

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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December 13, 1978

SECY-78-637A


## INFORMATION REPORT

FOR: The Commissioners

FROM: Lee V. Gossick  
Executive Director for Operations

SUBJECT: SUPPLEMENTS TO SECY-78-637: PROPOSED NRC STATEMENT  
ON RISK ASSESSMENT AND THE REACTOR SAFETY STUDY  
REPORT (WASH-1400) IN LIGHT OF THE RISK ASSESSMENT  
REVIEW GROUP REPORT

DISCUSSION: Enclosed are the IE and MPA comments to assist in  
your review of the above subject. Also enclosed  
are additional NMSS comments.

  
xa Lee V. Gossick  
Executive Director for Operations

Enclosures:  
as stated

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SECY NOTE: This paper is currently scheduled for a Commission briefing on  
Thursday, December 14, 1978.

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20585

December 13, 1978

MEMORANDUM FOR: Lee V. Gossick  
Executive Director for Operations

FROM: John G. Davis, Acting Director  
Office of Inspection and Enforcement

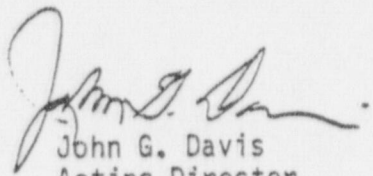
SUBJECT: NRC STATEMENT ON RISK ASSESSMENT AND THE  
REACTOR SAFETY STUDY

This memorandum expresses limited IE concurrence on the draft "NRC Statement on Risk Assessment and the Reactor Safety Study" which was forwarded to you by a December 8, 1978, memorandum signed by Harold R. Denton.

We believe that the IE use of the RSS -- which has been limited -- has been consistent with that recommended by the Risk Assessment Review Group. Also, it is our intent that any planned future use by IE will be consistent with the recommendations or guidance provided within NRC.

Because of IE's lack of involvement in those areas of specific comment by the Review Group, IE is not in a position either to agree or disagree with any specific Review Group comment nor the reaction to any comment by the NRC Staff. IE is not aware of the extent of reliance by other NRC Offices on the RSS because of lack of involvement by IE in this reliance.

Hence, IE's position is that of concurring insofar as IE's use of the RSS.

  
John G. Davis  
Acting Director  
Office of Inspection  
and Enforcement





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
December 12, 1978

MEMORANDUM FOR: Lee V. Gossick  
Executive Director for Operations

THRU: Norman M. Haller, Director \* *NMHA 12/12/78*  
Office of Management and Program Analysis

FROM: Lee R. Abramson, David Rubinstein and Roger H. Moore  
Applied Statistics Branch  
Division of Technical Support  
Office of Management and Program Analysis

SUBJECT: DRAFT STATEMENT "NRC STATEMENT ON RISK ASSESSMENT AND  
THE REACTOR SAFETY STUDY," AN ENCLOSURE WITH A MEMO-  
RANDUM FROM HAROLD R. DENTON, NRR, TO LEE V. GOSSICK,  
EDO, "NRC STATEMENT ON RISK ASSESSMENT AND THE REACTOR  
SAFETY STUDY (WASH-1400) IN LIGHT OF THE RISK ASSESSMENT  
REVIEW GROUP REPORT," DECEMBER 8, 1978

We believe that the draft statement is not responsive to a number of points raised by the Risk Assessment Review Group (RARG). Both the tone of the draft and certain specific phrasings give rise to this belief. We set them forth here for your consideration, with full recognition of the problems generated by the "range of views on the RSS" mentioned in the third paragraph of Mr. Denton's memorandum.

Hand-annotated copies of Mr. Denton's memorandum and the draft statement are attached with each of the following comments indicated in the right margin. The comments are divided into two groups: those dealing with the general tone of the draft and identified by (T), and those dealing with specific phrasing and identified by (S). Please call for any additional information that may be required to sharpen these points.

COMMENTS

- (T-1) The important and necessary distinctions among such concepts as "Risk Assessment," "WASH-1400 Methodology," and "Fault-Tree/Event-Tree Methodology" are not established and maintained. Moreover, general methodology is not distinguished from specific implementation. For example, the RARG endorses Risk Assessment, while firmly rejecting its implementation

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\* I believe the policy statement should have two major themes: (1) specific risk estimates in the RSS should not be used uncritically; and (2) proper use of risk assessment methodology offers an important means of guiding the nuclear regulatory process. Theme (1) involves three issues -- Have RSS risk estimates been used uncritically? If so, what corrective actions must NRC now take (e.g. concerning safety)? And, what procedures are needed to prevent future uncritical use? Theme (2) involves a need to develop plans which specify the role of risk assessment in NRC's regulatory process and the technical steps required for proper use (e.g. improving the data base and statistics).

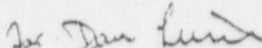
by the square-root bounding model. This clearly throws into dispute the draft statement's declaration that "The Review Group endorsed the methodology of the Reactor Safety Study ...". To illustrate in another way: Given that the RSS's assignment was to perform a risk assessment of nuclear power reactors, what portions of WASH-1400 methodology are acceptable to the NRC (and the RARG) other than fault-tree/event-tree methods?

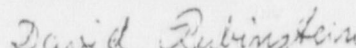
- (T-2) "A number of technical deficiencies" is used in the draft (p.4) with the effect of downplaying such RARG statements as " ... invention and use of wrong [our emphasis] statistical methods ..." and " ... unable to define whether the overall probability of a core melt given in WASH-1400 is high or low, but we are certain that the error bands are understated." (This last item is taken to mean that neither direction nor magnitude of bias nor precision of estimate can be trusted.) Since the RARG leaves the pedigree of most -- if not all -- of the numerical values reported in WASH-1400 in doubt, any NRC statement on these matters must come to grips with this problem.
- (T-3) No guidance is offered in the draft -- nor is any promised as forthcoming -- for use of WASH-1400 outside of NRC. The instruction at the bottom of p.6 may be intended to cover this; but, if so, it should be given "action item" status in the list of 5 items on pages 7 and 8. Indeed, any future in-NRC use must have this guidance as well.
- (T-4) The "inscrutability of WASH-1400" issue is not addressed. In the absence of a concordance or a "road map," continued debate/discussion over what the RSS did or didn't do can be expected. More particularly, associating a "range of uncertainty" with each "RSS risk estimate" will add another layer of problems. To estimate something is one thing; to estimate a relevant measure of uncertainty is quite another.
- (T-5) The draft considerably softens the RARG conclusions concerning the Executive Summary.
- (S-1) Page 1 -- 14th line -- The term "decision analysis" is introduced and does not appear to be used for any particular purpose in the remainder of the draft. We suggest that it be dropped.

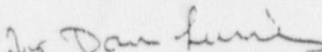


- (S-2) Page 4 -- 5th line -- " ... limited use ... by NRC staff ..." seems to leave open all sorts of questions. Perhaps a reference to the results of the recent all-NRC review exercise is in order.
  
- (S-3) Page 4 -- 5th thru 14th lines -- In light of RARG findings, it can be concluded from the paragraph that the technical staff was "familiarized" with many of the wrong things. The very last point ascribing to the RSS "considerable advances in risk assessment technology" should perhaps be moderated. Probability, statistics, fault and event trees have been around for a long time. There is no doubt that laying out the reactor accident sequences was a formidable task and praised by most reviewers. But laudable application of a method is not the same as considerable advancement of the method.
  
- (S-4) Page 5 -- 4th thru 10th lines -- Does "application of the RSS methods" mean that all of them -- even the ones found wrong or misapplied by the RARG -- are included in the "valuable supplement" phrase? This whole paragraph, especially with "encouraged" and "emphasis" and "rigorous" as key words, leaves the Commission and the Staff open for charges of not providing sufficient internal control to locate and isolate the RSS methods that are now found wanting.
  
- (S-5) Page 6 -- 1st and 2nd lines -- Admission of instances of misuse should be accompanied by reference, perhaps, of the specific findings of the recent review of use of WASH-1400 in-house. Having opened the issue, the draft statement cannot leave its resolution to a passing reference such as "... it is now generally agreed that the range of uncertainty associated with RSS risk estimates is far greater than that presented in the RSS."
  
- (S-6) Page 6 -- 13th and 14th lines -- From what sources can one expect to obtain a "range of estimates" that pertain to a particular risk estimate's characterization? There are many ways to go about answering this question, but understanding of options goes along with the listing of the results.
  
- (S-7) Page 5 -- 18th line -- To declare "no [our emphasis] undue reliance" seems too strong, given the results of the recent survey.

- (S-8) Page 7 -- 1st line -- The only way to "minimize the potential" is to never use the RSS. Surely that is not the intention of the Commission or Staff. The important issue is: How is misuse of WASH-1400 to be controlled?
- (S-9) Page 7 - 10th thru 14th lines -- It remains unclear just how future requests for individual copies of the Executive Summary will be treated.
- (S-10) Page 7 - 18th thru 22nd lines -- Management of this "second round" requirement could be quite complex. Among the worries: What happens if the second round review and comments leaves issues unresolved? Who determines which reports have potential to affect policy?
- (S-11) Page 8 -- 4th line -- The problem of WASH-1400's inscrutability permeated the RARG report. Is that problem included in "the many technical issues and deficiencies" list? Or is another sort of initiative expected, one aimed at clarity and careful exposition?
- (S-12) Page 8 -- 9th thru 13th lines -- This is good advice for environmental statements -- as long as RSS is referred to in them. But, if WASH-1400 is deficient in estimating limitations and ranges of its own estimates, then it is not clear to us how an environmental statement can reflect this shortfall or correct for it. Furthermore, singling out environmental statements for this treatment falls short of the NRC taking into cognizance these difficult issues in other areas of activity.
- (S-13) Page 8 -- 15th thru 17th lines -- "... care will have to be taken ..." is a very weak statement and applies to any methodology. In particular, this statement could have been written before the RARG report and does not reflect any of the findings and recommendations made in the RARG report about certain applications of the techniques carried out in the RSS.

  
Lee R. Abramson

  
David Rubinstein

  
Roger H. Moore

Attachments:  
As stated





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

Annotated by RHM:12/9/78

DEC 08 1978

MEMORANDUM FOR: Lee V. Gossick  
Executive Director for Operations

FROM: Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

SUBJECT: NRC STATEMENT ON RISK ASSESSMENT AND THE REACTOR  
SAFETY STUDY REPORT (WASH-1400) IN LIGHT OF THE  
RISK ASSESSMENT REVIEW GROUP REPORT

Enclosed is a revised draft of the statement on Commission views and actions in response to the Risk Assessment Review Group's report. NRR has had discussions with SD, NMSS, IE, RES, as well as with the EDO staff and OPE.

This version was prepared with the intent that the NRC should respond in a positive and constructive way to the recommendations of the Risk Assessment Review Group. We have been careful to avoid overreaction to isolated statements in the Risk Assessment Review Group report and have tried to present a clear, balanced view. The proposed statement is concurred in by NRR, SD, RES, and NMSS.

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There are two points which are not explicitly dealt with in the statement. First, you should realize that there has been a range of views on the RSS among the Offices. Some staff members have continued to be very critical of the RSS while others have found the benefits of the RSS to greatly outweigh its technical flaws. These views have no doubt shaped the various uses (or lack of use) of the RSS. More importantly, they have shaped the various views on the significance of the Review Group report to the licensing process. The proposed statement deals with the issues raised in the Review Group report but does not attempt to characterize the range of individual views on the RSS and its use. A draft report on the staff's survey of the use of the RSS is being transmitted separately and will aid in your review of the proposed statement. A simple chronology of the history of the RSS is also enclosed to assist in that review.

[ puts down  
many RAR  
points

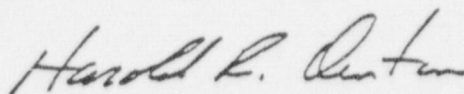
Second, the previous draft called for a plan for systematically guiding future applications of the RSS methodology. While several groups have called for such a plan, it was concluded that this need

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not be part of a statement on the RSS. The revised draft encourages" the use of the RSS methodology and notes that additional guidelines will be developed but does not call for a specific action plan.

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While it was concluded that the above items should not be included in the NRC statement, we will be prepared to discuss them at the upcoming Commission meeting.



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Chronology on the RSS
2. Draft Statement on Risk Assessment/  
Lewis Committee Report



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Enclosure 1

CHRONOLOGY

1. December 4, 1970 Letter, Commissioner Larson to Senator Gravel, noted that AEC plans to have a study made and report prepared to cover area covered by WASH-740.
2. March 26, 1971 SECY R-199 provided possible approaches on study of nuclear risks and benefits.
3. June 2, 1971 Regulatory Information Meeting No. 482, proposed study of nuclear risks and benefits requested by Commission. Relationship of proposed study to Price-Anderson Act emphasized.
4. April 5, 1972 SECY R-432 Policy Paper on MIT proposal for study of risks due to accidents in nuclear power reactors (intended to be separate from but coordinated with a companion study in RDT of all other risks/benefits of electrical energy process).
5. August 4, 1972 Reactor Safety Study (RSS) initiated.
6. August 20, 1974 Draft RSS (WASH-1400) distributed for comments.
7. August 23, 1974 AEC Interim General Statement of Policy released, 39FR30964 (cf. SECY-R-75-62)
8. September 1974 AEC Regulatory staff review group formed to review draft RSS.
9. December 3, 1974 Initial report of Regulatory staff review of draft RSS (cf. SECY-R-75-133).
10. January 19, 1975 NRC formed, RSS study group assigned to RES. Responsibility for RSS effort transferred from AEC to NRC.
11. March 4, 1975 Commission briefing on WASH-1400 draft and comments (cf. SECY 75-51)
12. April 28, 1975 Report to the American Physical Society by the Study Group on Light Water Reactor Safety.
13. May 30, 1975 Detailed Regulatory staff comments on draft RSS.

14. October 30, 1975 Final RSS (WASH-1400) issued (Press release No. 75-259 included Chairman Anders' statement on RSS).
15. November 15, 1975 Preliminary Review of WASH-1400 (Final) by NRC staff/consultant review group.
16. June 11, 1976 Udall Subcommittee oversight hearing on continuing criticism of RSS.
17. February 7, 1977 Udall Subcommittee observations on the RSS.
18. March 2, 1977 Memo Gossick to Commissioner Kennedy regarding staff position on application of the RSS to the licensing process.
19. March 14, 1977 Udall requests formation of a review group to prepare new Executive Summary for RSS.
20. April 4, 1977 Chairman Rowden commits to form review group with different charter.
21. May 13, 1977 Memo Chilk to Gossick on Commission's desires for use of risk assessment methods in licensing practices.
22. July 1, 1977 Risk Assessment Review Group (Lewis Committee) formed.
23. September 7, 1978 Risk Assessment Review Group Report (NUREG/CR-0400) published.



DEC 0 8 1978

NRC STATEMENT ON RISK ASSESSMENT  
AND THE REACTOR SAFETY STUDY

Protection of the public health and safety is a paramount objective of the Nuclear Regulatory Commission in regulating the design, construction and operation of nuclear power plants. The operation of nuclear power plants can never be completely risk-free. The safety objective of the NRC has always been to assure that the risk from normal operation and accidents is maintained at an acceptably low level and to assure that the likelihood of accidents more severe than those considered in the design is extremely small.

This safety objective has not been set forth in numerical terms in the Commission's regulations, largely because it has not been possible to make quantitative estimates of the risks to the public from nuclear power plants with sufficient precision to be useful as licensing criteria.

The Reactor Safety Study (RSS) was an attempt to use the emerging disciplines of risk analysis and decision analysis to develop quantitative estimates of the risks of nuclear reactor accidents. At the time the study was initiated, it was recognized that the study might not be successful in reaching this goal and that further research and development might be necessary before quantitative estimates of risk could be developed with sufficient precision to be useful for licensing purposes. (S-1)

In August 1974, the report on the Reactor Safety Study was issued in draft form for public comment. In commenting on that draft, the Atomic Energy Commission stated that the study, when completed, would be the subject of a thorough evaluation "...with respect to both the basic question whether the risks portrayed by the study are acceptable from the standpoint of the Commission's statutory responsibility to protect the health and safety of the public, and the related question whether any changes in the Commission's safety or environmental regulations are warranted."<sup>1/</sup> In this statement, the AEC also set forth an interim position that "...the contents of the draft study are not an appropriate basis for licensing decisions."

Many individuals and groups reviewed the draft RSS and provided comments. In addition to the request for public comments, the AEC requested members of the regulatory staff not previously assigned to the study to perform a review of the draft study. The comments of the AEC regulatory staff and others pointed out deficiencies in the RSS.

In October 1975, the final report of the Reactor Safety Study was issued (WASH-1400/NUREG 74-014). Although the final report included responses to comments received on the draft report, critics of the final report maintained that the study still contained serious flaws and pointed out that many adverse comments on the draft were not suitably taken into account. In particular, comments were made that the Executive Summary of

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<sup>1/</sup> 39 FR 30964, "Interim General Statement of Policy," August 23, 1974.



the Reactor Safety Study was presented in a manner which created a misleading impression of the certainty and comprehensiveness of the study's conclusions.

These concerns were considered in connection with a Congressional review of the study. Following publication of the results of this review and an exchange of correspondence between the NRC and Congressman Morris K. Udall, the NRC formed an independent group to further consider this matter. The Commission established the following charter for the Review Group:

"The Review Group will provide advice and information to the Commission regarding the final report of the Reactor Safety Study, WASH-1400, and the peer comments on the Study, advice and recommendations on developments in the field of risk assessment methodology and on future courses of action which should be taken to improve this methodology and its application. This advice and information will assist the Commission in establishing policy regarding the use of risk assessment in the regulatory process, in improving the base for the use of such assessments. It will also clarify the achievements and limitations of the Reactor Safety Study."

The Review Group presented its findings and recommendations to the Commission on September 7, 1978 and its report was issued as an NRC document NUREG/CR-0400. In general, the Commission agrees with the findings and recommendations of the Review Group.

The Review Group endorsed the methodology of the Reactor Safety Study and greater use of risk assessment in the regulatory process. However, they also agreed with the critical views of others that the final report on the (T-1)

Reactor Safety Study suffers from a number of technical deficiencies and that the final report did not respond adequately to the peer comments on the draft. In view of the Review Group's comments, the Commission has recently requested a review of past Commission and staff uses of the RSS.

(T-2)

The review has shown that there has been limited use of such assessments by the NRC staff in the past. There is a lack of explicit requirements or guidelines for the use of probabilistic assessments, and particularly probabilistic risk assessments similar to those of the Reactor Safety Study. However, as analytical techniques for carrying out such assessments have become more accepted and as more operating experience, with its associated data, has become available, there has been increased use of probabilistic assessments. The Reactor Safety Study contributed much to familiarizing the technical staff with the use of these assessments and made considerable advances in risk assessment methodology.

(S-2)

(S-3)

Probabilistic techniques were in use by the staff before publication of the RSS as support for some of the judgments reached in the reactor licensing process. Their use has ranged from the simple semi-quantitative arguments in support of a judgment that plant operation can continue for a limited time pending implementation of a needed modification, to quantitative fault tree/event tree analyses to help determine the need for and nature of additional licensing requirements (e.g., as in consideration of protection against anticipated transients without scram). The primary result of the staff's application of the RSS in the licensing process has



been the imposition of additional requirements for protection against those accidents identified in the RSS as major contributors to risk, rather than reductions in existing requirements.

Since the issuance of the final RSS report the Commission has also viewed application of the RSS methods as a valuable supplement to present licensing practice, and has encouraged the staff to use those methods in this fashion in making recommendations on important safety issues before the Commission. As an example, emphasis has been given to the use of risk assessment in providing a means for more rigorous characterization of current value-impact analyses.

(S-4)

The Commission believes that uses of the RSS such as described above are consistent with the statement of the Review Group that the fault tree/event tree methodology used in the RSS "should be among the principal means used to deal with generic safety issues, to formulate new regulatory requirements, to assess and revalidate existing regulatory requirements, and to evaluate new designs." The Commission concludes that the staff should continue to utilize fault tree and event tree analyses to aid in reviews of various safety issues. The Commission also will continue to support improvements and extensions of risk assessment theory, methods, data development and statistical analyses to promote their proper and effective use by the NRC staff.

However, the record of past uses of the RSS by the staff and Commission is not entirely favorable. The Review Group noted that there have been

instances when the RSS was misused as a vehicle to judge the acceptability of reactor risks. The Commission's review confirms this finding. Some Commission and staff statements have cited results from the RSS, particularly those in the Executive Summary, without identifying the uncertainties associated with the results as presented in the RSS itself. Moreover, as reflected in the report of the Review Group, it is now generally agreed that the range of uncertainty associated with the RSS risk estimates is far greater than that presented in the RSS. (S-5) (T-5) (T-4)

The Commission believes that while the Reactor Safety Study concludes that reactor accident risks are very low, the range of uncertainty in these estimates does not permit an unqualified conclusion that they are clearly lower than other natural or man-caused risks. The existing assessments of risk are sufficiently uncertain that it is better to characterize the RSS results in terms of a range of estimates and make any comparisons of risk based on that range. Such use would provide an added perspective on accident risks not otherwise available. (T-4) (S-6)

In sum, the results of the Commission's review of past uses of the RSS indicate that there has been limited application of and no undue reliance on the RSS in licensing decisions. There have been a number of statements by the Commission and the staff whose language was not properly qualified. To some extent such statements may have created a misleading impression of the comprehensiveness and certainty of the Reactor Safety Study results. The Commission has instructed the staff to develop whatever guidelines (S-7) (T-3)



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may be determined necessary to minimize the potential for uncritical use (S-8)  
of the RSS in the future.

In addition to the general observations discussed above, the Review Group made a number of specific findings and recommendations dealing with various parts of the Reactor Safety Study and the use of risk assessment methodology. The Commission generally agrees with these findings and recommendations and will take them into account in its future actions. In addition, the Commission has determined that the following specific actions are appropriate:

- (1) Copies of the Risk Assessment Review Group Report (NUREG/CR-0400) (T-5)  
and of this statement will be sent to all known recipients of the  
RSS and the Executive Summary. Copies of the RSS, including the (S-9)  
Executive Summary bound with the main report, will be accompanied  
by copies of the Review Group's report and this statement.
- (2) The Commission will review the staff's current practices and procedures for peer review of significant staff reports to identify any needed improvements.
- (3) Major NRC reports which may have the potential to affect policy, (S-10)  
such as the RSS, and which receive extensive criticism or require  
substantive changes when issued for comments, should be recirculated for a second round review and comment before being issued as a final report.

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(4) The Commission is giving support to ongoing work aimed at upgrading the use of risk assessment methodology in the regulatory process. Follow-on studies to the RSS will address the many technical issues and deficiencies raised by the Review Group. (S-11)

Reports on these studies will indicate the full range of uncertainties associated with the studies and acknowledge existing criticism and these uncertainties and criticisms will also be discussed in any Executive Summaries.

(5) The staff's environmental statements on LWR applications contain a discussion of accident risks and include reference to the RSS. All new or revised LWR environmental statements will, in their discussion of the RSS, also discuss the limitations or range of uncertainty associated with the RSS results. (S-12)

The RSS should be seen as one step, already accomplished, in the continuing development of risk assessment methodology. While the RSS has developed risk assessment methods of considerable utility to the regulatory process, care will have to be taken in any use of these quantitative risk techniques. To keep the Congress and public informed, the Commission will publish the results of the efforts described above, including the programs to promote and insure more effective and careful use of the RSS methodology. (S-13)





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

*T. Lehman*  
Enclosure 3

December 12, 1978

MEMORANDUM FOR: Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

FROM: William J. Dircks, Acting Director  
Office of Nuclear Material Safety and Safeguards

SUBJECT: NRC STATEMENT ON RISK ASSESSMENT AND THE REACTOR SAFETY  
STUDY REPORT (WASH-1400) IN LIGHT OF THE RISK ASSESSMENT  
REVIEW GROUP REPORT

We appreciate the opportunity to review the draft statement on Commission views and actions in response to the Risk Assessment Review Group's report. We find that this matter is mainly related to reactor licensing and has relatively little relevance to NMSS activities, with the possible exception of item 3 noted below. Therefore, our participation in this effort has been somewhat limited and the following comments are offered as clarifications:

1. On page 1, the statement that "The operation of nuclear plants can never be completely risk-free." is true; however, we believe that the same statement applies to all power plants and is not peculiar to nuclear units and that the statement should be re-phrased accordingly.
2. The discussion on page 2 spans the period from August 1974 to October 1975 and covers actions by the AEC and its successor, the NRC, without differentiating between the two organizations. It is believed that a simple change could be made to indicate that the AEC issued the draft report in August 1974, and the final report in October 1975 was issued by NRC.
3. The NMSS staff agrees with the five Commission actions with the exception that we believe that item 3 should be modified to address draft reports which receive extensive criticism and also "require substantive changes" at the comment stage.

4. From an editorial standpoint, the statement is presently eight pages in length without any break. For ease and style it might be helpful to provide the following or similar subheadings for portions of the report. The first three pages could be called "Background" or "Introduction"; pages 4, 5 and 6 "Present Status" or "Present Situation"; and pages 7 and 8 "Commission Actions."

This memorandum confirms telephone comments provided by Homer Lowenberg of NMSS to Ed Case on December 8. NMSS has reviewed the document from the standpoint of its impact on NMSS programs. Its relevance to our programs is minor. With the exception of the issue identified in item 3, we have no objection to the document.



William J. Dircks, Acting Director  
Office of Nuclear Material Safety  
and Safeguards

cc: E. G. Case  
D. F. Bunch