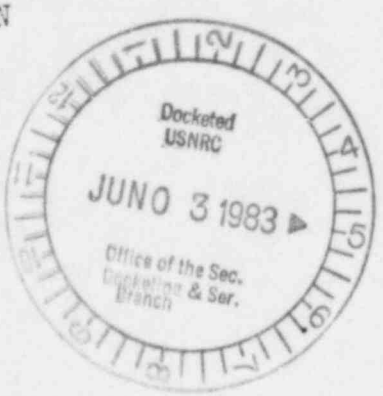
AAM - 5/31/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSIONERS:

Chairman Nunzio Palladino
Victor Gilinsky
John Ahearne
Thomas Roberts
James Asselstine



In the Matter of

METROPOLITAN EDISON COMPANY

(Three Mile Island Nuclear
Generating Station, Unit 1

Docket 50-289 SP

AAMODT COMMENTS CONCERNING NRC INSPECTION REPORT NO. 50-289/83-10
AND COMMISSION BRIEFING MAY 24, 1983 (Hartman Matter)

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1.0 SUMMARY

This response to the Commission Order of May 23, 1983 describes several inadequacies of Inspection Report No. 50-289/83-10, deficiencies in the Staff address of the Hartman matter and derives conclusions with regard to the Hartman matter, the inspection report and the Commission meeting. In summary, we find that the inspection report does not address the issue of management integrity, leaving it an open item before the Commission. We find that, contrary to the inspection report, a significant number of TMI-1 and GPUN management people could have been involved in events surrounding the Hartman allegations. Since these allegations have been validated, at least in part, we find that management integrity cannot be demonstrated. We lend support to Commissioner Palladino's conclusion that the Staff investigation of the Hartman matter be reopened to resolve its validity. We find additional support of our motion to reopen the TMI-1 restart proceeding to hear the evidence concerning the Hartman matter and provide a basis to include the evidence to be derived from the Parks, Geishel and King allegations concerning TMI-2 cleanup.

We also provide basis for our assertion that the inspection is, in affect, a whitewash of management, designed to sidestep the pivotal Hartman issue. We call for an investigation into Staff attitude to set it back into its appropriate role of regulator rather than allow it to function as an advocate for Licensee.

2.0 THE PURPOSE AND SCOPE OF THE INSPECTION

The purpose of this investigation was to provide a basis to "ensure that (the Hartman matter) does not affect the validity of

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1/ Memorandum - Dircks to Palladion, April 26, 1983

the staff's position on management integrity."[1] The difficulty of providing a direct response to this task was highlighted in discussion with the Staff in the May 24 meeting. Considerable discussion centered on the validity of the Hartman allegations. Martin asserted that, with regard to Licensee's falsification of leak rates, "I can tell you for a fact that the records were falsified, that much we knew"[2] and "we were able to, through analysis of records and looking at the various physical charts that were available, we were able to demonstrate that water was added, the computer was not told, there were falsified leak rates. We were able to demonstrate that hydrogen was added which caused a change in the reference lag level, the apparent pressure there which falsified the leak rate. We also had testimony from operators that they had falsified leak rates. The other issue was associated with an estimated critical position. Again the allegation was falsification of records. We were not able to resolve that one way or the other. That's the reason we have to turn it over to Justice."[3]

It should be noted that the Staff wished to pursue the Hartman matter at that time but was denied the opportunity by the Commission itself. "I know we sought subpoenas from the Commission and we never got them."[4]

Cognizant of the constraint placed on the "revalidation" effort by the lack of resolution of the Hartman matter, Martin stated, "The purpose of this inspection was really to look at

1/ Memorandum - Dircks to Palladino, April 26, 1983

2/ Page 14, lines 8-9

3/ Page 15, lines 20-25, 16 at lines 1-6

4/ Martin, page 16, lines 12, 13

management policies and procedures relative to procedure adherence. To see if in the absence of being able to complete our investigation, had the environment changed; had the policies changed; the the conditions at the site changed such that this was not a safety issue that had to be resolved prior to restart."[5] (emphasis added)

It should be noted that "(Martin) was the individual who was responsible for doing the NRC investigation (of the Hartman matter)."[6]

In placing the "revalidation" effort in perspective it should be noted that the Commission and the parties lack answers to the two most important questions raised by the Hartman allegations:

1. Who ordered the illegal actions carried out by Operations?
2. Why were these actions ordered?

Lacking evidence of who was responsible for ordering the illegal actions cited by Hartman and why management felt compelled to order these illegal actions, a meaningful reevaluation of the Staff's position on management integrity was not possible. Nevertheless, the Staff asserted that the inspection was conducted "on the assumption that the Hartman allegations were true."[7] and represented that they had been considered in the restart proceeding: "In 1980 we testified before the Board with regard to the implications of the Hartman allegations on restart."[8]

5/ Martin at page 13, lines 11-17
6/ Thompson at page 15, lines 7, 8
7/ Denton at page 6, lines 7-9
8/ Denton at page 7, lines 18-20

Denton's assertion is without basis. The record of the restart proceeding is void of any testimony by Staff witnesses on the Hartman matter. The Licensing Board stated at 287-288 of their August 27, 1981 PID, "The only information on the matter we possess, beyond the brief description refered to above (Supplement 1, Restart Evaluation Report, November 1980, page 37) is the March 1981 Staff update in Supplement 2, Staff Ex. 13, at 9-10, which states:

> That investigation was initially undertaken by NRC and identified a number of apparent problems related to procedure adherence. NRC's investigative effort was suspended pending the conclusion of the DOJ investigation, at their request, to avoid parallel administrative and criminal proceedings. The DOJ investigation is still ongoing, and the NRC does not possess any information as to when it may be completed. NRC personnel involved in the suspended investigation have been requested by DOJ not to discuss the details of the matter. Since completion of the investigation of this matter by the NRC could turn up information which is related to past management practices, the matter was included in Supplement 1 to the Evaluation Report. The NRC will resume its investigation of the concerns when DOJ has completed its investigation of the matter. However, the staff has reviewed the information that it has obtained to date on the matter, and has concluded on the basis of information thus far obtained that there appears to be no direct connection with the Unit 2 accident.

Whetever evidence the Staff has, and was not provided in the Restart Proceeding, should be provided to the parties. This should include NRC's validation of the Hartman allegations. We so move.

3.0 DEFICIENCY OF STAFF POSITION ON "REVALIDATION"

The Dircks memorandum to Chairman Palladino of April 26, Attachment 1 to the inspection report, set out the staff position on "revalidation".

The Staff asserts that "the open issue of the Hartman allegations concerning the falsification of leak rate data could possibly affect the Staff's position on management integrity." Nevertheless,the Staff defines its response as "taking interim actions to ensure that this one open issue does not affect the validity of the Staff's position on management integrity." (emphasis added) This is the role of an advocate, not a regulator.

The Staff "revalidation effort consists of an inspection and review program" unencumbered by pertinent investigation of the Hartman matter itself. The Staff "(does) not plan to conduct any interviews with TMI-1 personnel unless (Staff) have obtained clearance for such interviews from the Department of Justice." The Staff precluded any such clearance since "by agreement with DOJ, further NRC investigation is not appropriate at this time."

We would note that although the Staff holds that an investigation of the Hartman matter "is not appropriate", there are no legal constraints on the Staff to force this position. Rather, in the words of Chairman Palladino, "..we do have a letter from the Department of Justice which says basically we can go ahead and investigate. Now whether or not they can provide any information they have is another question. But I think it is incumbent on us to start that investigation, or restart it

again."[9]

The Staff inspection report, therefore, cannot and does not address the central issue it was to confront, "the open issue of the Hartman allegations concerning falsification of leak rate data (which) could possibly affect the Staff's position on management integrity." [10] Rather, it is exactly what Commissioner Ahearne defined it to be "..a special announced inspection. This inspection was held to evaluate the effectiveness of GPU actions to ensure adherence to procedures since issuance of the Staff's evaluation report. It does not say anything about the Hartman allegations."[11]

The inspection report is a whitewash, a red herring held up to present "management policies and procedures relative to procedure adherence".[12] It was conducted with the plant in an essentially non-operational mode. Management was forewarned to have the opportunity to look its best. It was designed to minimize the impact of the Hartman allegations. It was not valid.

4.0 DEFICIENCIES IN FINDINGS OF THE INSPECTION REPORT

In addition to the flaw discussed above, the report, where it attempts to address the Hartman matter, contains serious errors.

9/ Palladino, page 26, lines 8-13

10/ Dircks Letter to Palladino, April 26, 1983

11/ Ahearne, page 7, lines 9-13

12/ Martin, page 13, lines 11-13

4.1 TMI-1 Organization

In Report conclusions, page 16, the report states

> 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 any health and safety concerns that require resolution prior to the restart of Unit 1."

The organization at TMI-1 is discussed in Section 10 where in 10.2 it was stated that "The reviewers sought to identify anyone who may have been involved in the alleged falsification of leak rate data...or alleged improper startups...and whose present assignment in the TMI-1 management could raise questions regarding management integrity".

The perfunctory nature of this investigation is highlighted by the fact that "the reviewers did not interview individuals in the TMI-1 organization..." In 10.3 the report states..."the organization in existence at the time of the accident was examined...(and) it was determined if and where these personnel are located in the present TMI-1 plant organization or corporate structure." The reverse was also done: (10.3).."the present TMI-1 plant organization and corporate structure was examined to determine the incumbents in each management position, and then checked to see where these individuals were located in the pre accident organization." Finally, the inspectors reviewed NRC records of licensed operators to determine which individuals who were licensed on TMI-2 prior to the accident serve as licensed operators or in the management structure at TMI-1.

Lacking resolution of the Hartman allegations, this exercise has two serious flaws:

a. Lack of knowledge of who in management was not culpable, innocent individuals are subject to the assignment of guilt.

b. Lack of knowledge of who was culpable, and why, there is no assurance that corrupt management is not functional at TMI-1.

Acknowledging these deficiencies, there remains merit to analysis of the inspection report findings at 10.4..

The report asserts "that of all the individuals in the present TMI-1 organization and the supporting corporate structure, only one, a shift supervisor, could have a direct connection with pre accident leak rate testing at TMI-2...(and).. (another), the present Manager of Plant Operations for TMI-1, may have been aware of the TMI-2 leak rate testing difficulties[13]..." The report findings cite no other individuals and conclude "...that problems such as are alleged to have occurred ...(the Hartman allegations)...are unlikely to occur at TMI-1."

Analysis of the text of 10.3 yields a far different conclusion. We will examine the integrity of some of the personnel at TMI-1 who were at TMI-2 in light of evidence in the proceeding. We can, on the basis of Martin's statement cited above, be assured that leak rates were falsified. We are assured by Denton that this assumption is valid in the context of this inspection report. We do not know who ordered the illegal actions or who in management knew of them and lacked the integrity to report them to the NRC. We do know

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13/ It is of interest to note that illegal actions are viewed by the inspectors as mere "difficulties".

who was there at the time, in some cases who had the motive to order the illegal actions and the extent to which they did or did not display integrity as witnesses in the TMI-1 restart proceeding and some other reactions. In the event that one or more of the individuals cited below are not guilty of involvement in events surrounding the Hartman allegations, we apologize to them for singling them out. However, failure of the NRC to complete their investigation of the Hartman matter, the failure to appropriately litigate this issue in the restart proceeding, the blatant misrepresentation made in the conclusion 10.4[14], and the urgency attached to the issue of management integrity compel the following comments:

4.2 Licensed Operators

Of the thirty-one shift supervisors, shift foreman or control room operators who may have had knowledge of or participated in the generation of leak rate data, six are presently connected with TMI-1 and ten are at TMI-2. In the event of an emergency at TMI-1 personnel from TMI-2 will be called upon to assist in various capacities and, therefore, should be viewed as part of the total TMI-1 staff. Not one of these individuals reported the events of the Hartman allegations to the NRC. Instead, they followed orders and covered up their illegal actions. We have no assurance that this procedure could not be repeated. On the contrary, we have evidence of the reopened hearing where, nearly to the end, the operators stonewalled (to support management perjured testimony) and refused to admit that cooperation was commonplace on examinations.

14/ See page 7 supra.

4.3 A Shift Supervisor at TMI-2

One of the shift supervisors at TMI-2 is now manager of the Radwaste Operations at TMI-1. Although the report does not contain names, identification is necessary in order to reference other information. We have identified this individual as Dubiel who was charged during the accident with supervising the utility's implementation of the TMI Emergency Plan with respect to radiation protection. (Report, Subcommittee on Nuclear Regulation, Senate, June 1980, page 135, A Vacuum in Responsibility) In a followup to the report, June 4, 1981 at page 11, the investigation concluded, "The Command team, however, failed to comply with reporting requirements of those procedures."

Appearing as a witness in the Senate investigation, Dubiel claimed that "it was unclear what information was to be provided and that the plant conditions to be conveyed in the course of making offsite notifications were not clearly delineated in the Met Ed Emergency Plan or its implementing procedures." (Tr. 491) The conflict between the investigators' conclusion and Dubiel's assertion is troubling. Also troubling is the apparent present failure of the radwaste operations personnel to follow procedures at the present time, according to a study by BETA[15] this year:

> There are too many instances where radiological controls are not as good as they should be...it can be called average in comparison with other utilities...there are far too many deficiencies...there are too many cases of loose control of radioactive contamination...there is too much radioactive waste...the performance of personnel is often poor. (page 26)

15/ A Report on A REVIEW OF CURRENT AND PROJECTED EXPENDITURES AND MANPOWER UTILIZATION FOR GPU NUCLEAR CORPORATION, conducted by Basic Energy Technology Associates, Inc., Arlington, Virginia, dated February 28, 1983

Additional findings concerning the radiological operations deficiencies are presented on pages 13,14 of these comments and are discussed at 15.1.3.2 of the inspection report. The Staff inspectors noted BETA's finding that the problems were not caused by lack of resources (allocation of money and resources), but attitude of the workers (lack of self-motivation and lower standards than achievable).

The Staff assumes some guilt, by association, for all TMI-2 operations personnel. However, the Staff implies that Dubiel's present position renders him inoffensive. The Staff view is naive and inaccurate. Nor is there any reason to believe that Dubiel's attitude and behavior have changed in view of the BETA study.

4.4 A Shift Foreman at TMI-2

One of the shift foremen at TMI-2, Nelson Brown, is now a supervisor of licensed operator training. In the reopened hearing on cheating, Brown misrepresented, under oath, the true conditions of test administration in the training department.[16] as did all the management witnesses. We conclude that management directed Brown to falsify his testimony since management had taken a position in both the main and reopened hearings that tests were administered 'closed book' according to a Commission directive.[17] Judge Milhollin stated, "This made it necessary to pull the evidence of cooperation out of the operators on the necessary stand... In effect, the Licensee's litigation

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16/ Tr. 24, 739

17/ Special Master's Report at #329; Aamodt Findings, March 4, 1983 at #282-286

strategy was to maintain the credibility of its training program by characterizing the cooperation on the weekly quizzes as "cheating" when the operators did not regard it as such at the time it happened." [18] We had come to the same conclusion.[19] In fact, prior to the reopened proceeding, notification of cheating on the NRC examination gave support to suspicions we had had concerning the uniformly high grades on tests during the OARP program.[20] Brown was involved as an instructor and supervisor in the training department during the OARP (Operator Accelerated Retraining Program) which was Licensee's response to the Commission's August 9 (1979) Order (Item 1(e)). [21] In fact, Brown was an instructor for the TMI-2 events training and testing which the operators testified noone, not even the instructors, took seriously.[22]

The recent RHR study,[23] based on operators'and supervisors' opinions, provides confirmation of the lack of effectiveness and seriousness still remaining in the TMI training department.[24] The degree to which these conditions are Brown's responsibility is uncertain, however, it is not unreasonable to assume that Brown is involved. It is also not unreasonable to take an

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18/ Special Master's Report at #329

19/ Aamodt Findings, March 4, 1982 at #

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21/ Tr.

22/ Aamodt Findings, March 4, 1982 at #304; Special Master's Report at #251

23/ PRIORITY CONCERNS OF LICENSED NUCLEAR OPERATORS AT TMI AND AND OYSTER CREEK AND SUGGESTED ACTION STEPS, Final Report of RHR Consultation with GPU Nuclear Management, March 15, 1983

additional step to observe a parallel attitude to that which must have existed at TMI-2 during the extensive falsification of leak rates.

The Staff assumes, as it did in the case of Dubiel, that Brown's present position removes him from an examination of integrity based on the falsification of leak rates. What assurance does the Staff have that Brown will resist management if directed to falsify requalification records to maintain licenses of operators needed to operate the plant? The Staff discovered falsification of records in the training department in their recent inspection, the subject of Board Notification 83-71. This information has not been provided to us,[25] nor did the Staff provide any information in their report which would remove all suspicion from Brown.

4.5 A Control Room Operator at TMI-2

One control room operator from TMI-2, Charles Husted, is supervisor of non-licensed operator training. In the reopened hearing on cheating, Judge Milhollin found that Husted (DD) cheated on the NRC licensing examination, lied under oath, exhibited an attitude that was improper for instructing, and was generally less than forthright.[26] We found likewise[27]

25/ The first notice provided to us was indirectly through TMIA's Motion of May 23, 1983 at page 8. No further information has been provided although requested of Staff counsel Jack Goldberg last week.

26/ Special Master's Report at #111, 316, 317.

27/ Aamodt Findings, January 18, 1982 at #46 - 69.

as did TMIA and the Commonwealth of Pennsylvania.[28] The Commonwealth has forced their position that Husted should be removed as an instructor of licensed operators.[29] The Licensee recently transferred Husted to supervise non-licensed operators training.[30]

The Staff reviewers had no problems with Licensee's assignment to any positions other than operations of any who are implicated by association with the Hartman matter. The Staff's position is extremely weak in the case of Husted since the approval of auxiliary operators for duty in the control room is entirely at the descretion of Licensee who plans to train and test these operators under Husted's supervision.[31]

The BETA consultants found that the attitude of instructors is transmitted to the students[32], and although the BETA example could be read as not identical to the issue of review, the principle is unrefutable.[33] It is not unreasonable to assume that improper attitudes within the training department observed by BETA are part of a general attitude toward procedural adherence. Husted's association with both the Hartman matter and the training department as well as Husted's appearance in the reopened hearing force a conclusion that Husted's authority in non-licensed training willcompromise operations at TMI-1.

28/ TMIA Findings at #46; Commonwealth Findings at #

29/ Commonwealth

30/ Licensee Letter to Appeal Board,

31/ The Staff does not intend to audit operator testing and training. July 27 PID at #2345; Boger, ff. Tr. 25,480 2-3;

32/ BETA, page 58

33/ Special Master's Report at #317

4.6 Supervisor of Operations

The current supervisor of Operations at TMI-1, Michael Ross, held a dual license for both units. The report states, "He may have been aware of leak rate difficulties at TMI-2 .." (emphasis added)

During the reopened hearing on cheating, a former employee, an engineer who is now employed as the chief engineer at another nuclear facility, alleged that Ross had bragged about broadening the answer keys for the NRC examination in his responsibility as the facility reviewer in order to make it easier for the candidates for licensing to pass the examination. [34] Other allegations were that Ross had kept the proctors out of the examination rooms. Judge Milhollin found that Ross was culpable of these charges.[35] The Licensing Board rejected Judge Milhollin's findings and impugned the integrity of the alleger.[36] The Board simply preferred their opinion from the main hearing[37] on which hung their conclusions concerning management.[38] We found that the Board erred grossly in their conclusion on Ross.[39]

Judge Milhollin gave special attention to the Ross matters. He personally cross-examined Ross concerning broadening of the

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34/ Staff Ex. 27, Enclosure 1

35/ Special Master's Report at #152, 178

36/ July 27, 1982 PID #2225, Footnote 239 - page 81

37/ August 27, 1981 PID at #155

38/ Aamodt Comments, May 24, 1982 at page 5

39/ Id. pages 6-14

answer keys.[40] He examined examples in detail and reported his findings with great specificity.[41] He found the alleger forthright.[42] He found Ross' testimony incredible.[43] There was other evidence, not considered by Judge Milhollin, which supported his conclusions.[44] The issue of Ross' integrity is critical in his position in the plant.

Since Ross was licensed on both units, it is reasonable to assume that he was at least aware of the falsification of leak rates at Unit 2. The falsification is alleged to have occurred over most of the operation of Unit 2.

Ross is favored by management. He appears to be the most knowledgeable management person concerning the specifics of the plant operation.[45] Management depends on him. He is a laison between operations and training. He takes courses with the operators in the training department and sits for the licensing exam.[46] His educational qualifications are below those required by proposed standards for the plant supervisor.[47] He is a high school graduate, as are the operators. He has worked his way up through the company to the responsible position he holds today.[48] He is loyal to the company in all his appearances as a witness.[49]

40/ Examination of Ross covered Tr. 24,149-345
41/ Special Master's Report at #153-175
42/ Id. at #151
43/ Id. at #147, 149, 151
44/ Aamodt Findings, January 20, 1982 at #76-83;March 4, 1982 #167
45/ August 27, 1981 PID #155
46/ Id. #154,
47/ Draft ANS 3.1 - 1979
48/ Lic. Ex. #85, Tr. ff. 26,896
49/ See Tr.

Ross is someone who could reasonably be described as "a company man".

We would find this description of Ross less troubling if the management of the company had demonstrated integrity. Our findings are that management lacks integrity and Ross is loyal to that management. Ross never'blew a whistle' and he can never be expected to do so.

4.7 Manager of Generation Productivity

The present vice-president of Nuclear Assurance, Robert Long, was the manager of Generation Productivity at the time of the TMI-2 accident. In the interim, Dr. Long was Director of Training and Education of GPU, a position he held during the restart proceeding.

The Licensing Board noted that it was Dr. Long who failed in his responsibility to assure that test administration at TMI was conducted according to standards indicated by the Commission in the fall of 1980.[50] They found that Long had misinformed them during the main hearing concerning test administration, and that Long did not appear aware that he had failed to live up to his responsibilities as director of training.[51]

We were disappointed with the quality of Dr. Long's testimony throughout the proceeding.[52] We noted his unfamiliarity in areas where he should have been thoroughly familiar, for instance his

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50/ July 27, 1982 PID #2407

51/ Id. at #2323, 2407

52/ Lamodt Findings, May 15, 1981 #80, 82; March 4, 1982 at #270, 277-281

own prefiled testimony.[53] We are no longer puzzled, as we once were[54], why Dr. Long's position was not listed on the corporate organizational chart as presented prior to May 15, 1981. We assert that Dr. Long never functioned in the capacity of the Director of Education, but, rather, was serving in a public relations effort concerning training and other duties. Our impression is not countered by BETA findings that there was a strong public relations effort concerning training that substituted for an address of the problems in training.[55]

Dr. Long appears to have a direct connection with the Hartman matter. At the time Long was Manager of Generation Productivity and would have been in a position to pass on an order from the "top" to falsify plant records to keep up productivity and to have participated in the decision. B&W's position in the civil court trial brought by GPU was that leak rates were falsified to avoid shutting down the plant, as required by technical specifications of the license, while Unit 1 was down for refueling, and thus avoid purchasing replacement power.[57]

This is a serious charge and we do not make it lightly. We believe that it must be taken seriously in view of Dr. Long's present assignment to the Steam Generator tubes' repair and Licensee's representation, following the reopened hearing, that he is to be the director of quality assurance for TMI-Unit 1.[56]

See Motion, page 4 infra.

53/ Aamodt Findings, March 4, 1982 at #270

54/ Aamodt Findings, May 15, 1981 at #78

55/ BETA, February 28, 1983, pages 55-59. See RHR, second page following Table 12

56/ Id. at page 55; July 27, 1981 PID # 2406

4.8 Vice President of Generation, GPUSC

Robert Arnold, vice president for generation of GPU Service Corporation at the timeoof the TMI-2 accident, is now president of GPUN.

It is not unreasonable to assume, unless proved otherwise, that Arnold was functional in making a corporate decision to keep TMI-2 inooperation in violation of license conditions. It is unreasonable to assume that such a decision would be made at the operations or even plant management level in terms of willingness to undertake responsibility for covert action and motivation to take such action.

BETA consultants found that, within the GPUN organization, decisions were as general rule pushed to the "top".[57] BETA was highly critical of this tendency throughout the organization with regard to all problems. While BETA attempted to excuse this disorganization as due to the reorganization several years ago, BETA offered no evidence, nor do we know of any, that indicates that the level of decision-making was markedly different before the reorganization. Since many of the people in key management positions in GPUN are hold-overs from GPU and Met Ed, it is reasonable to assume, in the absence of other data, that there have been no changes in mode of functioning. The RHR findings are consistent with the BETA findings and with our reasoning.[58]

57/ BETA, pages 112, 113

58/ RHR,

Throughout the proceeding, have been puzzled by the prominent role of Arnold, particularly in the reopened hearing on cheating. After all, GPUN was recently organized, there were important problems to be addressed at the plant, and what was being considered at the hearing was 'water over the dam'. GPU was represented by one of the most prestigious law firms in the country, the NRC Staff caused them no problems, and the intervenors were, for the most part, without counsel. It appeared that GPUN had abundant resources to achieve a smooth reorganization, and that delegation of authority throughout management levels left Arnold with time to devote to the hearing on restart. Such was not the case.The BETA audit revealed that the reorganization is not functioning smoothly and that there are serious morale and efficiency problems within the Chemistry department, Technical Functions, radiological operations, maintenance, training and Quality Assurance.[59] It also revealed a postponement of decisions throughout the organization for resolution at the "top". The distraction that the restart proceeding has been to Arnold cannot be explained in terms of reasonable assignment of resources.

59/

Can it be that Arnold was interested in identfying problems on his own,'getting to the bottom' of problems? Arnold's behavior speaks otherwise. After Professor Trunk was hired by Licensee to identify any cheating on company tests, Licensee's attorney was presented in the hearing as an "independent" investigator to explain away all obviously parallel answers as due to memorization of training 'handouts'.[60] When he had the best opportunity, in meeting privately with the two operators who cheated extensively* on the NRC examination, he stated he purposely did not ask why they had cheated, the most burning question -- Judge Milhollin found that Arnold did not ask because he already knew.[62] Arnold prevented GPU's own consultants on the Hartman matter access to the operators.[63] Arnold insisted that the operators be advised that management could and would be present if requested during the NRC interviews concerning cheating.[64] Arnold had successfully insisted on the same arrangement during I&E's investigation of the TMI-2 accident.

60/ Trunk ff. Tr. 24,831 at 5, 8, 10, 11; Wilson ff. Tr. 24,478 at 8-12

61/ Tr. 23,874-5

62/ Special Master's Report at #190

63/ Results of Faegre & Benson Investigation of Allegations by Harold W. Hartman, Jr. Concerning Three Mile Island Unit 2, at pages 9, 13

64/ Arnold ff. Tr. 23,590 at 5; Tr. 23,655; 25,428-9

* The two operators (who were considered the 'cream of the crop') responded in identical or nearly identical fashion on 54 out of 62 questions on the senior operator examination. Molholt ff. Tr. 25,185 at 1,3

Judge Milhollin had the following to say about the presence of management in the NRC interviews of operators:[65]

> Mr. Arnold's concern that an operator not "be completely on his own to look out for himself" is either a concern that the operator "on his own" might divulge something detrimental to himself -- which is not a proper concern if there is something detrimental to divulge -- or a concern that the operator "on his own" might divulge something detrimental to management -- which is not a proper concern either.

Judge Milhollin presumed that he had sufficient evidence to conclude the cheating investigation when he denied our motion on the last day of the hearing to stay the hearing in order to examine the integrity of the hearing.[66] We had evidence at that point that GPU's attorneys had made an improper contact with two operators before they were to appear as witnesses.[67] The failure to examine with the operators (rather than GPU attorneys) the extent to which the operators testimony had been influenced[68] leaves the integrity of all testimony of GPU employees question.

65/ Special Master's Report at #188

66/ Tr. 26, 788 forward

67/ Id.

68/ Tr. 26, 712-714

The most important information that Arnold had to hide was the Hartman matter. Arnold knew that Hartman's allegations were true and involved and/or were known to most of the operations staff. He must also have known that they provided the most reasonable explanation for the failure of the operators to ignore high temperatures that indicated that the PORV was stuck open.[69] The operators had learned to ignore the high temperatures that were caused by the leaking PORV that was not repaired in order to keep the plant running because management did not want to lose revenues.[70] Thus, Arnold needed to hide the fact that operators falsified leak rates because it could be revealed that management directed them to do so and <u>that it was lack of management integrity that caused the TMI-2 accident</u>.

Thus far, the investigators of the accident have identified the initiation as faulty maintenance and an escalator as an emphasis in training to avoid going solid to protect the code safety valves.[71] The question always remained why the operators failed to close the block valve to prevent the water being pumped into the core from escaping.[72] The operators did not notice because they had been directed to operate with the PORV stuck open and to ignore the accompanying high temperatures.[73]

These arguments, if proven, would preclude the employment of Robert Arnold in his present position. They are, of course, more far-reaching.

69/ See Aamodt Comments, April 22, 1983 at pages 14-16, attached

70/

71/

72/

73/

Totally removed from even the slightest doubt is the evidence presented by the BETA audit of total chaos in the functioning of the Unit 1 that pervades all departments.[72] Arnold's failure to address the problems associated with reorganization and/to reveal his failures until pressed by charges brought to the Commission on April 22, 1983 is gross lack of integrity.

4.8 Herman Dieckamp

Mr. Dieckamp's unscheduled comment during the Commission meeting of May 24 was an example of management's attempt to distort pertinent information potentially damaging to management.[73] The evidence in Licensee's own consultants' report[74] forces a conclusion that the failure of the operations staff to record "bad" tests, to validate these tests and to report any validated "bad" tests to the NRC was deliberate and so extensive as to involve the entire operations staff. Concerning the matter of "fudging" calculations, the consultants were denied access to the best source of this information -- the operations staff. Legal barriers were erected by Metropolitan Edison management to prevent full access to the operators; however notes from I&E interviews provided corroboration of Hartman's allegations, and the consultants verified that all methods alleged to be used to "fudge" the reported data were indeed ineffective.

72/ BETA at pages
Discussed in part infra.

73/ Tr. 19

74/ Faegre & Benson, (See Footnote), at Vol. 1, pages
See Aamodt Summary attached.

Dieckamp's comment was:

> We must object to the suggestion of falsification of records. I know of no Commission report that demonstrates that to be the case. Our own consultant's report on this matter does not lead to the conclusion of falsification of records.
>
> I would demand that we be given whatever evidence is available and whatever conclusions have been drawn on this subject. I think that is a very serious matter to use that terminology loosely.

If Dieckamp had the requisite integrity to safely manage the operation of GPUN, he would have long since come to grips with the question of whether or not Hartman's allegations were true. Clearly, he let the matter drop and relies to this day on any ambiguity that can be read into the carefully worded findings of his purchased report to defend his position.

Dieckamp's heated denial on May 23 is reminiscent of his denial that Licensee deliberately mislead the Commonwealth of Pennsylvania concerning the condition of the Unit 2 plant on March 28, 1979.[75] The NRC Staff's generous interpretation of Licensee's intention on that day[76] has been dealt a fatal blow by Dieckamp's witness to his own attitude.

It is not unreasonable to assume that Deickamp, in representing the parent company, GPU, played a part in the decision to falsify leak rates to keep the Unit 1 in operation.

75/ October 14, 1981 Commission Meeting, Tr.

76/ Id. at Tr. ; NUREG-0760

5.0 PURPOSE AND BACKGROUND - SECTION 2

The inspection team asserts "... that there appeared to be no direct connection between the alleged falsification of data and the TMI-2 accident." We disagree.[77] Living with the leaking PORV, the operators were conditioned to accept as normal the indications that signaled the PORV to be open. For this reason, these indicators were unheeded, and an accident happened.

6.0 REPORT CONCLUSIONS - SECTION 16

The conclusion that "...licensee's policies and practices related to adherence to procedures and license conditions ... are acceptable and do support the restart of TMI-1 " is the red herring. Policies and practices can be exemplary and implementation of them can still fail. Policies and practices are tools in the hands of management. What management will do with them is the issue. We contend that present management cannot be relied upon to use them properly.

NRC has not proved or even attempted to prove that management did not undermine the policies and procedures in place at the time of the accident by directing the operations staff to falsify leak rate data. It is more reasonable to assume that management gave the directive to falsify than that the operators decided among themselves, or the plant supervisors or managers decided, to keep operating in violation of technical specifications -- and to make this decision as often as every 72 hours to meet NRC reporting requirements.

77/ Aamodt Comments, April 22, 1983 at pages 14-16

The inspection report states that "Management initiatives observed during the inspection were found to be positive toward safety and reflected a desire and commitment to operate TMI-1 safely." This conclusion is severely undermined by data considered within the report and information available at the time of the inspection.

The management initiatives considered in the inspection report were an Off Shift Tour Program, Management/Employee Interaction, Accessibility to Upper Management, and Ombudsman (Sections 13.1-4). The inspectors overlooked first-hand evidence of audits made by BETA and RHR recently made available and allegations of engineers at TMI-2 that are all relevant to these management initiatives and provide evidence that would force conclusions directly opposite to those proposed by the Staff.

RHR reported as of this year (March 18, 1983) that the operators felt that "GPU Nuclear management is remote"..Four out of five see management as not sufficiently in touch with what is going on at their level...Only one in five believe that GPU Nuclear management is as concerned about its employees and organizational issues as it is about public relations and technical issues.[78] Operators feel like numbers. They say it used to be possible to talk with someone if they had a complaint but this is less possible now.[79] (emphasis added)

BETA reported that "Supervisors do not spend enough time at work sites ...(for) a number of reasons...(including) they

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78/ RHR, page following Table 12

79/ Id. second page following Table 11

don't want to...the Manager, TMI Training, creates the impression that he is inaccessible to his staff by the location of his office in the Training Building."[80]

The allegations of the engineers destroy any belief that the Staff may have concerning the receptiveness of upper management to employee's concerns.[81] The ineffectiveness of the Ombudsman should have been deduced as the Staff reported, "The Ombudsman stated that he had received only one complaint in the last two years at TMI-1 and that it had been investigated and satisfactorily resolved." The Staff's explanation was "Discussions with several persons at TMI-1" about this low frequency of use indicated that the openness of normal management channels for resolution of employee concerns minimized the employees' need to use the Ombudsman." Can the Staff believe such fairy stories? Who were the several persons? Probably Mrrs. Arnold and Dieckamp, and other upper management. The inspectors apparently did not check this fairy story with the operators or other first-line personnel, or at least they did not report any first-hand observations.

The Commission indicated their interest in Licensee's attitude toward "whistleblowers".[82] Chairman Palladino stated, "...sometimes they are the most valuable person in the organization." The Commission has their answer in the affadavits of the engineers involved in the TMI-2 cleanup.

80/ BETA, page 108

81/ Aamodt Comments, pages 20-24

82/ Commission Meeting, October 14, 1981, Tr.38

The 'proof is in the pudding' concerning management presence also. The operators, as of the audits of this year, did not find upper management accessible. Management's past behavior, which the operators felt exceeded the present, in this regard was considered by reviewers to need address.[83] Even in areas where management and Staff testified in the restart proceeding that management would have meaningful contact with operators, i. e. their certification for licensing, such contact was totally missing until the cheating episode threw the entire matter into the light of day.[84]

The only other management initiative on which the Staff prefaced their conclusion (16.0) was Licensee's provision for continual in-house audit of the radiological department (13.5). To term this an initiative, in view of BETA's findings concerning this department, is generous. The appropriateness of the action is questionable. It did not address the problem as identified already by BETA -- that of attitude. BETA specifically warned that policing should not substitute for a change in attitude with accompanying policies:[85]

> getting the work force and their supervisors to believe that excellent radiological performance is the normal way to work and to demonstrate this belief in their routine work
>
> To achieve this performance requires a radiological control force that believes in getting the work done, that will show workers how to do it right instead of just stopping what is worng, that will evolve to more than a "police force".

83/ Licensee Exhibit 27, page

84/ Aamodt Findings, March 4, 1982 at #349-353

85/ BETA, page 27

In response to questioning in the main hearing, Dr. Robert Long, who witnessed as the director of training, expressed little interest or knowledge concerning the policies existent in the Chemistry department, despite the focus of the Board.[85] Dr. Little of the ASLB suggested a policy (to consider all samples "hot") which would establish an attitude within that department.[86] A proper address of procedural adherence problems is to rewrite the procedures to incorporate a policy of total compliance.

RHR expressed skepticism concerning procedural compliance despite assurances by the operators.[87] Several explanations were provided by the operators; Nearly one-half would put efficiency second to safety; Putting safety ahead of efficiency would be a difficult adjustment since it would require undoing habits and values one has grown accustomed to take for granted;[88] It is too hard and takes too long to get a Technical Functions procedure changed.[89]

The ineffectiveness of company policies which are not woven into the fabric of operation was identified by RHR. Although the operators believed that policies were clearly stated and while RHR found the policies precisely articulated, they were only "vaguely and loosely recollectable by the operators".[90]

85/ Aamodt Findings, May 15, 1983 at #77, Tr. 12,302-303

86/ Id.

87/ RHR, page following Table 11

88/ Id. second page following Table 10

89/ BETA, page 66

90/ RHR page following Table 10

7.0 CONCLUSIONS

7.1 The Hartman Matter

Clearly, the Hartman matter continues to hang as a cloud over the issue of management integrity. The Staff has asserted that it is convinced that leak rates were falsified. It is reasonable to assign motive to management to order such falsifications. The means to implement such an order exist through the various management people described above who are still involved at TMI-1. Since proof of the Staff's position and proof of involvement of existing management people would clearly require denial of a license to GPUN to operate TMI-1 with its existing management structure, it is incumbent on the Commission to order a full investigation of the Hartman matter.

We would further note that any conclusion regarding the integrity of management is based on the weight of evidence. The record of the reopened hearing is replete with elements of evidence bearing on management integrity which was accorded differing weight by the several parties, the Special Master and the Board. Testimony drawn from a full investigation of the Hartman matter is essential to gaining a clearer view of management integrity by providing a more valid assessment of evidence already on the record. It is, therefore, incumbent on the Appeal Board to reopen the TMI-1 restart proceeding to hear this evidence.

We would further note that many individuals at TMI-1 have their reputations and even their careers in jeopardy because of the allegations alluded to in these comments. We made a similar objection concerning the Licensing Board's

the Special Master's and the Commonwealth's which assigned blame for cheating on operators who perjured themselves to protect management. See Aamodt Reply Comments, June 1, 1982, page 32-33, Reply to the Comments of O and W; Aamodt Reply to Commonwealth of Pennsylvania's Motion and NRC Staff Reply Concerning Withdrawal of Exception Calling for Termination of Operator G, January 18, 1983.

7.2 THE INSPECTION REPORT

The inspection report was as described by Commissioner Ahearne: "A special announced inspection ... to evaluate the effectiveness of GPU actions to ensure adherence to procedures since issuance of the staff's evaluation report. It does not say anything about the Hartman allegations. That is not what it says its purpose it." See supra. Indeed, the report was a red herring. It demonstrated expected representation of procedural adherence to be expected absent any consideration of management integrity. It denied the impact of the issue of the Hartman allegations on the TMI-2 accident and, in a giant leap of blind faith, found no potentially culpable management personnel remaining at TMI-1.

The only merit we can see in the Inspection Report is the clear evidence it presents to demonstrate that the NRC is more concerned about getting TMI-1 on stream than it is in investigating matters which might discomfit Licensee. This posture is all the more alarming in light of the abysmal Staff performance in investigating cheating at TMI. An internal, or perhaps a congressional inquiry, into Staff attitude would appear to be in order.

7.3 COMMISSION MEETING - MAY 23, 1983

We were invited, late Monday 23, to attend a briefing by the Staff of their inspection report discussed in these comments. We understood that a time would be provided for oral comments of the parties during the meeting and written comments afterwards. We were disappointed with the conduct of the meeting where it was barely possible to hear and communication was not improved by allowing a view of the faces of the NRC Staff through the internal television circuit. The Commission did not provide a time to hear our comments.

Nevertheless, we were heartened by Commissioner Ahearne's accurate appraisal of the report and Chairman Palladino's assertion that he "think(s) it is incumbent on (the Commission) to start that investigation (into the Hartman matter)".

We believe, however, that the Commission must provide an explanation concerning the Commission's actions which prevented the Staff from pursueing the Hartman matter on its own prior to the Department of Justic Investigation and after November 1981 until the present time in that, it our understanding, the Department of Justice advised the NRC in October 1981 that they no longer objected to an NRC investigation. We so move.

Respectfully submitted,

Norman O. Aamodt

Marjorie M. Aamodt

June 3, 1983

Attachment

AAMODT COMMENTS

New Understanding of TMI-2 Accident

The only appropriate resolution of the uncertainty of appropriate operator response during an emergency is provision of off-site decision centers manned by nuclear experts where all pertinent data is displayed. NRC has proposed decision centers for the future, however GPU's assertions in the court trial are evidence that TMI-1 should not be allowed to restart without the backup of a decision center. Since B&W has proprietary plant information and unique technical expertise critical to understanding performance of the TMI-1 plant, B&W experts should be utilized for decision making. In fact, the jaded operating history of B&W plants (Tr. 22, 23) should have spurred such a provision by B&W management.

There can be no viable argument against providing remote readout capability. All significant readout instruments in the control room already have the capability to be tapped for data transmission purposes. Transmission is simple and relatively inexpensive.

2. New Understanding of TMI-2 Accident

The Hartman testimony may have provided an answer to a critical question remaining from the investigations of the TMI-2 accident. There has been no satisfactory explanation of why the operators failed to realize that water was coming out of the PORV at a rate so high as to foil all attempts to stablize the reactor. Indeed, the PORV had been stuck open over two hours, uncovering a significant portion of the core, before Brian Mehler closed the block valve. It should be noted that Mehler concluded that the PORV was "leaking". (NUREG/CR-1250, p. 19). It should also be noted that Frederick offered a somewhat different interpretation

of why (the block valve was closed): "Because noone could think of anything else to do." (Id.). These apparently contradictory statements become conciliatory when viewed in the light of Hartman's testimony. For three months the operators had operated the plant routinely with the knowledge they had falsified data to hide the fact (from the NRC) that the valve was leaking. They had observed temperatures at the PORV during "normal" operation similar to those observed during the accident. They were conditioned to ignore the potentially devasting role the stuck-open PORV was to play on March 28, 1979. Here was "mindset", established by management.

Much as been made about the misleading indicator at TMI-2 which signaled that the PORV was closed. However, the operators were wary of signal light problems and were accustomed to checking through other indicators. One such indication was elevated relief valve discharge temperatures. Zewe attributed these to the fact that "the PORV had been leaking anyway." (Id. p. 17) that he had "seen higher readings than those under reasonably normal circumstances." (Id.) The operators' disregard of another indicator, noticed by three operators at 4:30 a.m., water pouring into the sump (Tr. 140), most probably resulted from an attitude of disconcern about a leaking PORV which they no longer took seriously.

At 4:14 a.m., with the accident barely starting, the operators noted an increase in the reactor coolant drain tank pressure and at about 4:20 a.m. Zewe noted failure of the rupture disc. At 4:38 a.m. Zewe and Frederich were aware that overflow from the drain tank was collecting on the containment building floor. Yet noone closed the block valve. One could

conclude that had the operators not been conditioned to live with the leaking PORV, they would have closed the block valve promptly,and there would have been no accident.

3. The Staff's Review

The material we found in the GPU v. B&W transcript, in the few days that we had to devote to the task of reading it, demonstrate that the Staff's Review, to which four investigators devoted ten weeks, can only be a blatant attempt to cover and distort.

The Staff has a vested interest to protect -- their positions of complete support of GPU management and quick restart of the TMI-1 reactor -- and their review represents no more than that. The Staff was too buried in the conclusions of prior studies to acknowledge that anything revealed in the GPU v. B&W transcript was significant. They included no citations to the transcript; all references were to prior investigations.

The quality of the Staff's review cannot be dismissed as being too blind to see the forest because of the trees. That would be nonsense. The reviewers were intimately familiar with the details of the TMI-2 accident investigations, in fact they were chosen because of this knowledge. (Briefing, April 6, 1983). Since the issues of the Restart Proceeding were only those with nexus to the TMI-2 accident, the matters of the TMI-2 accident and the issues of the Restart Hearing are inextricately entwined. Commissioner Ahearne so noted at the briefing. (Id., p. 10). The director of the review, Victor Stello, as Director of Inspection and Enforcement, was involved personally in both hearings of the Restart Proceeding.

Stello's pleas of innocence, when the Commissioners criticized

Attachment

SUMMARY

Faegre & Benson Investigation of Allegations by Harold W. Hartman, Jr.

2. 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):

2.1 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.

2.2 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):

2.3 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 (2.1, 2.2, 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)