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MEMORANDUM FOR: R. Boyd, Director, Division of Project Management
R. Heineman, Director, Division of Systems Safety
V. Stello, Director, Division of Operating Reactors
H. Denton, Director, Division of Site Safety and
Environmental Analysis

FROM: Ben C. Rusche, Director, Office of Nuclear Reactor
Regulation

SUBJECT: REVISED PROCEDURE FOR DOCUMENTATION OF DEVIATIONS
FROM THE STANDARD REVIEW PLAN

NRR Office Letter No. 2, issued on August 12, 1975, directed the staff to use the Standard Review Plan to assure consistent evaluation of all applications. It also directed that, except for clarification and correction of errors, the Standard Review Plan would remain fixed until any proposed change of substance was considered by the Division Directors, reviewed by the Regulatory Requirements Review Committee, and then authorized by the Director, NRR.

NRR Office Letter No. 9, issued on June 18, 1976, addressed the special problem associated with implementation of Office Letter No. 2 in operating license reviews when the construction permit reviews were not conducted on the basis of the Standard Review Plan guidelines. It noted the necessity to document decisions made on bases other than those defined in the Standard Review Plan and, of equal importance, the reasons for the acceptability of such bases. It then directed the staff to develop, for my approval, procedures for documenting the bases for deviations from the Standard Review Plan in each operating license Safety Evaluation, and to implement those procedures for all operating license Safety Evaluation Reports issued after January 1, 1977. My memorandum of September 20, 1976, approved an implementing procedure recommended to me by the NRR Division Directors. This procedure addressed both operating license and construction permit applications.

The experience gained in attempting to use the implementing procedure for operating license reviews nearing completion has shown that, contrary to our expectation at the time the procedure was developed, the staff is unable at this time to conform to the requirements of the implementing procedure without incurring a substantial delay in

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completing the reviews for these applications. While there is no concern as to the safety level established by the staff review, the fact remains that a significant effort would be required at this time for the staff to identify, for an ongoing operating license review, all deviations from the acceptance criteria set forth in the Standard Review Plan and to document the bases for the acceptability of these deviations. The Division Directors have now recommended that I withdraw the directive set forth in my memorandum of September 20, 1976, and in its stead issue a superseding directive establishing an alternate program that would:

- (1) Require the staff to assess the Standard Review Plan, determine any changes needed to assure that all requirements therein are realistic and practical of achievement, and initiate the actions needed to implement those changes in accordance with the policy established in NRR Office Letter No. 2.
- (2) Require the staff to implement the policy established in NRR Office Letter No. 9 for all construction permit applications docketed after September 1, 1976.
- (3) Require the staff to implement the policy established in NRR Office Letter No. 9 for all operating license applications docketed after January 1, 1977.

The Division Directors have indicated that approval of the proposed alternate program would permit the staff to conduct its review of operating license applications, almost from the start of such reviews, with the knowledge that conformance to Office Letter No. 9 would be a requisite for licensing. Such timely knowledge should limit the impact of this requirement on the schedule for completion of the staff review. I have also been informed that if the alternate program is approved, then four operating license applications that would have otherwise been required to conform to Office Letter No. 9 will not be required to so conform.

I have decided to approve the recommended alternate program. This approval is based on (1) the conviction that the singular issue is one of documentation and not safety, (2) the knowledge that the alternate program will permit a limited number of operating license applications (four) to be added to the number reviewed without the need to completely conform to the procedure, and (3) the staff itself

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is not prepared to implement the procedure in a timely manner for the four applications involved. Accordingly, my memorandum of September 20, 1976, is withdrawn and is superseded in its entirety by this memorandum. In essence, the procedure for documentation (Enclosure 1) remains unchanged for construction permit reviews but modified so that only limited participation will be required of licensees involved in operating license reviews, and the implementation program (Enclosure 2) has been modified so that the appropriate Safety Evaluation Reports, including those associated with operating license, construction permit, and design approval applications, will document deviations from the Standard Review Plan and the bases for the acceptance of such deviation.

Original Signed by
Ben C. Rusche

Ben C. Rusche, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Procedure for Documentation of Deviations from the Standard Review Plan
2. Implementation Program

cc w/enclosures:
NRR Technical Personnel

OFFICE →	PM:DD	NRR	NRR			
PERSONNEL →	RCDeYoung:sjh	EGCase	BCRusche			
DATE →	1/27/77	1/ / 177	1/ / 177			

ENCLOSURE 1

PROCEDURE FOR DOCUMENTATION

OF DEVIATIONS FROM THE STANDARD REVIEW PLAN

Introduction

The staff review of nuclear plant designs described in Safety Analysis Reports is performed within the guidelines established by the Standard Review Plan (NUREG-75/087), issued in September 1975, and as since amended. Use of the acceptance criteria of the Standard Review Plan as a measure of the acceptability of plant design features assures both a consistent evaluation of proposed plant designs and an acceptable level of safety for all plants licensed. The Standard Review Plan also describes and documents the acceptability of specific design approaches to satisfy certain of the acceptance criteria. We recognize, however, that alternate design approaches may satisfy these acceptance criteria equally well. Further, we recognize that, with proper justification, applicants may be able to demonstrate that particular provisions of the acceptance criteria need not be met at all.

Currently, significant difficulties arise when the Standard Review Plan is used during the operating license review of a plant design. These difficulties stem from the fact that the plant design at its construction permit stage of licensing was reviewed and approved against different guidelines due to the lack of the Standard Review Plan at that earlier stage of review; some future reviews will encounter the same difficulties due to the same reason or to changes to the Standard Review Plan that have occurred during the intervening period. In either event,

deviations will exist in the plant design relative to the then current Standard Review Plan, and the staff is or will be faced with licensing decisions regarding the acceptability of the design described in the Final Safety Analysis Report.

In the past, applicants have expended considerable efforts justifying, and the staff has spent considerable time evaluating, particular plant design features to assure an acceptable level of safety. Often these efforts have not been properly documented to clearly indicate the bases for acceptability of the design. To improve the usefulness of our Safety Evaluation Reports as a record of such decisions and to minimize the need for future reassessments of operating plants to demonstrate adequate levels of safety relative to current criteria, it is desirable that the bases for such licensing decisions be clearly documented in the Safety Evaluation Reports that summarize the staff review of the Final Safety Analysis Report. To this end, any deviations from current Standard Review Plan acceptance criteria will need to be listed and justified in the staff's Safety Evaluation Report prior to completion of the operating license stage of review. Further, such deviations will also need to be listed and justified in the licensee's Final Safety Analysis Report for any facility reviewed to the requirements of the Standard Review Plan at the construction permit stage of review.

A problem of similar type but of much less magnitude may exist with respect to some construction permit and standard design applications and associated staff reviews. Since all new applications for construction

permits or for preliminary design approval of standard designs must address the information needs identified in Revision 2 to the Standard Format and Content of Safety Analysis Reports, deviations from the acceptance criteria of the Standard Review Plan are expected to be non-existent or minimized. However, alternate design approaches may be proposed by the applicant, and it is possible that deviations may arise during the course of the review. In any event, any deviations or alternate design approaches, whether initially proposed or developed during the course of the staff review, will need to be listed and justified in the Preliminary Safety Analysis Report and in the staff's Safety Evaluation Report prior to completion of this stage of review.

This document presents the procedures that should be followed (1) by applicants and (2) by staff reviewers and Licensing Project Managers to assure that adequate documentation of deviations and alternate approaches in plant designs relative to the Standard Review Plan is provided in Safety Analysis Reports and in Safety Evaluation Reports, respectively.

Definition of Deviation

For the purposes of this procedure, a deviation is defined as a lack of conformance of a plant design feature to one or more provisions of the acceptance criteria given in the Standard Review Plan. An alternate and acceptable design approach to satisfying the Standard Review Plan acceptance criteria is not considered to be a deviation, but the bases for acceptability must also be documented in the Safety Analysis Report and, as appropriate, in the Safety Evaluation Report.

Procedure For Construction Permit Applications

The procedure for documenting deviations from the Standard Review Plan for construction permit applications requires the applicant initially to identify the deviation and provide the bases for acceptability. This information should be included in the Safety Analysis Report and reviewed by the staff as a part of the normal review process. The results of the review should be described in the Safety Evaluation Report to provide clear documentation of all deviations, including the bases for acceptability. The same procedure should be followed for alternate design approaches. The procedure is based on the implicit assumption that a program will be established whereby plants licensed for operation will be maintained continuously up-to-date with regard to changes in licensing requirements (i.e., at the time a new staff position is developed, a decision regarding its applicability on a generic basis or on each plant, on a case-by-case basis, will also be made and implemented).

The specific steps in the procedure for a construction permit application are:

1. The applicant will identify and provide bases for all deviations from the acceptance criteria given in the Standard Review Plan. The information should be contained in those Safety Analysis Report sections that describe the systems, components, or structures in which the deviations exist. In addition, the applicant should provide in Chapter 1 a summary listing of the deviations and an identification of the sections in the Safety Analysis Report wherein the deviations are described and justified.

2. During the acceptance review of the Safety Analysis Report, the staff should determine that this information has been provided and should inform the applicant of any obvious deficiencies.
3. Following docketing of the Safety Analysis Report, the staff should perform a review of the deviations and their bases, identify other deviations that should be discussed in the Safety Analysis Report, and request additional information as necessary at the first round request for additional information (Q-1) stage of review.
4. At the second round request for additional information (Q-2) stage of review, the staff should inform the applicant of its positions on the deviations and their bases.
5. Following review of the applicant's response, draft Safety Evaluation Report inputs should be prepared that describe each deviation and the results of the staff review of the bases for their acceptability; the Safety Evaluation Report inputs should also include a general statement denoting acceptability of the applicant's design relative to the grouping of acceptance criteria given in the Standard Review Plan sections. The Safety Evaluation Report inputs should also include discussions of any alternate approaches to staff positions that have been adopted by the applicant and the bases for acceptability.

6. The Licensing Project Manager should include a section in the Safety Evaluation Report that notes that the review has been made using the Standard Review Plan criteria as of the application docket date, tabulates all deviations from those criteria, and identifies the location in the Safety Evaluation Report where the discussion may be found.

The procedural steps given above relate to future construction permit applications. Some slight modifications to these procedural steps will be made in order to implement the procedure for construction permit applications docketed after September 1, 1976, and currently in the licensing process.

Procedure For Operating License Applications

The procedure for documenting deviations from the Standard Review Plan for operating license applications docketed after January 1, 1977, and for which the construction permit review was conducted in accordance with the Standard Review Plan is to be identical to that described above for a new construction permit application. The following procedure shall be followed for other operating license applications docketed after January 1, 1977:

1. The staff should perform its review of the Safety Analysis Report so as to identify any deviations from the Standard Review Plan.
2. The Safety Evaluation Report inputs provided by the technical review groups should describe each deviation and the bases

established by the staff for its acceptability; the Safety Evaluation Report inputs should also include a general statement denoting acceptability of the applicant's design relative to the grouping of acceptance criteria given in the Standard Review Plan sections. The Safety Evaluation Report inputs should also include discussions of any alternate approaches to staff positions that have been adopted by the applicant and the bases for acceptability.

3. The assistance of the applicant should not be required with respect to identification of deviations from the Standard Review Plan. If specific acceptance criteria now in the Standard Review Plan were used for evaluating the application at the construction permit phase of review, even though the Standard Review Plan either did not exist as such at the time of that review, or was not used at that time, then applicable requests for information may be made of the applicant provided that the use of the specific acceptance criteria at that stage of review is documented in the record of the construction permit review and deviations from those criteria are identified by the staff during its operating license stage of review. In addition, for all other acceptance criteria used in the design of the facility, applicable requests for information may be made of the applicant to the extent needed to permit the staff to independently judge the current acceptability of the design which was based upon such criteria. In these latter instances, however, the applicant, while it may, should

not be required to justify its design by comparing it to an alternate design developed by the applicant utilizing the acceptance criteria currently in the Standard Review Plan.

4. The Licensing Project Manager should include a section in the Safety Evaluation Report that notes that the review has been made using the Standard Review Plan criteria as of the application docket date, tabulates all deviations from those criteria, and identifies the location in the Safety Evaluation Report where the discussion may be found.

As with the procedure for construction permit applications, specific steps will be taken to assure that the implementation will be consistent with the Commission's standardization and replication policies.

ENCLOSURE 2

IMPLEMENTATION PROGRAM

I. PLANT INVOLVEMENT

1. Plants Currently Under Review for Operating Licenses

Plants for which applications for an operating license have been docketed but for which we will not implement the policy established in Office Letter No. 9 are:

D. C. Cook 2	Arkansas 2
Salem 2	McGuire 1 & 2
Davis Besse 1	Fermi 2
North Anna 1 & 2	Zimmer 1
Farley 1 & 2	Hatch 2
Diablo Canyon 1 & 2	Shoreham 1
Sequoyah 1 & 2	Watts Bar 1 & 2
Three Mile Island 2	

2. Plants With Construction Permits and Which Will Apply for Operating Licenses

All plants with construction permits which were not reviewed in accordance with the Standard Review Plan and for which applications for operating licenses are to be docketed after January 1, 1977, will be included in those for which we will implement the policy established in Office Letter No. 9. Such plants are:

LaSalle 1 & 2	North Anna 3 & 4
San Onofre 2 & 3	Forked River 1
Summer 1	WPPSS 1
Hanford 2	Callaway 1 & 2
South Texas 1 & 2	Seabrook 1 & 2
Susquehanna 1 & 2	Millstone Point 3
Waterford 3	Beaver Valley 2
Braidwood 1 & 2	Palo Verde 1, 2 & 3
Byron 1 & 2	Nine Mile Point 2
Catawba 1 & 2	Limerick 1 & 2
Comanche Peak 1 & 2	Hope Creek 1 & 2
Midland 1 & 2	Surry 3 & 4
Grand Gulf 1 & 2	Vogtle 1 & 2
Bellefonte 1 & 2	Bailly 1
Clinton 1 & 2	

In addition, those plants listed in items 3.b. and 3.c. on page 2 of this enclosure should be included in this list as they are issued construction permits.

3. Plants Currently Under Review for Construction Permits

- a. The only plants for which applications for a construction permit were docketed after September 1, 1976, and for which we will implement the policy established in Office Letter No. 9 are:

New England 1 & 2

- b. Plants for which applications for a construction permit have been docketed, for which our review is complete, nearly complete, or significantly in process, and for which we will not implement Office Letter No. 9 are:

Harris 1, 2, 3 & 4	Pebble Springs 1 & 2
St. Lucie 2	Davis Besse 2 & 3
Perry 1 & 2	Koshkonong 1 & 2
River Bend 1 & 2	Jamesport 1 & 2
WPPSS-4	Hartsville 1 & 2
Pilgrim 2	Skagit 1 & 2
Atlantic 1 & 2	Clinch River 1
Wolf Creek 1	Ft. Calhoun 2
Cherokee 1, 2 & 3	Marble Hill 1 & 2
Perkins 1, 2 & 3	Greene County 1
Tyrone 1	Phipps Bend 1 & 2
Sterling 1	Black Fox 1 & 2
Montague 1 & 2	Yellow Creek 1 & 2
WPPSS 3 & 5	

- c. Plants for which applications for a construction permit have been docketed, for which a significant portion of our review has been completed, for which a long delay in the need for construction permits has occurred, for which the Safety Evaluation Report or a substantive update of that report is expected to be issued after January 1, 1978, but for which we will not implement the policy established in Office Letter No. 9 are:

Allens Creek 1 & 2	Barton 1 & 2
Montague 1 & 2	Greenwood 2 & 3
Douglas Point 1 & 2	

4. Future Construction Permit Applications

The policy established in Office Letter No. 9 will be implemented for all future construction permit applications. The applications currently listed to be tendered during 1977 include:

Erie 1 & 2	Sears Island 1 & 2
Sundesert 1 & 2	Central Iowa 1
Summit 1 & 2	San Joaquin 1, 2, 3 & 4
Carroll 1 & 2	

5. Construction Permit Applications Referencing Approved Standard Designs or Replicating Base Plants

The policy established in Office Letter No. 9 will be implemented only for those portions of the Preliminary Safety Analysis Report that require a de novo review in accordance with the Standardization Policy or the Replication Policy, as applicable.

6. Design Approval and Manufacturing License Applications

The policy established in Office Letter No. 9 will be implemented for all design approval and manufacturing license applications docketed after September 1, 1976. On this basis it is expected that the policy will be implemented for RESAR 414, GIBBSAR, and all later submitted applications.

II. IMPLEMENTATION METHODS

1. Construction Permit and Preliminary Design Approval Applications

New England 1 & 2, a replicate plant, will be the first construction permit plant to be subjected to this review. Although the application has been docketed, the review was not scheduled to begin until January 1977. We will discuss the Office Letter No. 9 requirements with the applicant as soon as practical and will formalize our information needs in a letter signed by the appropriate DPM Branch Chief. Until six months after the Standard Format is changed to require the needed information in the Safety Analysis Report, all subsequent construction permit and preliminary design approval applications will be handled in a similar manner. The discussions with the applicants will be held in as timely a manner as practical in order to provide the applicants with as much time as possible to respond to our needs.

2. Operating License and Final Design Approval Applications

In order to fully inform the first several applicants in this group of the basis of the requirements that we will impose upon them and to try to assuage their concerns as to the extent of the information we will require from them, we will arrange discussions with them as soon as practical. These will be arranged in the order of their docketing, which is expected to be Watts Bar 1 & 2, San Onofre 1 & 2, LaSalle 1 & 2, Summer 1, Hanford 2, Comanche Peak 1 & 2, Midland 1 & 2, and Grand Gulf 1 & 2. Our information needs will be formalized in a letter to the applicant. The letters will be signed by the appropriate DPM Branch Chief.

Modification of the Standard Format will require the needed information in the Final Safety Analysis Reports for plants having construction permits based on a review in accordance with the Standard Review Plan.

3. Conduct of Discussions

The discussions referred to in Sections II.1 and II.2 above are to be conducted by the DPM Assistant Director for Light Water Reactors.

4. Standard Format

The Office of Standards Development will be requested to modify the Standard Format to require the Safety Analysis Report to include the information needed to conform to the policy established in Office Letter No. 9.

5. Changes Required in the Standard Review Plan

The Directors of DPM, DSS, and DSE are to provide to the Director, NRR, by May 1, 1977, a list of items in the Standard Review Plan that should be modified to assure that all requirements therein are necessary, realistic, and practical of achievement. The Directors will at that time recommend a program to develop the required changes to the Standard Review Plan and obtain the necessary management approval for such changes.