



Congress of the United States
House of Representatives

STEVE NEAL
9TH DISTRICT, NORTH CAROLINA

March 2, 1981

The Honorable Joseph M. Hendrie
Chairman
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dear Mr. Hendrie:

Since the accident at the Three Mile Island Nuclear Power facility, nuclear power plant licensing has been at a near standstill. Delays in the licensing process were certainly understandable, since the Commission needed time to fully comprehend the nature of the accident and to apply the lessons learned to the regulatory process.

I applaud the Commission's cautious attitude toward issuing new licenses. We must be certain that the public safety is assured before we allow more nuclear plants to operate. This is important not only for obvious reasons but also because the public confidence in nuclear power was severely shaken by the TMI accident. Faith in the industry and those that regulate it must be restored if nuclear energy is to have a future in this country. However, some are now questioning whether all the delays were necessary, attributing the licensing freeze, in part, to understaffing and mismanagement. This is a serious issue, delays in licensing are very costly, particularly when plants have been completed but are unable to operate.

I would appreciate it if you would respond to these concerns, which are listed in the attached materials. I would hope that the Commission corrects any mismanagement problems it might have and that it request sufficient resources from Congress, if that is a real problem.

Thank you very much for your consideration.

Sincerely,


STEPHEN J. NEAL
U.S. Congressman

WASHINGTON OFFICE
331 CANNON HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
PHONE: (202) 225-2071

DISTRICT MOBILE OFFICE
TRAVELS THE DISTRICT
TO SERVE YOU

HOME OFFICE
421 FEDERAL BUILDING
WAYNESALEN, NORTH CAROLINA 27101
PHONE: (919) 701-8125

8 104210 436

Summary of Reasons for Delay

1. The Commission's decision to suspend its rule which provided for issuance of an operating license or construction permit immediately upon decision by a hearing board is adding up to three months to the licensing process.
2. Staff unpreparedness is adding up to three months of delay in some pending cases.
3. Too much lead time is being permitted hearing boards in starting public hearings, in moving them along once started, and in the writing of their decisions, e.g., four to five months for decision-writing.
4. Many hearing examiners are assigned to a number of hearing boards at the same time, which makes efficient scheduling and decision-writing difficult.
5. The Commission is allowing post-TMI requirements to be litigated in individual hearings, contrary to Section 2.758 of its rules of procedure which prohibits challenging Commission rules in such individual proceedings.
6. The Commission has unnecessarily broadened the authority of hearing boards by permitting them to raise issues not put in contest by the parties.
7. The Commission is permitting hearing boards to ignore provisions in its rules of practice designed to provide for a timely hearing process.
8. The Commission has assigned less than 200 of its 3200 employees directly to reactor review casework, and intends to cut this further in FY82.

AMERICAN NUCLEAR ENERGY COUNCIL

410 FIRST STREET, SE • WASHINGTON, DC 20003

(202) 484-2870

MEMORANDUM

February 10, 1981
Revised: 2/20/81

TO: File

FROM: George L. Gleason, Executive Vice President

RE: January, 1981, NRC Report to House Appropriations Subcommittee on Status of NRC Licensing Proceedings

The status reports are significant both for what they tell you about licensing delays, and, perhaps more importantly, for what they don't reveal. The reasons for this are discussed below. However, as a preliminary matter, it is interesting to note the expanding pattern of delays in the issuance of operating licenses as evident from NRC's estimates of both the number of plants impacted and the total number of plant-months of delay, beginning with its testimony of last April 17 to the Subcommittee.

April 17, 1981 testimony:	Three plants impacted for 10 months of delays.
November, 1980, Report:	Five plants for 29 months of delay.
December, 1980, Report:	Seven plants for 36 months of delay.
January, 1981, Report:	Eleven plants for 79 months of delay.

NOTE: The NRC figures do not include Farley 2 or Salem 2 as impacted plants, because they already hold zero power licenses; however, they should be included since the plants cannot be put into the rate base until a full power license is issued. ~~Including these two plants would increase the projected delays by 11 months, or to 90 months total.~~ (See attachment)

CONSTRUCTION PERMITS NOT COVERED

There is no information in the January report upon which delays in the processing of application for construction permits can be determined; however, most applications are known to be a year or more behind schedule. This appears to be the Commission's lowest priority program. Construction permit licensing has been at a standstill since the TMI accident on March 28, 1979. Initially, the Commission declared a moratorium with respect to processing such applications. Finally, on August 1, 1980, it took the first step to resuming CP licensing for the six remaining near-term construction permit applications by approving, for public comment, post-TMI licensing requirements proposed by the NRC staff. As of this date -- some 5-1/2 months later, these post-TMI licensing requirements still have not been finalized and issued. Before near-term construction permit applicants can begin to worry about dilatory actions of the NRC staff and undue delays in the licensing process, NRC Commissioners must take the following steps.

- a. finalize and issue post-TMI licensing requirements for pending CP applications;
- b. issue guidance to NRC licensing boards as to the scope of the issues to be considered at hearings;
- c. assure that the NRC staff assigns adequate technical staff to evaluate applicants' Preliminary Safety Analysis Reports (PSAR) information addressing new licensing requirements and to issue Safety Evaluation Reports.

In connection with c., the January report indicates an allocation of only 12 man-years in FY81 to process CP applications and only 10 man-years in FY82 and FY83. This hardly seems adequate to complete the review of the six (11 unit) pending construction permit applications.

DELAYS IN OPERATING LICENSES

The Reports Do Not Indicate Actual Delays

The January report indicates that, including Farley and Salem, 13 plants are impacted for a total delay of 90 months. What the report does not reveal is that the actual delay is far in excess of that amount. This is because delays estimated in the report are calculated as the number of months between NRC's estimated completion of construction, and issuance of a license; however, the pace at which construction proceeds is often constrained by the pace at which NRC's licensing review proceeds, or by NRC's advice to licensees as to when a license may be expected, e.g., a licensee may go from a three-shift construction schedule to a two-shift schedule in response to a change in NRC's licensing schedule. Therefore, the measure of actual delay should be the length of time between when construction could have been completed under normal licensing constraints, and NRC's schedule for license issuance. For example:

* For Summer 1, NRC estimates an eight month delay; however, construction could be completed 8/81, rather than 10/81, as NRC estimates. Additional delay is two months.

* For Shoreham, NRC estimates a one month delay; however, construction could be completed 6/82, rather than 9/82, as NRC estimates. Additional delay is three months.

* For Waterford 3, NRC estimates a six month delay; however, the report does not reflect an earlier slow-down in construction due to previous NRC delays. Additional delay is 13 months.

The pattern is the same for the other impacted plants. It is significant that many applicants advise that the schedules included in the report were never discussed with them.

Moreover, because of the format used, the monthly reports show only the delay from one month to the next, not the cumulative delay from the first report to the last. Thus, the January report shows 11 plants impacted for 79 months of delay. However, going back to the November report and using NRC's

estimate of construction completion, the total delay for these 11 plants would be 144 months, rather than the 79 months shown in the January report. If the applicants' estimates of construction completion shown in the November report is used, the total delay for these 11 plants is 171 months.

Another measure of delay is to compare the length of time current applications have been pending against previous experience. In the three year period preceeding Three Mile Island, the time from the docketing of the Final Safety Analysis Report (FSAR) to issuance of an operating license averaged between 51 and 53 months (NUREG-0380, 5/23/80); the estimated average time for issuance of the full operating licenses for the 13 impacted plants is 79 months, or about 50 percent longer.

Review of these reports indicates that, because of the methodology used, they do not reflect actual expected delays, which in most cases will be greater than that estimated. Nevertheless, even the delays which are reported indicate a serious and growing problem.

Arbitrary and Inconsistent Assumptions

Another problem is that the assumptions used to estimate delay are arbitrary and are inconsistently applied from one plant to another. In particular, it appears that the hearing schedules have been lengthened for certain close-in hearings, but not for others which are expected to experience similar duration. In other words, they have expanded the schedules for certain hearings, and compressed it for others without any evident reasons. For example, the duration of the hearing on Comanche Peak 1 has been expanded from five months in the second report to eight months in the third report; however, the schedule for Shoreham, which is a similarly heavily contested proceeding, has been compressed from eight months to six months. The schedule for the start of the Waterford 3 hearing has been slipped six months, with a similar slip in the date for issuance of the license. The report states that the reason for this is "to allow for an initial decision on the environmental issues before starting the safety hearings" (page 3). There has been no decision by the hearing board to this effect, and the need for such a bifurcated hearing has not been discussed with the applicant or the other parties. Nevertheless, the extended hearing schedule will now become a pacing item in the staff's review.

List of Impacted Plants is Incomplete

The list of impacted plants is incomplete. There is no reason why the assumptions listed on page three of the January report should not be applied to all of the pending operating license applications, rather than just those scheduled for Fiscal Years 1981 and 1982. That they are not so applied indicates that NRC simply has not extended its analysis to the remainder of the plants. If the same assumptions were applied, it would probably add four to seven months each to the projected schedules for the remaining 40 applications, for an additional total delay of 160 to 280 months.

Is it reasonable to expect that these additional delays will actually be encountered? The answer is yes. The reason for this is the diversion of staff from the more distant licenses to other non-licensing-

related work. In most cases, the schedules for the more distant licenses, as listed in the report, are simply paper exercises, unsupported by sufficient staff resources to carry them out. However, there is no information in the report, or elsewhere available, to know just how bad the problem is. It would appear that this would be an appropriate line of inquiry for the Subcommittee.

Cost of Delays

The report does not calculate the financial costs to applicants and their stockholders, and their ratepayers associated with the projected delays. The costs are enormous. For example --

* Diablo Canyon, Units 1 and 2 -- Cost of delay of the two units is \$1 billion per year, or \$83 million per month.

* San Onofre, Units 2 & 3 -- Cost of delay of two units is \$3 million per day, or \$90 million per month.

* Shoreham -- Cost of delay is \$1.3 million per day, or \$39 million per month.

These figures include the cost of interest paid during construction and the cost of replacement power, both of which vary from plant to plant. While detailed figures are not yet available for each of the impacted plants, a conservative estimate of the average costs incurred for each of the 13 impacted plants would be in the range of \$30-40 million per plant per month. Since the impacted plants have accumulated a total delay of 90 months, the current costs of delay would be between \$2.7 and \$3.6 billion. As one applicant put it, "for want of a couple of GS-15s it's costing us billions."

Impact of Delay on Use of Oil

The report does not indicate the impact of the delays on the use of oil. It is substantial. DoE has submitted a report to the Appropriations Subcommittee (February 13, 1981) which calculates that the delays projected in the January NRC report mean that, "The electric utilities constructing these plants will consume 42 million barrels of oil more than they might have otherwise consumed". DoE reports that, when operational, the delayed plants will be capable of displacing a daily average of approximately 200,000 barrels of oil. DoE's estimates were based on 15 plants, including Three Mile Island I (the undamaged unit) which it believes could be in operation by the end of 1982.

REASONS FOR DELAYS

Licensing delays appear to be epidemic and continue despite the increase in additional NRC personnel assigned to the Office of Nuclear Reactor Regulation. Shortly after the TMI accident, 100 additional personnel were provided to assist NRC in coping with generic TMI-related tasks and to continue casework reviews of construction permits and operating licenses. Notwithstanding the increase in personnel, licensing delays persist and appear to indicate that something more serious than manpower shortage is the principal cause of delay.

Immediate effectiveness rule. After Three Mile Island, the NRC suspended its rule which provided for issuance of a license upon decision by the hearing board, so that the Commission itself could review each application. The effect of this suspension is to add three or more months to the schedule of each plant.

Staff Unpreparedness. Many applicants believe that staff unpreparedness is a principal cause of delay. For example, the January report shows delays by staff in issuance of Safety Evaluation Reports (SER) of two months each for Grand Gulf 1 and 2; one month for LaSalle 2; two months for Shoreham; one month for Summer 1; and three months each for Watts Bar 1 and 2.

Delay in Start of Hearings. Too much time is being allowed to lapse before start of the hearing. In the case of Comanche Peak the hearing is not scheduled to start until nine months after the issuance of the SER, six months after issuance of SER Supplement and eight months after issuance of the Draft Environment Statement (DES). For Waterford 3, the hearing is eight months after the SER supplement. For Comanche Peak, two years will have passed from the time intervention was permitted to the start of the hearing. No reason is given in report three for the indicated delays in the start of the hearing for Comanche Peak (6 months); or for the hearing start delays in Fermi (6 months), McGuire (5 months); or Shoreham (9 months). The only reason given for the delay in the start of the Waterford hearing is incorrect.

Hearing Board Problems. One problem with hearing boards is that some members are serving on several boards at the same time. For example, one examiner is currently a member of five boards. Too much time (4-5 months) is allotted for decision-writing, perhaps in part because of the multiple board problems. There is some concern also about the qualifications of some board members, and their general procedural bias in favor of intervenors.

Policy Guidance to Boards. Last December 18 the Commission changed its policy which had precluded intervenors from litigating in individual proceedings the sufficiency of NRC's new post-TMI licensing requirements. The new policy (copy attached) permits these requirements to be raised in each pending proceeding. Chairman Ahearne dissented from the policy on the grounds that it "relinquishes Commission control and attention from a major portion of this process." The new policy is already resulting in an estimated 15 month delay in the McGuire case where, after issuance of a low power license, the board has reopened the hearing to consider two issues (hydrogen control and emergency planning) at the behest of a lone intervenor, even though the Commission rules on those items in issuing the low power license. Other plants potentially affected are Diablo Canyon, Summer, Zimmer, Shoreham, San Onofre, Lacrosse and Comanche Peak. The additional delays caused by this change in policy are not yet fully reflected in the status reports and are presently not completely known, but are predicted to be lengthy.

This change in policy has created an ambiguity for the hearing boards, since Section 2.758 of the Commission's regulations prohibits challenging Commission regulations in individual license proceedings. Each

and every hearing board will now have to make its own determination as to the relationship between this rule and the new policy, possibly with conflicting results, since the Commission has given no guidance on the subject. Alternatives to this policy would include having the Commission itself make this determination, or, alternatively, to have it resolved after public notice and comment in a rulemaking proceeding. This is an important issue upon which Commission clarification should be sought.

Sua Sponte Rule. Until the Commission changed its rule in November, 1979, to permit hearing boards to examine any "serious" uncontested matter, a board could review matters not put in issue by a party only in "extraordinary circumstances". The appeal board just recently used this expanded authority to retain jurisdiction of an operating license proceeding from which all intervenors had withdrawn. This unnecessarily enlarges the boards' role. The Commission should change its policy to limit board review to matters put in contention by the parties.

Emergency Planning. In several cases NRC emergency planning requirements have caused a delay in the issuance of a full power operating license. NRC's current requirements call for state emergency plans to be tested prior to the receipt of an operating license. Under a joint memorandum of understanding, FEMA has the responsibility of determining the adequacy of state emergency plans; however, NRC retains the responsibility for determining overall emergency preparedness. Therefore, the Commission itself may in some cases review the results of the emergency test before issuing a full power operating license. The multipartite responsibility between NRC, FEMA, the states, and local communities inevitably results in delays. The requirement that state emergency plans be tested prior to the receipt of a full power operating license exceeds the requirements of P.L. 96-295, and NRC should relax this requirement in order to prevent serious delays.

CONCLUSION

For the reasons stated above, the reports are of limited usefulness in assessing the actual extent of delay in the NRC licensing proceedings. However, they do indicate a significant and growing problem, although its magnitude is understated. The reasons for this are varied, but generally indicate a lack of management discipline within NRC, a lack of appropriate priorities in allocating personnel to licensing activities, confusion as to Commission policy and an inefficient hearing process. Some would add that NRC does not have enough manpower, but the problem seems rather to be the inexperience of a large number of the reviewers and personnel allocation to non-licensing functions.

(While the allocation problem is difficult to quantify, it is clear that substantial staff resources are being diverted to non-essential or low priority tasks at the expense of licensing.) One example of this is the Commission's proposed program to implement Section 110 of Public Law 96-295. This is the so-called Bingham amendment which requires NRC to develop a program for the systematic safety evaluation of all currently operating nuclear power plants. When this amendment was pending before Congress NRC advised that the task could be accomplished in 120 days at a cost of \$4 million. Its current proposal calls for a 7-10 year program which will

require several hundred manyears of NRC manpower and several thousand man years of industry engineering time. The payoff for this program in terms of enhanced safety will be minimal, since it will result only in a paper documentation of existing plant designs against unproven acceptance criteria, which, even the NRC staff admits, "may not be particularly useful or necessary in evaluating the overall safety of the plant." (See attachment for details.)

Another program which consumes a significant amount of NRC staff and Commissioner time is export licensing. Chairman Ahearne is on record as saying this consumes 15-20 percent of the Commission's time. This program should be shifted back to the Department of State.

In assessing the low priority which NRC assigns to processing licensing, it is significant to note that during Fiscal Year 1981 only 198, or less than seven percent, of NRC's 3200 personnel are assigned to reactor license casework; in FY 1982 this is projected to drop to 157 casework reviewers.

Of all the reasons for delay, our analysis suggests four leading causes. The first is the Commission's suspension of its immediate effectiveness rule, which has added three or more months to the licensing process. The second is staff delay in issuing the SERs, without which a hearing cannot begin. More staff must be assigned to this priority activity. The third reason, and the one which is growing the fastest, is delay in the hearing process. Here there are several contributory factors: (a) the Commission's December 18 policy change which permits post-TM requirements to be litigated in each individual hearing; (b) the change in the sua sponte rule, which unnecessarily enlarged the hearing boards' role; and (c) the assignment of some hearing board members to as many as five on-going proceedings. Finally, the Commission has failed to provide firm direction and guidance to the boards for overall expeditious conduct of hearings. The hearing boards are under the direct supervision of the Commission itself, not the staff, and it has simply abdicated its responsibility for assuring expeditious hearings. One additional problem looming on the horizon is the multiparty responsibility for approval of emergency plans. This is already delaying the Salem plants, and offers the potential for substantially delaying several others.

In conclusion, one gets the impression from reading the reports that they are being treated by NRC as a simple documentation process for the benefit of the Subcommittee, and that the commissioners have not used them as an analytical tool for seeking means to reduce licensing delays, as, I believe, the Subcommittee intended. It would be interesting to hear from NRC just what consideration they have given to the reports' findings.

Attachments

February 10, 1981

SUMMARY OF IMPACTED CP & OL PLANTS

Construction Permits:

Delay is calculated assuming on a historic high processing time of 40 months (Ref. NUREG-0380). This processing time is considerably greater than the NRC estimate of about 24 months (for contested cases) used to determine licensing schedules and manpower requirements. (For multi-unit plants, delay is calculated for only the lead unit.)

<u>Plant</u>	<u>PSAR Docketed</u>	<u>CP Issue</u>	<u>Delay to date</u>
1. Allens Creek 1	12/73	N/S	45+
2. Black Fox 1 & 2	12/75	N/S	21+
3. Pebble Springs 1 & 2	10/74	N/S	35+
4. Perkins 1, 2, & 3	5/74	N/S	40+
5. Pilgrim 2	12/73	N/S	45+
6. Skagit 1 & 2	1/75	N/S	32+
TOTAL:			218 mos.

N/S = Not Scheduled

Operating Licenses:

Delay is based on the time lapse between NRC's current estimate for construction completion, and the estimated date for issuance of a full power license.

NRC APRIL 17 TESTIMONY

<u>Plant</u>	<u>Construction Complete</u>	<u>OL Issue</u>	<u>Delay</u>
1. Summer	12/80	4/81	4
2. Diablo Canyon 1	5/80	10/80	5
3. San Onofre 2	5/81	6/81	1
TOTAL:			10 mos.

NOVEMBER REPORT

<u>Plant</u>	<u>Construction Complete</u>	<u>OL Issue</u>	<u>Delay</u>
1. Summer	1/81	10/81	9
2. Diablo Canyon 1	1/81	5/81	4
3. Diablo Canyon 2	6/81	9/81	3
4. San Onofre 2	7/81	5/82	10
5. La Salle 1	12/80	3/81	3
*6. Salem 2	4/80	10/80	6
*7. Farley 2	10/80	1/81	3
TOTAL:			38 mos.

DECEMBER REPORT

<u>Plant</u>	<u>Construction Complete</u>	<u>OL Issue</u>	<u>Delay</u>
1. Sumner	8/81	10/81	2
2. Diablo Canyon 1	1/81	12/81	11
3. Diablo Canyon 2	6/81	12/81	6
4. San Onofre 2	7/81	5/82	10
5. La Salle 1	6/81	4/81	0
6. Zimmer	11/81	1/82	2
7. McGuire	1/81	6/81	5
*8. Salem 2	4/80	2/81	12
*9. Farley 2	3/81	3/81	0
		TOTAL:	48 mos.

JANUARY REPORT

<u>Plant</u>	<u>Construction Complete</u>	<u>OL Issue</u>	<u>Delay</u>
1. Sumner	10/81	06/82	8
2. Diablo Canyon 1	3/81	03/82	12
3. Diablo Canyon 2	10/81	03/82	5
4. San Onofre	7/81	04/82	9
5. Zimmer	11/81	07/82	8
6. McGuire	2/81	3/82	13
7. Enrico Fermi 2	11/82	06/83	7
8. Susquehanna 1	03/82	11/82	8
9. Waterford 3	10/82	04/83	6
10. Shoreham	09/82	10/82	1
11. Comanche Peak 1	12/82	02/83	2
*12. Salem 2	4/80	03/81	11
*13. Farley 2	3/81	03/81	0
		TOTAL:	90 mos.

* Plants with FL/ZP licenses which are not listed as impacted plants by NRC.