

April 30, 1996

FOR: The Commissioners
 FROM: James M. Taylor /s/
 Executive Director for Operations
 SUBJECT: STANDARD REVIEW PLAN UPDATE AND DEVELOPMENT PROGRAM

- PURPOSE:
- SUMMARY:
- BACKGROUND:
- DISCUSSION:
- SCHEDULING:

PURPOSE:

To provide the Commission with information on the automation and update of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants - LWR Edition."

SUMMARY:

This paper informs the Commission of the completion of the Standard Review Plan Update and Development Program (SRP-UDP) and summarizes the accomplishments, status, and ongoing activities to maintain the SRP current.

BACKGROUND:

The Nuclear Regulatory Commission developed the Standard Review Plan (SRP) in 1975 to provide guidance to staff reviewers in performing safety reviews of applications to construct or operate nuclear power plants. In 1981, the staff revised the SRP and published it as NUREG-0800. Since 1981, there have been a number of significant changes in the regulation of the nuclear power industry. Consequently, an updated SRP for the review of future reactor applications was needed to reflect agency requirements and to accommodate future reactor designs.

In SECY-91-161, "Schedules for the Advanced Reactor Reviews and Regulatory Guidance Revisions," May 31, 1991, the staff discussed in part the revision effort for the SRP. The staff committed to produce supplements to the 1981 SRP in parallel with the reviews of current and future reactor designs. This would result in an updated SRP that incorporates information from the advanced reactor reviews. The staff also committed to fully automate the SRP to simplify maintenance and future revisions.

In a memorandum of November 18, 1991, the Chairman was requested to approve a commercial contract to provide technical assistance in updating the SRP. In his reply of December 13, 1991, the Chairman approved the use of a contractor and also stated his concern that the SRP had been allowed to become "outmoded." In this regard, the Chairman stated, "The staff should ensure that when this project is completed in FY 1997, adequate agency resources and procedures are in place to review and revise the SRP as needed at least annually." In response to the Chairman's direction, the Office of Nuclear Reactor Regulation (NRR) established the SRP-UDP to update NUREG-0800 for use in reviewing future reactor design applications and to incorporate changes in the regulation of the nuclear power industry that have occurred since the 1981 revision of the SRP.

The SRP-UDP had the following specific goals: (1) identify established staff positions and new regulatory requirements from a review of generic regulatory documents issued since the last SRP revision and from a review of NRR staff safety evaluation reports for evolutionary light water reactor designs, (2) prepare a side-by-side comparison of the SRP-cited version of codes and standards against the current version of the codes and standards, (3) prepare draft revisions of the current SRP sections to incorporate the changes recommended, (4) prepare new draft SRP sections that are supported by established staff positions or are fully addressed in the evolutionary design reviews, (5) automate the SRP to make future revisions and accessibility easier to accomplish, and (6) maintain the program database to reflect new staff positions and requirements.

The scope of the SRP-UDP was the revision of all sections of NUREG-0800 except for Chapter 7, which is being revised by the NRR Instrumentation and Controls Branch under a separate program. A new SRP chapter on the regulatory applications of probabilistic risk assessment is also being developed under a separate program. Each of these programs plans to publish a draft SRP for public comment in December 1996.

In SECY-93-008, "Standard Review Plan Update and Development Program (SRP-UDP)," January 21, 1993, the staff informed the Commission of the establishment of an "interim SRP" that could be used in the review of future reactor designs, and a redirection of the project goals to reflect NRR priorities and schedules related to advanced reactor certification reviews.

DISCUSSION:

The SRP-UDP has been completed and all program goals have been achieved:

- A full-relational database (the modification database) that allows the staff to retrieve SRP information and maintain the data up to date was developed and has been installed on the NRR AUTOS LAN.
- A text retrieval system with full-text search capability of generic regulatory documents has been installed on the NRR AUTOS LAN.
- Information from generic regulatory documents applicable to the SRP was identified and loaded into the modification database. This information constitutes the essential source data for revising the SRP.
- A list of the industry consensus codes and standards found in regulatory documents was compiled and published as NUREG/CR-5973. The list will be updated periodically as needed.
- The procedures to be used by the contractor and NRC staff to ensure a consistent approach and methodology in revising and developing SRP sections were developed. These procedures are compiled in NUREG-1447, "Standard Review Plan Update and Development Program Implementing Procedures Document."

- Side-by-side comparisons were made of selected industry codes and standards in support of the SRP-UDP that provide a comparison of the SRP-cited standard against the latest version of the standard in order to make a recommendation for updating the SRP citation to the newer version. The comparisons were published as NUREG\CR-6382, -6385, and -6386.
- Applicable information from the design certification reviews of the Advanced Boiling Water Reactor (ABWR) and ABB-CE System 80+ (CE80+) evolutionary designs was identified and incorporated into the updated SRP.
- The SRP, NUREG-0800, was revised to reflect current regulatory requirements and staff positions. Each change to the SRP text is fully documented to give the basis for the change.
- Both the current and updated SRP were transferred into electronic medium and were installed on the NRR AUTOS LAN for use by the NRR staff. The documents are fully searchable with direct links to referenced regulatory documents. (Referenced regulatory documents that are available electronically and have been reviewed for accuracy are directly retrievable from the SRP.)
- A maintenance program was implemented to ensure the SRP is kept current on an annual basis.

The updated SRP does not, by itself, establish new or revised requirements; it simply compiles and documents requirements and staff positions that have already been established elsewhere. The revisions were derived from three programmatic areas: (1) NRC regulatory documents issued since the previous SRP revision, (2) industry consensus codes and standards applicable to the SRP sections, and (3) staff positions related to the reviews of evolutionary plant designs as presented in SECY-90-016, SECY-93-087, and the design certification safety evaluation reports for the ABWR and CE80+ designs. The updated SRP sections have been delivered to the NRR technical staff and are currently under review. In parallel with the staff review, the updated SRP will be issued to solicit public review and comment on the manner in which the requirements and staff positions from these three areas have been incorporated.

The revised text is to a large extent the work of contractors and its acceptance is contingent on full NRC staff review and concurrence. Further staff review and evaluation, including resolution of public comments, will be needed before a final revision to NUREG-0800 can be published. The updated SRP represents the best effort to capture existing regulations and staff positions in the text of the SRP. All source documents that form the bases for the changes are referenced. By reviewing the source documents, the public can arrive at an independent conclusion as to the accuracy and adequacy of the revised SRP text.

Since the document has not received the benefit of a completed technical staff review and concurrence, it is considered a "work in progress" that may be revised as a result of staff review. Public comment solicited in parallel with staff review minimizes review time and provides early public and industry input. A significant number of the proposed revisions to the SRP are based on staff positions developed during the design certification review of evolutionary plants and presented in the safety evaluation reports for the ABWR and CE80+. Final rulemaking for design certification may result in changes to these staff positions. The final revision to NUREG-0800 will reflect the staff positions that result from design certification rulemaking.

With completion of the SRP-UDP, future activities will concentrate on maintenance of the supporting databases, development of new SRP sections, and revision of SRP sections to ensure that the SRP is maintained current with new regulations and staff positions as they are resolved.

SCHEDULING:

The updated SRP will be issued for public comment in the second quarter of Calendar Year 1996. Because of the length of the document, there will necessarily be an extended public comment period. Technical staff review is ongoing on a resource-available basis. On completion of staff review and concurrence and resolution of public comments, a final revision to NUREG-0800 will be published.

James M. Taylor
Executive Director for Operations

CONTACT: A. Masciantonio, NRR
415-1290