

March 14, 1984



SECY-84-113

## ADJUDICATORY ISSUE

(Affirmation)

For: The Commission

From: Martin G. Malsch, Deputy General Counsel  
John E. Zerbe, Director, OPE

Subject: UCS MOTION TO ESTABLISH CRITERIA FOR JUDGING  
"REASONABLE PROGRESS" AT TMI-1

Purpose: To recommend that the Commission issue the  
attached order ~~\_\_\_\_\_~~

Discussion: On October 18, 1983, the Union of Concerned  
Scientists (UCS) moved the Commission to direct  
that all items found by the Boards to be neces-  
sary and sufficient in the long-term to provide  
reasonable assurance of safe operation be  
completed prior to restart of Three Mile Island,  
Unit 1 (TMI-1). UCS in its motion noted that in  
establishing the restart proceeding the  
Commission stated that certain short-term  
actions needed to be taken prior to restart,  
that certain additional long-term actions are  
required to be completed as promptly as practi-  
cable, and that reasonable progress on the  
completion of such long-term actions is required  
prior to restart. UCS maintained that licensee's  
failure to incorporate all safety improvements  
in 4½ years does not constitute either "as  
promptly as practicable" or "reasonable progress."  
UCS, noting that the Commission in its October  
7, 1983 notice to the parties indicated that a  
restart decision cannot be made until 1984 or  
1985, suggested that the criteria of "reasonable

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progress" and "as promptly as practicable" must be interpreted as requiring completion of the long-term actions prior to restart.

Both the NRC staff and licensee opposed the UCS motion. Licensee maintained that identification of post-accident requirements was an evolutionary process, and thus it is incorrect to assume that long-term requirements have long been well defined such that licensee could have proceeded promptly with their implementation. Licensee also asserted that the status of modifications at TMI-1, upon return to service, will be comparable to that at other similar operating plants and that it has not taken the position that long-term requirements can be postponed until after restart no matter when restart occurs.

Staff argued that the UCS motion should be denied as being procedurally deficient and lacking substantive merit. Staff maintained that the issue of reasonable progress on long-term items was fully litigated before the Boards, and UCS took no appeal from those decisions. Staff also maintained that licensee is completing the long-term actions on a schedule comparable to other similar operating reactors, which reconfirms the correctness of the Licensing Board's determination that licensee has made reasonable progress towards satisfaction of long-term requirements.

#### Analysis

The Commission has stated that "reasonable progress" is to be determined "at the time of the Licensing Board's decision," CLI-82-32, 16 NRC 1243 (1982). [REDACTED]

OPE has examined each item that is not currently scheduled to be completed prior to restart. See

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<sup>2</sup>The Commission has stated, unless the record dictates otherwise, that TMI-1 is to be grouped with reactors which have received their operating licenses. CLI-81-3, 13 NRC 291 (1981).

Memorandum for Chairman Palladino from H. Plaine and J. Zerbe, "Commissioner Gilinsky's Draft Opinion on TMI-1 Restart" (January 5, 1984).

OPE's views can be summarized as follows. Staff in its response to the UCS motion stated that there are seven long-term items which will not be completed prior to restart. One of those items is now complete.<sup>3</sup> Four others are progressing on a schedule acceptable to the staff and typical of all B&W licensees.<sup>4</sup> These are either items which have been postponed by the staff in December 1982 in Supplement 1 to NUREG-0737 to a date to be determined, or whose completion has been delayed due to a need for extensive engineering or analysis. [REDACTED]

The remaining two items (Reactor Head Vents, II.B.1, and Plant Shielding/Remote Operators, II.B.2) were primarily delayed [REDACTED]

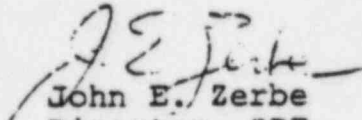
[REDACTED] The reactor head vent installation is scheduled for completion this spring and the remote operators item is awaiting delivery of components and is scheduled for completion by the end of the year. The latter item will require a short shutdown. [REDACTED]

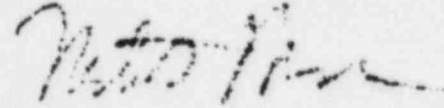
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<sup>3</sup>That one is II.B.3. (Post-Accident Sampling).

<sup>4</sup>These are I.C.1 (ATOG), II.D.1 (Relief and Safety Valve Testing), II.F.2 (Inadequate Core Cooling Instruction), and II.K.3.30/.31 (Small Break Analysis).

Recommendation: Issue attached draft order ~~\_\_\_\_\_~~

  
John E. Zerbe  
Director, OPE

  
Martin G. Malsch  
Deputy General Counsel

Attachments:

1. Draft Order
2. UCS Motion
3. Licensee Response
4. Staff Response

Commissioners' comments should be provided directly to SECY by c.o.b. Thursday, March 29, 1984.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, March 29, with an information copy to SECY. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an open meeting during the week of April 2, 1984. Please refer to the appropriate weekly Commission schedule, when published, for a specific date and time.

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about integrity; and should be considered together with other items bearing on integrity in reaching an overall judgment on licensee's character.

### III. GPU Compliance With TMI Action Plan Requirements

Commissioner Gilinsky asserted that most operating plants have succeeded in making most of the required NUREG-0660 and 0737 modifications, but that TMI-1 had been slow to make the modifications. He stated that GPU planned to complete most of the modifications prior to restart "only because the extensive repairs required by the corrosion of the steam generator tubes have prolonged the shutdown of Unit 1." Commissioner Gilinsky found it "ironic that the plant whose accident caused the imposition of these modifications on all plants will be among the last to comply." He then pointed specifically to the installation of high point vents and a water level indicator as examples of the lack of diligence. In response to his comments, OPE has examined the status of action item completion and offers the following comments.

#### A. Status of Completion of Action Items In the TMI-1 Plant

The attachment provides a summary of open TMI Action Plan items for B&W plants.<sup>11</sup> The comparison only to B&W plants seems appropriate because the complexity in compliance tracks most closely with reactor type. Out of an original 88 TMI Action Plan items, 13 remain to be accomplished at TMI-1, of which 5 will be completed prior to restart, leaving 8. (There

are an average of 7.5 of an original 83 at the other B&W plants.<sup>12)</sup>

The remaining 13 break down as follows:

- 5 - to be completed by restart, incomplete due to minor non-conformances recently discovered in modifications previously completed;<sup>13</sup>
- 6 - progressing on a schedule acceptable to the staff;  
[REDACTED]
- 2 - [REDACTED]  
to be completed at first refueling outage after restart.<sup>15</sup>

The two items in this last category are installation of vents (discussed in detail *infra*) and plant shielding. This latter item involves the installation of remote operators for certain valves used in post-accident long-term core cooling to reduce occupational exposure to individuals operating them in the post-accident radiation field. The licensee presented to the staff a detailed analysis to demonstrate, for the particular physical arrangement and operating procedures of the TMI-1 plant, that remote operators were not required to prevent excessive radiation to plant personnel. After considerable review the staff rejected this approach. Licensee now has pending before the staff a proposed modification to procedures that would reduce the number of these remote operators. Licensee has ascribed the delay in completing this item to difficulties in procurement and to manpower shortages due to

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<sup>12</sup>This difference in the original number at TMI and at other B&W plants results from a Commission decision that certain items applicable to the near-term OL plants but not to operating reactors would be required for TMI-1.

<sup>13</sup>Those items are: II.B.3 Post-Accident Sampling, II.E.1.2. AFW Flow Indication, II.F.1.4 Containment Pressure, II.F.1.5 Containment Water Level, II.F.1.6 Containment Hydrogen.

<sup>14</sup>Those items are: I.C.1 ATOG, I.D.1 Control Room Design Reviews, I.D.2 SPDS, II.F.2. Inadequate Core Cooling, II.K.3.31. SBLOCA Analysis, III.A.2.2 Met Data.

<sup>15</sup>Those items are: II.B.1. High Point Vents, II.B.2 Plant Shielding.

the steam generator repairs.

B. High-Point Vents (II.B.1)

This item, specified in 10 CFR 50.44, requires the installation of a vent system to remove non-condensable gases resulting from a severe accident that collect in the high points. The licensee has already installed remotely operated vents in the pressurizer and loop high points. They have installed another vent fitting in the upper head by modifying an existing thermocouple fitting. The remotely operated valve and associated piping and supports for the head vent are still to be installed and will require about one month of work. Licensee is considering completing installation during the short <sup>16</sup> shutdown for steam generator inspection following restart.

GPU, like some other B&W owners, originally argued that the head vent was unnecessary because, with their particular loop geometry, the loop vent can also vent the upper head area. GPU further argued that this vent was an unnecessary additional penetration in the pressure boundary and, thus, posed a safety hazard. Three other B&W licensees continue to take this position and have received an extension to 1985 for completion of the item.

C. Inadequate Core Cooling (Water Level Indication) (II.F.2)

~~Initially~~ Initially GPU, like B&W and almost all members of the

<sup>16</sup>It should be noted that this head vent is different from the previously installed manual head vent which is located in a rod drive mechanism housing. This former vent is now considered inappropriate for post-accident use, even though, as noted by Commissioner Gilinsky, some consideration was given during the accident to trying to open this vent to allow the steam and hydrogen to escape.



B&W owners' group, [REDACTED]

[REDACTED] position was that, if there was water in the raised loop above the core, it was physically impossible for the core not to be covered, hence direct core level measurement was unnecessary.

Once the staff resolved this statement by issuing, in December 1982, an order requiring direct indication of core water inventory trend, GPU proceeded into the procurement process. The equipment and supporting work for installation will be available in the 4th quarter of 1984 and will be installed at the first refueling. All of the other B&W plants are likewise scheduling completion of installation of their equipment in 1985 and 1986. OPE notes that the one B&W plant which chose to explore equipment by other vendors will not be completed until 1985.

D. General

Attachment:  
Remaining NUREG-0737 Items for B&W Plants

cc: Commissioner Gilinsky  
Commissioner Roberts  
Commissioner Asselstine  
Commissioner Bernthal  
SECY

REMAINING GUREG-0737 FILMS FOR B&W PLANTS

ITEM	ITEM NO.	TMI-1	DAVIS BESSE	OCONEE 1	OCONEE 2	OCONEE 3	RANCHO SECO	ANO 1	CRYSTA RIVER
ATOG	I.C.1	(1/84)	(10/84)	(11/84)	(11/84)	(11/84)	(11/84)	C	(12/83)
CONTROL ROOM DESIGN REVIEW	I.D.1	(3/85)	(4/84)	(3/84)	(3/84)	(3/84)	(12/85)	TBD	(4/85)
SPDS	I.D.2	Ist Refueling (11/85)	(12/84)	(1/85)	(7/85)	(11/84)	(11/84)	(6/84)	(7/85)
VENTS	II.B.1	Ist Refueling (11/85)	1985	C	C	C	1985	C	198
PLANT SHIELDING	II.B.2	Ist Refueling (11/85)	C	C	C	C	C	C	
POST ACCIDENT SAMPLING	II.B.3	RESTART*	1983	C	C	C	C	C	
AFW INITIATION AND FLOW INDICATION	II.E.1.2	RESTART*	C	C	C	C	C	1985	
CONTAINMENT HI RANGE MONITOR	II.F.1.3	C	C	C	1983	1984	C	C	
CONTAINMENT PRESSURE	II.F.1.4	RESTART*	C	C	C	C	C	C	
CONTAINMENT WATER LEVEL	II.F.1.5	RESTART*	C	C	C	C	C	C	
CONTAINMENT HYDROGEN	II.F.1.6	RESTART*	C	C	C	C	C	C	
INADEQUATE CORE COOLING	II.F.2	Ist Refueling (11/85)	1985	1985	1985	1985	1986	1985	198
SBLOCA ANALYSIS (PLANT SPECIFIC)	II.K.3.31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ERF UPGRADE	III.A.1.2	C	(12/84)	C	C	C	(11/84)	C	(7/85)
METEOROLOGICAL DATA	III.A.2.2	1984	1984	1984	1984	1984	NOTE 2	1984	198
OUTSTANDING ITEMS		14	9	6	7	7	8	6	

\*These issues must be completed and certified by the staff prior to restart and could reasonably be accomplished in one or two months.

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May 15, 1984

Joseph Felton, Director  
Division of Rules and Records  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

FREEDOM OF INFORMATION  
ACT REQUEST  
FOIA-84-377  
Rec'd 5-17-84

Re: Freedom of Information Act Request

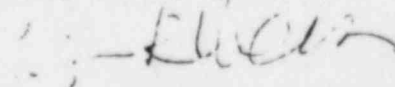
Dear Mr. Felton:

On May 4, 1984, the Commission issued CLI-84-4 a copy of which is enclosed. On page 3 of that Order, the Commission states that it had conducted a "sua sponte" review "of the circumstances surrounding the implementation schedule for the seven long-term items" which GPU will not have completed prior to its scheduled restart of Three Mile Island Unit 1. The Commission states further that it

"determined from its review of each of these items that the current schedule for completion is reasonable in view of the technical issues involved and . . . because completion of required items at TMI-1 at restart will be comparable to the schedule of completion at other B&W reactors."

Pursuant to the federal Freedom of Information Act, I hereby request copies of all documents considered by the Commission in its sua sponte review of these issues.

Very truly yours,

  
Ellyn R. Weiss  
General Counsel  
Union of Concerned  
Scientists

ERW:cpk

PURC  
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RECEIVED MAY - 8 1984

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

COMMISSIONERS:

Nunzio J. Palladino, Chairman  
Victor Gilinsky  
Thomas M. Roberts  
James K. Asselstine  
Frederick M. Bernthal

'84 MAY -4 P4:29

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

SERVED MAY 7 1984

In the Matter of  
METROPOLITAN EDISON COMPANY  
(Three Mile Island Nuclear  
Station, Unit No. 1)

Docket No. 50-289 SP  
(Restart)

ORDER

CLI-84-7

On October 18, 1983 the Union of Concerned Scientists (UCS) moved the Commission to order that all long-term items required in this proceeding be completed prior to restart because of the length of time which has elapsed since this proceeding began. Both the licensee and the NRC staff opposed the UCS motion.

In the order establishing the restart proceeding, the Commission stated that it had "determined that satisfactory completion of certain short-term actions and resolution of various concerns ... are required to provide assurance that the facility can be operated without endangering the health and safety of the public." The Commission further

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"determined that certain additional long-term actions are ... required to be completed as promptly as practicable, and that reasonable progress on the completion of such items prior to restart is required ...." CLI-79-8, 10 NRC 141, 142 (1979).

The Commission has stated that "reasonable progress" is to be determined "at the time of the Licensing Board's decision." CLI-82-32, 16 NRC 1243 (1982). The issue of whether licensee has made reasonable progress toward completion of long-term items was litigated in the restart proceeding in accord with the procedures established for that proceeding. No party appealed from the Licensing Board's findings regarding licensee's progress on long-term requirements, either to the Appeal Board or to the Commission. UCS by filing this motion with the Commission almost five months after the Appeal Board issued its decision on the hardware issues, ALAB-729, 18 NRC \_\_\_\_ (1983), is apparently attempting to reopen a closed issue solely on the basis of the passage of time.

The Commission disagrees with UCS' underlying assertion that the passage of time by itself controls whether reasonable progress is being made toward completion of long-term items. Such a determination must be based on all the circumstances surrounding each individual item, including the evolution of the requirement, any technical disagreements regarding the requirement, efforts to date, and the current implementation schedule both at TMI-1 and other similar reactors.<sup>1</sup> The UCS motion

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<sup>1</sup>The Commission has stated, unless the record dictates otherwise, [Footnote Continued]

requesting the Commission to require completion of all long-term items before restart simply because of the lapse of time since this proceeding began is accordingly denied.

However, the Commission recognizes that over two years have passed since the Licensing Board issued its decision on the hardware issues, and the Commission did envision only a short lapse of time between the Licensing Board's decision and a decision on restart. The Commission has therefore sua sponte considered the circumstances surrounding the implementation schedule for the seven long-term items which staff indicated in its response to the UCS motion were not scheduled for completion prior to restart in order to determine whether licensee should be required to complete any of those items prior to restart. No party is now arguing that any of these items are necessary for safe operation in the short term, and the Commission has determined from its review of each of these items that the current schedule for completion is reasonable in view of the technical issues involved and, as indicated in staff's response to the UCS motion, because completion of required items at TMI-1 at restart will be comparable to the schedule of completion at other B&W reactors. The Commission has therefore decided not to require completion of any of these items prior to restart at this time. The Commission notes, however, that this decision does not modify the original 1979 order which required that long-term items be completed "as promptly as practical."

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[Footnote Continued]

that TMI-1 is to be grouped with reactors which have received their operating licenses. CLI-81-3, 13 NRC 291 (1981).

Commissioner Gilinsky dissents from this decision.

It is so ORDERED.



For the Commission\*

A handwritten signature in cursive script, appearing to read "Samuel J. Chilk".

SAMUEL J. CHILK  
Secretary of the Commission

Dated at Washington, D.C.

this 4th day of May, 1984.

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\*Commissioners Asselstine and Bernthal were not present when this order was affirmed but had previously indicated their approval.