



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 4, 1997

Mr. Brian A. McIntyre, Manager
Advanced Plant Safety & Licensing
Westinghouse Electric Corporation
Energy Systems Business Unit
P.O. Box 355
Pittsburgh, PA 15230

SUBJECT: AP600 REVIEW SCHEDULE

Dear Mr. McIntyre:

Your letter dated September 26, 1997, provided comments on the draft AP600 schedule dated September 18, 1997. As you noted in your letter, the schedule represented a six-week improvement over that which was provided during the September 10, 1997, meeting. The improvement was accomplished by incorporating the time allocated for the Office of the General Counsel (OGC) review and the final safety evaluation report (FSER) revisions necessary to address OGC comments into the three month period PDST allocated for preparation of the FSER.

The staff remains committed to completing the AP600 review with the resources currently available. However, as stated in the past, emerging higher priority work may result in delays in a particular area. The Office of Nuclear Reactor Regulation will attempt, to the extent possible, to minimize these delays. However, your cooperation is needed to quickly respond to the remaining requests for information from the staff and to ensure that the outstanding issues are resolved at the latest by the end of January 1998. This is the best way to ensure the schedule is met. Scheduler improvement can only be achieved with earlier resolution of the open issues. Responses to your specific comments on the proposed schedule are given below:

Westinghouse Comment Number 1: "The duration from "Issue FSER to Commission/Advisory Committee for Reactor Safeguards (ACRS)" to "Issue FSER" and Issue FDA" has increased nearly 2 months relative to that in SECY-97-051. The associated activities need to be reexamined with the objective of shortening their durations. The activities are on the critical path."

The Office of Nuclear Regulatory Commission (NRC) Response: Your observation is correct. As discussed during the October 9, 1997 meeting, the ACRS is not scheduled to meet in August 1998. However, the ACRS has examined ways to optimize its schedule, and has indicated that it can optimize its review provided the Advanced FSER is provided to them by May 1, 1998. The staff has informed the Committee that it is the staff's intention to close all of the open items before it issues the Advanced FSER. Issuance of the Advanced FSER with open items could jeopardize the improvements to the review schedule that

9711180321 971104
PDR ADOCK 05200003
A PDR

100053



NRC FILE CENTER COPY

DF03/D

November 4, 1997

this approach would provide. The staff recognizes that these activities are on the critical path and plans to take steps (modify the FSER in anticipation of ACRS comments during the ACRS review phase) to minimize the schedule impact.

Westinghouse Comment Number 2: "The logic tie between "Westinghouse submits standard safety analysis report (SSAR) revisions" and "Westinghouse resolves open issues" and follow-on activities needs to be changed. Resolution of open issues is likely to result in some SSAR revisions, preceded by SSAR markups and acceptance by the NRC. All that would remain after this step is for NRC to confirm that the revised SSAR complies with the agreed upon markups. This could be completed anytime up to the point of PDST completing its preparation of the FSER."

NRC Response: The staff cannot complete its review until all documentation is received by Westinghouse. Westinghouse and the staff have used markups to expedite the agreement on technical resolutions; however, final documentation is necessary for full closure. The three months associated with PDST processing of the FSER involves review of the FSER sections for completeness and appropriate references, technical editing, technical staff and senior management review of the final assembled product, and, finally, review by the Office of the General Counsel. The addition of the verification of SSAR changes during this time period cannot be supported because the activities identified above will be occurring during that period.

Westinghouse Comment Number 3: "It is not clear why the activity "Staff technical review complete w/open issues" was extended to January 31, 1998. In the draft schedule of September 10, 1997, this activity ended on November 28, 1997. The only outlier that we are aware of is the inspection, test analysis, and acceptance criteria (ITAAC) review, which does extend through January, 1998. It would be preferable to handle the outlier separately. The other review areas should still be scheduled for completion by November 28, 1997, to avoid adding items to the critical path."

NRC Response: The November 28, 1997, date was established as the end date for the staff to provide FSER inputs. In order to maintain this date, the technical staff was instructed to complete the input regardless of whether all issues were resolved. Items where the review had not been completed because of lack of information from Westinghouse or where there was a disagreement between Westinghouse and the staff will be written as open items. Consequently, the November 28, 1997, date is not the review completion date. This milestone is intended to identify information for Westinghouse that the staff believes is absolutely necessary to finish the AP600 review. ITAAC is not the only outlier. There will be a number of open items to be resolved during the December 1997 through January 1998, period because of the staff's resolution approach. Furthermore, the ITAAC are an integral part of the design certification review and issues that arise in the ITAAC review may impact the conclusions reached by the staff in other parts of the safety review as well as require modifications to the SSAR. As a consequence, the ITAAC cannot be handled separately.

Westinghouse Comment Number 4: "We fully support scheduling the "Westinghouse resolves open issues" as starting on September 1, 1997. As agreed previously, the open issues will be identified and tracked separately to permit management of issue closure. Early identification of open issues and management focus on resolution of these issues may permit some improvement on the January 30, 1998, activity end date."

NRC Response: NRC agrees. The schedule will be changed to reflect this comment. However, it should be noted that NRC did not show open item resolution starting before the end of November because it was felt that it could be misinterpreted. Showing open issue resolution starting earlier could create the false impression that Westinghouse had far greater time to resolve those open issues that are identified by the NRC and sent to Westinghouse between September 1, 1997, and the end of November 1997.

Westinghouse Comment Number 5: "The Activity "PDST FSER preparation" can also be scheduled to start in September 1997. Some FSER inputs are complete already and most should be completed by November 28, 1997. This could potentially shorten the duration from the end of "Westinghouse resolved open issues" to the end of "PDST FSER preparation" from three months to six or seven weeks. The critical path would be shortened by the same amount."

NRC Response: It is NRC's intention to start the preparation of those sections of the FSER that are complete as time permits. However, the projects staff is currently involved in facilitating discussions necessary to resolve all the open issues with the goal to produce an FSER with few open items. Given the choice of early work on FSER preparation or resolution of open issues, NRC chose the latter for two reasons. First, it is far more beneficial to the AP600 review to close out all the open issues before the FSER inputs are written. Second, while FSER preparation could start on a number of sections, there are enough open issues in others to render efforts toward the early production of the FSER inefficient. Given limited staff resources, it is more efficient to resolve open issues.

Westinghouse Comment Number 6: "The net effect of these suggested changes can be an improvement of as much as three and one-half months on the "Issue Final FSER" and "Issue FDA" dates. Important intermediate dates would also be improved with the "Issue FSER to Commission/ACRS" occurring as much as one and one half months earlier."

NRC Response: The SECY-97-051 gave the following dates:

- | | |
|---|------|
| - Applicant Submits <u>Final</u> SSAR Revisions & Documentation | 5/97 |
| - FDA | 3/98 |

The current schedule projects issuance of the FDA in September 1998. This represents a slip in the schedule of approximately 6 months. Westinghouse has indicated that most of the information necessary to complete the AP600 review was submitted by mid-September 1997, so it believes that a more appropriate schedule slip should be about 3-1/2 months (May 1997 to mid-September 1997). The May 1997, date in SECY-97-051 was the cutoff for the last and final SSAR

November 4, 1997

revision. This last and final revision was to include changes to reflect the final resolution of all open issues. At that point, the staff was to start the final process of FSER development. It should be noted that in the current schedule, there are at least two SSAR submittals that have not been received. One of these the NRC expects to receive in the next month. In addition, staff identification of all of the open issues will not be complete until the staff completes its initial draft of the FSER (end of November 1997). The current schedule recognizes that the FSER inputs received by the end of November will include a larger number of open issues than allowed to initiate ACRS review. Two months, December 1997, and January 1998, were set aside to resolve the remaining open issues. These resolutions will require appropriate SSAR revisions and consequently, the final AP600 SSAR revision is scheduled to be submitted at the end of January 1998. The elapsed time from the end of January 1998, to the projected FDA in September 1998, is approximately 8 months. The comparable elapsed time identified in SECY-97-051 is 10 months. Therefore, the NRC has cut 2 months from the schedule. The staff does not believe that further schedule improvement can occur even assuming additional staff resources were available.

Finally, in establishing the schedule, the staff has made assumptions regarding the actions of external organizations outside its control, such as the ACRS and Westinghouse. These organizations could have a substantial impact on the schedule if the staff's assumptions are not met.

Sincerely,

original signed by:

Jack W. Roe, Acting Director
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket No. 52-003

cc: See next page

DISTRIBUTION:

See next page

DOCUMENT NAME: A:SCHEDLTR

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	PM:PDST:DRPM	(A)D:PDST:DRPM					
NAME	TRQuay	JWRoe					
DATE	11/4/97	11/15/97					

OFFICIAL RECORD COPY

Mr. Brian A. McIntyre
Westinghouse Electric Corporation

Docket No. 52-003
AP600

cc: Mr. Nicholas J. Liparulo, Manager
Nuclear Safety and Regulatory Analysis
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, PA 15230

Mr. Russ Bell
Senior Project Manager, Programs
Nuclear Energy Institute
1776 I Street, NW
Suite 300
Washington, DC 20006-3706

Ms. Cindy L. Haag
Advanced Plant Safety & Licensing
Westinghouse Electric Corporation
Energy Systems Business Unit
Box 355
Pittsburgh, PA 15230

Ms. Lynn Connor
Doc-Search Associates
Post Office Box 34
Cabin John, MD 20818

Mr. Sterling Franks
U.S. Department of Energy
NE-50
19901 Germantown Road
Germantown, MD 20874

Dr. Craig D. Sawyer, Manager
Advanced Reactor Programs
GE Nuclear Energy
175 Curtner Avenue, MC-754
San Jose, CA 95125
Idaho Falls, ID 83415

Mr. Frank A. Ross
U.S. Department of Energy, NE-42
Office of LWR Safety and Technology
19901 Germantown Road
Germantown, MD 20874

Mr. Robert H. Buchholz
GE Nuclear Energy
175 Curtner Avenue, MC-781
San Jose, CA 95125

Mr. Charles Thompson, Nuclear Engineer
AP600 Certification
NE-50
19901 Germantown Road
Germantown, MD 20874

Barton Z. Cowan, Esq.
Eckert Seamans Cherin & Mellott
600 Grant Street 42nd Floor
Pittsburgh, PA 15219

Mr. Ed Rodwell, Manager
PWR Design Certification
Electric Power Research Institute
3412 Hillview Avenue
Palo Alto, CA 94303

Mr. Brian A. McIntyre

- 5 -

DISTRIBUTION: Letter to Brian A. McIntyre, Dated: November 4, 1997

Docket File

PUBLIC

PDST R/F

JWRce

DMatthews

TRQuay

TKenyon

WHuffman

JSebrosky

DScaletti

JNWilson

JMoore, 0-15 B18

WDean, 0-5 E23

ACRS (11)