely the same action they took during the 1979 accident resulting in core damage.

o What follow-up was made regarding Mr. Keaton's note, discussed in his B&W deposition, at 137, in reference to the April 23 transient, "operator doesn't really have good knowledge of what is happening - seems to react too quickly according to procedures rather than thinking," B&W Ex. 337 at 3819?

o What is the significance of Keaton's inability to recall what action was taken as a result of the above referenced finding, Keaton at 177, and his inability to recall any concern by the task force whether operators reduced HPI for correct reasons, or any concern about operators' ability to identify and correctly distinguish between a steam line break or a LOCA? Id. at 186.

o Why was management unresponsive to concerns expressed by operators regarding the number of alarms which went off during the April 23 transient?

o What was management's response to a May 3, 1978 memo to management written by operator Frederick who was on duty at the time of the April 23 event, in which he stated,

The alarm system in the control room is so poorly designed that it contributes little analysis of a casualty. The

other operators and myself have several suggestions on how to improve our alarm system. Perhaps we can discuss them sometime, preferably before the system as it is causes severe problems. See B&W Ex. 264. Keaton dep. at 128, 129.

- o Why were emergency procedures not changed after the April 23 event, to instruct operators what to do when pressurizer level increases when pressure drops?

During the April 23 transient, the plant experienced a condition where pressurizer level increased while pressure dropped, B&W 4059. But because Licensee presumably failed to attach significance to this aspect of the transient, (see. e.g., Keaton dep. at 225), it did not bother to modify emergency procedures or training to instruct operators what to do in the event the system experienced the condition again. Thus, on March 28, 1979, when the strip charts again showed pressurizer level high while pressure was dropping, the operators were unable to diagnose the LOCA resulting in steps which led to core damage.

- o Why was management unresponsive to concerns expressed by operators concerning malfunctioning of the condensate polisher and the need for an automatic bypass?

The operators were frequently faced with the problem of water getting into the instrument air lines, which operate the discharge and inlet valves, causing these valves to shut, resulting in a shutdown of feedwater pumps and thus a loss of feedwater. This problem could have been entirely avoided by installation of an automatic bypass valve around the condensate polishers. See B&W 368.

- o Were recommendations for "automatic capability of the CO-Y-12" "general knowledge?" Id.

- o What is the significance of then GPU President Arnold and Maintenance Superintendent Daniel Shovlin claim during the B&W trial, of being entirely unaware of the condensate polisher problem or its significance (See Shovlin dep. at 161, or of the 1978 incident provoking Zewe's memo. Arnold at Tr. 1497, 1642)?
- o What is the significance of the fact that at the time of the Unit 2 accident, there were fully 13 work requests outstanding with respect to the condensate polisher system. Shovlin dep. at 165?

- o What was the basis for Gary Miller assertion that management's failure to respond to operator complaints and suggestions for improvement of the condensate polisher system as an example of the recurrent pattern by management of general unresponsiveness to operators' complaints (B&W 360 at 17, 18, 20)?

- o What was management's response to the above statement of Gary Miller?

- o What is the significance in terms of company integrity of then company President Arnold's comment during the B&W trial that he

did not consider the recurrent problem with the condensate polishers as representing any threat to the safe operation of the plant, Tr. at 1498, despite the fact that this very malfunction started the TMI-2 accident?

o Has management been responsive to operator's complaints that training does not train them to operate the plant?

o How did management respond to concerns expressed by shift foremen Book regarding the poor quality of training at TMI at the time his memo was sent?

On June 17, 1977, Unit 1 shift foreman T.L. Book sent the following handwritten letter to Unit 1 superintendent James P. O'Hanlon, who later reported it to Miller:

Since taking the regual exam this past February, I have not been in a single training lecture or received any guidance as to what course of study to pursue to best fulfill the NRC requirements meaningfully.

Also, I do not believe that sending out a casual memo or documenting on green sheets that an E.P. was read on back shift constitutes good training practice.

Like all else the S/F & S/S's have become the Godhead of 60 hrs. required training per year. Its time to put training back in the training dept. where it belongs and in a responsible fashion. This means more training space, people and expertise. This also means 6 shifts for CRO's, S/F and S/S's.

While I fully realize that there is no pat answer for our complex training problems, I like many other operations people have made suggestions to various training personnel. However it seems as though those fall on deaf ears or end up in the circular file. We have been told "write up your suggestions and concerns or call us." We did! Nothing happened.

Besides being just plain frustrated over all of this, it is my opinion that it is somewhat erroneous to say we fulfill the NRC requirements when they are based on documentation of subject matter supposedly covered on shift. Many times more hours are documented than were actually used for training.

I am willing to listen to or discuss anything on the topic with anybody. I am willing to help solve the problem if I can help in a meaningful way.

Something must be done !!!

B&W 564; Miller dep. 477.

o How does GPU's decision prior to the accident to reduce operator training and thus possibly violate training program commitments reflect on management integrity?

o How did management respond to the 1978 management auditors finding about the training department: "The quality of operations personnel is on a continuous downhill trend." B&W 843 at 45229?

o How did management respond to similar concerns by Gary Miller, discussed in his post-accident investigation interview, B&W 360, where stated,

... everytime I went to a shift foreman or shift supervisor meeting one of the single most emotional complaints was training. Lack of. Lack of real training. B&W 360 at 2?

o How has Licensee responded to similar concerns voiced by Judge Millhollin at ¶248 of the SMR, "On balance, the evidence showed that many of the operators did not have confidence in the training program."?

o What is the significance of, and how has Licensee responded to the following findings contained in the RER report, produced last year:

- close to 3/4 of the operators were dissatisfied with the training for licensing and even a greater proportion strongly were dissatisfied with requalification training.
- only 60% of those who responded agreed that the content of the last exams was job relevant and only 1/3 agreed that the oral portion of the exam tested how one would act in an emergency.
- most considered that the training department is not oriented to the needs of the operators.
- there is strong agreement that there is not enough training on plant conditions.
- operators complained of a lack of convergence between training, testing, and the ability to operate the plant. 3 out of 4 denied that training prepared them for what they actually do. In their perception training prepared individuals to pass exams and is successful at this but it doesn't prepare them sufficiently to operate... To compound this, what is taught in training is different from what they experience in the plant.

o Did company officials testifying before the ASLB mislead the Board by implying that GPU was improving its training programs?

o What is the significance of, and how has Licensee responded to the following findings found in the B&W record:

- Overtime, including "the extended hours," was the factor responsible for the "greatest negative impact on morale" according to the 1978 audit, and was becoming an increasingly serious problem. B&W 843 at 45217.
- B&W 884 "Excess overtime -- effective course of action not developed.
- Overtime was also a problem discussed by Gary Miller in his January 1979 presentation to GPU management on TMI. B&W 783.
- The Glickman auditors in late 1979 discovered the feeling that "working hours on-site are ridiculous." B&W 32 at 11.

o Was the 1978 training program in violation of NRC requirements, in regard to

- the Book memo;
- the requalification program;
- Mr. Zechman's placement as head of training.

o Was management aware of deficiencies in their 1978 training program, and how did they respond to these deficiencies?

o How did management respond to B&W 304, a September 1, 1978 memo by Beers, of the training department, which states, "... but overall approximately 1/2 of the licensed people are not attending requalification training," and to a November 2, 1978 memo, Beers writes to Miller, "decrease in attendance from last report." B&W 776.

o How did management respond to B&W 462, a March 1, 1977 Memo from Mr. Tsaggaris to a number of people, including Gary Miller, Jack Herbein, and L. L. Lawyer of the training department, concerning the Unit 2 on the job training program, where Mr. Tsaggaris states in a handwritten comment,

We are in trouble on this program! Progress for the last two weeks has almost been nonexistent. All groups have fallen way off the required curves... I don't know what the problem is but we had better find out now or we will never make it by 7-1. This matter will be discussed at G.P. Miller department head meeting on March 3, 1977.

o How did management respond to the late 1979 finding by the Glickman auditors that cases existed where one could pass the licensing tests without taking any training session?

o What is the significance of the company's decision to have Mr. Zechman, the pre-accident acting supervisor of training who not only did not have his operator's license, spend full time studying for his license, spending no time running the department, at a time of major training deficiencies within the department? See Arnold B&W testimony at Tr. 1706.

Some time between the fall of 1978 and the accident, Zechman took the examination and failed to pass it. Id. Miller believed that the department suffered because of Zechman. B&W 360 at 29.

o How did management respond to Book's memo?

o How does the NRC's investigation of the so-called "Book" memo resolve the obviously sincere concerns expressed by Book regarding the quality of training?

o What is the significance of the statement made in the cover memo accompanying Licensee's December 5, 1979 response to NRC's Notice of Violation, which downplays the seriousness of the training problem to the NRC, i.e.,

"[d]uring the period from 1975 to 1978, operators at Three Mile Island had a failure rate on their NRC written and oral exams half the industry average. NRC performance evaluations ranked the Three Mile Island facility above the

average for comparable plants. Metropolitan Edison does not feel that there was any significant decline in the Company's performance,"

in light of the contradictory findings by Licensee's own 1978 management audit, that "the quality of operations personnel is on a continuous downhill trend due to lack of training? B&W 843 at 45229.

o. Were Licensee's assurances to improve training, contained in its response to the accident Notice of Violation, followed through upon?

In Licensee's response to the NRC's Notice of Violation, dated December 5, 1979, the company downplays the seriousness of the training department problem. Licensee, however, assures the Commission that "[a] shift technical advisor has been added to the normal shift complement and substantial additional attention will be directed to the operating experience of similar reactors and the nuclear industry as a whole" and "[a] major revision and expansion in the training programs for the operating organizations has been made ..."

o In light of the above referenced assurances, what is the significance of last year's BETA report finding that :

-- There are a number of problems associated with the STA program...Our observation is that [proper STA's training] is not being done...There is a serious lack of understanding on the part of the Shift Supervisor... on the role of the STA... There is also a lack of understanding on the part of the STA's as to just what role they are to play, particularly during the vast majority of time that the plant is not in an abnormal mode. BETA at 70.

o Is Licensee committed to providing high quality instruction?

o What is the significance of Licensee's failure to immediately remove Mr. Husted from training licensed operators, and why has the company now placed him as head of non-licensed training?

o What is the significance of the Licensee's decision to keep Mr. Husted as training instructor, in light of the ASLB conclusion, "if Mr. Husted is representative of the TMI-1 training department, his attitude may be partial explanation of why there was disrespect for the training program and the examinations...[W]e question whether he is able, or if able, willing, to impart a sense of seriousness and responsibility to the TMI-1 operators." PID at ¶2167?

o What is the significance of GPU decision to remove Mr. Husted as a trainer of licensed operators only in response to the Governor's strongly worded letter of June 1983 opposing restart

on this and other grounds? (See, generally, TMIA's Appeal Board brief on exceptions to the management PIDs, pp. 61-64)

- o What is the significance of the BETA audit recent finding:
 - There exists a lack of supervision of instructors in the TMI Training Department....In some cases, it was because supervisors who were present did not react to situations where instructors were not performing their assigned tasks....In other cases, it was noted that there just was not any supervision present.... It would seem that this finding should be unnecessary considering the seniority and experience level of the training staff....However, based on the observations made, there should be concern over classroom performance. BETA at 58? [*This finding is particularly significant since the ASLB made such supervision a condition for restart. PID ¶ 2421]
- o Is the BETA audit correct in stating at p. 57, that GPU puts too much emphasis on proving to the world that the training program is good and not enough on doing what should be done to produce a competent operator?
- o What is the significance of Special Master Milhollin's observation that operators demonstrated an unacceptably poor understanding of course material? SMR ¶¶ 26-27, 242-247.
- o Has Licensee taken any corrective steps in response to the Special Masters finding that the method of training instruction emphasizes memorization, rather than understanding concepts?
- o What is the significance of operators' testimony during the "cheating hearings" that examinees are still force fed information and encouraged to memorize?
- o Has Licensee taken any corrective steps in response to the Special Masters finding that when operators are weak in a given area, no apparent effort is made to teach them materials in that area?
- o Has Licensee taken any corrective steps in response to the Special Masters finding that many questions on quizzes are unrelated to a candidates ability to operate the reactor?
- o Has Licensee taken any corrective steps in response to the Special Masters finding that memorization diminishes respect which operators have for the training program?
- o What is the significance in terms of Licensee's current credibility, of its allowance of extremely lax exam testing procedures which permitted significant cheating to occur on company and NRC exams from at least the time of the accident, through the 1981 NRC licensing exams, while at the time cheating was occurring, Licensee was developing and enthusiastically presenting to the ASLB a revised training and testing program in

response to severe criticism Licensee's training department had received as a result of the various investigations into the accident -- a specific subject of concern discussed in the Commission's August 9, 1979 Order, CLI-79-8, 10 NRC 141 (1979), and at the time Licensee management was also already aware of the 1979 cheating incident involving VV and O, and of Station Superintendent Gary Miller's criticism of training as it related to VV's cheating? See, TMIA Ex. 71.

o What is the significance in terms of Licensee's attitude toward training and testing, that Licensee allowed widespread cheating on company exams, which is the only vehicle to test operator's knowledge of changes at the plant and thus knowledge vital to safe plant operation? PID ¶2044o What does Licensee's response to the VV/O 1979 incident, an obvious, early indication of the need for better exam administration procedures and a better attitude toward training and testing, say about Licensee's willingness to take independent action to correct training and testing deficiencies?

o What is the significance of the Licensing Board questioning of the "quality assurance and quality control over the delivery of instruction at TMI-1" and its doubts about the "quality of instruction (including delivery of instructional material, composition of examinations, and grading)?" PID ¶¶2332, 2334.

o What in Licensee's history, which includes poor training, cheating, and failure to take independent action to correct deficiencies unless under intense scrutiny, or its refusal to recognize deficiencies even when under such scrutiny, indicates that it is capable of exercise the requisite quality control, quality assurance, and feed-back mechanisms to assure high-quality training and testing, which the ASLB recognizes is beyond the power of regulators and regulations to put an appropriate program in place?" (PID ¶2327)

o In light of its long history of poor training, cheating, and failure to take independent action to correct deficiencies unless under intense scrutiny, or its refusal to recognize deficiencies even when under such scrutiny, such failure a central theme in B&W's case, can "new management structure" or "new procedures" provide reasonable assurance that Licensee can now objectively police itself?

FURTHER ACTION REQUIRED: The record must be reopened to admit relevant aspects of the B&W record, the RHR, and the BETA report, referred to in the above issues.

In addition, these issues must make their way through the appeal process, particularly where Judge Milhollin's findings have been challenged by the Licensing Board. Judge Millhollin's findings, and those of the ASLB, are now before the Appeal Board. It is inconceivable that restart be allowed before these issues are resolved, particularly in light of recent evidence which shows that the operators still do not feel the training and testing program prepares operators to handle plant situations.

Further, the Licensing Board questioned the "quality assurance and quality control over the delivery of instruction at TMI-1" and raised doubts about the "quality of instruction (including delivery of instructional material, composition of examinations, and grading)." PIDs 2332, 2334. These criticisms are fundamental to Licensee's training program.

The Board also severely criticized the validity of the NRC exam. PID 2352-72. This issue was flagged for the Commission's attention by the ASLB, which felt its "jurisdiction" would not permit it to draw conclusions on it. It is incumbent upon the Commission to make immediate inquiries as to whether conditions are now satisfactory.

Further, passing an exam is but one indicator of competence. Qualified operators must develop a firm base of knowledge from a quality training program. Based on the Board's own analysis, there is not currently reasonable assurance that Licensee is committed to giving such quality training at TMI-1. Clearly, this is an issue which is fundamental, and must be resolved prior to restart.

Thus it appears that one of the most significant causes of the accident, one of particular concern to the Commission in its August 9, 1979 order, has not been rectified. Despite what arbitrary conclusions the ASLB chooses to draw, the Commission must recognize that with such problems still rooted in the training department, Licensee is simply unfit at this point to operate TMI.

C. Did Management Pursue Activities Prior to the Accident That Endangered Public Health and Safety?

- o Did GPU defer safety-related maintenance and repair beyond the point established by its own procedures?
- o Did GPU drastically cut its maintenance budget?
- o Did GPU fail to keep accurate and complete maintenance records?
- o Did GPU have an inadequate and understaffed QA/QC program related to maintenance?
- o Did licensee require extensive use of overtime in performing safety-related maintenance? If so, did this lead to poor quality safety-related maintenance?
- o Has Licensee taken adequate corrective steps regarding any identified deficiencies?

The above issues simply restate the subparts of TMIA Contention 5. These issues are important and unresolved.

TMIA Contention 5 evolved primarily out of the Kemeny Commission's investigation into the Unit 2 accident, which found that deferred maintenance was a significant cause of the TMI-2 accident. Maintenance was an issue of specific concern to the Commission in its August 9, 1979 Order.

The difficulty TMIA had in presenting its case, and the shoddy treatment given these issues by the ASLB has been briefed for the Appeal Board. See TMIA's brief in support of exceptions to the management PIDs. Briefly, the ASLB conclusions rest primarily on assurances by the Licensee that "maintenance work scheduling is consistently maintained, completed timely, and consistently with safety." Shovlin, et al. ff. Tr. 13533, at 52; and NRC staff assurances that maintenance practices are satisfactory. See, e.g., PID ¶1314. See, also, TMIA's management findings ¶¶79-81; PID ¶¶289, 296.

Yet these are empty conclusions. Consider only that the very maintenance department which allowed such dangerously deficient pre-accident maintenance problems to develop at TMI-2 with regard to such components as the condensate polishers, (see discussion, supra), was run by the same individual who now heads TMI-1 maintenance -- Daniel Shovlin. This was the same department which occasioned company auditors to find in late 1979, after the accident, that,

- maintenance lacking in advance planning; is done on ad hoc basis.
- No preventive maintenance done by Met-Ed - not enough people to do it; therefore all maintenance that is done is "correcting" work. Met Ed labor responds to crisis.
- Consistently get low productivity in maintenance - have had operations analysis but never follow-through.
- Maintenance is the weakest area on sight.
- Maintenance planning "out one day" is a disaster.

B&W 32, p. 9. ("The Glickman audit" commissioned by GPU to assist the company in determining how to restructure the management organization after the accident. The audit reflects the opinion of more than 30 key GPUSC and Met Ed managers, executives, and technical and task force leaders. Id., cover memo).

And this is the same department which prompted the following observation from the BETA auditors this year:

Plant maintenance at ... TMI-1 has yet to reach the point where required equipment reliability can be reasonably assumed.

It appears from the above that the maintenance department is still woefully deficient, despite testimony to the contrary by Licensee and Staff witnesses. Moreover, throughout the ASLB and B&W record, one sees repeated evidence of specific and often acknowledged maintenance problems dating back to years before the

accident, some of those very same problems presented for consideration but disregarded by the ASLB, only to reappear in this year's BETA report. Although relating primarily to pre-accident conditions, the B&W record does show how deeply ingrained maintenance deficiencies are. It is not surprising that problems still exist. But more importantly, the record demonstrates that the ASLB's glowing account of TMI-1's current maintenance department is simply incorrent.

FURTHER ACTION REQUIRED: The Commission should take direct review of this record developed on TMIA Contention 5 before restart. The case should be remanded back to the Licensing Board for more hearings on maintenance issues.

ISSUES STILL OUTSTANDING

- o What does Licensee's litigation strategy to object to the admission of each TMIA "maintenance work request" exhibit on the basis that its safety-significance was not demonstrated, say for its attitude toward safety and lessons learned from the accident, in light of Kemeny's conclusion that such short-sighted views of what is and is not safety-related led to the TMI-2 accident?
- o What GPU, GPUN, GPUSC, or TMI management was involved or condoned this litigation strategy?
- o What is the significance of Licensee's inability to present in testimony a clear definition, or present an adequate concept of what is and is not safety-related, including a complete failure to acknowledge the conclusion of the Kemeny Commission regarding the importance of non-safety-related items impacting on safety-related items, which at TMI-2 caused the accident?
- o Who was responsible for, and who condoned the development of dangerously poor pre-accident maintenance practices?
- o Who was responsible for, and who condoned the development of deficiencies in the company's legal record keeping requirements, which included consistent omission of essential and required information, insertion of incorrect information, the accumulation of duplicate work requests with new work requests containing no referral to old items, to the point where the maintenance

department had lost track of work which by its own definition was "urgent?"

o What is the significance of the fact that maintenance management recognized problems of misplaced job tickets and paperwork problems, but did nothing about it until the restart hearing discovery process?

o Who was responsible for, and who condoned widespread abuse of the priority system?

o What is the significance of the fact that maintenance management recognized regular abuse of the priority system a major problem, but did nothing about it until the restart hearings?

o Why precisely did "plan of the day" (POD) meeting members, who determined day to day operation and maintenance planning, chose not to discuss the fact that the Unit 2 PORV may have suffered some damage as a result of its being transferred to an operating Unit 1 with different voltage in solenoids, 1, where it remained until late 1975 or early 1976? Seiglitz at Tr. 5768.

o What is the significance of the fact that there exists no evidence that a preventive maintenance program was ever instituted for the PORV, Seiglitz at Tr. 5786; B&W 4036, despite a July 1975 recommendation from Lee Rodgers of B&W, who sent Met Ed a letter outlining problems discovered with the PORV and suggesting a specific preventive maintenance program? B&W 881.

o Why did management deny a request, weeks before the accident, for a better indication of PORV position than the solenoid light? Seiglitz at Tr. 5799, 5802-3, B&W 767. Seiglitz at Tr. 5806.

o What is the significance of the development of seriously poor management of the maintenance parts department, and management's unresponsiveness to this well-documented problem which pre-dated the accident?

o What was Licensee's response to the 1978 findings contained in the Management Audit performed during the period of January 9-20, 1978, B&W 843 ("1978 audit"), that: there was "difficulty in locating repair parts known to be in the Warehouse;" and that "the repair parts documentation for Unit 1 is not well organized and requires an inordinate amount of research to identify the Met Ed stock numbers required for requisitioning material." Id. at 45228.

o What is the significance of the fact that in early 1979, Met Ed was unable to determine from their records whether they had a spare PORV in stock and had to request help from B&W to locate the PORV? See, id. at 5790-95.

o How did Licensee respond to the following "Glickman audit" findings in late 1979:

-- cataloging of documentation as to Supplier, part number, etc. a disaster on Unit 1 - Should be overhauled.

-- There are serious problems in TMI documentation, cataloging, storage, retrievability?

o How did Licensee respond to the following BETA findings last year:

-- warehousing inventory records were inaccurate to the point as to be considered unreliable by job planners.

-- there is no scheme for purging stock from inventory when technical or administrative requirements prohibit use of material present in stock?

o What is the significance of Licensee's decision to place Daniel Shovlin in charge of the maintenance department which permitted development of problems of enormous magnitude and significance, as the current head of TMI-1 maintenance, in terms of the company's competence and integrity, and gave the following testimony during his B&W depositions (Shovlin was at Met Ed by July 1973 as supervisor of maintenance at Unit 1, during 1977, he was supervisor of maintenance at Unit 2, and from the end of 1977 thorough the accident, he was Superintendent of Maintenance for TMI and for a period of time, supervisor of maintenance for Unit 1 which went unfilled for over a year):

-- when Shovlin was hired as supervisor of maintenance at TMI, he had never before worked for a commercial utility yet he felt there was nothing he needed to do to familiarize himself with TMI-1. Shovlin dep. at 30.

-- he has never looked at a startup log, nor seen a maintenance log. Id. at 16, 17.

-- he has no recall of the July 30, 1975 letter sent from Lee Rodgers of B&W to John Herbein recommending preventive maintenance for the PORV, which was never implemented. Id. at 50.

-- he has no idea if any preventive maintenance was being performed on the PORV before the accident or if any regular inspection of the PORV took place. Id. at 182, 183.

-- he did not know that the PORV failed to open during Unit 2 start up. Id. at 51.

-- he says it never came to his attention that in the fall of 1977, there was any particular problem with respect to the PORV, Id. at 52, yet in September 1977, the PORV had leakage problems and was removed for in house repairs, and in an October 1977 report describing the leakage problems, B&W 4033, Shovlin was assigned resolution of the problems, and he signed off on the work procedure. B&W 4034.

-- he has no recollection of knowing at the time about the March 29, 1978 transient at Unit 2 where the PORV remained open for four minutes because of an electrical failure causing a reactor trip. Id. at 55.

-- he is entirely unaware of the April 23 transient or of doing anything in connection with it, or of participating in any discussion concerning the event. Id. at 59.

-- he was unaware in late March or early April 1978 that an indicator light was to be installed in the Unit 2 control room to show demand indicator to the PORV solenoid. Id. at 56.

-- he is entirely unaware of the April 1978 "alarm window correction program" although it was a priority 1 item under his responsibility, and rejected by corporate management Id. at 60-63.

-- he did not know that in the fall of 1978 the PORV was tested and remained shut when the indicator light showed it was open. Id. at 63.

-- he says he was not aware before the accident of leakage past the relief valves at the top of the pressurizer in Unit 2. Id. at 125.

-- he has no recollection of any recommended repairs to the PORV. Id. at 129.

-- he claims he has no recollection of the early 1979 increased identified leakage or the elevated temperatures in the discharge piping, or that temperature and pressure in the reactor coolant drain tank was increased over normal levels during the January 1 - March, 1979 timeframe, yet he recalls he was asked to look at a change in the reactor coolant drain tank capacity "several years" before. Id. at 149, 150.

-- he recalls no attempt to determine which, if any, of the relief valves at the top of the pressurizer was leaking during the January to March 1979 timeframe, despite the fact that he was attending most POD meetings, and got written reports of those meetings he could not attend. Id. at 152-153.

-- he has no idea when a spare PORV was ordered from Dresser in 1978, or what occasioned their concern for obtaining a spare. Id. at 153-154.

-- he never knew the condensate polishing system malfunctioned before the accident. Id. at 161.-- he has no recollection of an incident in the fall of 1977 involving a buildup of resin in the condensate polishers followed by the trip of main feedwater pumps or a May 1978 incident resulting in the loss of main feedwater, yet he sat in on a discussion at which the installation of the automatic bypass system was discussed. Id. at 162, 163.

-- he has no idea if any preventive maintenance was being performed on the condensate polisher system before the accident. Id. at 182.

-- he had no idea that at the time of the TMI accident 13 work requests were outstanding with regard to the condensate polisher system, and from January 1 through March 1979, 13 more were carried out. Id. at 165.

NOTE: The B&W record reveals that the pre-accident maintenance department at TMI was extraordinarily disorganized, manifested not merely by paperwork and warehouse confusion, but by failures within the department to efficiently remedy safety-related maintenance problems. Much of the problem seems attributable to the incompetence and/or ignorance of Shovlin. Shovlin's depositions seem to reveal that as head of maintenance before the accident, he was either so ignorant as to not understand the significance of prominent, long-standing safety-related maintenance problems; or, he had utterly lost control over his department; or, he was simply a non-credible witness.

Even assuming Shovlin is as forgetful as he claims, serious questions remain:

o How can the head of maintenance competently supervise his department when his subordinates do not inform him of important and potentially dangerous plant conditions -- an arrangement which Shovlin appears to find perfectly satisfactory?

o How can it be established that Shovlin has learned the lessons of the accident, the severity of which was caused in part by the incompetence of his own department, when he has no recollection of the circumstances surrounding any precursor event or malfunctioning component which caused or led to the accident?

o Did the pre-accident maintenance budget evidence due regard for safety, particularly in light of the views of people like Station Superintendent Gary Miller, and what does management's current view of this issue say for management's current attitude for safety?

o Were maintenance budget cuts sought by Met-Ed management back in 1977 or 1978 (Shovlin dep. at 14)?

o What is the significance of, and how did management respond to, the views expressed by former Station Superintendent Gary Miller in his post-accident interview with Keaton (B&W 360):

-- 800-1000 open maintenance items at TMI meant simply that "you are going to develop more work requests than you are going to do." B&W 360 at 13.

-- Miller states in answer to a question about what kinds of problems he had with budgets and personnel: "Trying to cut the budget...Trying to convince people I couldn't. Trying to convince people I needed more maintenance staffing. Trying to eliminate the contractor and I didn't think he could be eliminated, that kind of thing." p. 6

-- Miller states in answer to a question about why he had 800 maintenance items: "Yeah, I thought of it. I didn't know how to proceed on it because the answer kept coming up we need manpower. If you really think about it we had shift maintenance but we only really had two units with a million dollars and we had the ability to do one or two jobs on the back shift. We just can't do it with the size of this plant. You are just kidding yourself." p. 12-13.

-- "If you look at the routine way we do business I don't believe we had the manpower to do more than the priority ones. Don't even talk about money. The only way you had of doing other than priority one jobs was to contract and we were beginning to limit that to zero." p. 22.

-- "If you take surveillance and we weren't doing PM's when Unit 2 came along we went from the 50 or 60% PM performance in Unit 1 to almost zero." Id.

-- "Maintenance was where the staffing problems were, and we hadn't really increased our staffing in maintenance very much beyond Unit I's levels of maintenance. You are talking a maintenance staff of roughly 40 mechanical people, probably 35 mechanics and 35 instruments, 24 electrical, serving two units and I just couldn't believe you could serve two units with that number of people and work and do a reasonable job without a contractor. The thing was really squeezing us before the accident. Was squeezing me in the elimination of the contractors." pp. 23-24.

NOTE: The ASLB never knew of Miller's concerns because he never appeared before them, and they never examined Shovlin on this. In light of observations by Miller, whose unique position made him particularly sensitive to the consequences of budget cuts, and who never testified before the Board, the ASLB conclusions on this issue seems particularly incredible. Clearly, these findings need to be reevaluated and modified, and should not be used as a basis to justify the adequacy of TMI-1's current maintenance department.

o How did Licensee respond to the following Glickman audit findings, discussed supra:

--maintenance lacking in advance planning; is done on ad hoc basis.

-- No preventive maintenance done by Met-Ed - not enough people to do it; therefore all maintenance that is done is "correcting" work. Met Ed labor responds to crisis.

-- Consistently get low productivity in maintenance - have had operations analysis but never follow-through.

-- Maintenance is the weakest area on sight.

-- Maintenance planning "out one day" is a disaster?

o Were maintenance workers coerced into working forced overtime?

o Did management permit or force overtime for workers who were fatigued?

o Upon meeting with union officials because of complaints of too much forced overtime, were then Vice President of Met Ed Arnold and then Station Superintendent Herbein unresponsive to complaints, and did they state such things as, "the faster the plant is back on line, the faster we are making money?"

o How does the new overtime policy set out in IE Circular 80-02, which sets waivable overtime guidelines, moot any of the questions concerning management's attitude toward the safety implications of forced overtime, its enforcement policy, and Licensee's general commitment to safety?

o Did Licensee present deliberately deceptive testimony to the ASLB in regard to corrective maintenance at TMI-1, and in regard to the function of the corporate "Maintenance and Construction Division," presented as a supportive organization to assist only in unusual or extensive maintenance work, in light of the following observation in the BETA report:

There is genuine concern at the site over the contemplated transfer of the corrective maintenance work to the M&C Division... That shift...will not happen at TMI-1 until a date is selected "which will not interfere with restart." [quoting a May 27, 1982 letter from Bob Arnold]. Because of the magnitude of the change and the need for stability at TMI-1 at this time, it is recommended that the date selected be later than the currently scheduled restart date?

o How do mechanical improvements in the maintenance department moot any of the more fundamental problems regarding management's views of safety?

o What is the significance of the following finding made by BETA auditors this year:

Plant maintenance at ... TMI-1 has yet to reach the point where required equipment reliability can be reasonably assumed.

o Did company officials testifying before the ASLB mislead the Board by implying that GPU was improving its maintenance programs?

D. Possible Influence of Financial Considerations on Technical Decisions.

o Are there indications that financial considerations had an undue influence on TMI operations prior to the accident?

o If there was any improper influence, has licensee taken adequate steps to assure that this will not recur?

These issues are important and unresolved. See discussion in \$C, supra. In the face of a great deal of evidence regarding the improper impact of financial considerations on technical decisions, prompting referral of the issue to OI for investigation, NUREG-1020, \$10.9, the only evidence on this subject presented to the ASLB was testimony of GPU President Herman Dieckamp, supported by Staff conclusions which were primarily based upon interviews with GPU management individuals. No independent evaluation was done, and individuals with more relevant testimony like Gary Miller, were not called by the Board. TMIA has appealed the Board's handling of this issue, in the context of Board Issue 6, which the Board was instructed by the Commission to consider. See, TMIA brief on exception, pp. 22 et seq.

FURTHER ACTION REQUIRED: The record should be reopened on this subject, in light of new evidence discovered in the B&W trial record, currently under investigation by OI.

E. Whether the Mailgram Sent by Mr. Dieckamp to Congressman Udall on May 9, 1979 Regarding the "Pressure Spike" Was a Material False Statement.

o What does the mailgram, which 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," say for Mr. Dieckamp's integrity, and that of the company which he represented in his official capacity as President, in light of evidence that at least the day of the accident, Control Room Operator Illjes has stated that hydrogen was discussed on the evening of March 28, (IE Interview 5/23/79, pp. 6, 10), Shift Supervisor Mehler's recollection of orders from Miller immediately after the spike occurred, not to turn on the oil pumps in the containment out of concern that the electrical sparks might cause hydrogen detonation, (SIG, 10/11/79, pp. 13-15; IE, 9/4/80. pp. 36-42), and that the Commission itself was not informed of the spike until March 30, two days later?

o What is the significance of the fact that that a copy of the mailgram was also sent to the Commission at the time it was sent to Congressman Udall?

o Is this statement materially false under normal standards, even if not a technical material false statement under §189 of the Atomic Energy Act (Tr. 13,061 (Smith)), ?

These issues are important and unresovled. This has obvious significance in evaluating the integrity of Mr. Dieckamp, and GPU which he represented in his official capacity. It involves a possible material false statement not only to Congressman Udall, but to the Commission as well.

Further, the question was handled incompetently by the Licensing Board. While noting at Tr. 13,060 that "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," none was made. In fact, the Board never even questioned Mr. Dieckampt on the incident when he appeared as a witness later that month. See, Tr. 13,438, et seq.

FURTHER ACTION REQUIRED: The Appeal Board or the Commission should take sua sponte review of the issue.

II. Issues Raised By the Cheating Incidents.

A The Cheating Incidents

The cheating incidents raise the most fundamental questions about Licensee's competence and integrity. The cheating issues and their significance are currently before the Appeal Board. At issue is the arbitrary reversal by the Licensing Board of many significant findings and conclusions reached by Special Master Milhollin, who presided over the "cheating hearings."

TMIA has voiced substantial agreement with the Special Master on most issues. TMIA has argued before the Appeal Board that cheating and wrongdoing was far more widespread than what was recognized by the Board, that the Board failed to attach appropriate significance to the many aspects of cheating and other wrongdoing which the hearings revealed, and that had appropriate significance been attached to the many instances of wrongdoing, the Board could not have avoided reaching the conclusion that certain individuals did not have the requisite level of competence and character to hold a license, and that GPU lacks the statutory requirements as well. See TMIA's brief in support of exceptions, dated September 30, 1982.

FURTHER ACTION REQUIRED: It is inconceivable that restart should be contemplated before the Commission has reviewed the evidence, the Special Master's Report and the PIDs, and made an independent evaluation based on the record of this case.

ISSUES STILL OUTSTANDING

o Did management wilfully constrain the NRC investigation by having management representatives sit through NRC interviews?

o Was management's presence at these interviews inhibiting, and did management realize it would be at the time it chose to sit in?

o Did the presence of management prevent the investigators from receiving evidence of management involvement on a confidential basis?

o Was the effect of management's presence at the first investigation cured by excluding management from the subsequent investigations?

o What is the significance of the fact that O and W did not admit their guilt until their 3rd NRC interview, which was conducted without management present, particularly in light of W's statement that he did not want to admit his guilt in front of Unit 1 Vice President Hukill, who had been sitting in?

o What is the significance of Licensee's refusal to allow the initial interviews to take place without management sitting in, Mr. Arnold's decision to go above Investigator Baci's head to Mr. Stello when Mr. Baci resisted Licensee's position, and finally obtaining an OK from Stello to allow management's presence, in light of the fact that Licensee was aware that management's involvement was an issue in the investigations?

o Did management conduct an honest and thorough investigation of cheating on company exams?

o What are the implications in terms of the overall integrity of Licensee, of its presentation of the "Wilson" investigation as its response to cheating on company exams, and presentation of Wilson's testimony as that of an "impartial investigator?"

o In his investigation, why did Wilson ignore clear evidence of cheating?

o In his investigation, why did Wilson fail to check the explanations of potential cheaters with the training department?

o In his investigation, why did Wilson fail to consider the recognized lax testing conditions under which the exams were given in evaluating whether individuals cheated?

o In his investigation, why did Wilson accept denials of potential cheaters, standing alone, as conclusive evidence cheating did not occur?

o In his investigation, why did Wilson fail to consider contradictory explanations by those potentially implicated in copying?

o Did Wilson's testimony contain untrue statements which advanced the company's interest?

o Does GPU currently support Mr. Wilson's investigation and testimony?

- o During the company's "investigation" into cheating incidents, what is the significance of GPU's failure to follow up and investigate Mr. OO's statement that cheating at TMI was "commonplace and accepted?"
- o During the company's "investigation" into cheating incident, what is the significance of GPU's failure to interview those in the "smoker's room" which Mr. Shipman indicated contained the individual who had asked him an exam question during a break at the coffee machine?
- o What is the significance of the company's failure to determine from O or W, caught cheating during the April NRC exam, why they cheated?
- o What is the significance of Licensee's refusal throughout the hearing to acknowledge the cheating of anyone implicated by the evidence, except O and W who were caught cheating by an outside contractor and had already resigned by the time the hearings began, including such blatant cheaters as VV, and G and H?
- o What is the significance of Licensee's refusal to voluntarily remove G and H as licensed operators, who repeatedly cheated and perjured themselves at the hearing, until forced to by agreement with the Governor of Pennsylvania in June of 1983?
- o What is the significance of the Board's conclusion at PID ¶2117 that Licensee could not be trusted to voluntarily discipline G and H?
- o What is the significance of Licensee's failure to voluntarily sanction cheaters such as G, H, GG, all of whom cheated and untruthfully denied doing so during the hearings?
- o What is the significance of Licensee's decision to keep Mr. Husted on as a licensed operator training instructor, finding him a competent training instructor, and their decision to promote him to head of non-licensed training in response to the Commonwealth's demand that he be removed from licensed training? (See agreement with the Governor of Pennsylvania, June, 1983).
- o Who was involved in Licensee's decision to cover-up the VV/O 1979 cheating incident until 1981?
- o What did senior GPU, GPUN, GPUSC, or TMI management know about the VV/O 1979 cheating incident before 1981?
- o How can GPU's assertion that VV's lateral transfer to a special group charged with obtaining a better understanding of the accident, in which he assumed responsibility for "technical interface" with DOE and Bechtel, was a demotion, be reconciled with the following:
 - at the time VV's transfer was made, he was not told he was being reassigned for disciplinary reasons, which belies Licensee's own definition for the purpose of discipline, i.e., to provide instruction to the individual, as well as to the organization;

- 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;
- 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;
- his new position would allow VV to utilize his technical skills and knowledge of the plant;
- VV did not consider the move a demotion; and
- VV's fellow employees did not consider the move a demotion.

o Why did Arnold overrule the suggestions of Gary Miller and John Herbein to discipline VV?

o Was Arnold truthful in stating that he never reviewed the file of VV at the time of deciding to overrule the recommendations of Miller and Herbein?

o Did O know that the answers he was completeing for VV were part of an exam requirement?

o Could Miller not have known that O realized that the answers he was completeing for VV were part of an exam requirement, in light of the fact that the cover sheets to the document on which O had assisted VV, was very similar to the handwriting contained within the exam which was not in VV's handwriting?

o Why was Mr. O not disciplined, and what impact did this have on his decision to later participate in widespread cheating on the April company and NRC exams?

o What does the training department's failure to discipline O, later caught cheating in April, 1981 say for the training department's capability to recognize a lack of integrity in operators?

o What is the significance of Licensee's latest assurances that new procedures will now "secure" exams, such assurances to be viewed with the record in mind that "Licensee adopted new training procedures once before" but cheating and "[p]oor test administration followed these post-TMI-2 assurances"? SMR ¶250.

o How do new exam administration procedures address and moot the ethical questions raised by the cheating episodes?

o What impact does the extent of lying during the cheating investigations and during testimony by those in upper management down through the lowest levels of the operating staff, have in determining the level of company respect for the NRC process and regulations, and on the overall integrity of the company? (See TMIA brief in support of exceptions, at p. 47, et seq.)

o What impact does the misrepresentation made to the Board by Dr. Long during the main hearings have on the overall integrity of the company, and its respect for the hearing process? See PID ¶ 2323.

o What is the overall significance of the fact that someone felt comfortable in approaching Mr. Shipman, a member of plant management and Mr. Ross's right hand man, for an answer to an exam question while the exam was in progress?

o What is the significance of the fact that Mr. Shipman continues to shield the cheater who solicited the exam answer from him, in light of his position at the plant?

o What is the significance in determining the overall integrity of Licensee, of the fact that those in the following management positions were implicated in improper conduct as a result of evidence revealed during the cheating hearings, or as a result of nontruthful testimony given during the hearings, and that a number of these individuals are still in safety-related positions at the plant: Then President of GPUN, then Vice President for GPUN, then head of TMI-1 start-up and test, former TMI-2 Supervisor of Operations, current Unit 1 Manager of Operations, Unit 1 Senior Operations Engineer, a training instructor, five shift supervisors, and two shift foremen?

o Did Mike Ross assist cheating by deliberately keeping the proctor out of the exam room, and what is the significance in light of Mr. Ross' position as maybe the most important person on TMI-1's operation team as far as public health and safety are concerned. PID ¶155. See also, PID ¶¶76, 85.

o Did Ross dishonestly broaden exam answer keys to allow operators to obtain better scores on exams, and what is the significance in light of his position, described above?

o Did Ross give untruthful testimony during the cheating hearings, and what is the significance in light of his position?

o If Ross were merely "untruthfully bragging" during the subject conversation in the shift supervisor's office, what does this say about his integrity in light of his position?

o What is the significance of the fact that the official importance of company exams was never impressed on the operators? PID ¶2118.

o Is the full extent of cheating known? (See TMIA's brief in support of exception, at p. 58).

o In light of questions of Licensee's integrity and ethical judgement raised by issues in the cheating hearings, what confidence can there be that Licensee can properly certify the integrity of their operating staff?

o What is the significance of Licensee's improper certification of VV to the NRC in 1979?

- o Who was responsible for improperly certifying VV?
- o What is the significance of Licensee's certification of O and W to take the April 1981 NRC exam, in light of the fact that they had engaged in widespread cheating on the earlier company exam?
- o Who was responsible for improperly certifying O and W?
- o What is the significance of Licensee's certification of H, who demonstrated a very poor understanding of the course material during the cheating hearings? See, SMR ¶¶ 26-27, 242-247.
- o Who was responsible for improperly certifying candidates such as H?

NOTE: (For discussion of \$D, "Training and Testing Program", see \$B, supra).

B. The 1979 Material False Statements

The Licensing Board left this matter open, making "no recommendation about the broader implications of the recommended investigation because [it could not] predict its results. Yet the investigation, which resulted in a large fine against the company, must contain findings which seriously challenge the integrity of Licensee's management.

FURTHER ACTION REQUIRED: TMIA has not seen the investigation, and thus has not evaluated how it resolves the questions raised by the hearing evidence on this issues. Until this investigation is released to the parties and to the Appeal Board which now has jurisdiction over the issue, and is made part of the hearing record so that findings and conclusions on this issue can be made, no restart decision can be made.

ISSUES STILL OUTSTANDING

- o Who was involved in, suggested or encouraged submission of, or had prior knowledge of the August 3, 1979, and the November 15, 1979 material false statement concerning VV's application for another

license renewal without being retested on the section on which he had cheated (Section A) (he remained licensed until December 4, 1981)?

o Who was involved in, suggested or encouraged submission of, or had prior knowledge of the November 15, 1979 material false statement?

o What is the overall significance of Licensee's decision to promote Herbein to GPUN Vice President for Nuclear Assurance, and Miller at head of TMI-1 start up and testing, in light of the material false statement incident?

o What is the overall significance of Licensee's decision to remove Herbein as GPUN Vice President for Nuclear Assurance shortly after the Special Master's report was issued, and Miller as head of TMI-1 start up and testing shortly after the third PID was issued on cheating incidents, in light of the fact that the company has never portrayed either of these moves as relating the the material false statement incident?

o Why were Gary Miller and John Herbein removed from GPUN in 1982?

o How does removal of Miller and Herbein absolve the company of wrongdoing for submission of the material false statements?

o Did Licensee encourage VV to change this testimony before the "Speaker" investigation, GPU's "independent" investigation of the material false statement incident?

o Why did the Speaker investigation not seek to determine if there were records of the proposed "oral" exam which Licensee claims VV took to meet his Section A requirements?

o Why did the training department continue to grade VV's exam, once the handwriting discrepancy was detected?

o Why did the Speaker report choose to discount evidence of the November 15, 1979 material false statement?

III. Items Raised Since Close of Hearing

All items discussed below raise significant questions concerning the integrity of GPU management. None have been resolved in hearings. Until they are thoroughly and completely resolved, it is inconceivable that the Commission could determine that Licensee possesses the necessary level of integrity and respect for the public's health and safety and for the NRC regulatory process to be entrusted with the operation of Unit 1.

FURTHER ACTION REQUIRED: The record must be reopened on all of the following issues, and the Commission should give the "Hartman" case back to the Licensing Board. Further, the evidence must be thoroughly examined in the context of the ASLB's conclusions, particularly on Board Issue 10, whose findings and conclusion should be modified accordingly.

A. Hartman Matter and the Issue of Elevated Tailpipe Temperatures.

o Why was no maintenance done on the PORV during the four-month shut-down after the April 23 transient, to determine if the PORV had suffered damage from its having cycled 50 times at some point close in time to the April 23 transient, possibly in the 24 hours before the event, B&W 337 at 3820, which could have had an adverse effect on PORV reliability? See, discussion, Keaton dep. at 174.

o When the plant returned to operation after a four months shut down, in September 1979, PORV temperatures began reading 180° -- 50° higher than permitted by procedures. Emergency procedures required that upon obtaining such high temperatures in the discharge line, the block valve was to be closed to test for valve leakage. Why did the company fail to comply with these procedures, for which they were cited by the NRC in the October 25, 1979 Notice of Violation?

o What is the significance of the claim made by Seiglitz, Supervisor of Unit 2 maintenance, to have been so entirely unaware of the elevated temperature situation that he did not know that 180° was even an elevated temperature, claiming it was not his job to know such details?

o Were the high temperatures ever discussed at "plan of the day" (POD) meetings which Seiglitz attended daily? Seiglitz dep. at at 5817, 5844.

o What was the relationship between the management's decision to allow the plant to continue to operate without performance of the required diagnostic testing, and the start of leak rate data falsification?

o Is Hartman's claim true that every shift supervisor and shift foreman knew leak rates were being falsified through the time of the accident, including his statement that "I thought that it was just the fact that everyone knew that these leak rates were hard to get, and that we had to take devious means to get some sometimes so we could stay operating?" Faegre and Benson at 148.

o Who precisely was involved in falsification?

o What management official had knowledge of, encouraged, or condoned falsification?

o Why was no work was done during the January 17 through January 31, 1979 shut-down, to determine if any of the three valves above the pressurizer were leaking? Zewe at Tr. 2250-53.

o What control room operators other than Hartman admit to knowing of the elevated temperatures, and knowing that the PORV had been reading high since 1978? See, e.g., Zewe at Tr. 2249; Frederick at B&W Ex. 5007BB.

o At the February 1, 1979 POD meeting, when the identified leak rate was determined to be up, on what precise basis did Seiglitz believe this indicated leaking code safeties, not a leaking PORV?

o On what precise basis did management determine that allowing operation with valve discharge line temperatures exceeding the normal 130°F for months before the accident was acceptable?

o On what precise basis did management determine that "there is no indication that this procedure or the history of PORV discharge line temperatures delayed recognition that the PORV had stuck open during the course of the accident?"

o Is Seiglitz credible in his assertion that he has no recollection as to why suddenly after a two week shut-down, perfectly good code safeties would suddenly be leaking with high temperatures, Seiglitz at Tr. 5823, 5824, and in his failure to recall any discussion of what may have gone wrong during the two week shut down to have caused this to happen? Id. at 5822.

o How can Seiglitz's "intuitive" conclusion, which he claims was reached at the February 2 POD meeting, that the high temperature readings were the result of the accumulation of convection, conduction, and radiant heating, and that the PORV readings were primarily the result of convection type heating -- heat rising up through the air off the top of the pressurizer -- and thus not the result of leakage, Id. at 5829-31, be reconciled with the fact that the rest of the record provides no support for Seiglitz's position, (See also, Seiglitz at Tr. 5906), and that in Met Ed's official response, dated December 5, 1979, to the NRC's Notice of Violation dealing with the item of noncompliance for failure to comply with the pressurizer system failure

procedure, Licensee maintains that the high PORV temperature readings were likely the result of conductive heating, not convection heating? Id. at 5833-4. B&W Ex. 707.

o What is the significance of the position of Superintendent of TMI-2 Logan, in attendance at the POD meetings, that he could not tell which of the three valves were leaking, Tr. 5857-60, of Gary Miller's statement in his B&W deposition that he thought the PORV was leaking, Tr. 5853, and of operator Frederick's statement that some supervisors and engineers thought it was one of the code safeties, some thought it was the PORV? Frederick at Tr. 3539.

o Why did neither Seiglitz nor any other management official attending the POD meetings recommend complying with procedures by shutting the block valve, particularly since the leakage itself may have significantly deteriorated the valve? Seiglitz at 5882.

o What is the significance of the statement of Unit 2 Supervisor Logan stated, "[w]e made a management decision -- as long as it stayed within the tech specs, they would live with the leak rates until cold shut down." Tr. 5860 (emphasis added).

o Why did Met Ed not respond to a January 25, 1979 letter from Dresser Industries, the PORV's vendor, informing Met Ed management of design changes on the PORV which could be incorporated on existing valves at TMI-2. B&W 4037, prompting Dresser to send a telegram to TMI on March 27, 1979 asking why no response had been received? B&W 4038.

o Had management decided to tolerate the leaks until Unit 1 could come back on line, so as not to cost the company \$500,000 per day in replacement power? Fiske Tr. 114.

o Is it credible to conclude that management did not know, in the face of all of these symptoms indicating that leakage was abnormally high, that the operators were deliberately falsifying leak rates to keep them within the license limits, particularly since only management could benefit from such a scheme?

o What is the significance of the fact that management was aware that the system that had been devised to measure unidentified leakage was unreliable and inadequate for the task and should have been overhauled to the the job it was intended to do? Faegre & Benson, supra, at 35?

o What is the significance of the fact that management knew they were operating under a potentially unsafe condition, and allowed this unsafe condition to continue so that on March 28, 1979, operators had become so conditioned to the elevated temperatures that "the abnormality was obscured or rationalized away resulting in a delayed closure of the isolation valve?" (NRC's Notice of Violation, p. 2. See Keaton dep. at 506.

o Why after the accident and subsequent production of its consultant report, did Licensee make no effort to determine who exactly was involved in or had knowledge of the leak rate falsification scheme, particularly management officials (Faegre and Benson could draw no conclusion regarding "pressure" from management to obtain "good" leak rates, since no company personnel other than Hartman were available for interviews, Faegre & Benson, supra at 13, 36), took no action against any individual involved, and to this day denies the fact that leak rates were falsified? (See, statement of GPU President Herman Dieckamp, NRC Commission meeting, May 24, 1983.)

o Why did Licensee fail to turn the Faegre and Benson report over to the Commission and the parties until recently, and withhold it entirely from the ASLB?

o What impact does the criminal indictment have?

B. TMI-1 Leak Rate Issue

NOTE: This issues is currently the subject of an Aamodt motion to reopen the record. TMIA believes the issue is encompassed directly by the issues to be litigated in the reopened "Hartman" hearings, but in the alternative, TMIA supports the Aamodt motion.

o When did Licensee management discover that Unit 1 leak rates may have been falsified? What was management's response?

o Was leak rate data falsified?

o Who precisely was involved in any falsification?

o Did management have knowledge of, encourage or condone falsification? If so, who in management was involved?

C. Park/King/Gishel Allegations

- o Did Licensee deliberately circumvent administrative procedures to avoid technical requirements? Who was responsible?
- o Was management intending to cut corners to the detriment of safety?
- o Did Licensee implement modifications which were unreviewed safety questions, requiring submittal under 10 CFR \$50.59? Who was responsible?
- o Did Licensee implement license amendments without following the hearing opportunity requirements of the Atomic Energy Act? Who was responsible?
- o Did Licensee establish a system where corporate officers circumvented the legally required authority system for operating a plant? Who was responsible?
- o What is the significance of Larry King's testimony before the Subcommittee on Energy and Environment, House Interior Committee on April 26, 1983, where he spoke candidly of the confusion about organizational authority at Unit 2, the "organizational breakdown," the inability to decide who's in charge, decisions by those responsible overruled by managers so that departments cannot carry out their duties, and unclear lines of authority?
- o Did Licensee submit false information in connection with its investigation of the "mystery man" issue? Who was responsible?
- o Did management or others attempt to intimidate or harass individuals who questioned whether procedures were being followed? If so, who in management was involved?
- o Did GPU's ombudsman violate his obligation to maintain confidentiality in connection with Rick Park's allegations?
- o Explain how then GPU President Arnold knew the day of Park's first press conference that the ombudsman had not been approached?
- o Did management attempt to prevent Ed Gischel from testifying before Congress?
- o What do these allegations say for management's general attitude toward the importance of adhering to procedures?

D. Timely Reporting of Documents.

- o Why did GPU not provide the NRC with copies of the RHR/BETA reports until several months after they received it, and who was involved in the decision not to provide them?
- o Why did GPU not provide the NRC or the the ASLB with the "Keaton" final task force accident investigation report and its earlier drafts, when Licensee presented testimony to the ASLB and who was involved in the decision not to provide this?
- o Why did Licensee fail to present its task force report to the ASLB, and to the Commission until Commissioner Gilinsky specifically requested it from the company at the October 14, 1981 oral argument on immediate effectiveness issues and who was involved in the decision not to provide this?
- o Why was the Faegre and Benson report on the Hartman allegations explicitly concealed from the ASLB in connection with Licensee's testimony on Board Issue 10 and who was involved in the decision to conceal this?
- o Why was the Faegre and Benson report on the Hartman allegations explicitly concealed from the Commission in response to Commissioner Gilinsky's request and who was involved in the decision to conceal this?

E. Keaton Report Issue.

- o Did management modify the various drafts of the task force reports for the purpose of projecting a more positive view of the company?
- o Why was the task force conclusion that surveillance procedures were in violation of technical specifications even though they had passed through the full chain of approvals, eliminated after the November 28, 1979, draft, B&W 352, and what relationship did its elimination have to the NRC's October 25, 1979 Notice of Violation?
 - In Licensee's December 5, 1979 response to the NRC's Notice of Violation, management did a complete reversal of task force's original position, insisting there that tech specs were not violated.
- o Was false information submitted to the NRC in the December 5 Notice of Violation response, in light of the conclusions reached by the task force?

o Why did the task force change its conclusion dealing with management's culpability, which is represented in each draft through the March, 24, 1980 version, at which time its pejorative nature is completely eliminated and no subsequent finding is made against management?

o Why was the task force finding in its October 6, 1979 draft, B&W 349, that operators were desensitized to the elevated temperatures at the discharge line, which is consistent with the NRC's finding in its Notice of Violation and in fact resulted in the greatest percentage of the total civil penalty imposed by the NRC -- \$630,000 -- eliminated from the task force conclusions, and what relationship did this have to Licensee's decision to affirmatively dispute this notion in its official response to the NRC, concealing any reference to its own accident investigation task force finding of several weeks earlier?

See, specifically, at p. 34 of Licensee's December 5, 1983 official response to the NRC's October 25, 1979 Notice of Violation, in response to the item of noncompliance dealing with allowing operation with valve discharge line temperatures to exceed the normal 130°F for months before the accident, Licensee states, "there is no indication that this procedure or the history of PORV discharge line temperatures delayed recognition that the PORV had stuck open during the course of the accident."

o Was false information submitted to the NRC in the December 5 Notice of Violation response, in light of the conclusions reached by the task force, above?

o Why were references in the first few drafts to "communication failures", later changed to "communication system failures, and were these changes meant to absolve the people involved in the communication failures?

o In what instances were "stories" deliberately fabricated for the purpose of excusing company management for their failures or wrongdoing during the accident?

For example, in a December 3, 1979 MEMO TO FILE, B&W 353, Re: TMI-2 Accident Review Task Force Open Items List, were following action item was listed:

Under Section II.B.2 "Information Flow" develop a story that the plant management and Met-Ed management were immediately drawn into communication problems with state agencies rather than being free to concentrate on the plant conditions. Develop a recommendation that casualty managers have a communication system which leaves them free to concentrate on the plant. (emphasis added).

o In what instances were task force findings "laundered" to provide a more positive view of company and management actions?

o What is the significance of B&W 718, which is a handwritten cover memo from task force member Ken Lucien who had just completed his analysis of the condensate polisher problem, which reads, in part,

This is the draft of my report on the polishing/condensate/air systems for the Investigative Task Force. Per our understanding with R. Keaton, please launder this to bring it into line with your presentation of the forthcoming master task force report. (emphasis added).

F. GPU v. B&W Trial Material Review

NOTE: Because most of the evidence in the record relates to issues already listed, supra, few issues seem appropriate for listing in this separate category. For a comprehensive view of what TMIA considers some of the most important evidence from that record, see TMIA's Interim Comments on the B&W Trial Record, dated July 1, 1983. TMIA hereby incorporates the issues presented in those comments in this listing of B&W Trial Record Issues.

- o Did management encourage Zewe and /or Frederick to change their testimony on HPI injection?
- o Does Frederick's testimony reflect on the sufficiency of his integrity to serve as supervisor of licensed operator training?
- o Did management encourage a change in testimony regarding PORV tailpipe temperatures?

G. Boring Brother Allegation

- o Were welders with inadequate qualifications working at TMI?
- o If so, what was management's knowledge and role?

H. Unattended Radiation Worker Examination and Answer Keys

- o Whether discovery of unattended examinations and answer keys raised questions about licesnee's training commitments?

I. Psychological Testing Allegations (Quinn Allegations)

- o Did management improperly assist a potential GPU employee to pass psychological tests?

J. Technical Issues

- o Does GPU's schedule of implementation of long-term items adversely reflect on management's character?
TMIA relies on USC's listing of outstanding technical issues concerning completion of short and long term items.
- o Do the apparent procedural violations in the latest Region I inspection reports indicate inadequate management attention?
- o How does the inadvertent introduction of sulfur into the reactor coolant system in 1981, which seriously damaged the steam generators, reflect on management attitude and attention to safety?
- o How does the inadvertent leakage of krypton during 1983 hot functional testing, which contaminated the environment, reflect on management attitude and attention to safety?

K. Additional Issues

- o How did Licensee management respond to the finding made in the 1978 management report, which concluded that "[m]ost supervisors feel we do not hold people accountable, which in turn creates a "buck-passing" atmosphere and allows weak supervision to continue, its finding that "bypassing the chain of command" is "somewhat widespread?" Id. at 45214.
- o How did Licensee management respond to the finding made in the Glickman's 1979 audit found that the "tendencies of upper management to meddle rather than manage has to be curbed?" B&W 32 at 21.
- o What is the significance of, and how has licensee responded to the following BETA and RHR findings:
 - BETA repeatedly heard the complaint that too many decisions are made at too high a level... It was felt by those interviewed that this phenomenon originated at the level of the Office of the President. BETA at 112.
 - there appears to be a reluctance within the GPUN system to take action either to improve the performance of poor performers or to terminate their employment. BETA at 114.
 - BETA was informed by a number of people that contributing to the inability to move quickly on personnel matters is the existence of a number of high-level corporate committees, ... that seem to get involved in too many issues that should be handled routinely. If this is true, it is another

example where decision-making within GPUN has been elevated to the point that it takes inordinate time to get a decision, and just as important, people at the lower levels automatically push the decision upward to avoid future reversal. BETA at 94.

-- another result of this situation is the feeling at the lower levels that by sharing the responsibility for decision-making among many, somehow no one person has to take the full brunt of the blame if things go wrong. BETA at 113.

-- RHR reports that "two out of three deny that management has committed to an accountable organization which resolves problems at the correct level."

Respectfully submitted,

By: Joanne Doroshow

Joanne Doroshow
Louise Bradford
TMI Alert

February 21, 1984

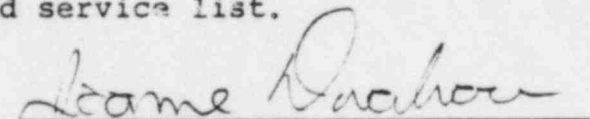
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the attached TMIA COMMENTS
ON LIST OF INTEGRITY ISSUES IN RESTART PROCEEDING dated
February 21, 1984, were served this 21th day of February
1984, by deposit in the U.S. Mail, first class, postage
prepaid, or, hand delivered where possible on February 22,
1984, to those on the attached service list.



JOANNE DORCSHOW

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