EFFECT OF MATTERS RAISED BY RHR AND BETA REPORTS ON MANAGEMENT ISSUES LITIGATED DURING TMI-1 RESTART

8411260141 830928
PDR ADOCK 05000289
G PDR

TABLE OF CONTENTS

		Page
1.0	COMMISSION ORDER OF AUGUST 9, 1979	2
	1.1 Order Item 1e - Operator Training	2
	1.2 Order Item 6 - Managerial Capability	10
	1.3 Category B Recommendations	13
2.0	COMMISSION ORDER OF MARCH 6, 1980	16
	2.1 Organization of Command and Administrative Structure	16
	2.2 Qualifications of Staff	19
	2.3 Views of NRC Inspectors	21
	2.4 Health Physics Program	24
	2.5 Staffing for Radwaste	26
	2.6 Relationship Between Corporate Finance and Technical Departments	28
	2.7 Safety Review	29
	2.8 Comparison of Unit 1 Infractions with Industry-Wide Infractions	30
	2.9 Comparison of LER Statistics with Industry	31
	2.10 Actions that May Reveal Deficiencies in Corporate or Plant Management	32
	2.11 Adequacy of In-House Technical Support	36
	2.12 Adequacy of Financial Resources	38
	2.13 Other Specific Issues Identified by the Board	39
3.0	CONTENTIONS RAISED BY PARTIES	41
	3.1 CEA Contention 13	41
	3.2 Aamodt Contention 2	41
	3.3 TMIA Contention 5	43
4.0	ISSUES CONSIDERED IN THE REOPENED HEARING	47
	4.1 Issues for the Reopened Proceeding	47
	4.2 Unaffected Issues	49
	4.3 Issues Possibly Affected by RHR and BETA Reports	50
	4.4 Staff Conclusion	53

EFFECT OF MATTERS RAISED BY RHR AND BETA REPORTS ON MANAGEMENT ISSUES LITIGATED DURING TMI-1 RESTART HEARING

In response to a Staff Requirement Memorandum dated June 2, 1983, from the Commission's Secretary to the Executive Director for Operations, a staff team recently completed an evaluation of the effect of two licensee consultant reports on the staff position relative to TMI-1 restart. The reports, by Rohrer, Hibler & Replogle, Inc. (RHR) and Basic Energy Technology Associates, Inc. (BETA), had been commissioned by the licensee, General Public Utilities Nuclear Corporation (GPUN). The results of the staff evaluation have been issued as Supplement No. 4 to NUREG-0680, "TMI-1 Restart."

The staff evaluation team that prepared Supplement No. 4 to NUREG-0680, "TMI-1 Restart," also compared the comments, findings, and recommendations of the RHR and BETA reports with findings of the Atomic Safety and Licensing Board (ASLB) in its Partial Initial Decisions (PID) of August 27, 1981 and July 27, 1982, to determine the impact of the reports on matters that were litigated before the board during the TMI-1 Restart hearing. These include (1) questions raised by the Commission in its August 9, 1979, order commencing the TMI-1 restart proceeding; (2) additional questions raised by the Commission in its subsequent order of March 6, 1980; (3) the specific contentions relating to these issues raised by the parties to the restart proceeding; and (4) the issues raised by the Licensing Board in the reopened proceeding on the question of cheating. The results of the staff evaluation of the impact of the RHR and BETA reports on these hearing issues are presented in this document.

All information in this document from the RHR and BETA reports, from GPUN's responses to those reports, and from the ASLB's Partial Initial Decision are quoted verbatim. The GPUN responses discussed in this report are draft responses that were available at the time of the evaluation team's visit to TMI-1 (June 13-17, 1983).

1.0 COMMISSION ORDER OF AUGUST 9, 1979

1.1 <u>Order Item 1e - Operator Training</u>

1.1.1 Order

Item 1e of the Commission's August 9, 1979, order required the licensee to:

> Augment the retraining of all reactor operators and senior reactor operators assigned to the control room including training in the areas of natural circulation and small break loss of coolant accidents including revised procedures and the TMI-2 accident. All operators will also receive training at the B&W simulator on the TMI-2 accident and the licensee will conduct a 100 percent re-examination of all operators in these areas. NRC will administer complete examinations to all licensed personnel in accordance with 10 CFR 55.20-23.

1.1.2 Board Finding

In its August 27, 1981, Partial Initial Decision on the TMI-1 Restart Hearings the Licensing Board concluded (¶ 276):

> On the basis of the extensive record developed on training, the Board finds that Licensee has in place at TMI-1 a comprehensive and acceptable training program. Since the accident, Licensee has substantially augmented its training department and headed it with professional educators who have backgrounds in nuclear training. Licensee's programs have been reviewed by NRC and by highly qualified independent consultants. The TMI-1 licensed operators have been trained, retrained, audited and reaudited by Licensee's training personnel and independent consultants. The operators have been exposed to training in the areas they should master before operating the plant. Nevertheless, prior to obtaining NRC licenses to operate the plant, these individuals all must pass NRC-administered examinations, both oral and written, with NRC's present grading criteria (70%/80%) and four individuals must pass as well the special Category T (TMI-2) lessons learned)

examination with a 90% grade. The Board generally finds Licensee's training adequate and specifically finds Licensee has complied with the Commission's August 9, 1979 and March 6, 1980 Orders insofar as they relate to training. Operator training and procedures will also be the subject of our partial initial decision on plant design issues.

Further, in the August 27, 1981, PID at ¶ 584.c the Board concluded:

> That Licensee has augmented the retraining of all Reactor Operators and Senior Reactor Operators assigned to the control room including training in the areas of natural circulation and small break loss of coolant accidents including revised procedures and the TMI-2 accident. All operators also have received training at the B&W simulator on the TMI-2 accident and Licensee will conduct a 100 percent re-examination of all operators in these areas."

However, the Board added a footnote to ¶ 584.c stating, "Because of the pendency of the inquiry into the matter of cheating on the NRC operator license examinations, the Board omits for now any conclusion respecting operator testing and licensing."

In its PID of December 14, 1981, the Board reached no conclusions regarding the "cheating episodes" (¶ 2014). In the Partial Initial Decision of July 27, 1982 on the Reopened Proceeding, the ASLB imposed the following conditions on restart of TMI-1 (¶ 2347):

(1) There shall be a two-year probationary period during which the Licensee's qualification and requalification testing and training program shall be subjected to an in-depth audit by independent auditors, approved by the Director of NRR, such auditors to have had no role in the TMI-1 restart proceedings.

(2) Licensee shall establish criteria for qualifications of training instructors to ensure a high level of competence in instruction, including knowledge of subjects taught, skill in presentation of

knowledge, and preparation, administration, and evaluation of examinations.

(3) Licensee shall develop and implement an internal auditing procedure, based on unscheduled ("surprise") direct observation of the training and testing program at the point of delivery, such audits to be conducted by the Manager of Training and the Supervisor of Operator Training and not delegated.

(4) Licensee shall develop and implement a procedure for routine sampling and review of examination answers for evidence of cheating, using a review process approved by the NRC Staff.

1.1.3 Effect of RHR and BETA Reports

In its August 27, 1981, PID, the Board noted at ¶ 272 (and implied its agreement with the statement) that "... successful completion of such examinations (NRC license examinations) coupled with training sufficient to allow success on those examinations was indicative of a capable licensed operator...." However, in its July 27, 1982, PID on the reopened proceeding, the Board stated (¶ 2337) that "... we no longer have the assurance that there was sufficient quality control over the training and testing process...." In addition, in ¶ 2343, the Board questioned, "... is the instruction adequate to prepare the operators to operate the plant safely?" The Board then imposed its remedies, as noted in the preceeding section, "... to be satisified within the first two years after any restart authorization...."

We reviewed the contents of the RHR and BETA reports in light of the Board's question from ¶ 2343 to determine the affect of the reports on the Partial Initial Decisions.

RHR Report

Our review indicates that the RHR report raises two principal issues related to operator training: (1) the concern of the operators regarding the lack of

hands-on experience; and (2) the lack of convergence between training, testing, and the ability to operate the plant.

- Lack of Hands-On Experience

We consider the concern of the operators regarding a lack of hands-on experience to be both real and understandable. None of the operators have operated the plant at power during the more than four years it has been shutdown, and a significant number of newer operators have never operated the plant at power. Limited experience in dynamic plant response has been provided to trainees for initial licensing, and for all licensed personnel during requalification training, at the B&W simulator in Lynchburg.

Recognizing the limitations on actual operating experience, the TMI-1 Operations Department has developed a TMI-1 Restart Qualification Card. The Restart Card requires each shift, under the direction of the shift supervisor, to perform individual and crew training during a number of exercises and maneuvers. Crew training includes both licensed and auxiliary operators. Additional simulator training involving revised emergency procedures was conducted during June 1983. In addition, the recently formed Operator Training Review Committee will explore additional methods to obtain hands-on experience.

The licensee also plans to obtain a Basic Principles Trainer, scheduled for delivery in 1983, and a replica plant simulator, scheduled for delivery in 1985. Use of these machines should provide additional practical experience to the operators.

We find that the licensee has taken and is taking action to provide practical hands-on type of experience to the operators. Short of actually operating the plant, which requires Commission approval, there is little more that can be done to provide hands-on experience. We conclude that this issue raised by the RHR report probably would not affect the Licensing Board's findings and conclusions related to training.

- Lack of Convergence Between Training, Testing, and Ability to Operate the Plant

The licensee has now incorporated the remedies prescribed by the Licensing Board (see Section 1.1.2) into its training program. Nonetheless, several of the RHR comments may be construed to indicate that training has degraded since the Board's Partial Initial Decision of July 27, 1982. Comments in the area include:

- What is taught in training is different from what they experience in the plant.

- Three out of four denied that training prepared them for what they actually do.

- Operators complained of a lack of convergence between training, testing, and ability to operate the plant.

The operator responses to some of the statements in the RHR survey instrument, however, do not totally support the RHR comments. For example:

- (RHR #5) The content of the last licensing exams was job relevant. (69% agreed).

- (RHR #17) The content of the last requalification exam was job relevant. (79% agreed).

- (RHR #18) The training and testing programs have helped me be a more effective operator (97% agreed).

- (RHR #36) I feel confident my training has prepared me to handle a genuine emergency. (76% agreed).

- (RHR #128) On balance, we are better prepared for an emergency as a result of changes since the TMI-2 accident. (91% agreed).

Our interviews with licensed personnel did not result in a finding of support for the first two RHR comments noted above. Most operators indicated that "training" includes not only the formal classroom portion, but also on-the-job and simulator training, that is, the entire training program. Our evaluation of the RHR report is that the consultants either were not aware of or failed to include in their survey, questions related to these other aspects of the training program. With regard to convergence of training and testing, we reported in Section 4 of Supplement No. 4 to NUREG-0680 that nine of ten TMI-1 operator license applicants passed the last NRC examinations. The tenth individual had a failing grade only in one area. Based upon these results, we concluded that there is convergence between training and testing, that the GPUN training program remains acceptable and that this issue raised by the RHR report likely would not affect the Partial Initial Decisions of the Licensing Board. Regarding the Board's question raised in § 2343, "... is the instruction adequate to prepare the operators to operate the plant safely?", a firm answer is not available. For now, we can only monitor the TMI-1 personnel discharging their licensed duties on a shut-down plant. To date, the licensed staff performance remains acceptable.

BETA Report

The BETA report contains three findings related to training at TMI-1

- V-B-3 There are inefficiencies in the TMI-1 training effort due to a lack of meaningful scheduling. The Training Department has difficulty in obtaining data to schedule its training.

- V-B-4 There is an overly "understanding" attitude which prevails in the TMI-1 Training Department, especially with respect to operator training.

- V-B-5 There exists a lack of supervision of instructors in the TMI-1 Training Department.

Regarding V-B-3, BETA recommended that better efficiencies in department planning and instructor utilization could be obtained by long range planning. No

safety issues, and no issues related to quality of instruction or performance of the training staff are raised by this finding. We do, however, note that the TMI-1 operations staff is on a six-shift schedule which provides for regularly scheduled periods of requalification training (one week out of six). This schedule is the same as that considered by the Licensing Board.

BETA's finding V-B-4 regarding the "understanding" attitude was based upon observations made during March and April of 1982 and which included interviews with the Training Department staff, students and product users. BETA indicated that, "... the Training Department had become very 'understanding' of all the problems the students may have and, as a result, lacked the degree of toughness, accountability, and insistence on performance needed in the nuclear profession." In a follow-up review conducted in November 1982, BETA found that this situation had improved, although the problem had not been entirely corrected. In its review, BETA "... did not attempt to make a first-hand determination of the quality of the training effort ... we did not attempt to find out if licensed operators were being taught the correct material in quality or quantity."

We agree that both students and licensed personnel should be held responsible and that there should be insistence on performance. However, the BETA findings did not include evaluation of written examinations, on-the-job training or simulator exercises for students and for licensed personnel in the requalification program. We had previously reviewed and approved the licensee's requalification program and we re-checked the program during the team visit to the TMI-1 site. Our review of the licensee's training program indicates that there are adequate criteria to assure that the program is effective.

BETA's finding V-B-5 regarding lack of supervision in the Training Department apparently was based upon two observations. First, "In some cases, it was because supervisors, who were present, did not react to situations where instructors were not performing their assigned tasks." BETA notes that it "... was alerted to the possibility of this condition by a number of comments made by GPUN people outside the Training Department. The main thrust of these comments applied to the lack of supervision over the instructors in the class-

room." BETA adds that it "... was not able, or in a position to observe instructor performance in the classroom,...."

In response to the BETA recommendations, GPUN intends to (1) review supervisory responsibilities with those assigned as supervisors of training instructors, and (2) assign responsibility for monitoring activities in the training building during periods when both the Manager, TMI Training and the Operator Training Manager are absent. In addition, GPUN has developed instructor evaluations in response to the second Board remedy specified in ¶ 2347.

We consider instructor control of classroom presentation and conduct of students as essential elements in the administraion of training programs. During our limited period at the training center we did not observe any matter that would support the BETA finding, nor are we aware of any results of the NRC's continuing inspection program that would support the finding. We are, however, satisfied that GPUN has a program to monitor activities in the training building and to provide for periodic evaluation of instructor performance. We conclude that since the licensee has initiated steps to detect and correct any problems of the type identified by this finding, the finding probably would have no effect on the Partial Initial Decision of the Licensing Board.

1.1.4 Staff Conclusion

The RHR report produced two principal comments: operators desire an increase in hands-on experience; and operators are concerned about a lack of convergence between training, testing, and the ability to operate the plant. The solution to increased hands-on experience is to have an operating plant, which also would provide a partial solution to the second comment. TMI-1 has developed and is using a Restart Qualification Card to require and track additional individual and team training. Also, the recently formed Operator Training Review Committee will seek additional methods to obtain hands-on experience. The plant also will be receiving a Basic Principles Trainer in 1983. We conclude that these measures and the TMI-1 Requalification Program will provide adquate hands-on experience during the period that TMI-1 remains shutdown.

Regarding convergence of training, testing, and the ability to operate the plant, our review indicates that operators at TMI-1 have opinions different from those contained in the RHR report. In addition, the results of the last licensing examination indicates convergence between training and testing. Proof of the quality of training and the performance of licensed personnel will have to await restart of Unit 1. To date, performance of licensed personnel has been acceptable.

The BETA report contained two principal findings: V-B-4 which indicated an overly "understanding" attitude by the training department toward operator training, and V-B-5 which indicated a lack of supervision of instructors. As indicated in the report, no direct evaluation was made of the criteria used in operator training nor was there any direct observation of instructor performance. Our evaluation of the training program is that there are adequate evaluation criteria to negate "understanding" attitudes toward operators. In addition, the licensee has a program which requires periodic evaluation of instructors.

We conclude therefore, that the contents of the RHR and BETA reports do not adversely affect the previous staff testimony related to operator training and we feel that the contents of these reports would not adversely affect the findings and conclusions of the Licensing Board regarding operator training.

1.2 Order Item 6 - Managerial Capability

1.2.1 Order

Item 6 of the August 9, 1979, Commission Order stated that:

> The licensee shall demonstrate his managerial capability and resources to operate Unit 1 while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities. Issues to be addressed include the adequacy of groups providing safety review and operational advice, the management and technical capability and training of operations staff, the adequacy of the operational

Quality Assurance program and the facility procedures, and the capability of important support organizations such as Health Physics and Plant Maintenance.

1.2.2 Board Finding

In its August 27, 1981, PID at ¶ 584.d, the ASLB concluded:

> That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities. In reaching this conclusion, we have addressed the Licensee's command and administrative structure at the corporate and plant levels, the adequacy of groups providing safety review and operational advice, the management and technical capability and training of operations staff, the adequacy of the operational Quality Assurance program and the facility procedures, the relationship between the financial and technical organizations, and the capability of important support organizations such as Health Physics, Radwaste, and Plant Maintenance. We have specifically addressed issues (1) through (11) and (13) of CLI-80-5;

(CLI-80-5 is the Commission Order of March 6, 1980.)

The capability of licensee's management was further called into question during the reopened proceeding on cheating during the licensing examinations. In its July 27, 1982, Partial Initial Decision on the Reopened Proceeding, the Licensing Board at ¶¶ 2395-2422 discusses its conclusions, recommendations and remedies. The Board concluded at ¶ 2433 of the PID:

> The Board concludes that in consideration of the findings, recommendations, and conditions set out above, the issues in the proceeding reopened by the Board's Order of September 14, 1981 have been resolved in favor of restarting Three Mile Island Unit 1 and that the conclusions of the Partial Initial Decisions of August 27, 1981, 14 NRC 381, and December 14, 1981, 14 NRC 1211, remain in effect.

Section 4 of this report discusses the effect of the RHR and BETA reports on the particular issues litigated during the reopened proceeding and upon which the Licensing Board relied in reaching its ultimate conclusion as stated in ¶ 2433 of the PID.

1.2.3 Effect of RHR and BETA Reports

The effect of the RHR and BETA reports on the Board findings relative to managerial capability is necessarily a compilation of the effects of these reports on the various issues mandated by the Commission order and considered by the Board in reaching its conclusions. These issues, together with references to the Sections of this report and to Supplement No. 4 to NUREG-0680 where they are discussed in detail, are:

- Licensee's command and administrative structure - see Section 2.1.
- Adequacy of groups providing safety review and operational advice - see Section 2.7.
- Management and technical capability and training of operations staff - see Section 4.0 of Supplement No. 4 to NUREG-0680 and Section 1.1.
- Adequacy of the operational Quality Assurance program - see Sections 6, 7, and 8 of Appendix A to Supplement No. 4 to NUREG-0680.
- Facility procedures - see NUREG-0680, Supplement No. 4, Section 3.3, Appendix A generally, and Appendix D.
- Relationship between the financial and technical organizations - see Section 2.6.
- Capability of important support organizations such as:

Health Physics - see Section 2.4 and Section 5.3 of NUREG-0680, Supplement No. 4.

Radwaste - see Section 2.5 and Section 5.3 of NUREG-0680, Supplement No. 4.

Plant Maintenance - see Section 5.1 of NUREG-0680, Supplement No. 4.

And other support organizations not specifically mentioned in the Commission Order:

Engineering - see Section 5.2 of NUREG-0680, Supplement No. 4.

Training - see Section 1.1 and Section 4.0 of NUREG-0680, Supplement No. 4.

1.2.4 Staff Conclusion

As discussed in the various sections referenced in 1.2.3 above, we have found no instance where the contents of the RHR and BETA reports would adversely affect the previous staff positions or testimony presented to the Licensing Board on the individual issues. That is to say, none of the RHR or BETA findings is such that it would require a change to staff testimony presented during the hearing, and, to the extent the Licensing Board relied on the staff testimony, they should not affect the Licensing Board finding that there presently exists the managerial capability and technical resources to operate Unit 1 safely while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities. Our opinion, therefore, is that the two reports should have no adverse impact upon the findings and conclusions of the Board on the overall issue of managerial capability.

1.3 Category B Recommendations

1.3.1 Order

In the Commission order of August 9, 1979, it was ordered that the licensee shall

> comply with the Category B recommendations as specified in Table B-1 of NUREG-0578...

These recommendations included consideration of the Shift Supervisor Responsibilities (Item 2.2.1.a), the Shift Safety Engineer (Item 2.2.1.b), and Shift Turnover Procedures (Item 2.2.1.c).

1.3.2 Board Finding

In its August 27, 1981, PID at ¶ 584.e, the ASLB concluded:

> That Licensee complies with the Category A (short-term) recommendations related to management competence (Items 2.2.1.a., 2.2.1.b, 2.2.1.c and ...) in Table B-1 of NUREG-0578 and has made reasonable progress toward completion of the Category B (long-term) recommendation related to management competence (Item 2.2.1.b) in Table B-1 of NUREG-0578.

1.3.3 Effect of RHR and BETA Reports

The RHR and BETA reports do not take issue with the subjects of 2.2.1.a - Shift Supervisor Responsibility or 2.2.1.c - Shift Turnover Procedures. However, BETA finding VI-E-1 states that, "The Shift Technical Advisor (STA) program at both sites, but particularly at Oyster Creek, needs to be reviewed and strengthened." BETA noted that problems associated with the STAs had to do with attrition, the STA training program, and their proper utilization.

We previously examined the role and the qualifications of the STAs at TMI-1 during the inspection effort leading to Inspection Report 50-289/83-10, which is included as Appendix A to NUREG-0680, Supplement No. 4. Our evaluation is contained in Section 11 of that document. We found there that the STA program at TMI-1 is established and is operating in accordance with regulatory requirements and licensee commitments. The STAs were fully qualified and trained and candidates for replacement STAs were in training. The NRC has no requirement regarding STA utilization other than that they must be available to provide advice to the Shift Supervisor in the event of an off-normal situation. The STAs at TMI-1 meet this requirement. Their utilization at other times is a matter to be determined by the licensee. The licensee does not agree, nor do we, with the BETA recommendation that the STAs not obtain SRO licenses. We

feel that obtaining an SRO license enhances both the status and the capability of an STA.

In summary, our review of the BETA findings, in conjunction with our own evaluation of the STA program, reveals nothing that we feel would cause a change to the Board findings and conclusions regarding the STA.

1.3.4 Staff Conclusion

We conclude that the RHR and BETA reports do not affect previous staff testimony on these matters and, thus, they should not affect the findings of the ASLB's Partial Initial Decision on these subjects.

2.0 COMMISSION ORDER OF MARCH 6, 1980

2.1 Organization of Command and Administrative Structure

2.1.1 Order

In the Commission Order of March 6, 1980, (I..m (1)), it was stated that the Licensing Board should examine

> whether Metropolitan Edison's command and administrative structure at both the plant and corporate levels, is appropriately organized to assure safe operation of Unit 1;

2.1.2 Board Finding

The Licensing Board extensively reviewed the details of the licensee's command and administrative structuré. A description of the structure and the testimony relied upon by the Board is presented in the August 27, 1981, PID (¶¶ 46-66). At ¶ 67 of the PID, the Board stated:

> ... The Board concludes that the Licensee's command and administrative structure at the corporate level is appropriately organized to provide reasonable assurance of safe operation of TMI-1.

The Licensing Board also reviewed the details of the TMI-1 on-site organization and technical resources. A description of the organization is presented in the PID at ¶¶ 68-104. At ¶ 105 of the PID, the Board stated:

> ... we conclude that the Licensee's command and administrative structure at the level of the TMI-1 plant is appropriately organized to provide reasonable assurance that TMI-1 can be operated safely. CLI-80-5 issue (1).

In summary, in the August 27, 1981, PID at ¶ 584.d, the ASLB concluded:

That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 ... In reaching this conclusion, we have addressed the Licensee's command and administrative structure at the corporate and plant levels . . .

2.1.3 Effect of RHR and BETA Reports

About 20% of the RHR survey effort was devoted to exploring operator attitudes and perceptions regarding organizational issues. The results of this survey effort, the GPUN response to the RHR findings and recommendations, and our evaluation of the impact of the RHR report on issues related to the licensee's organization and structure, are discussed in Section 3.1.1 of Supplement No. 4 to NUREG-0680.

BETA had no specific comments or recommendations concerning the structure of the licensee's organization, although the BETA report does contain two findings on related issues. These matters, together with the licensee's response and our evaluation of the impact of the BETA report on issues related to the organization of the licensee, are presented in Section 1.2 of Supplement No. 4 to NUREG-0680.

A question has been raised regarding the overall impact of the BETA report on the Board findings in view of the earlier connection of BETA with the TMI-1 restart proceeding. Mr. Wegner of BETA was one of the licensee's chief witnesses at the hearing on organization and management issues. The Licensing Board relied heavily on the testimony of Mr. Wegner in reaching its decision. His testimony is summarized in the August 27, 1981, PID at ¶¶ 57-70, 99, 118, 119, 123 and 467. Mr. Wegner was also one of the principal contributors to the BETA report. Cursory comparison of the findings of the BETA report with Mr. Wegner's testimony at the hearing might indicate that Mr. Wegner has now changed his mind regarding the command and administrative structure of the licensee, which in turn might impact the findings of the Licensing Board.

Upon closer examination, however, we do not feel that there is a conflict between Mr. Wegner's testimony at the hearing and the contents of the BETA report.

As can be seen from an examination of ¶ 58 of the PID, Mr. Wegner concluded that the GPUN organization was probably the most effective organization the licensee could structure to handle nuclear utility affairs. He pointed out, as detailed in ¶ 58 of the PID, the reasons why he felt it would be effective. His testimony about the effectiveness of the new organization necessarily was prospective in nature, since the new organization was only then going into operation. Mr. Wegner explained to the Board, as described in ¶ 119, why there are variations in acceptable organizational structures and he concluded, as reported in ¶ 467 of the PID, that the licensee had sufficient management and technical capabilities to permit restart of TMI-1.

In his letter of May 13, 1983, regarding the BETA report, Mr. Wegner stated that,

> This review was undertaken at the request of GPUN corporate management for the purposes of identifying areas where efficiencies in all phases of the operation of GPUN might be improved and where methods of cost and expenditure control might be enhanced. While the BETA review addressed issues such as nuclear safety, training of operators or adherence to regulatory requirements, it did so only to the extent of evaluating efficiency.

The findings of the BETA report point out areas where improvements in the operation of the organization can be made. The findings do not take issue with the basic organizational structure, they do not identify areas of safety concern that must be corrected to meet regulatory requirements, and they do not identify problems of individual ineptitude or non-performance that require correction in order to have a safely run plant. To the contrary, as stated, they identify areas where improvements can be made to obtain a more efficient, more smooth-running operation. In this respect, the findings contained in the BETA report are the type of findings we would expect to see in the report of any competent consultant after a thorough evaluation of any nuclear utility. In any organization, there always are some shortcomings and some improvements that can be made. In our view, the fact that a utility management is interested in identifying possible weaknesses in its organization so that they can be corrected is one of the measures of an acceptable command and administrative structure.

In view of the above, we do not consider that the contents of the BETA report would have affected the Board's findings regarding the GPUN command and administrative structure.

2.1.4 Staff Conclusion

We conclude that neither the specifics of the RHR and BETA reports nor the overall thrust of the BETA report as compared with the Board's PID summary of Mr. Wegner's testimony during the restart hearing would affect previous staff testimony on this issue and that it is unlikely they would affect the conclusions of the Licensing Board regarding the GPUN command and administrative structure.

2.2 Qualifications of Staff

2.2.1 Order

In the Commission Order of March 6, 1980, (Item (2)) it was stated that the Licensing Board should examine

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

2.2.2 Board Finding

The Licensing Board examined in considerable detail the qualifications of the operations and technical staff for TMI-1. A description of the Board's findings in this regard is contained in the August 21, 1981, PID at ¶¶ 68-104. In the PID, at ¶ 106, the Board stated:

> ... the Board concludes that the operations and technical staff of TMI-1 is qualified to operate the unit safely. We also conclude that, considering Licensee's off-site technical support divisions, the TMI-1 maintenance

program is appropriately organized and staffed to provide reasonable assurance that TMI-1 can be operated safely.

Further, in the PID at ¶ 584.d, the ASLB also concluded:

> That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities. In reaching this conclusion, we have addressed . . . the management and technical capability . . .of operations staff, . . . and the capability of important support organizations such as . . . Plant Maintenance.

2.2.3 Effect of RHR and BETA Reports

The RHR report does not discuss or imply the existence of problems or issues dealing with managerial capability and technical resources, or with the plant maintenance function at TMI-1.

Finding III-C of the BETA report states that, "Maintenance at TMI-1 can improve its support of the plant." In the discussion accompanying the finding, BETA observed that, "The performance of maintenance at TMI-1 has improved significantly during the last two years. However, weaknesses still exist which tend to degrade the quality, quantity, and efficiency of maintenance work." As the reasons for its finding, BETA stated that (1) there was too much interference with maintenance work on the day shift, (2) Engineering was not brought into the process where they could help resolve the root causes of maintenance problems, and (3) there was a concern about the timing of a change in the corrective maintenance responsibility from the plant to the GPUN M&C Division. Our evaluation of the impact of this BETA finding is presented in Section 5.1 of Supplement No. 4 to NUREG-0680, where we also discuss the actions the staff has taken to monitor and evaluate the GPUN maintenance capability. We concluded there that the BETA maintenance findings do not adversely affect plant safety. Based upon our evaluation of the significance of these findings, as presented

in Section 5.1 of Supplement No. 4, we also consider that the findings would not adversely affect the findings and conclusions of the Licensing Board.

2.2.4 Staff Conclusion

We conclude that the RHR and BETA reports do not affect previous staff testimony regarding this issue and that they are unlikely to affect the findings and conclusions of the Licensing Board relative to this order item.

2.3 Views of NRC Inspectors

2.3.1 Order

Item 3 of the Commission Order of March 6, 1980, stated that the Licensing Board should examine:

> what are the views of the NRC inspectors regarding the quality of the management of TMI Unit 1 and the corporate management, staffing, organization and resources of Metropolitan Edison;

2.3.2 Board Finding

In the August 27, 1981, PID at §359, the ASLB concluded:

> NRC Staff (PF¶83) urges us to find, and we do find that the NRC inspectors believe the Licensee to be capable of properly managing and safely operating TMI Unit 1. CLI-80-5 issue (3).

2.3.3 Effect of RHR and BETA Reports

The views of NRC inspectors was not a specific topic of either report. Thus, the reports have no impact on the ASLB finding on this issue. However, after evaluation of the RHR and BETA reports, the views of the NRC inspectors remain unchanged from those stated in NUREG-0680 and its Supplements 1 and 2. Following is an update with respect to the status of issues discussed in the NUREG-0680

Supplements 1 and 2 within the context of NRC inspector views on quality of management, staffing, organization and resources. Summary results of the latest Systematic Assessment of Licensee Performance (SALP) are also presented as an update on NRC inspector views based on more recent inspections subsequent to the issuance of Supplement 2.

- <u>Inspection Findings Discussed in NUREG-0680, Supplements 1 and 2</u>

  The management and technical issues raised in Supplements 1 and 2 were noted primarily from four intensive investigations and/or special appraisals and evaluations. They are (Table III.B.1 of Supplement 1):

  -- Investigation 50-320/79-10 (March 28 - July 31, 1979) Investigation into the March 28, 1979 TMI Accident (NUREG-0600)

  -- Inspection 50-289/80-19 (July 23-25, 1980) Special Inspection ("NTOL" Review) of Utility Management and Technical Competence

  -- Inspection 50-289/80-21 (July 7-11, 14-18, 27-31, and August 1, 1980) Special Management Appraisal Inspection of Management Control Systems for Selected Functional Areas of Licensed Activities

  -- Inspection 50-289/80-22 (July 28 - August 8, 1980) Special Evaluation Inspection of the Health Physics Program.

  Other inspection report summaries were noted along with a few associated violations (Supplement 1, Appendix C previously referenced to as noncompliances). The conclusion of Supplement 2 was "...corrective measures proposed by the licensee, when fully implemented, are sufficient to resolve the management concerns identified during past...inspections. Region I will verify satisfactory implementation of the various corrective measures, including effectiveness of management improvement prior to TMI-1 restart."

On a sampling basis, Region I has verified the satisfactory implementation of licensee corrective action for the violations addressed in Appendix C of Supplement 1. The management and technical issues addressed in Appendices A and B of Supplement 1 from the intensive investigations and/or special appraisals and evaluations totalled 163 items. The management issues associated with these violations and significant weaknesses were corrected by the licensee and reviewed for satisfactory implementation by Region I. The majority of these items were reviewed during the last SALP period, October 1, 1981 to September 30, 1982.

Some technical issues remain open but these are being followed by the licensee for completion prior to restart or are waiting special plant conditions to be adequately tested to resolve these issues. Remaining technical issues are: TMI-1 Ventilation System Flow and Balancing Test, Data collection for the Leakage Reduction Program, Implementation of the new Effluent Monitoring System. These items are being followed by Region I.

Systematic Assessment of Licensee Performance (SALP)

The last complete SALP period was October 1, 1981 to September 30, 1982, with a report issued January 20, 1983, including the licensee's response of December 14, 1982 to the SALP Board conclusions. Ten areas were reviewed by the SALP Board based principally on the inputs from inspectors who conducted inspections during the subject period. These areas were: Plant Operations (Shutdown Mode); Radiological Controls, including Radiation Protection; Radioactive Waste Management; Transportation Effluent Control and Monitoring; Maintenance; Surveillance, including Inservice and Preoperational Testing; Fire Protection; Emergency Preparedness; Security and Safeguards; Licensing Activities; Quality Assurance/Control; and, Design, Engineering and Modification.

Overall it was found that the licensee's "performance of licensed activities indicates a high degree of management attention and involvement and that it is aggressive and oriented toward nuclear safety with adequate application of resources." It was noted that "in the areas of Radiological Control, Maintenance and Design, Engineering, and Modifications ...better coordination and communications among management, interfacing technical function groups and plant supervisory and worker personnel would enhance performance."

2.3.4 Staff Conclusion

Based on the above, previous NRC inspector views of the quality of Licensee management, staffing, organization and resources remain unchanged and are substantiated by the verification of licensee implementation of corrective actions and commitments stated in NUREG-0680, Supplements 1 and 2. The effective implementation of these measures will continue to be reviewed by Region I during the routine inspection program, especially during power operation (if operation is permitted). The RHR and BETA reports thus should not affect the conclusion of the ASLB regarding this issue.

2.4 Health Physics Program

2.4.1 Order

Item (4) of the Commission Order of March 6, 1980, stated that the Licensing Board should examine:

> whether the Unit 1 Health Physics program is appropriately organized and staffed with qualified individuals to ensure the safe operation of the facility;

2.4.2 Board Finding

In the August 27, 1981, PID at ¶ 584.d, the ASLB concluded:

That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 . . . . In reaching this conclusion, we have addressed . . . . the capability of important support organizations such as Health Physics . . . . We have specifically addressed issues (1) through (11) and (13) of CLI-80-5.

2.4.3 Effect of RHR and BETA Reports

The RHR report contained no comments or recommendations relative to the adequacy of the GPUN health physics programs. The BETA consultant report addressed the area of the health physics program in Findings III-F and IX-A. Our discussion and evaluation of those findings is presented in Section 5.3, Radiological Controls, in Supplement No. 4 to NUREG-0680.

By the use of a more stringent standard than that imposed by NRC regulations, BETA concluded that the program at TMI-1 is average, even though there is strong management support for a higher quality program. BETA prescribed additional steps to be taken to achieve that objective and to reduce costs involved with radiological work while increasing efficiency and effectiveness.

2.4.4 Staff Conclusion

Implementation of the radiological control program (health physics program) at TMI-1 is under continual review by onsite NRC Radiation Specialists to determine compliance with NRC regulations. (Refer to NUREG-0680, Supplement No. 4, Section 5.3.2.4, Footnote 1 for a list of recent NRC Region I Inspection Reports.) While deviations from good radiological control practices and violations of NRC regulations are identified at times, the licensee's corrective actions are usually prompt and effective, thereby maintaining a program which meets NRC requirements, including the NRC-approved TMI-1 radiological control program. This, together with the licensee's initiatives to correct deficiencies in the radiological controls program, as discussed in Section 5.3.2.4 of Supplement No. 4, is indicative of a strong resolve to improve this program. We conclude that the contents of the RHR and BETA reports would be unlikely to affect the conclusion of the ASLB regarding this issue.

2.5 Staffing for Radwaste

2.5.1 Order

Item (5) of the Commission Order of March 6, 1980, stated that the Licensing Board should examine:

> whether the Unit 1 Radiation Waste system is appropriately staffed with qualified individuals to ensure the safe operation of the facility;

2.5.2 Board Finding

In the August 27, 1981, PID at ¶ 386, the ASLB found that:

> Based on the findings of the Staff and on BETA assessment, the Board is satisfied with Licensee's radioactive waste program and organization.

Further, at ¶ 584.d, the ASLB concluded:

> That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 . . . . In reaching this conclusion, we have addressed . . . . the capability of important support organizations such as . . . . Radwaste .... We have specifically addressed issues (1) through (11) and (13) of CLI-80-5;

2.5.3 Effect of RHR and BETA Reports

The RHR report contained no comments or recommendations relative to the adequacy of staffing of the TMI-1 radwaste program.

The BETA consultant report touched upon the area of radioactive waste in Finding III-F where it addresses radiological controls. It states, "Excessive generation of radioactive waste is part of these problems" (i.e. instances where radiological controls are not as good as they should be and the work force is not accepting enough responsibility for high quality radiological

work performance). No specifics regarding this finding are included in the BETA discussion since BETA presents a prescriptive overview to strengthen the existing radiological control program at TMI-1. It is assumed, therefore, that the excessive generation of radwaste mentioned was a result of the repair work on the steam generators, since this was a major ongoing activity during the period of BETA's review, and since it resulted in considerable quantities of radwaste. A similar finding is addressed in NRC Region I Inspection Report 50-289/82-22 and in monthly reports prepared during that period by the TMI-1 Radiological Assessor. These monthly reports are routinely reviewed by onsite NRC radiation specialists to identify items or trends which could result in violations of NRC requirements. The problem associated with the generation of radwaste, from a health and safety view, is primarily unnecessary radiation exposure to workers, especially if frequent radiation surveys are not performed to identify and isolate the radwaste from workers. While one such instance was cited by NRC during the steam generator repair work (see IR 50-289/82-22), in light of the scope of the work being performed it did not represent a major breakdown in the licensee's program and corrective actions were implemented.

Regarding the qualifications of the TMI-1 radwaste organization, a special review was conducted by onsite NRC radiation specialists on July 11, 1983 to determine if the qualifications of the incumbent personnel met industry standards as had been reported previously to the Atomic Safety and Licensing Board during the TMI-1 Restart Hearing (NUREG 0680, Supplement I). The TMI-1 Radwaste organization is staffed with 24 GPUN employees. The Radwaste Manager, with assistance from one Senior Radwaste Engineer and two Level 1 Engineers, directs three shift foremen, and 15 radwaste laborers. The Radwaste Manager reports to the Manager, Plant Operations TMI-1. Based on our review, it was determined that the Radwaste staff's qualifications exceed the requirements of ANSI/ANS 3.1-1978. Such experience should enable and ensure safe operation of all TMI-1 Radwaste Systems and facilities.

2.5.4 Staff Conclusion

The radiological waste management program at TMI-1 is under continual review by onsite NRC Radiation Specialists and Resident Inspectors to ensure compliance

with NRC regulations. While violations of these regulations are identified at times, the licensee's corrective actions are usually prompt and effective, thereby maintaining a program which meets NRC requirements. (See Section 5.3.2.4 of Supplement No. 4 to NUREG-0680.) Therefore, the BETA comment has no impact on previous staff testimony regarding this issue and we consider that it would not affect the Licensing Board finding.

2.6 Relationship Between Corporate Finance and Technical Departments

2.6.1 Order

Item (6) of the Commission Order questioned

> whether the relationship between Metropolitan Edison's corporate finance and technical departments is such as to prevent financial considerations from having an improper impact upon technical decisions;

2.6.2 Board Finding

In the August 27, 1981, PID at ¶ 401, the ASLB concluded

> We conclude that Licensee's organizational framework and its practice of committing substantial resources to its nuclear business provides reasonable assurance that the relationship between its corporate finance and technical departments is such as to prevent financial considerations from having an improper impact on technical decisions.

2.6.3 Effect of RHR and BETA Reports

Neither the RHR report nor the BETA report raises any issue in this area.

2.6.4 Staff Conclusion

We conclude that the RHR and BETA reports would not affect the findings of the Licensing Board's Partial Initial Decision.

2.7 Safety Review

2.7.1 Order

In Item (7), the Commission order of March 6, 1980, stated that the Licensing Board should examine:

> whether Metropolitan Edison has made adequate provision for groups of qualified individuals to provide safety review of and operational advice regarding Unit 1;

2.7.2 Board Finding

The Licensing Board extensively examined the issue of safety review and operational advice. In the August 27, 1981, PID (¶¶ 402-428) the Board describes the groups and mechanisms to be used by the licensee to assure adequate safety review and operational advice. At ¶ 429 of the PID, the Board stated:

> The Board concludes that the Licensee has made adequate provisions for groups of qualified individuals to provide safety review of and operational advice regarding TMI-1.

Further, in the PID at ¶ 584.d, the ASLB also concluded:

> That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 ... In reaching this conclusion, we have addressed . . . the adequacy of groups providing safety review and operational advice . . .

2.7.3 Effect of RHR and BETA Reports

The RHR and BETA reports do not discuss the groups providing safety review and operational advice. Thus, the comments and findings of these reports have no impact on the Board conclusions relative to the issue of groups providing safety review and operational advice.

2.7.4 Staff Conclusion

The results of our most recent review of this area are presented in Section 9 of Appendix A to Supplement No. 4 of NUREG-0680. There were no adverse findings relative to regulatory requirements. We conclude that the RHR and BETA reports do not affect previous staff testimony regarding this issue and that they are unlikely to affect the conclusions of the Licensing Board's Partial Initial Decision.

2.8 Comparison of Unit 1 Infractions with Industry-Wide Infractions

2.8.1 Order

Item (8) of the Commission Order of March 6, 1980, stated that the Licensing Board should determine:

> what, if any, conclusions regarding Metropolitan Edison's ability to operate Unit 1 safely can be drawn from a comparison of the number and type of past infractions of NRC regulations attributable to the Three Mile Island Units with industry-wide infraction statistics;

2.8.2 Board Finding

In the August 27, 1981, PID at ¶ 442, the Licensing Board concluded:

> In summary, while both the Staff and Licensee compiled statistical information on infraction histories of plants which could reasonably be compared with TMI, both parties derived little meaning from these statistical comparisons. To the extent a conclusion might be drawn at all, Licensee appeared to be an average performer. Probably, the more accurate view, however, is that there is no statistically reliable conclusion that can be drawn concerning Licensee's ability to operate TMI-1 from a comparison of the number and type of past infractions of NRC regulations attributable to the Three Mile Island Units with industry-wide infraction statistics.

2.8.3 Effect of RHR and BETA Reports

Neither the RHR nor the BETA report identified any examples which we would judge to be infractions of NRC requirements. Accordingly, the reports do not affect prior conclusions in this area. The noncompliance history for the past few years is discussed briefly in NRC Region I Inspection Report 50-289/83-10, Section 12, and in Systematic Assessment of Licensee Performance reports for 1981 and 1982.

2.8.4 Staff Conclusion

We conclude that the RHR and BETA would not affect the findings of the ASLB's Partial Initial Decision regarding this order item.

2.9 Comparison of LER Statistics with Industry

2.9.1 Order

Item (9) of the Commission Order of March 6, 1980, stated that the Licensing Board should determine:

> what, if any, conclusions regarding Metropolitan Edison's ability to operate Unit 1 safely can be drawn from a comparison of the number and type of past Licensee Event Reports ("LER") and the Licensee's operating experience at the Three Mile Island Units with industry-wide statistics on LERs and operating experience;

2.9.2 Board Finding

In the August 27, 1981, PID at ¶ 455, the Licensing Board concluded:

> We are however satisfied, as Licensee urges us to be (PF § 265), that Mr. Koppe's analyses provided no basis to suspect that there are any serious shortcomings in TMI-1 LER history which would cause us concern about Licensee's management capability."

2.9.3 Effect of RHR and BETA Reports

Neither the RHR nor the BETA reports identified any examples which we consider should have resulted in a Licensee Event Report (LER). Accordingly, the reports do not affect prior conclusions in this area. LERs for the past few years are discussed briefly in NRC Region I Inspection Report 50-289/83-10, Section 12 and in Systematic Assessment of Licensee Performance reports for 1981 and 1982.

2.9.4 Staff Conclusion

We conclude that the RHR and BETA reports would not affect the findings of the Licensing Board relative to this order item.

2.10 <u>Actions That May Reveal Deficiencies in Corporate or Plant Management</u>

2.10.1 Item (10) of the Commission Order questioned

> whether the actions of Metropolitan Edison's corporate or plant management (or any part or individual member thereof) in connection with the accident at Unit 2 reveal deficiencies in the corporate or plant management that must be corrected before Unit 1 can be operated safely;

This Order Item is discussed in Supplement No. 1 to NUREG-0680, "TMI-1 Restart," issued in November 1980. In Supplement No. 1 (pages 36-37), we identified two issues which were still under investigation. One of these pertained to the transfer of information about plant conditions to the NRC during the day of the accident. The other involved a then on-going Department of Justice (DOJ) investigation of concerns relating to alleged falsification of leak rate test data (the Hartman allegations). We stated in Supplement No. 1 that pending the completion of these two investigations we could draw no conclusions regarding this Order Item.

Supplement No. 2 to NUREG-0680, issued in March 1981, also discussed the Commission's Order Item 10. On pages 9-10 of Supplement No. 2 we reported that our "Investigation into Information Flow During the Accident at Three Mile

Island," issued as NUREG-0760 in January 1981, had concluded that information pertinent to the accident had not been intentionally withheld, but that neither had such information been adequately transmitted either to the NRC or to the Pennsylvania Bureau of Radiological Protection. We further stated that NUREG-0746, "Emergency Preparedness Evaluation for TMI-1," had assessed the licensee's communications facilities and plans for communications flow during an accident in accordance with the requirements of 10 CFR 50.47 and the guidance of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." It was reported that the corrective actions taken by the licensee would be reviewed as part of the NRC's evaluation of the licensee's emergency preparedness and that the adequacy of the corrective actions would be verified during an emergency preparedness exercise. We also noted that NUREG-0760 had not identified any issues regarding licensee management, organization or staffing which required additional licensee action.

Supplement No. 2 to NUREG-0680 contains additional information regarding the alleged falsification of leak rate data. While the DOJ investigation of this issue still had not been completed, we stated that there appeared to be no direct connection between this issue and the TMI-2 accident and that we had found no indication of practices at TMI-1 similar to those alleged at TMI-2. We further stated that in light of the licensee's clear management policy regarding strict adherence to procedures, the establishment of management policy for disciplinary measures to be taken for failure to adhere to procedures, and the establishment by the licensee of an operations inspection program to verify procedure adherence, we believed that the issue of alleged leak rate data falsification was only of historical significance. However, in a filing to the Commission on April 18, 1983 (NRC Staff Comments on the Analysis of GPUN v. B&W Transcript), we noted that we had not carefully chosen our words regarding applicability of the Hartman allegations. In a footnote to the April 18 filing, we stated, "In restrospect the wording of this last conclusion in Supplement No. 2 should have been more precisely stated to be that the actions taken by the Licensee in light of the Hartman allegations were adequate to address the concerns identified."

We stated in Supplement No. 2 that we would resume our investigation regarding the alleged leak rate data falsification after the DOJ had completed its investigation. Notwithstanding this open matter, we concluded that deficiencies in the licensee's corporate or plant management had been corrected or had been identified for correction and the staff considered that this issue (Order Item 10) had been resolved.

It now appears that the statement made in Supplement No. 2 to NUREG-0680 that we had indentified no indication of leak rate practices at Unit 1 similar to those alleged at Unit 2 may have been incorrect. Board Notification 83-138, September 2, 1983, informed the Commission and the Board members that an investigation was underway by the Region I office which had revealed some possible incidents of falsification of leak rate tests at TMI-1. The staff investigation was expected to take several weeks and the Office of Investigations was expected to conduct additional review. The results were to be provided to the Commission and to the Boards when available.

2.10.2 Board Finding

This issue was litigated during the restart proceeding. In reaching its conclusion, the Licensing Board extensively examined the response to the TMI-2 accident by various involved individuals (PID ¶¶ 461-503) and discussed its limited knowledge of the Department of Justice investigation of the Hartman allegations (PID ¶¶ 504-505). The Board found no reasons for concern that deficiencies in corporate or plant management evidenced following the accident were still present within the licensee's organization that would be a bar to restart. Thus, the Licensing Board, in its Partial Initial Decision on management issues, concluded (¶ 506) that, "In overall summary of CLI-80-5 issue (10), we have noted our lack of knowledge about the Department of Justice investigation. Subject to this matter, ...we find no deficiencies in the corporate or plant management, arising from our inquiry into management's response to the accident, that have not been corrected and which must be corrected before there is reasonable assurance that Unit 1 can be operated safely."

At the time Supplement No. 2 to NUREG-0680 was issued, we assumed that the DOJ investigation of the allegations regarding falsification of leak rate data at TMI-2 would have been completed and the remaining NRC investigation would have been completed prior to need for a decision on TMI-1 restart. However, in April 1983, the DOJ investigation was still underway and the need for a decision on TMI-1 restart appeared to be imminent. We decided that we should look once again into the matter of management, procedures, and procedure adherence at TMI-1 to provide continuing assurance that practices such as are alleged to have occurred at TMI-2 would not occur at TMI-1. The results of this re-evaluation of the licensee's policies regarding procedure adherence and the organizational and procedural means for assuring procedure adherence are contained in Inspection Report 50-289/83-10, attached as Appendix A to Supplement No. 4 to NUREG-0680.

2.10.3 Effect of RHR and BETA Reports

During the course of the re-evaluation reported in Inspection Report 50-289/83-10, the evaluation team specifically reviewed the RHR and BETA reports to determine whether the contents of these reports adversely affected the team findings regarding this management issue. The review efforts are discussed in Section 15 of the Inspection Report. The team concluded that the contents of the RHR and BETA reports did not change the team findings regarding management integrity and procedure adherence.

2.10.4 Staff Conclusion

The conclusions of the Inspection Report, presented in Section 16 of Appendix A to Supplement No. 4 to NUREG-0680, are that the licensee's policies and practices related to procedure adherence and license conditions, as reflected in its management organization, procedures, training, reviews and commitment to safety and quality, are acceptable and do support restart of TMI-1. The report also concluded that the numerous changes and improvements in organization, procedural adherence and personnel at TMI-1 that have occurred since the Hartman allegations provide assurance that these allegations do not now present health and safety concerns that require resolution prior to restart of TMI-1.

The Commission now has directed the Office of Investigations to reopen the investigation into the Hartman allegations and the Executive Director of Operations has directed Region I to investigate the possible applicability of these allegations to TMI-1. As noted earlier, additonal investigations appear to have uncovered instances of falsification of leak rate test data at TMI-1 similar to those alleged to have occurred at TMI-2. During the preparation of this report these investigations were still in progress.

Notwithstanding the investigations now in progress, further review of the comments, findings, and recommendations of the RHR and BETA reports has not revealed information which warrants a change to our conclusions regarding this issue as presented in Inspection Report 50-289/83-10. Accordingly, we consider that the contents of these reports should not affect the Partial Initial Decision of the Licensing Board as regards Order Item 10.

2.11 Adequacy of In-House Technical Support

2.11.1 Order

Item (11) of the Commission Order of March 6, 1980, stated that the Licensing Board should examine:

> whether Metropolitan Edison possesses sufficient in-house technical capability to ensure the simultaneous safe operation of Unit 1 and clean-up of Unit 2. If Metropolitan Edison possesses insufficient technical resources, the Board should examine arrangements, if any, which Metropolitan Edison has made with its vendor and architect-engineer to supply the necessary technical expertise;

2.11.2 Board Finding

In the August 27, 1981, PID at ¶ 584.d, the ASLB concluded:

> That Licensee has demonstrated his managerial capability and technical resources to operate Unit 1 while maintaining Unit 2 in a safe configuration

and carrying out planned decontamination and/or restoration activities. In reaching this conclusion, we have addressed the Licensee's command and administrative structure at the corporate and plant levels, the adequacy of groups providing safety review and operational advice, the management and technical capability and training of operations staff, the adequacy of the operational Quality Assurance program and the facility procedures, the relationship between the financial and technical organizations, and the capability of important support organizations such as Health Physics, Radwaste, and Plant Maintenance. We have specifically addressed issues (1) through (11) and (13) of CLI-80-5 ..

2.11.3 Effect of RHR and BETA Reports

The RHR report does not discuss or imply problems dealing with the technical capability of the Licensee. The BETA report states that "technical support, while improving is still slow, unresponsive to plant needs and too often technically incomplete" (page 3). In further amplification of this statement, BETA stated on page 2 of its letter of May 13, 1983, to Mr. Robert C. Arnold, that:

> The third point addresses the lack of timely response of engineering support to the plant. As pointed out in the report, this situation is improving. The issue here is the timeliness and completeness of the engineering support. Work at the plant which requires engineering does not proceed without it. If it takes weeks to get the necessary engineering input instead of days, that is an inefficient delay. If, when the plant receives the engineering input and checks it out in the plant as it is required to do and finds it incomplete, then further delays are encountered. BETA found no examples where improper engineering had been performed to the point where the work in the plant had been accepted.

In response to this item, GPUN is reviewing methods to improve the management of the large engineering group with Technical Functions and is investigating the means for having plant information and problems flow into the Engineering and Design organization on a routine basis, not just when Technical Functions

support is required. This action is targeted for completion in 1983. We find this action by the licensee an acceptable response to the BETA finding. (See also the discussion in Section 5.2 of Supplement No. 4 to NUREG-0680.

2.11.4 Staff Conclusion

Our evaluation and conclusions relative to engineering support for the plant are set forth in Section 5.2.2.5 of Supplement No. 4 to NUREG-0680. We concluded there that the Technical Functions Division can provide adequate engineering support for TMI-1 operations. Since neither BETA nor the staff has found that the timeliness of engineering support for the plant has affected plant safety, and since RHR had no findings relative to engineering support, we conclude that the RHR and BETA reports do not affect previous staff testimony on this issue and that they are unlikely to affect the findings of the ASLB's Partial Initial Decision on this subject.

2.12 Adequacy of Financial Resources

2.12.1 Order

Order Item (12) questioned

> whether Metropolitan Edison possesses the financial resources necessary to safely operate Unit 1 in addition to cleaning up Unit 2;

2.12.2 Board Finding

In Supplement No. 2 to NUREG-0680, "TMI-1 Restart," the staff stated that this Order Item would be considered as part of Item 7 of the Commission's Order of August 9, 1979. However, a subsequent Commission Order of March 23, 1981, (CLI-81-3), deleted the issue of the licensee's financial qualifications as a matter to be litigated in the hearing. In that Order, the Commission accepted the views of the Commonwealth of Pennsylvania that while it was important for the licensee to demonstrate its financial ability to operate TMI-1 simultaneously with the cleanup of Unit 2, the return of TMI-1 to commercial operation

would improve, rather than impair, the licensee's financial health. Accordingly, the substance of this Order Item became moot and no further action was taken by the staff to respond to this issue. In its Partial Initial Decision of August 27, 1981, the Licensing Board noted (¶ 29) that contentions dealing with the licensee's financial qualifications were eliminated from the hearing as a result of the Commission's March 23, 1981 Order.

2.12.3 Effect of RHR and BETA Reports

There were no comments, findings or recommendations in either the RHR or the BETA report that would adversely affect the Commission Order of March 23, 1981. To the contrary, we note that the intent of the BETA study was to improve the efficiency of the operation, which would tend to decrease the costs associated with TMI-1 operations and thus improve the licensee's financial ability to operate TMI-1 while cleaning up Unit 2.

2.12.4 Staff Conclusion

We conclude that the BETA and RHR reports should not affect the findings of the Licensing Board's Partial Initial Decision.

2.13 Other Specific Issues Identified by the Board

2.13.1 Order

Item (13) of the Commission Order stated that the Licensing Board should examine:

> such other specific issues as the Board deems relevant to the resolution of the issues set forth in this order.

2.13.2 Board Finding

In the August 27, 1981, PID at ¶ 584.d, the ASLB concluded:

That Licensee has demonstrated its managerial capability and technical resources to operate Unit 1 . . . . In reaching this conclusion, we have addressed the Licensee's command and administrative structure at the corporate and plant levels, the adequacy of groups providing safety review and operational advice, the management and technical capability and training of operations staff, the adequacy of the operational Quality Assurance program and the facility procedures, the relationship between the financial and technical organizations, and the capability of important support organizations such as Health Physics, Radwaste, and Plant Maintenance. We have specifically addressed issues (1) through (11) and (13) of CLI-80-5;

2.13.3 Effect of RHR and BETA Reports

The Licensing Board did not identify any specific issues it addressed in accordance with this Order Item (13) that were not otherwise covered during the proceeding. Thus, there can be no impact by the RHR and BETA reports on this Order Item.

2.13.4 Staff Conclusion

We conclude that the RHR and BETA reports should not affect the finding of the Licensing Board regarding this Order Item (13).

3.0 CONTENTIONS RAISED BY PARTIES

3.1 <u>CEA Contention 13:</u>

3.1.1 Contention

> CEA (Chesapeake Energy Alliance) contends that there is specific need for the establishment of training for operators that addresses the problem of "mindset" that denies information indicative of serious reactor problems.

3.1.2 Board Finding

In the ASLB proceeding for Restart of TMI-1, the issue of "mindset" was considered as part of the litigation of training issues (¶ 166). In its conclusion (¶ 276) the Board found that the licensee has in place at TMI-1 a comprehensive and acceptable training program.

3.1.3 Effect of RHR and BETA Reports

The staff's review of the BETA and RHR reports indicates that the issue of "mindset" which denies information of serious reactor problems was not included in the reports.

3.1.4 Staff Conclusion

We conclude that the BETA and RHR reports should not affect the findings of the ASLB's Partial Initial Decision.

3.2 <u>Aamodt Contention 2:</u>

3.2.1 Contention

> It is contended that TMI-1 should not open until the performance of licensee technicians and management can be demonstrated to be upgraded as certified by an independent engineering firm. This upgrading should include 100% test performance of job description with

provision for retraining and retest, or discharge of those who cannot consistently and confidently master all necessary information for safe conduct of their job description under all anticipated critical situations as well as routine situations.

3.2.2 Board Finding

The ASLB in its August 27, 1981 findings and conclusions (¶¶ 264-265) stated that "the OARP does adequately serve as an independent training and testing function and that it satisfies the requirements of Commission Order item 1(e) regarding the retraining of all ROs and SROs...." The Board agreed "... that it must be the Staff, rather than an independent engineering firm "... which must determine the competency of licensed operator candidates." In addition, "... the Board finds that adequate provisions exist for the retraining of operators and for requalification examinations, as well as for retesting of individuals who do not initially pass the NRC examinations."

3.2.3 Effect of RHR and BETA Reports

The issues raised by the Aamodt contention pertain to training and testing. The BETA report does not address these areas; however, RHR appears to question the validity of training and evaluations in the following comments.

- Operators complained about the lack of convergence between training, testing and the ability to run the plant.

- In their perception, training prepared individuals to pass examinations and is successful at this, but does not prepare them sufficiently to operate.

3.2.4 Staff Evaluation and Conclusion

Extensive discussions of the licensee's training and testing programs are provided in Section 4.0 of Supplement No. 4 to NUREG-0680 and in Section 1.1 of this report. We concluded in those sections that the licensee's training and

testing programs are adequate and that nothing in the RHR or BETA reports would have an adverse impact upon previous staff testimony and, hence, are unlikely to adversely affect Licensing Board findings regarding these issues. For the same reasons we conclude that the RHR and BETA reports should not affect the Licensing Board findings relative to this contention.

3.3 TMIA Contention 5

3.3.1 Contention

TMIA (Three Mile Island Alert, Inc.) Contention 5, as finally revised by "Memorandum and Order of Prehearing Conference of August 12-13, 1980 (August 20, 1980)", states:

> It is contended that Licensee has pursued a course of conduct that is in violation of 10 CFR 50.57, 10 CFR 50.40, 10 CFR 50.36, 10 CFR 50.71 and 10 CFR 50 Appendix B, thereby demonstrating that Licensee is not "technically ... qualified to" operate TMI Unit 1 "without endangering the health and safety of the public." This course of conduct includes:
>
> a. deferring safety-related maintenance and repair beyond the point established by its own procedures (see, e.g. A.P. 1407);
>
> b. disregarding the importance of safety-related maintenance in safely operating a nuclear plant in that it:
>
> 1. (deleted)
>
> 2. proposed a drastic cut in the maintenance budget;
>
> 3. (deleted)
>
> 4. fails to keep accurate and complete maintenance records related to safety items;

5. has inadequate and understaffed QA/QC programs related to maintenance;

6. extensively uses overtime in performing safety-related maintenance.

3.3.2 Board Findings

In the August 27, 1981 PID, the ASLB made the following findings:

- <u>Contention a</u>

  (¶ 300) We find no evidence that the Licensee has improperly deferred safety-related maintenance and repair either beyond a point established by its own procedures or so as to endanger the health and safety of the public.

- <u>Contention b</u>

  2. (¶ 324) The board found that there was no evidence that the TMI-1 budget cuts for maintenance were drastic, that the budget cuts would have affected safe operation of the plant, or that the budget cuts demonstrated an underlying management philosophy of compromising safety in favor of profits as alleged by TMIA.

  4. (¶¶ 314-319) This contention was not resolved by the board but returned to the staff for further evaluation. It was ultimately resolved by the staff in Region I Inspection Report 50-289/82-09.

  5. (¶ 330) The board found that this contention had been mooted by the enlargement of the licensee's QA/QC program subsequent to the TMI-2 accident.

  6. (¶ 346) The board found that there was no evidence of any adverse effect from overtime upon safety-related maintenance.

As relates to the overall TMIA Contention 5, the ASLB concluded (¶ 348):

> In summary, the Board finds that contrary to TMIA Contention 5, Licensee has not deferred safety-related maintenance and repair either beyond the point established by its own procedures or otherwise improperly. We find further that Licensee has not disregarded the importance of safety-related maintenance in safely operating a nuclear plant by proposing a drastic cut in the maintenance budget of by extensively using overtime in performing safety-related maintenance. Finally, although we have noted some defects in Licensee's record keeping practices above, the extensive changes in Licensee's safety-related record keeping program and in its QA/QC programs related to maintenance has resulted and should continue to result in substantial improvements. Licensee's course of conduct, considering the improvements noted, does not, as alleged by TMIA Contention 5, demonstrate that Licensee is not technically qualified to operate TMI-1 without endangering the health and safety of the public.

3.3.3 Effect of RHR and BETA Reports

The RHR Report contained no comments or recommendations relative to inappropriate maintenance activities, nor did the operator survey form ask questions in this area.

BETA finding III-C identified the following:

a. It was difficult to get maintenance work accomplished on day shift.

b. Maintenance sometimes did not solve the root cause of the problem and engineering should become more involved in plant maintenance activities.

c. The transfer of maintenance activities to the Maintenance and Construction Division should wait until after TMI-1 restart.

3.3.4 Staff Evaluation and Conclusion

We determined that the above BETA report findings and subsequent BETA recommendations to correct the findings regarding improving the efficiency and effectiveness of maintenance have at most only a tangential relationship to the issues raised by TMIA Contention 5 or the ASLB findings concerning this contention. (See also the discussion in Section 5.1 of Supplement No. 4 to NUREG-0680.)

We conclude that BETA Report Finding III-C on improving the effectiveness and efficiency of maintenance is different from the issues raised by TMIA Contention 5 and should not affect the ASLB Partial Initial Decision concerning the TMIA contention.

4.0 ISSUES CONSIDERED IN THE REOPENED HEARING

The Licensing Board issued its Partial Initial Decision (PID) on management issues on August 27, 1981. Just prior to issuance, the Board had been notified regarding allegations of cheating on operator examinations. As a result of this cheating issue, the Board, in its PID, retained jurisdiction over issues relating to the quality of the licensee's management and its operating personnel.

On October 2, 1981, the Licensing Board reopened the hearing to inquire into the cheating issue. A Special Master was appointed to preside over the hearing and the Licensing Board, in a Memorandum and Order dated October 14, 1981, directed that the supplementary proceeding would consider a broad issue and 12 particular issues as itemized in Section 4.1. Following the supplementary hearing, the Licensing Board issued its Partial Initial Decision on the Reopened Proceeding on July 27, 1982. The effect of the contents of the RHR and BETA reports on the findings of the Licensing Board regarding the issues covered in the reopened proceeding is discussed in the remainder of Section 4.0.

4.1 Issues for the Reopened Proceeding

The Broad Issue

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

Particular Issues

1. The extent of cheating by TMI-1 operator license candidates on the NRC license examinations in April 1981, and on any other Licensee- or NRC-administered examinations, including ut not limited to the following: the Kelly examinations (including Category T) in April 1980; Category T make-up examinations subsequently administered by the company; the ATTS mock examinations in early April 1981; and such other examinations as the Special Master shall deem relevant. These latter shall include any other Licensee-administered qualification or mock exam or NRC-administered exam since the accident at TMI-2.

2. The adequacy of the Staff's investigation of, and NRC response to, the cheating incident and rumors of cheating in the April 1981 NRC examinations.

3. The adequacy of Licensee's investigation of, and Licensee's response to, cheating or possible cheating in the examinations listed in Issue 1 above.

4. [Proposed Issue 4 was combined with Issue 3.]

5. The extent o˘ Licensee management knowledge of, encouragement of, negligent failure to prevent, and/or involvement in cheating in the above mentioned NRC and Licensee examinations.

6. The existence and extent of Licensee management involvement in cheating as alleged by the Aamodts in paragraph 7 in response to the Board's Order of August 20, 1981.

7. The existence and extent of Licensee management constraints on the NRC investigation of cheating and rumors of cheating in the NRC April 1981 examinations.

8. The adequacy of Licensee management response to the incident in July 1979, referred to in the OIE investigation report and involving one of the two operators terminated as a result of cheating on the NRC April 1981 examinations.

9. The adequacy of Licensee's plans for improving the administration of future Licensee qualification examinations for licensed operators and candidates for operator licenses, including the need for independent administration and grading of such examinations.

10. The adequacy of the administration of NRC licensing examinations for TMI-1 personnel, including proctoring, grading, and safe-guarding the integrity of examination materials; the adequacy of the Staff's review of the administration of Licensee's Category T examinations; and the adequacy of the Staff's plan for retesting operators and monitoring its NRC examinations to assure proper adherence to NRC testing requirements in order to assure that the purposes of the NRC examinations, because of the nature of the questions, cannot be defeated by cheating, the use of crib sheets, undue coaching or other evasive devices.

11. The potential impact of NRC examinations, including retests, and operator terminations on the adequacy of staffing of TMI-1 operations.

12. The sufficiency of management criteria and procedures for certification of operator license candidates to the NRC with respect to the integrity of such candidates and the sufficiency of the procedures with respect to the competence of such candidates.

4.2 Unaffected Issues

Particular issues 1, 2, 3, [illegible], 5, 6, 7, 8, and 10 are clearly unaffected by any information in the RHR and BETA reports. Issue 1 pertains to the details of the cheating incidents while Issues 2 and 3 (and 4) pertain to the adequacy of the staff's and the Licensee's investigations of these incidents.

The RHR and BETA reports contain no information that addresses cheating on examinations and contain no information on the incidents in question. Thus, these reports have no impact upon these issues.

Issues 5 and 6 pertain to the existence and the extent of Licensee management knowledge of, encouragement of, negligent failure to prevent, and/or involvement in the cheating. Since the RHR and BETA reports do not contain any information regarding cheating, they therefore do not implicate management in such activities. Thus, the RHR and BETA reports do not affect Issues 5 and 6.

Issue 7 pertains to possible licensee management constraints on the NRC investigation of cheating in the NRC April 1981 examinations. Neither the RHR report nor the BETA report has any information regarding the April 1981 examinations. Thus, they do not affect this issue.

Issue 8 pertains to the adequacy of licensee management response to the incident in July 1979. Neither the RHR report nor the BETA report contains any information regarding this issue and, hence, they have no effect on this issue.

Issue 10 pertains to the NRC administration of examinations for TMI-1 personnel. The details of how the NRC administers examinations were not discussed in either the RHR report or the BETA report. Thus, these reports do not affect Issue 10.

4.3 Issues Possibly Affected by RHR and BETA Reports

The Licensing Board findings relative to Particular Issues 9, 11 and 12 and to portions of the Broad Issue arguably could be affected by the contents of the RHR and BETA reports.

4.3.1 Particular Issue 9

Issue 9 pertains to the licensee's administration of examinations. The Licensing Board discussion and findings relative to this issue are presented in ¶ 2321-¶ 2347 of the July 27, 1982, Partial Initial Decision. The Board was

critical of the licensee's pre-accident administration of licensing examinations and of the corrective steps that had been taken at the time of the hearing. Accordingly, the Board imposed two conditions relative to administration of licensing examinations on TMI-1 which were to be satisfied within the first two years after restart authorization (PID, ¶ 2347). One of these conditions requires the licensee to develop and implement an internal auditing procedure providing for unscheduled direct observation of the training and testing program by the Manager of Training and the Supervisor of Operator Training. The second condition requires the licensee to develop and implement a procedure for routine sampling and review of examination answers for evidence of cheating.

RHR Report

The RHR report noted that examination security has had an unpleasant history among operators at TMI, although most of the operators agree that examinations need to be closely monitored. However, two-thirds of the operators agreed that the precautions taken in administering examinations made them feel not trusted. This finding tends to indicate that the licensee has imposed stringent controls on the administration of examinations. Thus, it is not in conflict with the expressed desires of the Licensing Board. Further, staff reviews and inspections of the GPUN-administered examinations have not revealed any deficiencies in licensee administration of examinations.

BETA Report

The BETA report contains no information specifically related to the administration of examinations, although Finding V-B-4 of the report discusses the BETA perception of an attitude problem in the Training Department which results in the students not being adequately challenged. Such an attitude conceivably could carry over into laxness in training and in the administration of examinations. That such is not the case is partially attested to by the RHR finding noted above. Further, staff inspections and reviews of the GPUN-administered examinations have not revealed any deficiencies in licensee administration of examinations.

4.3.2 Particular Issue 11

Issue 11 pertains to the potential impact of NRC examinations, including retests, and operator terminations on the adequacy of staffing of TMI-1 operations. The Board did not take issue with the adequacy of staffing at TMI-1; and reaffirmed that Condition 9 (August 27, 1981, PID, ¶ 583) for the staffing of Unit 1 will and must be met.

RHR Report

The RHR report noted that TMI-1 currently has six shift crews, which they find quite satisfactory. Thus, it is not in conflict with the expressed Condition 9 of the Licensing Board.

BETA Report

The BETA report did not address adequacy of staffing of TMI-1 operations.

4.3.3 Particular Issue 12

Issue 12 pertains to management criteria and procedures for certification of operator license candidates. The Board was critical of the pre-TMI-2 accident method used to certify candidates for an operator license. The licensee stated that a formal certification procedure would be established. The Board noted that, if properly implemented, a formal certification procedure, founded on the trainer's evaluation of candidates by means of properly administered and graded examinations, would enhance the credibility of the licensee's certification process. The Board further stated its belief that, as part of the certification process, the senior management official charged with signing the certification to the NRC is obligated to review the candidate's personnel file and to take into consideration any information reflecting on the candidates integrity and attitude. (July 27, 1982, PID at ¶ 2349-2350)

RHR Report

The RHR report does not discuss the provisions for certification of operator candidates. Therefore, there is no conflict between the RHR Report and the PID.

BETA Report

The BETA report does not discuss the provisions for certification of operator candidates. Therefore, the BETA Report has no impact on the PID.

4.3.4 The Broad Issue

The general concerns mentioned in the Broad Issue are discussed at length in the July 27, 1982, Partial Initial Decision. At ¶ 2423, the ASLB concluded:

> The Board concludes that in consideration of the findings, recommendations, and conditions set out above, the issues in the proceeding reopened by the Board's Order of September 14, 1981, have been resolved in favor of restarting Three Mile Island Unit 1 and that the conclusions of the Partial Initial Decisions of August 27, 1981, 14 NRC 381, and December 14, 1981, 14 NRC 1211, remain in effect.

The questions that could be raised by the RHR and BETA reports as they affect this issue have been discussed earlier. None were found that, in our judgment, would have altered the Board's conclusion.

4.4 Staff Conclusion

We conclude that matters raised by the RHR and BETA reports should have no impact upon the conclusions reached by the ASLB in its Partial Initial Decision on the reopened hearing.