

POOR ORIGINAL

OCT 9 1980

Dr. Milton S. Plesset, Chairman
Advisory Committee on Reactor Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Dr. Plesset:

SUBJECT: NEW UNRESOLVED SAFETY ISSUES

In your letter to the Commission dated August 12, 1980, you recommended that three items be added to our list of new Unresolved Safety Issues. These items were:

1. D.C. Power Supply Reliability
2. Single Failure Criterion and
3. Control System Reliability

With regard to the first item, D. C. Power Supply Reliability, we agree that this is an important technical issue. At this time we expect to resolve this issue this year. If the proposed resolution appears to be inadequate after detailed staff review, we intend to recommend to the Commission that they classify the D. C. Power Supply Reliability as an Unresolved Safety Issue. Regarding the second item, Single Failure Criterion, we do not recommend that such a broad concern be designated as a separate Unresolved Safety Issue. Specific generic deficiencies associated with using the Single Failure Criterion should be identified by the IREP Program. Any deficiencies would then be considered as candidate USI issues. Finally, we are now recommending that the third item, Control System Reliability, be designated as an Unresolved Safety Issue. The task will be titled Safety Implications of Control Systems. A description of the issues to be addressed in this task and a more detailed description of the basis for our decision regarding the first two items are included in enclosed memorandum to Chairman Ahearne dated September 10, 1980, "ACRS and AEOD Comments Concerning New Unresolved Safety Issues."

We agree with the ACRS concern that some potentially important problems which are interdisciplinary in nature may not be readily identified by a staff which is organized along the lines of separate technical disciplines or areas. During this past review for new USIs many of the candidate issues were obtained from the TMI Action Plan. The TMI Action Plan was prepared by the Lessons Learned Task Force which was distinctly a multi-disciplined group using inputs from many other groups which had studied the accident including the President's Commission, the NRC Special Inquiry Group, the ACRS, and others most of which can be characterized as multi-disciplined. Many other candidate issues were obtained from ACRS letters. Therefore, we believe that the selection of candidate issues for the recently completed review is not deficient with respect to the ACRS concern.

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Dr. Milton S. Plesset

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Future reviews for new USIs should benefit significantly from anticipated input from those portions of the NRC staff which are not organized along single discipline lines. It is expected that within NRR, the Safety Program Evaluation Branch, the Operating Experience Evaluation Branch, and the Reliability and Risk Assessment Branch, all within the Division of Safety Technology, will provide important input for the selection of candidate issues. Also, the Office for Analysis and Evaluation of Operational Data (AEOD) will provide a multi-disciplined and independent evaluation of operational data which will serve as an input for USI candidate issues. We believe, therefore, that in this past review as well as in future reviews we will have significant sources of candidate issues for consideration of new USIs which are not sponsored by specific single discipline organizational units within the staff.

The second potential problem that the ACRS suggested was "the possibility that a problem may be resolved in six months does not mean that it will be resolved and should not be grounds for its exclusion from the list" (of candidate issues). "Assignment of such an item to Unresolved Safety Issues status may make its resolution more probable." This initial screening criterion was stated in our Commission Paper (SECY 80-325) as follows:

"A staff position on the issue or recommendation has been developed or could be developed within six months. The purpose of this criterion is to eliminate those issues that are near resolution and, therefore, do not constitute "unresolved" issues. Such issues do not warrant the attention and resources normally associated with an Unresolved Safety Issue."

In applying this criterion the staff has generally used it to screen out issues for which work was already underway and it appeared to be a reasonable expectation that resolution would be achieved within six months. The USI category with its attendant congressional reporting requirement was originally established to address important generic issues which had been identified and had remained unresolved for a significant length of time.

It is believed that the management control established for Unresolved Safety Issues would not have significant beneficial impact for generic issues for which resolution can be obtained on a six month schedule. It is possible that designation of a short term generic issue as a USI would have a negative impact on the schedule for resolution because of the accompanying shift in reviewer and management responsibility. In summary, we agree with the ACRS that the mere "possibility" that an issue

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can be resolved in six months is not an adequate basis for screening out a candidate issue. Therefore, we are clarifying our criterion to exclude only issues for which the staff has initiated work and for which there is a reasonable expectation that a conclusion can be reached within six months.

Should you desire to further discuss your concerns in this area, we would be pleased to meet with you again at a future ACRS meeting.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosure:

Memo from William J. Dircks, NRC,
to Chairman John F. Ahearne
dtd September 10, 1980

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*SEE PREVIOUS YELLOW FOR CONCURRENCES

<i>15-7</i> <i>WJ Dircks</i>	OFFICE ▶ NRR:TSB	NRR:DST:GSI*	NRR:DST:AD*	NRR:PPAS:AB	NRR:DD	NRR:D
	SURNAME ▶ GGZeich	KKniel	FSchroeder	HLThompson	EGCase	HDenton
	DATE ▶ 09/19/80	09/19/80	09/19/80	09/30/80	10/6/80	10/6/80

P. Norman



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SEP 10 1980

MEMORANDUM FOR: Chairman John F. Ahearne
FROM: Harold Denton, Director
Office of Nuclear Reactor Regulation
THRU: William J. Dircks (Signed William J. Dircks)
Acting Executive Director for Operations
SUBJECT: ACRS AND AEOD COMMENTS CONCERNING NEW UNRESOLVED SAFETY
ISSUES

In response to your memorandum of August 19, 1980, we have reviewed the ACRS and AEOD comments on SECY 80-325 and have the following comments and recommendations.

We recommend that the two issues that AEOD recommended be considered as Unresolved Safety Issues be added to the list of items requiring further study before deciding on designation as USI's. This further study will be performed over the next few months. We recommend that the other two concerns raised by AEOD be incorporated into existing or proposed Unresolved Safety Issues as described in Enclosure 1.

The ACRS comments include a recommendation to add to the list of Unresolved Safety Issues three issues that the staff had initially screened out. Upon reconsideration we now recommend that one of these ("Control System Reliability") warrants designation as an Unresolved Safety Issue; Enclosure 3 provides a description of the issue that we propose to add to the Special Report to Congress. In discussing the issue of Control System Reliability, the ACRS also noted the related issue of the reliability of nonsafety system information displayed for use of the reactor operator. We recommend that this ACRS concern be added to the list of items requiring further study to evaluate their impact on overall risk before deciding on designation as a USI. This further study will be performed over the next few months.

We do not agree that the two other issues recommended by ACRS (D.C. Power Reliability and the Single Failure Criterion) warrant designation as Unresolved Safety Issues for the reasons described in Enclosure 2.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

August 12, 1980

Honorable John F. Ahearne
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: NEW UNRESOLVED SAFETY ISSUES

Dear Dr. Ahearne:

During its 244th meeting, August 7-9, 1980, the ACRS discussed with the NRC Staff their selection of new Unresolved Safety Issues.

We agree that the items suggested by the Staff deserve the priority of study that they will receive if they are classified as Unresolved Safety Issues. In addition, we believe the following should be added to the list.

1. DC Power Supply Reliability - This issue is currently being addressed and may be resolved in the near future, but it should be carried as unresolved until resolution is clearly achieved.
2. Single Failure Criterion - Many current safety evaluations use the single failure criterion as a measure of reliability. Its inadequacy is widely recognized. It should be replaced, where feasible, with criteria that consider the possible contributions to risk of multiple failures.
3. Control System Reliability - Recent experience has indicated that more attention must be given to reactor control system reliability. Most safety analyses in the past have given minimum attention to control system reliability based partly on the assumption that failure of the system makes it unavailable and ignores the fact that this failure may actually produce an unsafe mode of reactor behavior. This problem should receive further study to determine appropriate reliability standards for control systems. Appropriate reliability of nonsafety system information displayed for use of the reactor operator is a related important issue.

We believe there are two potential problems with the Staff's method of choosing candidate items for the Unresolved Safety Issues list. First, because of the manner by which items must be sponsored by specific units of the Staff, the procedure may tend to miss important problems which are complex and not yet clearly defined. Second, the possibility that a problem may be resolved in six

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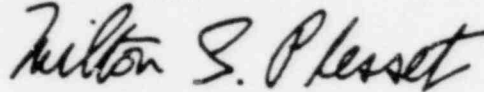
Honorable John F. Ahearne

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August 12, 1980

months does not mean that it will be resolved and should not be grounds for its exclusion from the list. Assignment of such an item to Unresolved Safety Issues status may make its resolution more probable.

Sincerely,



Milton S. Plesset
Chairman

Reference:

U.S. Nuclear Regulatory Commission Staff Paper, "Special Report to Congress Identifying New Unresolved Safety Issues," SECY-80-325, dated July 9, 1980.