



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

COMMISSION
CORRESPONDENCE

April 30, 1981

The Honorable Tom Bevill, Chairman
Subcommittee on Energy and Water Development
Committee on Appropriations
United States House of Representatives
Washington, DC 20515



Dear Mr. Chairman:

This monthly status report is in response to the direction given in House Report 96-1093. Our sixth monthly status report is enclosed and covers the period from March 15, 1981 to April 15, 1981. This sixth report discusses the actions that were taken during the last month on operating reactors and licensing reviews of new facilities.

The Commission is presently considering changes in its regulations which would have the effect of reducing by at least two months the amount of time allocated for the Immediate Effectiveness Rule. These proposed changes will result in an 18-month reduction in the total amount of delay attributable to licensing. Except for Salem 2, the projected dates for issuing a licensing decision for all delayed plants in CY 1981 and early CY 1982 (Table 1) have been changed by two months each to reflect this proposed time-saving measure.

Due to the reexamination of the licensing schedules by the Atomic Safety and Licensing Boards, the projected dates for issuing an initial Licensing Board decision for McGuire, Susquehanna, and Summer have been advanced an additional three months each. The projected date for issuing an initial Licensing Board decision for Comanche Peak has been advanced an additional two months. These actions have resulted in an additional 11-month reduction in the total estimated delay attributable to licensing.

Estimates of the costs of delays have been obtained from the Department of Energy and are included as an attachment to the report. I should note that the DOE-estimated costs are based on the 102-month total delay from last month's report; the effect of the 29-month recovery projected in this report will appear in DOE's next cost estimate.

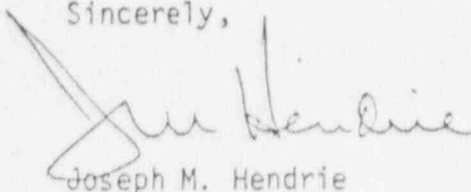
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The Honorable Tom Bevil

- 2 -

Commissioner Bradford notes that despite the Committee's directions in House Report 96-1093, no monthly report to date has included a meaningful discussion of the status of the "work necessary to incorporate the lessons learned from the Three Mile Island accident into the Commission's licensing and regulatory procedures...." He would have included a definitive status report on the TMI Action Plan items.

Sincerely,

A handwritten signature in dark ink, appearing to read "Joe Hendrie", with a large, sweeping initial "J".

Joseph M. Hendrie

Enclosure:
NRR Monthly Status
Report to Congress

cc: Rep. John Myers

NRC MONTHLY STATUS REPORT TO CONGRESS

This is the sixth monthly status report to Congress, in response to the direction given in House Report 96-1093. The fifth NRC monthly status report to Congress was transmitted by letter dated March 31, 1981, and covered the period from February 15, 1981 to March 15, 1981. This sixth report provides a brief discussion of the major actions that were taken on operating reactors and on licensing reviews of new facilities during the period of time between March 15, 1981 and April 15, 1981.

OPERATING REACTORS

1. Safety Concerns Associated with Pipe Breaks in the BWR Scram System

As a result of the staff's continuing review of the Browns Ferry 3 partial failure to scram event, the NRC's Office of Analysis and Evaluation of Operational Data issued a report entitled "Safety Concerns Associated with Pipe Breaks in the BWR Scram System" on April 3, 1981. The report describes a potential sequence of events resulting in a degraded core condition. The sequence is based on a postulated break in the BWR scram discharge piping during a reactor scram condition, concurrent with the inability to reclose the scram outlet valves. A number of recommendations were made in the report to remedy the potential concerns.

A letter was sent to all BWR licensees on April 10, 1981 requiring a generic evaluation of the safety concerns within 45 days and a plant specific evaluation within 120 days.

The staff will review these evaluations to determine whether and what appropriate corrective actions should be taken for operating BWR plants.

2. Environmental Qualification

The Commission, by Memorandum and Order dated May 23, 1980 (CLI-80-21) directed the staff to complete its review of environmental qualifications of safety-related equipment on operating plants, including the publication of Safety Evaluation Reports, by February 1, 1981.

During the review of licensee's submittals, the staff identified considerably more potential deficiencies than the licensees had identified. Consequently, a two-phase corrective program was initiated, which would provide plant specific safety evaluation reports (SERs) to all power reactor licensees. These SERs will specify the actions that they must perform to have all safety-related electrical equipment in the plants qualified for accident conditions by June 30, 1982. The first phase of the program required an overall finding by the licensee regarding continued safe operation of their facility in light of the preliminary results of the staff review. This effort was essentially completed during this report period. The second phase of the program is the issuance of the final safety evaluations. These SERs provide the staff's conclusions and requirements for an acceptable level of equipment qualification. The licensees are being required to either provide documentation of the missing qualification information or commit to a corrective action (requalification, replacement, relocation, etc.) consistent with the requirements to establish the qualification of all items by June 1982. If the latter option is chosen, the licensee must provide justification for operation until such corrective action is complete.

3. Clarification of TMI Action Plan Requirements (NUREG-0737)

On October 31, 1980 the staff issued to all licensees of operating power reactors and to applicants for operating licenses "Clarification of TMI Action Plan Requirements (NUREG-0737)" which incorporates into one document the TMI-related items approved by the Commission for implementation. The document included a staff-recommended schedule for each item.

All licensees and applicants have responded by providing their schedule for implementation of each item. Some licensees of operating reactor facilities indicated that there are cases where they expect that they will not be able to meet the specified dates; they have provided a revised schedule.

For those items which were scheduled to be implemented between January 1 and June 30, 1981, most of the operating facilities will complete all items on schedule. The staff is currently reviewing information to determine the acceptability of specific deviations and is issuing Orders to make these requirements enforceable. The Office of Inspection and Enforcement will verify that the requirements have been implemented in an acceptable manner. As part of the process to place new OL requirements into rule, the Commission is now considering modifying the items and schedules in NUREG-0737.

4. Fire Protection

The effective date of the new regulation for fire protection, 10 CFR 50.48 and Appendix R to 10 CFR 50, was February 17, 1981. Licensees of all plants licensed to operate prior to January 1, 1979 were required to submit plans and schedules for meeting Appendix R and design descriptions of modifications for alternative, safe shutdown capability by March 19, 1981. Twenty-five licensees have submitted exemption requests from this submittal requirement. They have requested additional time ranging from 3 months to over 1 year. The staff is presently developing a response to these requests.

Twenty-two licensees have requested exemptions from specific technical requirements of Appendix R. These requests are also under staff review.

OPERATING LICENSE APPLICATIONS

During the past month, the emphasis on licensing activities continued to be on OL applications. The present scheduling for plants projected by utilities to be completed in CY 1981 and early CY 1982 is given in Table 1. The estimated impacts are presented based on the applicant's expected construction completion date.* The NRC is presently considering changes in its regulations which would have the effect of reducing the amount of time allocated for the Immediate Effectiveness Rule. The schedules on these CY 1981 and 1982 plants have been changed by two months to reflect this potential time-saving measure.

Table 2 presents target schedules for plants which utilities project to be completed in late CY 1982 and CY 1983. These schedules are based on completing the licensing process prior to the applicant's estimated construction completion date. These schedules also take into account the estimated effects of the change in the Immediate Effectiveness Rule and other rule changes related to the hearing process under consideration by the Commission.

On February 17, 1981, the Subcommittee on Energy and Water Development requested that the NRC amend its monthly report to include 1) the utility's and the NRC's estimates of the monthly cost to the utility to maintain each unit in an inactive status while awaiting licensing and 2) actions taken by the Commission to improve the licensing process.

*Commissioner Bradford notes that applicants' estimated completion dates have historically proved unreliable, and their use in this report certainly overstates the cost of delay by a large margin.

The last monthly report provided the utilities' estimates of the monthly cost of delay. The NRC has also obtained cost estimates from the Economic Regulatory Administration of the Department of Energy. The Department of Energy estimates are set forth in Attachment 1. It should be noted that the projected period of delay used by DOE does not include the reduction of 29 months realized since last month's report. In addition, DOE incorrectly included TMI-1 as an affected plant. Finally, the replacement energy costs in DOE's Table 2 are utility estimates, and as such may include differing or inconsistent assumptions.

Commissioners Gilinsky and Brandford agree with the Department of Energy conclusions -- namely that the cost of delay is essentially the cost of replacement power and energy minus the fuel and operating costs of the nuclear unit with an operating license.

Commission Actions to Improve the Licensing Process

The Nuclear Regulatory Commission has requested legislative authority to issue interim operating licenses for nuclear power plants limited to 5% of full power. As proposed, the legislation would require that all of the Commission's requirements for protecting the public health and safety and the environment be in place before an interim license could be issued. However, any required public hearing would not have to be completed -- as is now the case -- before fuel loading and testing, and operation up to five percent of full power could be authorized. The Commission cannot, under existing law, take these measures to reduce the delay in licensing of affected plants. The proposed legislation would result in very substantial savings for customers in the service areas of the affected plants and, as indicated, would not alter any of the substantive standards and requirements of the Atomic Energy Act pertaining to public health and safety and the common defense and security or of NEPA.

Other important features of the proposed legislation include:

1. Public hearings still would be held on applications to operate new nuclear power plants if requested in accordance with the Commission's regulations.
2. Authorization of full power operation still would be contingent on conduct and completion of any required public hearing and any interim license would be subject to any findings and orders of the Commission after a hearing.
3. Interim licensing authority would expire at the end of 1983, assuring that the relaxation of licensing requirements would be confined to those plants most severely impacted by the agency's response to the Three Mile Island accident.
4. Operation of those plants most severely impacted would be advanced several months. Costs associated with delays in operation are estimated to be in the range of tens of millions of dollars a month for each completed plant.

The Commission is also considering changes to its Rules of Practice to permit more immediate operation of nuclear power plants which have received favorable Atomic Safety and Licensing Board decisions on fuel loading and low power testing or full power operating licenses. The proposed amendments are designed to decrease the time between the completion of construction and the operation of plants when the applicable safety and environmental reviews and evidentiary hearings have been completed. Comments on the proposed amendments are due by May 4, 1981, which is 30 days after publication in the Federal Register on April 3, 1981.

Appendix B to Part 2 of NRC regulations was adopted as an interim response to the TMI accident in order to increase Commission supervision of adjudicatory operating licensing decisions involving power reactors. Under Appendix B initial decisions of Licensing Boards in favor of granting construction permits and operating licenses do not become effective until after Atomic Safety and Licensing Appeal Board and Commission determinations of whether issuance of the licenses should be stayed pending further review. As it presently operates, Appendix B provides a period of about 60 days for Appeal Board stay review and a further period of about 20 days for the Commission stay review. If a stay is not imposed, the license would ordinarily issue within 80 days of the decision. Appendix B replaced a system under which the license generally issued within 10 days of a favorable Licensing Board decision.

In an effort to avoid unwarranted and expensive delays, the Commission is proposing to adopt one of two alternative modifications to Appendix B as it applies to operating licenses.

The first option calls for expedited Commission review of a Licensing Board decision to determine whether a stay is needed. This review would ordinarily be completed within 10 days of a decision relating to a fuel loading/low power testing license and within 30 days after a full power operating license decision. The Appeal Board would not be involved in this expedited stay review nor would filings by the parties to the proceeding be accepted.

The second option would allow favorable Licensing Board decisions to become effective immediately. The license would be issued within 10 days of the

decision. Appeal Board and Commission stay review would follow under current Appendix B procedures, except that the plant would be operating pending these reviews.

Depending upon the type of license being reviewed, the first option could provide a time savings of 50 or 70 days over Appendix B in the normal case where a stay is not granted. Of course, decision times will vary under either system depending upon the complexity of the case. The potential time savings under the immediate effectiveness option would be at least 70 days.

Under either option the Appeal Board review of the merits of the Licensing Board decision, as opposed to the stay determinations, would continue as before. The modifications are not intended to allow any reduction in the overall quality of NRC adjudicatory proceedings. The changes, if adopted, would be applicable to ongoing proceedings.

The Commission has also issued in the Federal Register on March 13, 1981 proposed amendments to 10 CFR Part 2 that would permit more timely conduct of hearings. The comment period expired on April 7, 1981. To date, responses from over six hundred commentors have been received. The comments are being analyzed by the staff in preparation for Commission decisions on the final rule changes.

Also, the Commission is preparing a Policy Statement on the Efficient Conduct of Licensing Proceedings. The Policy Statement will be issued to emphasize the Commission's commitment to a hearing process which will produce sound licensing decisions in a timely manner.

In addition to these actions, the Director, Office of Nuclear Reactor Regulation has implemented procedural changes to operating license reviews. The changes will help identify issues earlier in the review process and streamline the technical review process. These changes are summarized below.

1. Single Set of Questions - Multiple rounds of questions and answers between staff and applicant will be minimized. A single, comprehensive set of questions will be prepared and given to the applicant following docketing of the application. The questions will be designed to obtain all the clarification and additional information relevant to Standard Review Plan (SRP) items necessary to prepare a complete Safety Evaluation Report (SER) input in every review area.
2. Early SER Draft - A SER draft based on the application and the responses to the single set of questions will be prepared upon receipt of the applicant responses. Where information is lacking or inadequate, the draft will identify the area as an open issue and briefly state the staff position, together with whatever information is appropriate about the basis for the position. Preparation of the draft will be the reviewers' highest priority assignment, commanding as much of their participation as necessary until the draft is completed.
3. SER Finalization - The SER draft of Item 2. above will be reviewed by NRR management. Following approval, copies will be sent to the applicant, service list, intervenor groups, Advisory Committee on Reactor Safeguards (ACRS), and the Public Document Room (PDR), with the remaining open issues and staff positions identified clearly. The applicant will be requested to make available appropriate members of its staff in Bethesda until the SER is finalized. This group will undertake an intensive effort and face-to-face

communications, with the objective of resolving all outstanding issues through submittal of acceptable documentation or written commitment by the applicant to satisfy staff requirements.

PLANT BY PLANT DISCUSSIONS OF DELAYED PLANTS

The following is a discussion of the status of the lead unit for each of the delayed facilities. The Commission is presently considering changes in its regulations which would have the effect of reducing by at least two months the amount of time allocated for the Immediate Effectiveness Rule. The projected dates for issuing a licensing decision for all delayed plants have been changed by two months each to reflect this proposed time-saving measure. These proposed changes will result in an eighteen month reduction in licensing delays. The projected dates for issuing a Licensing Board initial decision for McGuire, Susquehanna and Summer have been advanced three months each. The projected date for issuing a Licensing Board initial decision for Comanche Peak has been advanced two months. These actions have resulted in an additional eleven-month reduction in licensing delays.

1. San Onofre Unit 2 - The start of hearing is expected to be July 1981.

The date for a decision on the full power license has been revised from April to February 1982. The applicant has reported a construction completion date of June 1981. This results in an eight-month delay using the applicant's date.

- This is a reduction of two months from our previous report.

2. Diablo Canyon Units 1 and 2 - An updated SER for low power operation was issued March 5, 1981. Hearings will commence in May for low power. The date for a licensing decision on low power operation has been revised from February 1982 to

December 1981 resulting in an eleven-month delay using the applicant's construction completion date. This is a reduction of two months from our previous report. The SER for full power operation was issued April 2, 1981. The full power hearings are projected to begin in September.

3. Shoreham Unit 1 - The SER for Shoreham 1 was issued on April 10, 1981 with a number of open items requiring further information from the applicant. Sixty-one such items were identified. No information has yet been provided by the applicant on any of the TMI requirements. Because of the large number and significance of the open items, the ACRS decided to defer its review of this case pending a more complete resolution of the open items. The applicant by letter dated April 15, 1981 indicated that a large portion of their responses to the open items including the TMI requirements would be provided by the end of May 1981. On the basis of this response, the schedule was modified as shown in Table 1. The schedule calls for the ACRS meeting in August 1981 rather than May 1981.

Construction completion is estimated in May 1982. The date for a decision regarding a full power license has been revised from October to August 1982, a three-month delay based on the applicant's date. This is a reduction of two months from our previous report.

4. Summer Unit 1 - The SER was issued on February 6, 1981. The hearings are scheduled to start in June 1981. The projected licensing completion date has been revised from June to January 1982. With a current construction completion date of August 1981, a five-month delay is now estimated using the applicant's completion date. This is a reduction of five months from our previous report.

5. Susquehanna Unit 1 - The SER for Susquehanna 1 and 2 was issued on April 10, 1981 with 103 open items, including 32 TMI requirements, requiring further information from the applicant. Because of the large number and significance of the open items, the ACRS decided to defer its review of this case pending a more complete resolution of the open items. The applicant indicated by letter dated April 15, 1981 that most of the required information would be provided by June 1981. On the basis of this response, the schedule was modified as shown in Table 1. The schedule calls for the ACRS meeting in August 1981 rather than May 1981.

Hearings are projected to start in October 1981. The date for a decision on the full power license has been revised from November to June 1982. A twelve-month delay is now estimated using the applicant's completion date. This is a reduction of five months from our previous report.
6. Zimmer Unit 1 - The Zimmer SER is scheduled for issuance on May 29, 1981. The Zimmer hearings are projected to commence in October 1981. The date for a decision on the full power license has been revised from July to May 1982 (a six-month delay using the applicant's construction completion date). This is a reduction of two months from our previous report.
7. Waterford Unit 3 - The SER for Waterford Unit 3 is scheduled for May 30, 1981. Construction completion is estimated in October 1982. A date for a decision regarding a full power license has been revised from January 1983 to November 1982. This corresponds to a delay of one month based on the applicant's completion date. This is a reduction of two months from our previous report.

8. Comanche Peak Unit 1 - The SER for Comanche Peak is scheduled for June 11, 1981. Construction completion is estimated in December 1981. The date for a decision regarding the full power license has been revised from February 1983 to October 1982. A ten-month delay is now estimated using the applicant's completion date. This is a reduction of four months from our previous report.

The status on plants which have been issued a low or a zero power license and for which a full power license is pending (Salem Unit 2 and McGuire Unit 1) follows:

1. Salem Unit 2 - The NRC Safety Evaluation Report on all matters except for emergency preparedness was issued in January 1981. The States and affected local communities of Delaware and New Jersey have provided Emergency Response Plans to FEMA. A joint exercise (including NRC, FEMA, the utility, local and State bodies) was conducted on April 8, 1981. A favorable report from FEMA on the adequacy of off-site emergency preparedness was received on April 24, 1981. Since the issuance of the January 1981 SER the staff has identified an additional item related to fire protection that requires review prior to the licensing of Salem 2. Staff review of the fire protection matter is expected to be completed in early May. As a result, we anticipate the issuance of the Salem 2 full power license by mid-May pending satisfactory resolution of the fire protection review.
2. McGuire Unit 1 - The SER for low power operation at McGuire Unit 1 was issued January 8, 1981. A fuel loading and zero power testing license was issued January 23, 1981. Hearings on a full power license started on February 24, and were completed on March 19, 1981. The date for a decision on a full power license has been changed from December to July 1981 (a six-month delay). This is a reduction of five months from our previous report.

OPERATING LICENSES ISSUED

The Director, Office of Nuclear Reactor Regulation, issued a full power license to Farley-2 on March 31, 1981.

LICENSING SCHEDULES FOR PENDING CONSTRUCTION PERMIT APPLICATIONS

The Commission is continuing its effort to develop a new regulation concerning the manner and extent to which new requirements, as a result of the Three Mile Island 2 accident (TMI Action Plan), should be applied to pending CP and ML applications. The Commission published the proposed final rule on TMI-related construction permit requirements in the Federal Register for public comment on March 23, 1981. The comment period expired April 13. The staff is currently reviewing the public comments that were received from 34 commentors. Following a Commission decision on this new regulation, detailed schedules will be provided for the pending CP applications.

On April 8, 1981, the NRR staff met with representatives of the utilities having pending CP and ML applications to explain in detail the technical requirements set forth in the proposed final rule. In addition, one CP applicant has submitted a report which addresses how it will satisfy each of these post-TMI requirement contained in the proposed rule. The staff has assigned a group of reviewers who are evaluating the submittal.

Tables:

1. Licensing Schedules CY 1981 - 1982 Plants
2. Licensing Schedules CY 1983 Plants

Attachments:

DOE Estimates of Costs Due to Licensing Delays

CY 1981 - 1982 PLANTS

SER		SSER				Start of Hearing	ASLB Initial Decision	Commission Decision Date 1/	Applicant Construction Completion
Staff Technical Input to DL	Issue SER	ACRS Mtg	Issue FES	Staff Technical Input to DL	Issue SSER				
C	C	C	C	C	C	None	None	05/81	04/80
C	C	C	C	4/30/81	5/15/81	None	None	05/81	06/81
C	C	C	4/30/81	4/17/81	5/08/81	07/81	01/82	02/82	06/81
C	C	C	C	C	C	09/81	12/81	01/82	01/81
C	C	C	C	C	C	09/81	12/81	01/82	10/81
C	C	C	C	C	C	C	06/81	07/81	01/81
C	C	8/06/81	C	6/18/81 (S1)	6/26/81 (S1)				
				8/20/81 (S2)	8/28/81 (S2)	01/82	07/82	08/82	05/82
C	C	C	4/24/81	C	4/15/81	06/81	12/81	01/82	08/81
C	C	8/06/81	6/15/81	6/18/81 (S1)	6/26/81 (S1)				
				8/20/81 (S2)	8/28/81 (S2)	10/81	05/82	06/82	06/81
C	C	C	C	4/15/81	4/30/81	None	None	04/30/81	05/81
C	C	C	C	5/01/81	5/29/81	10/81	04/82	05/82	11/81
5/08/81	5/30/81	7/09/81	8/08/81	7/16/81	7/31/81	03/82	10/82	11/82	10/82
5/22/81	6/11/81	7/09/81	8/12/81	7/17/81	8/12/81	01/82	09/82	10/82	12/81
6/10/81	6/30/81	8/06/81	8/31/81	8/14/81	8/31/81	02/82	08/82	09/82	11/82
8/14/81	9/07/81	10/13/81	9/15/81	10/25/81	11/15/81	None	None	12/81	12/81
9/11/81	10/09/81	11/12/81	C	11/26/81	12/11/81	None	None	01/82	06/82
2/12/82	3/12/82	4/09/82	12/31/81	4/30/82	5/28/82	None	None	07/82	07/82

Immediate Effectiveness Rule resulting in a Commission decision date one month after the ASLB decision date.

ACRS SSER

Table 1

Plant	Estimated Delay (Months)	Issue DES
Salem 2	13	C
LaSalle 1	0	C
San Onofre 2	8	C
Diablo Canyon 1	12	C
Diablo Canyon 2	3	C
McGuire 1	6	C
Shoreham 1	3	C
Summer 1	5	C
Susquehanna 1	12	C
Sequoyah 2	0	C
Summer 1	6	C
Waterford 3	1	4/30/8
Comanche Peak 1	10	4/30/8
Termi 2	0	5/01/8
Grand Gulf 1	0	5/31/8
Watts Bar 1	0	C
NP 2	0	7/31/8

/ Assumes Commission Action on the I
 S1) - Pre-ACRS SSER (S2) - Post

TABLE 2.

<u>Plant</u>	<u>Estimated Delay (Months)</u>
Callaway 1/2	0
St. Lucie 2	0
Palo Verde 1/2/3	0
**Seabrook 1/2*	0
Clinton 1	0
Wolf Creek 1	0
Byron 1/2	0
Perry 1/2	0
Midland 1/2	0
**Catawba 1/2	0
**So. Texas 1/2	0
River Bend 1/2	0

NOTES:

* FSAR not tendered

** Schedules subject to change

(1) Based on a standard elapsed time

	Issue DES	Issue SER	ACRS MTG	ISSUE FES	Issue SSER	Start of Hearing(1)	ASLB Initial Decision(1)	NRC Decision Date(1)	Applicant Construction Completion
	09/81	10/81	11/81	01/82	11/81	04/82	09/82	10/82	10/82
	09/81	10/81	11/81	01/82	11/81	04/82	09/82	10/82	10/82
	10/81	11/81	12/81	02/82	12/81	05/82	10/82	11/82	11/82
	11/81	01/82	02/82	03/82	02/82	07/82	12/82	01/83	01/83
	11/81	01/82	02/82	03/82	02/82	07/82	12/82	01/83	01/83
	01/82	04/82	05/82	06/82	05/82	10/82	03/83	04/83	04/83
	01/82	04/82	05/82	06/82	05/82	10/82	03/83	04/83	04/83
	02/82	05/82	06/82	07/82	06/82	11/82	04/83	05/83	05/83
	04/82	07/82	08/82	09/82	08/82	01/83	06/83	07/83	07/83
	05/82	08/82	09/82	10/82	09/82	02/83	07/83	08/83	08/83
	06/82	09/82	10/82	11/82	10/82	03/83	08/83	09/83	09/83
	07/82	10/82	11/82	12/82	11/82	04/83	09/83	10/83	10/83

range upon resolution of NRC and applicant construction completion differences

even-month assumption from issuance of SSER to NRC Decision Date