

RELATED CORRESPONDENCE

BUCKETED
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

STIPULATION ON MAILGRAM EVIDENCE

In accordance with the Licensing Board's rulings and suggestions during its Prehearing Conference on November 13, 1984, and in order to obviate the asserted need for MIA to call a number of witnesses, Licensee hereby stipulates as follows:

1. Licensee will not object to the admission into evidence of that portion of Julien D. Abramovici's October 15, 1984 deposition starting on page 43, line 10, and ending on page 44, line 15 (Attachment 1). See Prehearing Conference Tr. at 28,064 to 28,076. Licensee agrees that if called as a witness, Mr. Abramovici would so testify; however, Licensee does not stipulate to the factual accuracy of Mr. Abramovici's responses in that portion of the deposition.

2. Licensee will not object to the admission into evidence of lines 6 to 25 on page 16 of Walter J. Marshall's October 2, 1984 deposition (Attachment 2). See Prehearing Conference Tr. at 27,949 - 27,964. Licensee agrees that if called as a witness, Mr. Marshall would so testify; however, Licensee does not stipulate to the factual accuracy of Mr. Marshall's responses in that portion of the deposition.

3. Licensee will not object to the admission into evidence of lines 4 to 25 on page 55 of Ivan D. Porter's September 27, 1984 deposition (Attachment 3).

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See Prehearing Conference Tr. 27,988 - 28,000. Licensee agrees that if called as a witness, Mr. Porter would so testify; however, Licensee does not stipulate to the factual accuracy of Mr. Porter's responses in that portion of the deposition.

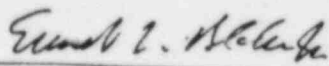
4. Licensee will not object to the admission into evidence of lines 6 to 10 on page 27 of Richard W. Bensel's October 5, 1984 deposition (Attachment 4). See Prehearing Conference Tr. at 28,061 - 28,064. Licensee agrees that if called as a witness, Mr. Bensel would so testify; however, Licensee does not stipulate to the factual accuracy of Mr. Bensel's responses in that portion of the deposition.

5. Licensee will not object to the admission into evidence of the letter from Thomas M. Crimmins to John L. Thorpe (November 1, 1984) discussing the March 29, 1979 meeting at TMI at 3:30 p.m. (Attachment 5). See Prehearing Conference Tr. at 28,077 - 28,083. Licensee agrees that if called as a witness, Mr. Crimmins would so testify; however, Licensee does not stipulate to the factual accuracy of Mr. Crimmins' statements in that letter.

6. Licensee will not object to the admission into evidence of a one-page excerpt from a document entitled, "3/28/79 - 3/30/79 Logs from Unit 1 Control Room (ECS) of Offsite and Onsite Monitoring Team Survey Results" (Attachment 6). See Prehearing Conference Tr. 27,802 - 27,819. Licensee does not stipulate that any radiation readings were taken in response to the pressure spike.

7. Licensee will not object to the admission into evidence of Licensee's Responses to TMLA's Fourth Set of Interrogatories, Numbers 14 and 15 (October 15, 1984) (Attachment 7). See Tr. at 27,800 - 27,802.

Respectfully submitted
SHAW, PITTMAN, POTTS & TROWBRIDGE



Ernest L. Blake, Jr., P.C.
Counsel for Licensee

Dated: November 19, 1984

1 A I think there was Bill Lowe from Pickard, Lowe &
2 Garrick.

3 Q Anybody else that you can remember?

4 A There was a room full of people, I just don't
5 remember who they were. George Lehman was there, I know
6 that.

7 Q How about the other people you had come down with;
8 Mr. Moore, Mr. Broughton, Mr. Lentz?

9 A I -- probably they were there, but I do not remember.

10 Q What was discussed at the meeting other than Mr.
11 Kunder briefing Mr. Wilson?

12 A One thing that did come up was the fact that there
13 was a concern for hydrogen inside the Reactor Building, and
14 the installation of the hydrogen recombiners was discussed.

15 Q If I'm correct, the hydrogen recombiners at that
16 point, there was no requirement that they be hooked up?

17 A That's correct.

18 Q The concern expressed for hydrogen, who expressed
19 that concern?

20 A George Kunder.

21 Q Did he state the basis for his concern?

22 A To the best of my recollection, he indicated they
23 took Reactor Building sample and he was reading somewhere in
24 the vicinity of four percent hydrogen.

25 Q Any other bases that stated for his concern?

1 A I do not recall.

2 Q Now, was there any discussion as to how the hydrogen
3 might have been produced?

4 A I don't recall.

5 Q What other discussion was there on the possible
6 presence of hydrogen?

7 A I don't remember.

8 Q Was there a discussion as to what to do with the
9 hydrogen combiner?

10 A To the best of my recollection, the decision was to
11 get somebody from Atomics International who made the ~~combiners~~ ^{recombiners},
12 you know, to help us out since there was a potential for
13 higher than design limit on hydrogen.

14 Q What was the Design limit at that time?

15 A I think it was four percent.

16 Q So, there was a decision to get advice from Atomics
17 International?

18 A Rockwell International and Atomics International.
19 One is a division of the other. I'm not exactly sure who is
20 who.

21 Q Was someone in fact consulted from Rockwell or
22 Atomics International?

23 A Yes.

24 Q Who?

25 A There was a gentleman named Jim ^{Henrie} ~~Henrie~~, with whom

1 aware of them.

2 Q How about Mr. Frederick and Mr. Faust?

3 A I'm not sure that they were aware. I mean they could
4 have been or they couldn't have been. That was -- I just --
5 I don't know what they knew.

6 Q But I am asking you now today. Have you had
7 occasion to discuss this with Gary Miller since that time?
8 I am talking about the whole thing now, the pressurization,
9 containment sprays.

10 A I probably have had occasion to do that. I don't
11 remember discussing that particular part of it but --

12 Q Well, from those discussions or anything in regard
13 to after the accident, do you believe that Gary Miller knew
14 about the acquisition of the containment sprays today? I am
15 not asking if you remember from that day but through your
16 conversations and all the documents you have probably reviewed
17 over the last five years, do you have any belief as to whether
18 Gary Miller knew about the actuation of the containment
19 sprays on March 28th? I am asking --

20 A I would think he did.

21 Q And why do you think that?

22 A Because I believe Gary was in the vicinity of the
23 panel at the time. The conversation that I remember having
24 would have been on one side of the panel with Gary on the
25 other side of the panel. That's my recollection.

Q Anything else?

A I don't recall what else he did, because, as I say, he left in the morning when they evacuated the unit.

Q Now, it's true that at the time on March 30th when you reviewed the pressure spike, you believed it looked like a real spike--

A That's true.

Q --and not an electrical malfunction; is that correct?

A On March 30th, yes. That's the first time I saw it. I think everybody believed it then.

Q And let me ask you why is it that you judged at that time that it was, and I think your words were something to the effect it looked like a real spike to me in prior testimony?

A Well, I believed that this was in my prior testimony that I'd also looked at the reactor coolant system, the pressure chart to see if it indicated a dip since the building pressure's a reference.

Q So you're saying based on your view of the pressure spike as well as the reactor coolant system pressure which had a complementary decrease, you believed the spike was real; is that correct?

A Yes.

Q Was there any other basis on which you judged from viewing the spike that it was real?

A I don't think, no.

MS. BERNABEI: I have no other questions.

1 Q And what, if anything, did he do with the information?

2 A I think I remember him saying it looks like there's
3 a hydrogen burn.

4 Q He said this to you?

5 A Yes.

6 Q Now, let me ask you a question about the alarm printout.
7 If someone with the proper experience such as yourself had
8 reviewed the alarm printout on its own, could he have or she
9 have determined that the containment sprays had been actuated?

10 A Yes.

11 Q Anyone, in other words, with the proper background
12 could have understood that?

13 A Yes.

14 Q Now, to your knowledge, had anyone looked at the alarm
15 printout prior to the time you looked at it on March 29th?
16 I'm talking about now the alarm printout for that period of
17 1:50 p.m. or so on March 28th.

18 A I'd be speculating. I don't know.

19 Q You have no knowledge?

20 A No.

21 Q It was certainly available to anyone who had access to
22 the Unit Two Control Room and had reason to look at it?

23 A Yes. I'm not sure how available it was. I may have
24 had to ask somebody for it.

25 Q But it was not something that would have not been

November 1, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Mr. John L. Thorpe
Director, Licensing & Regulatory Affairs
GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054-1149

Dear Jack:

This morning I received a call from Mr. John Wilson of GPU Nuclear asking if I would respond to a question about the first day's activities after the TMI-2 accident. I agreed to do so. The question and my response are:

Question:

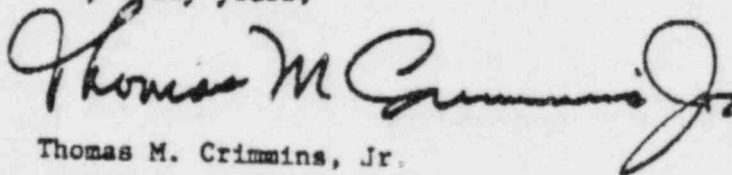
Describe in as much detail as possible the substance of any discussions of hydrogen production which occurred during an afternoon meeting for discussion on March 29, 1979 at the TMI-2 site which commenced around 3:30 PM.

Response:

I believe the meeting referred to was the initial briefing on-site for senior technical personnel sent from GPU, JCP&L, Met Ed and other sources to assist in assessing the plant conditions and recovering the plant. The meeting was held in what I believe was a TMI-1 building (office building at the north end of the plant structures) not in TMI-2 as suggested by the question.

As I recall, the subject of hydrogen production was not discussed or mentioned at that meeting. I distinctly remember seeing and discussing the containment pressure trace and the spike in the trace. The assessment at that time was that it must have been a spurious instrumentation problem. I remember discussing that, but do not recall any mention of hydrogen until later in the evening or early morning of March 30, 1979.

Very truly yours,



Thomas M. Crimmins, Jr.

TMC/#1010:clf

Response to TMI-1 Alert's
Fourth Set of Interrogatories
Numbers 14 and 15

INTERROGATORY 14

Based on a review of the design documents, there appears to be no electrical (or mechanical) malfunction that would cause both containment pressure recorders, i.e.; BS-PR-1412 and BS-PR-4388, to indicate a pressure spike on the wide-range and narrow-range scales.

This conclusion is based only on a drawing review. No physical inspection or investigation was made to verify that the drawings represent the configuration of the plant at the time of the accident. This review does not exclude the possibility of physical arrangements not apparent from the drawings which could have lead to the conditions described in the interrogatory.

The design documents indicate that:

- (a) There are two (2) Reactor Building Pressure Recorders identified by tag numbers BS-PR-1412 and BS-PR-4388. Each recorder provides two measurement recordings, one for wide-range measurement (0 to 100 PSIG) and another for narrow-range measurement (-5 to 10 PSIG). Each measurement signal to the two recorders is originated by a different pressure sensing device (transmitter) than the other three measurements.
 - (b) The power supplies for each recorder's associated transmitters are energized from independent power sources, i.e.;
- BS-PR-1412 is powered from Power Panel 1P2-31C which is fed from 480V Motor Control Center 2-31C while BS-PR-4388 is powered from Power Panel 2-12R which is fed from 480V substation ESF Bus 2-12E.
- (c) The instrument signal cables to each recorder, from transmitter to control room, are physically routed in different cable trays.
 - (d) The wide-range and narrow range transmitter pairs, whose signals are recorded on the subject recorders, sense the containment pressure at physically separate locations, i.e.; BS-PR-1412 via penetration R-545A and BS-PR-4388 via penetration R-554C.

INTERROGATORY 15

Based upon a review of the design documents, there appears to be no electrical (or mechanical) malfunction which could lead to the simultaneous occurrence of the recording of a reactor building pressure spike and the initiation of containment spray.

This conclusion is based only on a drawing review. No physical inspection or investigation was made to verify that the drawings represent the configuration of the plant at the time of the accident. This review does not exclude the possibility of physical arrangements not apparent from the drawings which could have lead to the conditions described in the interrogatory.

The design documents indicate that:

- (a) There are redundant spray actuation channels which do not electrically interface with the instrument circuitry for that of the pressure recorders.
- (b) The instrument signal cables for the spray actuation are physically routed in different conduits than those cables associated with the pressure recorders.
- (c) The actuation of containment spray and the recording of reactor building pressure are implemented by diverse means, i.e.; pressure switches (see Table below) are used to actuate containment spray while pressure transmitters (see Table below) are used for recording. This represents different measurement techniques and manufacturing designs for each occurrence.

Pressure Switches

| | |
|------------|---------------|
| BS-PS-3253 | Train A Ch. 1 |
| BS-PS-3254 | Train A Ch. 2 |
| BS-PS-3255 | Train A Ch. 3 |
| BS-PS-3256 | Train B Ch. 1 |
| BS-PS-3257 | Train B Ch. 2 |
| BS-PS-3258 | Train B Ch. 3 |

Pressure Transmitters

| | |
|--------------|----------------------------------|
| BS-PT-1412-1 | Recorder BS-PR-1412 Narrow Range |
| BS-PT-1412-2 | Recorder BS-PR-1412 Wide Range |
| BS-PT-4388-1 | Recorder BS-PR-4388 Narrow Range |
| BS-PT-4388-2 | Recorder BS-PR-4388 Wide Range |

- (d) Each redundant containment spray actuation channel is comprised of three pressure measuring sensors in a two-out-of-three voting logic. Each sensor measures containment pressure at a physically different location from the remaining two. When at least two of the three sensors are above the actuation point, then containment spray will be actuated on that ESF channel. Two of the three aforementioned sensors measure reactor building pressure from a physically different location than that of either recorder measurement.

RELATED CORRESPONDENCE

November 20, 1984

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

A copy of two stipulations, both entitled, "Stipulation of Mailgram Evidence", were served this 20th day of November, 1984, by hand delivery to the parties identified with an asterisk and by deposit in the U.S. mail, first class, postage prepaid, to the other parties on the attached Service List.

Respectfully submitted
SHAW, PITTMAN, POTTS & TROWBRIDGE

Ernest L. Blake, Jr.

Ernest L. Blake, Jr., P.C.
Counsel for Licensee

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter)
)
METROPOLITAN EDISON COMPANY) Docket No. 50-289 SP
) (Restart Remand on Management)
(Three Mile Island Nuclear)
Station, Unit No. 1))

SERVICE LIST

Nunzio J. Palladino, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Thomas M. Roberts, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

James K. Asselstine, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Frederick Bernthal, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Lando W. Zeck, Jr., Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge
Gary J. Edles, Chairman
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge
John H. Buck
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge
Christine N. Kohl
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

* Administrative Judge
Ivan W. Smith, Chairman
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

* Administrative Judge
Sheldon J. Wolfe
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

* Administrative Judge
Gustave A. Linenberger, Jr.
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docketing and Service Section (3)
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Board
Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Appeal
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

*Jack R. Goldberg, Esq. (4)
Office of the Executive Legal
Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

*Thomas Y. Au, Esq.
Office of Chief Counsel
Department of Environmental
Resources
505 Executive House
P.O. Box 2357
Harrisburg, PA 17120

William T. Russell
Deputy Director, Division
of Human Factors Safety
Office of NRR
Mail Stop AR5200
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Mr. Henry D. Hukill
Vice President
GPU Nuclear Corporation
P.O. Box 480
Middletown, PA 17057

Mr. and Mrs. Norman Aamodt
R.D. 5
Coatesville, PA 19320

* Ms. Louise Bradford
TMI ALERT
1011 Green Street
Harrisburg, PA 17102

* Joanne Doroshov, Esquire
The Christic Institute
1324 North Capitol Street
Washington, D.C. 20002

* Lynne Bernabei, Esq.
Government Accountability
Project
1555 Connecticut Avenue
Washington, D.C. 20036

Ellyn R. Weiss, Esq.
Harmon, Weiss & Jordan
2001 S Street, N.W., Suite 430
Washington, D.C. 20009

Michael F. McBride, Esq.
LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, N.W.
Suite 1100
Washington, D.C. 20036

Michael W. Maupin, Esq.
Hunton & Williams
707 East Main Street
P.O. Box 1535
Richmond, VA 23212