WASHINGTON, D. C. 20555

February 23, 1981

Pennsylvania Mailgram Ed. 1

50-289 SP

Exhibit-I-PA. 1

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Bradford

FROM: William J. Dircks
Executive Director for Operations

SUBJECT: FURTHER INFORMATION - AEOD BACKGROUND PAPER ON TMI INVESTIGATION REPORT

Per your request, attached is background information prepared by AEOD pertinent to paragraph 4 of their memo transmitted to you earlier this date.

for

William J. Dircks

Enclosure:
As stated

cc: IE
SECY
OGC
OPE
AEOD
NRR

BRANCH

NUCLEAR REGULATORY COMMISSION

Docket No. ~~50-289-SP~~ 50-289-SP Official Exh. No. Commonwealth of Pa. 1

In the matter of Metropolitan Edison Co. (Unit 1)

Staff			X
Applicant			
Intervenor	X		X
Cont'g Off'r			
Contractor		DATE	12-7-84
Other		Witness	D. Gamble
Reporter	Drystle A. Traylor		

REPORT ON THE INVESTIGATIONS INTO INFORMATION FLOW CONCERNING THE TMI ACCIDENT

BY: Dr. Harold L. Ornstein
Office for Analysis and
Evaluation of Operational Data

February 19, 1981

2/23/81

INTRODUCTION

During the week of January 18,1981 the author was requested by the Director of the Office for Analysis and Evaluation of Operational Data (AEOD) to review draft reports written by NRC's Office of Inspection and Enforcement (IE) and the U.S. House of Representatives' Committee on Interior and Insular Affairs on the information flow during the accident at Three Mile Island (reference 1 and 2). The review of those documents was informal and was done within a two-day time frame.

The author had served on NRC's Special Inquiry Group for more than half a year, and prior to his review of the IE and House Committee Reports had considerable knowledge of the events that took place at TMI during the accident, and the actions of the Met Ed, NRC and B&W personnel involved in the accident.

This document contains the author's views which are not necessarily those of AEOD or the NRC.

REVIEW OF IE AND HOUSE OF REPRESENTATIVES COMMITTEE DRAFT REPORTS ON INFORMATION FLOW DURING THE ACCIDENT AT THREE MILE ISLAND

I. The facts, as presented in References 1 and 2, reveal that:

(1) A case for showing that the Met Ed staff purposefully issued untrue statements or withheld information to deceive or mislead the NRC and the State of Pennsylvania regarding the severity of the March 28, 1979 accident is a weak one which is based upon circumstantial evidence. It is doubtful that a "conviction" is possible without employees coming forward and "confessing" to such acts.

(2) In lieu of concluding that the Met Ed staff lied to the NRC and officials from the State of Pennsylvania, one is led to conclude that Met Ed's top plant management acted in an incompetent manner, i.e., did not put together the significance of numerous tell tale symptoms, each of which in itself was a sign of significant core degradation, which, when taken concurrently, revealed an uncontestable picture of significant damage to the core, that was placing the plant in a configuration beyond those which had been analyzed, and had the potential for further degradation with significant impact upon the public health and safety. The symptoms included:

a. High in-core thermocouple temperatures (obtained per G. Miller's request using direct millivolt readings because the plant data logging and recording equipment could not handle temperatures above 700°F).

b. Extremely high containment building radiation levels.

c. A containment building pressure spike at 1:50 pm and the subsequent initiation of the containment sprays. Note: There were two independent containment pressure recorders in plain view of the control room occupants at the time of the "thud." Also, note that the Met Ed staff's training taught them that two independent signals were required to start the containment building equipment (one spurious signal would not have done it).

d. High hot leg temperatures, 730°F (loop A) and 780°F (loop B), revealing the presence of superheat and an uncovered core.

e. Overexposure of the Met Ed staff who took samples of primary system coolant (Discussion subsequent to my review of References 1 and 2 highlighted the fact that the radioactivity and chemical analysis associated with the samples should have been an indication of significant core degradation).

II. It appears that in many areas, the IE investigation report (Reference 1) did not go far enough, and in many areas the conclusions and recommendations are not supported by the facts, e.g.,

(1) Page 83, "At 12:17 pm, headquarters requested the core exit thermocouple readings. This request went unanswered. (The readings were requested again at 4:00 pm. This investigation did not attempt to determine why the data was not provided."

(2) Page 88, With Met Ed's help, "Dornsife (BRP) believed that, although the plant was not in the desired mode, the plant was stable and that the core was being cooled through a feed-and-bleed process..." However, it is apparent that Met Ed had not told him that such a process was not fully analyzed and that the equipment was operating beyond its design capabilities.

(3) Pages 89, 90, 93, "In general, the BRP expressed satisfaction with the information supplied to them by Met Ed on the day of the accident,"

versus a conflicting statement regarding Gerulsky (BRP); Gerulsky "... attributed his loss a confidence to Met Ed's failure during the (Lt. Governor's) briefing to admit offsite releases of which BRP was aware. This was reinforced by Gerusky's perception of an attitude conveying that the accident was over and all that remained was cleanup."

Versus another conflicting statement: "Based on the information received, the investigators accepted the fact that some of the State people believed they had been misled."

(4) Page 99 - One investigator recommended that Met Ed be required to show cause why Gary Miller should be allowed to continue to be involved in the licensee's nuclear activities in a supervisory capacity, citing, among other things:

"The failure of knowledgeable plant personnel to put together symptoms, to review previous assessments in light of later information, and to more thoroughly understand the accident is considered to be a supervisory or management deficiency in Miller's performance on the day of the accident. His role should have been to cause those under his direction to be more thorough and complete in their analyses. He should have questioned explanations that were given to him (for example, the explanation about the core exit thermocouples and the containment pressure spike indications)."

Nonetheless, the majority of the investigators concluded that enforcement action directed toward Miller is unwarranted.

(5) The case against Miller is reinforced by the Troffer tape and by IE's discussion of them. Nonetheless, the majority of the IE investigators concluded that enforcement action against Miller (on the grounds of incompetence) is unwarranted. Excerpts from the Troffer tape discussion follow.

Page 91 - "If the Troffer tape transcript is read without relating it with what the investigators believe to be Miller's lack of understanding and without relating it to what Floyd has been told, it can be inferred that Miller is describing a better situation than he believed existed. Contrary to this inference, the investigators conclude that Miller was describing how the accident was assessed at that time in the morning. A complication to this conclusion is the information that Kunder was providing to the Region about one-half hour later.

The investigators conclude that although Kunder had a more accurate perception of the accident, Miller and others did not share Kunder's concerns at the time."

page 92 - "Near the end of the Troffer transcript, there is a specific passage that could be interpreted to mean that Miller believed the situation to be more severe than he told Dornsife..." The investigators conclude that this passage means that the situation was not understood at the time, but it does not mean that Miller believed that the situation was continuing to deteriorate. The phrase, "If we had a leak we'd be all right," seems to reinforce the conclusion of a lack of understanding because procedures for handling a leak existed."

Page 95 - "... information was not volunteered concerning the potential for degradation of plant conditions or concerning the uncertainty of the method being used to cool the core. The investigators conclude that the responsible Met Ed personnel did not perceive the situation to be as bad as it really was."

(6) Page 106 - The investigators concluded that: "In the assessment of potential citations, the use of Section 6.9 of the technical specifications for failure to report information on March 28, 1979 was found to be inappropriate ... In relation to core temperatures, it was potentially applicable to the fuel degradation reporting requirement; however, a belief that fuel damage had occurred was reported early in the morning. Lack of knowledge by those onsite of the extent of core damage preclude this meeting the requirements for a citation for failure to report."

This conclusion totally neglects the fact the utility management was fully aware of the high in-core thermocouple readings (via direct millivolt measurements) and the fact that it took many days until such information was revealed to the NRC.

References

1. January 17, 1981 memorandum for the NRC Commissioners from V. Stello, Jr., transmitting a draft copy of "IE Investigation Into Information Flow During the Accident at Three Mile Island."

2. Draft copy of the U.S. House of Representatives Committee on Interior and Insular Affairs' report, "Reporting of Information Concerning the Accident at Three Mile Island."