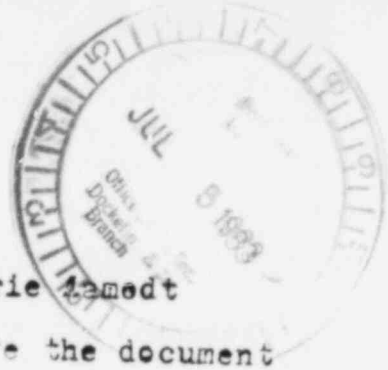

MEMORANDUM

This is to note that on July 1, 1983 Marjorie Aamodt requested permission of the Appeal Board to serve the document AAMODT RESPONSE TO APPEAL BOARD ORDER OF JUNE 16, 1983 by Express Mail on July 2, 1983 rather than by deposit in First Class U. S. Mail on July 1, 1983. Permission was granted.

July 1, 1983

Marjorie M. Aamodt

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

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

AAMODT RESPONSE TO APPEAL BOARD ORDER OF JUNE 16, 1983

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Introduction

The Appeal Board invited the comments of the parties to the Restart Proceeding concerning the bearing of new information on three motions to reopen the record of the hearing. Appeal Board Order, June 16, 1983. The new information identified by the Appeal Board is as follows:

(1) Tim Martin's assertion on May 24 during a Commission Meeting that the NRC Staff had verified the Hartman allegations.

(2) NRC Staff position of separating the issue of the integrity of the corporate institution, GPU, from the actions of individuals concerning the falsification of leak rates at Unit 2

(3) Herman Dieckamp's letter to Chairman Palladino, dated June 10, 1983, which proposed numerous personnel changes to remove employees who may have been involved in the falsification of leak rates at TMI-2 from operation of the Unit 1 plant

These comments were to be filed by July 1, 1983. Opportunity for oral argument concerning the motions to reopen was to have been provided on July 20, 1983, however that time was rescheduled for August 3, 1983. The identity of the person who will represent each party was requested. In the case of the Aamodt Family, that representative will be Norman O. Aamodt.

Other new information has been received since the Appeal Board Order. This consists of an INPO evaluation of TMI-1 dated June 10, 1983, a memorandum of June 22, 1983 (Dircks to the Commissioners) concerning GPU's failure to meet its obligation to report audits to the Restart Proceeding, and an NRC Staff investigation of alleged falsification of training records completed May 27, 1983 and the subject of Board Notification 83-71A. Relevant information provided after our motion concerning the Hartman matter but prior to the Appeal Board order is the Faegre and Benson independent verification of the falsification of leak rates as alleged by Hartman.

As noticed in our motions of June 20, 1983, the parties' information is incomplete on a number of matters concerning the three motions to reopen due to the withholding of information by the NRC Staff. The Staff has now supplied some additional information, notably the recent investigation of alleged falsification of training records noted above. However, the Staff's withholding of this information from May 27 until June 27, when this investigation was served in response to our motions of June 20, is inexcusable,[1] as is the Staff's position concerning withholding of other information. See NRC Staff's Answer to Aamodt Motions, June 27, 1983. The Staff's position that secrecy is needed in order to complete its ongoing investigations and

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1/ Notice of the allegation and impending investigation was not served on us until nearly two weeks after service of other parties and over a week after our telephone request.

inquiries is not credible concerning the specific information sought by our motions. The Hartman allegations are a matter of public record, appearing in the transcript of the GPU v. B&W civil court trial transcript. The three engineers, Park, King and Gischel, sought public airing of their allegations concerning GPU management. The NRC Staff admits that their investigation of further cheating on tests reported in February, 1983 has been completed; the matter is five months old and the Staff's explanation that the completed investigation must be withheld since further investigation may be undertaken is simply not credible.

Unless the Appeal Board acts to provide this information the NRC Staff will sit in the 'cat-bird' position during the oral arguments on reopening the record. While we believe that we have already provided the Appeal Board with sufficient evidence which meets the requirements for reopening the record, we dispair the prejudice of our interests that may be caused by the Staff's privileged access to information.

Effect of New Information

A. Aamodt Motion of September 3, 1982 to Reopen

This motion was based on an NRC inspection report of compromise of the Radiation Worker Permit tests which were left unattended with their answer keys on shelves in the TMI training department.

The principal corporate employee responsible for the conduct within the training department is Dr. Robert Long. Dr. Long assured Judge Milhollin and the parties to the Reopened

Hearing that the RWP test would be appropriately secured to prevent access by the numerous TMI and contractor employees who must pass the test in order to work in the plant. Less than six months later, a radiological assessor found the tests unsecured on three occasions despite repeated attempts to bring high-level management attention to the situation.

Dr. Long is included in the restructured TMI-1 corporate organization as presented by the Dircks' memorandum and the Dieckamp letter. Other management and training personnel who may have involvement in the matter have not been identified, therefore their presence within the proposed organization restructuring cannot be determined at present.

Deliberate compromise of the RWP test was alleged by a witness, Harry W. Williams, Jr., whom we presented during the Reopened Proceeding. The underlying motivation implied by this witness's testimony was that GPU needed the services of contractor personnel who may have had difficulty in passing the test. The verification of deliberate falsification of leak rate data as asserted by Tim Martin lends credence to William's position concerning the RWP test. Long's failure to ensure the security of the test and the disinterest of high-level management in the reports that the test was unsecured are evidence not inconsistent with the Hartman matter and William's allegation.

B. Aamodt Motion, April 16, 1983 to Reopen

This motion was based primarily on the Hartman testimony in the GPU v. B&W court trial concerning falsification of leak rate data reported to the NRC for some months prior to the Unit 2 accident.

The Tim Martin assertion that Hartman's allegations have been verified lends support to our position concerning their veracity. Further evidence, which supports Martin's assertions, was provided by the Faegre & Benson investigation; our summary of their conclusions is attached. Appendix A.

The NRC Staff position for restructuring the TMI-1 organization for restart is based on the assumption that the Hartman allegations are verified, although the Staff officially disclaims such knowledge. The Staff's position underlines the gravity of the matter of falsification of leak rate data; it also acknowledges that anyone associated with the operation of Unit 2 may have been involved;it also acknowledges that management cannot be absolved of the responsibility for the matter, if verified, without /further investigation, and, therefore, the issue of management integrity is left open. The Staff position clearly supports reopening the record to examine the Hartman matter.

Other new information concerning the Staff's knowledge of Tim Martin's assertions supports our position that the prolonged falsification of leak rate data which allowed the plant to operate with a stuck-open PORV created the 'mind-set' which prevented the operators from responding appropriately to indication of high temperatures and overflow into the sump. See Harold L. Ornstein Memorandum of June 6, 1983 to C. J. Heltemes, Jr., attached to Dircks Memorandum of June 10, 1983 to Commissioner Gilinsky.

Failure to recognize the stuck-open PORV in time caused the uncovering of the core; thus the falsification of leak rate data for sometime prior to the accident appears to be causal to the accident and is a legitimate issue in the Restart Proceeding.[2]

The Dieckamp letter proceeds on assumptions similar, if not identical, to the Staff's. It, therefore, provides similar support for our motion to reopen the record concerning the Hartman matter. However, /Dieckamp proceeds further in restructuring the Unit 1 organization than did the Staff. For instance, most of the responsiblity that resided with Robert Arnold, president of GPU Nuclear, would be ransferred to the vice-president, P. R. Clark who was not an employee at the time of the Unit 2 accident. Dieckamp's position is intended to eliminate the need to resolve the responsibility and involvement of management in the Hartman matter, or, in fact, the verification of the matter.

The question becomes whether the removal of all those who could possibly have been involved with the falsification of leak rate data and operation of the plant in violation of technical specifications eliminates the need to consider the issue of lack of management integrity in a reopened hearing.

We believe that the restructuring does not eliminate the need for reopening for the following reasons. First, the restructuring plans offered by Licensee and Staff did not adhere to their own gameplan to remove all possible offenders. For instance, Dr. Robert Long who was manager of Generation Productivity at the

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2/ The standard for issues considered in the Restart Proceeding was nexus to the Unit 2 accident.

time of the accident, could reasonably have been involved in the decision to falsify leak rate data, however he is shown on the Dieckamp chart as vice-president of Nuclear Assurance. R. W. Heward, Jr. and H. F. Wilson were in the GPU corporate organization of the TMI nuclear plants at the time of the accident, and they will also be retained in the Dieckamp restructuring.[3] Ross, Husted and Zewe were all involved in the elicit day-to-day operation of the Unit 2 plant, however these persons will be retained in the proposed restructuring of Unit 1 onsite staff as Manager of Operations, Supervisor of Unlicensed Operator Training and Manager of Radiological Controls, respectively. D. M. Shovlin who was superintendent of Maintenance at the time of the accident must have been aware of the leaking PORV however he will be retained in the same position in the restructuring. Robert Arnold, the corporate person most likely to have knowledge of the leak rate falsification as the interface with the Licensee, Metropolitan Edison, will not be far removed from contact with the Unit 1 operation. Although 90% of Arnold's responsibilities are to be transferred to Clark, Clark reports to Arnold.

Second, the presumption that the falsification of leak rate data was an isolated episode alien to the normal mode of operation of the TMI plants is naieve. The evidence speaks otherwise,

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3/ The Dieckamp chart used in the Staff briefing of June 20, 1983 shows Long, Heward and Wilson 'freckled' NOT WITH MET-ED PRIOR TO 3/79, which is misleading. This misleading information was the subject of the Blake correction to the Dieckamp letter of June 10, 1983. See Blake letter to Secretary Chilk of June 10, 1983.

and the list is growing: Misinformation provided to the Commonwealth, cheating on NRC examinations, 'loose' administration of requalification tests, management influence on employees' testimony during NRC investigations, allegations of recent further cheating on tests, allegations of three engineers of deliberate circumvention of safety procedures in the TMI-2 cleanup, vehement denial of verification of the Hartman allegations by the president of GPU despite affirmative evidence in their own consultants' report, and destruction of radiation records generated in the initial hours of the accident. The attitudes of management which underlay behavioral evidence presented above can be presumed to have flowed throughout the TMI organization in view of the scope of compromised behavior and the few whistleblowers to date.

Third, as inappropriate as the organization restructuring proposed is, how likely is Licensee's adherence to it?

Fourth, why is GPU Nuclear willing to retain personnel who may have been involved in falsification of leak rate data and who operated the plant in violation of technical specifications to its ultimate destruction?

Fifth, can a corporation separate itself from the criminal actions of its management and employees?

C. TMIA Motion of May 23, 1983

This motion was based on the Staff's memorandum of May 19, 1983 which identified five open items concerning the Staff's position on management issues in the Restart Proceeding. The open items grew out of the Staff's revalidation of its position on management

integrity following the Staff's recognition on or before April 19, 1984[4] that the Hartman matter was significant and needed to be factored into the Commission's decision concerning the concerns it raised and needed to be set aside prior to the Commission's decision on the immediate effectiveness of restart. In the course of that Staff program to mitigate any concerns the Commission may have about the present effect of the Hartman matter, the Staff conducted an onsite announced inspection to determine procedural compliance. During this inspection, Henry Hukill, vice-president of TMI-1, provided the Staff with the BETA and RHR audits of the TMI-1 operation that were prepared in February and May of 1983, respectively. The heart of the TMIA motion is the new information provided by the two audits which TMIA, and now the NRC Staff , believe are in direct conflict with the information provided in the Restart Proceeding and the Licensing Board's conclusions.

We were unable to respond to the TMIA motion within the ten days provided due to the concurrent opportunities on June 1 and 3 to file comments with the Commission concerning the NRC Staff's inspection at TMI-1 and related briefing of the Commission. Our position, albiet late, is that the TMIA motion has merit simply on the basis that the Staff, with the fullest access to

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4/ Until the Staff's service on this day of notice of their revalidation position, the Staff had on repeated occasions, (notably their testimony in the Restart Proceeding, participation in the Reopened Hearing, review of the GPU v. B&W transcript and the Commission briefing) misrepresented, diminished or withheld the Hartman matter.

the related information, considered all the matters of sufficient significance to require the Staff's reconsideration of its positions on management issues. The NRC rules of practice governing situations where new significant information arises following a Licensing Board decision is that resolution of these matters require a reopening and should not be resolved through Staff investigation and inspection. NUREG-0386 Section 13.1(4)

Following a review of the Licensing Board's decision and our specific knowledge of the record concerning the TMI training department, we were able to come to some conclusions concerning the nature and scope of conflicts between this information and that provided by the two new audits. A partial comparison is provided in Appendix B. Nearly every management issue on which the Licensing Board decided would be affected by the information provided by the audits, if examined. The conflicts which exist are, for the most part, of two types: (a) differing findings and conclusions from similar evidence concerning operator training and (b) different universes of evidence concerning other management functions.

The area of training of licensed operators was the single management function about which there exists a record of evidence in the Restart Proceeding. Concerning all other areas of operation, the evidence available to the Licensing Board was simply/a description of organizational structure in the form of charts, resumes of the individuals included on the charts, personal appearances of these management individuals, character references provided by a management individual in another utility, opinions of two NRC Staff members concerning the organizational structure, and

the testimony of a BETA witness concerning the workability of the new organizational structure. The gap in the evidence was a concern of the Commission during an October 14, 1981 briefing on the Licensing Board's initial decision on management. Chairman Palladino disclaimed the value of evidence which consisted of charts and boxes on charts and inquired concerning the functioning of the TMI-1 organization.[5] BETA audit of February, 1983 provides that information concerning the TMI-1 organization at a fair time for audit--over three years after reorganization. The BETA audit describes the functioning of the TMI-1 organization as in total chaos. Such a situation would threaten public health and safety if Unit 1 was allowed to restart. The record needs to be reopened to examine the facts of the matter which include the BETA, RHR and INPO audits as well as any other information needed for the Appeal Board to make an appropriate determination of management competence. Where there is record evidence of the functioning of the organization, as is the case concerning the training of licensed operators, the record evidence and the BETA audit agree. The Licensing Board failed to accord the proper weight to the evidence on the record, a position we have argued in our appeal concerning training issues. See Aamodt Brief, October 4, 1982 at #14 - 27.

The NRC Staff provided as an explanation of the differences between the conclusions of the NRC Inspection team and BETA that the former's standard was "average" performance while the latter's was "excellence". Inspection Report No. 50-289/83-10.

5/ Chairman Palladino's remarks are presented as Appendix C

This Staff provided description of NRC standards needs to be examined in three respects. First, how does the Staff's standard of "average" management compare with the Commission's orders establishing the Restart Proceeding? Second, were the opinions of Staff witnesses and Staff findings in the Restart Proceeding guided by a standard of "average"? Third, since the regulation of the operation of Unit 1 would be carried out by the Staff, would a standard of "average" be adequate to protect the public health and safety?

Concerning the effect of the NRC Staff and GPU restructuring of the organization to remove those who could have been involved in the falsification of leak rate data at Unit 2: The effect of another reorganization can only excaberate the problems found by the auditors. The restructuring invalidates the evidence on which the Licensing Board depended to find that this Licensee should be classed with operating plants not NTOLs (Near Term Operating Licensees) concerning staffing and startup requirements. See August 27 PID at #568 - 572.

Included in the TMIA motion, but not discussed for lack of evidence, is a metter concerning allegations of falsification of training records. This information was generated by the NRC review of the GPU v. B&W transcript. The NRC conducted an investigation which was withheld for approximately one month after its completion.[6] The matter concerns alleged falsification of attendance records by the TMI Training Department in response to the NRC's requirement for a specific number of hours of training.

6/ The results of the NRC investigation were served on June 27, 1983 in response to our motion for this information. See Aamodt Motions, June 20, 1983.

The investigation appears to be unsatisfactory. For instance, N. D. Brown, who had the responsiblity during the time of alleged falsification for the training records, was not interviewed. Brown is presently in charge of emergency planning at Unit 1. The matter of Brown's integrity is an issue of importance to public health and safety. The NRC investigation attempts to characterize the allegations of a former - control room operator, now employed by B&W, as the product of this operator's personality. Although this person, T. L. Book, now appears unwilling to pursue the issue, it is unreasonable to believe that B&W would have introduced unreliable evidence into the court trial. NRC does not pursue whether, in fact, report of hours of self-study, even if accurate, fulfilled the training requirements as described in the FSAR. Such a question was asked of Licensee's counsel by Judge Milhollin in the Reopened Hearing, when a report of the operators' hours in training for the 1980 - 1981 cycle was stipulated into the record. GPU counsel assured the court that the hours presented represented classrcom training, however we had considerable doubt concerning the truthfulness of the exhibit as represented. See Aamodt Findings, March 4, 1982 at #363 - 365. The record of hours was prepared by the Supervisor of Operator Training, Samuel Newton who holds that position at present in the TMI organization. We believed that Newton falsified testing records entered into the record of the main hearing. Id., at #277 - 281. The matter cannot be considered resolved until the alleged falsifications, Book's and ours, have been examined for evidence of compromise of the training of operators and questionable integrity of personnel impacting on the operation of Unit 1.

D. Notice of New Information under Consideration by Aamodts

The NRC rules of practice require that all parties to a proceeding are required to bring any new information relevant to the issues of the proceeding to the attention of the Licensing Board. NUREG-0386, Section 4.4.

We are in receipt of new information from two sources which contain allegations relevant to the issue of management integrity. We have not had sufficient time to review or investigate the information. The matters are varied. Following our evaluation of these matters to facilitate consideration by the Board and parties, all information will be provided.

Respectfully submitted,

Marjorie M. Aamodt

Norman O. Aamodt

July 1, 1983

APPENDIX A

AAMODT SUMMARY OF FAEGRE & BENSON VERIFICATION OF HARTMAN ALLEGATIONS

Results of Faegre & Benson Investigation of Allegations by Harold W. Hartman, Jr. Concerning Three Mile Island Unit 2, Volumes 1-4, September 17, 1980

This independent investigation instigated by GPU came to the following conclusions (page 36):

1 Based on Hartman's statement, their corroboration in I&E interviews and upon our review of the effect of the omissions, errors and oscillations, we have little doubt that leak rate tests were run frequently, producing an unknown number of unidentified leak rates in excess of 1gpm.

2 To the extent that "bad" leak rate results occurred, they were all thrown away because none have survived in the regular file.

The deliberateness of the failure to report tests in excess of technical specifications was drawn (page 28):

3 In view of the underlying policy rationale establishing a 1 gpm limit on unidentified leakage, namely, plant safety, it would be difficult to justify a conclusion that when the test is run more frequently than required results outside of the 1 gpm limit can be ignored, unless they are rejected as invalid indications of leakage.

The extent of the failure to report leak rate calculations in excess of technical specifications was indicated by notes of I&E interviews provided to the investigators. It appears that from one to five tests were performed per shift(page 10) over a period exceeding six months.

The evidence (1, 2, 3) forces a conclusion that the failure of the operations staff to record "bad" tests, to validate these tests and report any valid "bad" tests to the NRC was deliberate and so extensive to involve the entire operations staff.

Concerning the matter of "fudging" the calculations, the consultants were denied access to the best source of this information -- the operators. Legal barriers were provided

by Metropolitan Edison management to prevent full access to the operators. (pages 9, 13) However, notes from I&E interviews provided corroboration of Hartman's allegations of addition of water and hydrogen to give a low false reading (pages 10, 11).

The consultants also verified that all the methods Hartman alleged were used to "fudge" the calculation were effective. (pages 37-49)

APPENDIX B

CITATIONS TO THE LICENSING BOARD'S FINDINGS AND CONCLUSIONS WHICH WOULD BE AFFECTED BY THE FINDINGS OF THE AUDITS

BETA, RHR

Concerning the adequacy of training for operators, the RHR findings conflict with the Licensing Board's findings and conclusions at # 202, 207, 224, 228, 230, 241, 259, 262, 264, 539, 554, 584(c) of the August 27, 1981 PID and #2342, 2343 of the July 27, 1982 PID. The RHR findings below appear on the fifth through seventh pages following Table 11 in the report of the study.

RHR Findings

> Close to three quarters of the operators ... were dissatisfied with the training for licensing and even a greater proportion strongly were dissatisfied with requalification training.
>
> Operators complained of a lack of convergency between training, testing and ability to operate the plant. Three out of four denied that training prepared them for what they actually do. In their perception training prepared individuals to pass exams and is successful at this but it does not prepare them sufficiently to operate.
>
> It is apparently the policy of the training department to include only material in the training programs on which operators will be tested. There is very strong concensus that training should include material on whcy they would not be tested.
>
> Those who come up from the plant feel left behind and at a disadvantage (in learning nuclear theory).
>
> (Navy trainees) would..like to see more systems training to help them understand the role of the individual pieces of equipment within the total plant.
>
> There is strong agreement that there is not enough training on plant conditions.

These RHR findings, not on the record, agree with record evidence which was rejected by the Licensing Board

in their findings cited above and is presented and/or discussed in Aamodt Findings, May 15, 1981 at #16-20, 86, 101-103, 109; Aamodt Reply Findings, June 29, 1981 at #31, 34, 36, 37, 60, 60(a), 81, 85, 94-97, 100, 102, 103, 113-115, 118-124, 127, 130, 132, and Aamodt Findings, March 3, 1982 (Reopened Proceeding) at #333, 363, 368.

BETA did not attempt to make a first-hand determination of the quality of the training effort to find out if licensed operators were being taught the correct material in quality or quanitity (BETA 57). BETA's attention was to the functioning of the GPUN organization including plant management. Their findings were that GPUN does not have the capability to identify, problems, fashion suitable remedies and implement them in the training area. These findings conflict with the Board's assumption that identified deficiencies would be addressed and promises kept. See August 27, 1981 PID at #537, 550-554, 580. July 27, 1982 PID at #2332, 2336, 2341, 2344-2347.

Concerning the capability of GPUN to effectuate deficiencies in training of operators, BETA reported a number of findings on pages 55, 57, 59, 63, 70, 77, 113 and 114 some of which are presented below.

Beta Findings

> The Headquarter training group is not concentrating enough on coordinating plant training efforts.
>
> ..the headquarter's role in training...is not being pursued to the extent that it should...there are people in the headquarters organization that could be doing this function but they are not.

Because of the many problems being found in the training programs at TMI-1 .., (you) would assume(d) that there would be noticeable evidence of Technical Functions involvement with corrective effort. BETA could detect very little, and it is not clear that there is at this time much interest in having any, either on the part of Technical Functions, the plant(s), or the Training Division. BETA considers this to be a mistake, particularly with respect to operator training.

..to much emphasis is being placed on proving to the world that the training program is good and not enough on doing what should be done to produce a competent operator.

..more attention is being paid to the "trappings" of training rather than to a concerted effort on obtaining an effective end product.

(We)..often heard the expression, "things will never change, they have been that way too long".

Management must be in a position to use its judgment. (The problem that it cannot) manifests itself throughout the entire organization at all levels.

We frequently encountered senior people in GPUN who felt that the QA Department was not responsive to the absolute need for QA support...that QA was not urgently concerned with resolving problems and clearing deficiencies.

RHR findings confirm BETA findings. The pertinent RHR findings appear on the page following Table 5 and at the second page after Table 12.

RHR Findings

(The operators)fault their leadership for crisis management ...lack of management effort in bring about coordination within this structure. They keep saying "there is no one in charge".

Operators...spontaneously inquir(ed) whether anything will come of these interviews...From some previous inquiries they have seen no action and from others, temporary action which quickly petered out.

The Aamodt findings, although based on other evidence, are consistent with the auditors' findings. See Aamodt Findings, May 15, 1981 at #78-95, 106-108; Aamodt Reply Findings, June 29, 1981 at #77-79, 92, 94, 95, 101, 104-105; Aamodt Findings, March 3, 1982 (Reopened Proceeding) at #347.

Concerning attendance in training sessions, a problem area identified in the 1978 audit (See Aamodt Comments, April 22, 1983 at 8-9), the consultants found that the problem remained in 1983. The consultants' findings conflict with the Licensing Board's findings (August 27, 1981 PID at #101-102, 169).

RHR Findings

> Operators complain that not enough time is devoted to requalification training. Even what is scheduled is often cancelled at the last moment. (sixth page after Table 11)
>
> There is dissatisfaction with the (requalification) training. Insufficient time is devoted to this. (first page after Table 2/3)

The Aamodt findings are consistent with the consultants' findings. See Aamodt Findings, March 3, 1982 (Reopened Proceeding) at #334,337, 363-365. The new information supports the Aamodt conclusion that the GPUN exhibit of numbers of hours operators attended requalification training was falsified or misrepresented. See Id. at #365.

Concerning staffing of the plant with licensed operators and the role of the Shift Technical Advisor, the RHR study indicated that some inexperienced operators are being used in positions where they do not feel capable.

RHR Finding

> New operators are expected to perform like ones with ten years experience. (second page after Table 11)

The Licensing Board noted that staffing was hottly contested issue (August 27, 1981 PID #79). which they believed was satisfactorily resolved (Id. at #569-572). We believed that the evidence did not support the Board's conclusion concerning the staffing of the control room. See Aamodt Findings, (Reopened Proceeding), March 3, 1982 at #340-342, 328, 329, 338, 345-348; Aamodt Findings, May 15, 1981 at #53; Aamodt Reply Findings, June 29, 1981 at #70-74, 82, 108.

Concerning the training and role of the Shift Technical Advisor, BETA found a number of problems which call into question the LLicensing Board's findings, August 27, 1981 PID at #80-82 but are consistent with our findings, June 29, 1981 at #66-69.

BETA Findings

> There are a number of problems associated with the STA program...These problems involve attrition, the STA training program, and proper utilization of the STAs, ...in their status as qualified STAs.
>
> ...there is a serious lack of understanding on the part of the Shift Supervisors...on the role of the STA.
>
> ...there is an element of distrust of the STAs' ability and of their motives.
>
> The Shift Technical Advisor (STA) program...needs to be reviewed and strengthened.

Concerning the behavior of instructors in the TMI Training Department, BETA identified problems in addition to that admitted by the Licensing Board (July 27, 1982 PID at #2333, 2335, 2337, 2341-2344, 2347(2).

BETA Findings

> ...there should be concern over classroom performance(page 58).
>
> ...job inattention noted(Id.)
>
> ...supervisors, who were present, did not react to situations where instructors were not performing their assigned tasks...(this) appears typical of the normal mode of operation(Id.).
>
> ...the Training Department...lacked the degree of toughness, accountability, and insistence on performance needed in the nuclear profession. (page 57)

The capabilities of the instructors had been a concern in the main hearing which it was apparent the Board had not resolved. See Aamodt Findings at #88, 89, 105, 81; additional Aamodt Findings, March 4, 1982 at #255-258, 277-281, 282-286.

Concerning attitudes that foster safety, i. e., recognition of dangers of nuclear technology, placing safety before efficiency, need for cooperation, discipline and best effort, both consultants alarming problems.

RHR Findings

> ..a majority of Trainees..(disagreed) that top management is more concerned about public safety than it is about generating electricity. (at first page following Table 10)
>
> A majority of operators, but only a slight one, would not put efficiency second to safety. Only one subgroup, ROs at TMI have a majority placing safety above efficiency.
>
> It is perhaps significant that one quarter agreed...that operators like themselves lived so closely to their technology that they tended to underestimate the potential danger. (second page following Table 10)
>
> ...putting safety ahead of efficiency is...a difficult adjustment to make. It requires undoing of habits and values one has grown accustomed to take for granted. (first page following Table 10)

These findings indicate that the Licensing Board's conclusion that operators' attitudes "did not appear to the Board to be a problem" was ill-founded. See August 27, 1981 PID at #267. This issue was not examined by the Licensing Board despite several efforts at consciousness raising. See Aamodt, ff. Tr. 12, 931 at 8-9; Tr. 20,365-369 Aamodt, Smith, Tourtellotte; Tr. 24,256-257 Aamodt, Milhollin. The issue of attitude was only considered as it related to the cheating on NRC examinations.

BETA described behavior which is a reflection of the attitudes found in the RHR study:

BETA Finding

> ...there existed an attitude, not only within the TMI Training Department, but also at the plant of almost patronizing the students. There seemed always to be excuses why students did poorly, why operators made mistakes, or if there were cheating, why it occurred (page 57).

The above finding was based on observations made in March and April of 1982, after the Reopened Proceeding on cheating.

What sparse record exists in the Restart Proceeding concerning operators' and management's attitudes, aside from specific matter of the NRC examination process, is noted in our findings, May 15, 1981 at #74-76, 80. The Licensing Board denied our request to depose employees by use of a written questionnaire to determine attitudes and opinions on a number of subjects on technicalities. (Memorandum and Order on Aamodts' March 20, 1980 Motions to Compel Licensee to Respond to Discovery Requests, April 10, 1980 at 7-9)

Concerning selection of operators and managers, the BETA and RHR studies provide evidence that the Licensing Board made a gross error in denying[3] Aamodt Contention 1 which stated

> It is contended that TMI-1 should not open until a program of psychological testing and counseling of operator personnel and management be instituted and routinely maintained to observe and/or alleviate or ameliorate fatigue, boredom, hostility, confusion, substance abuse, and/or other characteristics deemed inconsistent or contrary to the safe operation of said nuclear plant.

3/ First Special Prehearing Conference Order, December 18, 1979 at page 32; Tr. 432-39; 436.

The BETA study noted as one "contributing cause" to inefficient or poor management the personal appearance and demeanor of supervisors and managers. (page 106, 107 (h)). Even more troubling is BETA's implication that the managers and supervisors were not aware that their appearance did not measure up to acceptable standards. (page 109(k))

The explanation for these BETAffindings may be provided by the RHR study. Concerning disciplinary sanctions for violating regulations, RHR found the following:

> While this is not a major priority concern of operators, it is one which generated a lot of emotion at TMI when stiff sanctions were promulgated for those discovered bringing mind altering substances into the parking lots at TMI. This was not an issue at Oyster Creek where parking lots are not within a security check zone.
> There is strong acceptance of regulations on mind altering substances. However, a majority disagree that disciplinary procedures are fair. They also agree that when it comes to disciplinary practices there are two standards: a tough set for operators and an easier set for top management.
> (third page after Table 11)
> The RHR study is not clear on this subject. The finding

The RHR study is not totally clear, however, the finding does indicate that the possession of mind altering substances and their use is of more than passing concern to the operators. Also indicated is the existence and resentment of a double standard. Implied is that the operators are aware of drug use among top management or other wrong doings, not specified.

Improper selection of supervisors was identified by BETA (page 77):

> Too often people are made supervisor who, if the truth were known, really do not want to be supervisors. Some people have an inherent distaste for being boss. Others have grown up in a community of peers, having been close personal friends with them for years and are unwilling to alienate those relationships even though they may take the job when offered.

The BETA study noted as one "contributing cause" to inefficiency was the personal appearance and demeanor of supervisors and managers. (pages 106-109; 107(h); 109(k))

The RHR study noted "significant personal and family problems" among 10-15% of the operators and a "reluctance" to use the stress control services provided by GPU. (third page of report)

APPENDIX C

CHAIRMAN PALLADINO'S COMMENTS CONCERNING VERACITY OF EVIDENCE OF THE FUNCTIONING OF MANAGEMENT

Commission Meeting, October 14, 1981, Tr. 32:

> Chairman Palladino: Before we leave this slide, maybe you would want to cover this later. I recognize that it is necessary to develop boxes around which to build organizations, but more important than the boxes themselves is how well the organizations interact both under routine operation conditions and under non-routine conditions.
>
> I am interested in how you expect this organization to function, There are benefits by compartmentalization
>
> But also that is where many of the problems arise.

Arnold had no answer. (See Tr. 32-33).

This is to certify that the document AAMODT RESPONSE TO APPEAL BOARD ORDER OF JUNE 16, 1983 and accompanying MEMORANDUM was served by Express Mail on the Appeal Board and parties marked (*) and by deposit in First Class, U. S. Mail on the remainder on July 2, 1983.

Marjorie M. Aamodt

July 2, 1983

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