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[The Nuclear Regulatory Commission's Practice of Submitting Information to the Atomic Safety and Licensing Board].
EMD-78-42; B-127945. March 6, 1978. 12 pp.

Report to Sen. Gary Hart, Chairman, Senate Committee on Environment and Public Works: Nuclear Regulation Subcommittee; by Elmer B. Staats, Comptroller General.

Issue Area: Energy: Making Nuclear Fission a Substantial Energy Source (1608).

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Organization Concerned: Nuclear Regulatory Commission.

Congressional Relevance: Senate Committee on Environment and Public Works: Nuclear Regulation Subcommittee. Sen. Gary Hart.

Authority: Atomic Energy Act of 1954.

The Atomic Energy Act of 1954 requires that a public hearing be held by the Nuclear Regulatory Commission (NRC) before a license to construct a nuclear powerplant can be issued. The hearing is conducted by an Atomic Safety and Licensing Board, and reviews are conducted by the Atomic Safety and Licensing Appeal Board and the NRC. In response to criticism of procedures used to provide information to the licensing board, the NRC staff changed its procedures for notifying the boards of new and important information. These changes have improved the staff reporting practices, but there were still instances where the boards were not notified of important information. These instances appeared to have been caused by the officials' handling of information rather than by deficiencies in procedures. New procedures are being developed for improving the staff practice of submitting information to the boards. No efforts seem to have been made by NRC to evaluate the board members' performance, establish minimum qualifications for personnel, and determine if more formalized training is needed. The Chairman of NRC should: require training of NRC technical staff members on the role and activities of the licensing board and their responsibilities for keeping the board informed, establish minimum qualifications for persons appointed to the board and determine if a more formalized training program is needed, and develop an open and competitive selection system for filling vacancies to the board. (HTW)



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-127945

March 6, 1978

The Honorable Gary W. Hart
Chairman, Subcommittee on Nuclear
Regulation
Committee on Environment and
Public Works
United States Senate

Dear Mr. Chairman:

This report responds to your request for a review of the Nuclear Regulatory Commission's procedure for submitting information to the Atomic Safety and Licensing Board for its consideration in licensing nuclear powerplants. Section 191 of the Atomic Energy Act of 1954 requires that a public hearing be held by the Commission before a license to construct a nuclear powerplant can be issued. Under this statute, the hearing is conducted by an Atomic Safety and Licensing Board which has the initial authority--subject to review by the Atomic Safety and Licensing Appeal Board 1/ and the Commission--to grant the license to construct the powerplant. Additionally, if there is a petition by an interested member of the public that meets the requirements of the Commission, a Board must hold another hearing before a nuclear powerplant can be licensed to operate. Thus, an Atomic Safety and Licensing Board has a key role in the Commission's licensing and decisionmaking process.

In 1976 the Commission admonished its technical review staff 2/ for not providing relevant and material information on a timely basis to the Licensing Board during its 1973 review of a nuclear powerplant license application from the Virginia Electric and Power Company. Because of this and a similar occurrence in 1973, the Commission staff changed its

1/An independent board with three members who automatically review license application decisions made by the Atomic Safety and Licensing Board.

2/Footnote in the Commission's Opinion in North Anna Power Station, Units 1 and 2.

procedures for notifying Boards of new and important information. As a consequence of the October 1977 hearings before your Subcommittee, the Commission is considering further changes to these procedures.

At your request, we reviewed the changes the Commission has made in its procedures since 1973. You were concerned that these changes may not have corrected the problem and that the Commission staff may still not be providing significant information to the Atomic Safety and Licensing Board in a timely manner. Thus, in our review, we examined

- how the Licensing Board receives information;
- how the Commission staff's method of submitting information to the Licensing Board has changed since 1973 and whether there are still problems; and
- whether the proposed changes in procedures will improve the level of communication between the Licensing Board and the Commission staff.

Our evaluation of each of these areas, as well as our observations on related matters, are provided in the following sections. At your request, we obtained only oral comments from the Commission on this report. These comments have been incorporated in the report as we believe appropriate.

STAFF PRACTICES OF SUBMITTING INFORMATION TO THE LICENSING BOARD

Before 1973 the Commission staff provided information to the Licensing Board in the form of basic testimony at the licensing hearing and staff reports on the safety and environmental aspects of the license application. Any new material and relevant information obtained while the hearing was in progress was first evaluated by the staff and then given--with conclusions--to the Licensing Board by legal brief, testimony, or affidavit.

This began to change in late 1973 as a result of a decision by the Atomic Safety and Licensing Appeal Board in the proceeding for the McGuire nuclear powerplant in North Carolina. In that decision, the Appeal Board admonished the Commission staff and the applicant for not being sufficiently prompt in advising the Licensing Board of a change to the applicant's quality assurance organization. It noted that such information was necessary to insure that the Board would be acting on evidence accurately reflecting existing facts. After

the decision, the Commission staff made a greater effort to promptly inform the Board of material and relevant matters but developed no specific rule or written procedure at that time.

In April 1976 an attorney representing an intervenor 1/ in a particular licensing proceeding wrote to the then-Acting Chairman of the Commission to complain that the staff had not informed the Licensing Board in one proceeding of some relevant information that had been provided to a Board in another proceeding. He requested the Acting Chairman to determine if specific written procedures had been established to insure that all relevant data was made available to the Boards. As a result of that letter, formal procedures for submitting information to the Boards were announced in June 1976 and issued in November 1976.

The procedures made the Commission's Division of Project Management within the Office of Nuclear Reactor Regulation responsible for identifying any new information and notifying the Office of the Executive Legal Director. This Office, in turn, was to determine whether the new information was material and relevant to any licensing proceeding. If so, the information was to be disclosed to the appropriate Licensing Board.

Newly proposed procedure for
notifying the Licensing Boards

In October 1977, following your Subcommittee's hearings on the failure of the Commission staff to promptly notify the Licensing Board of the North Anna, Virginia, geological fault, the Office of Nuclear Reactor Regulation proposed further changes to the procedures for submitting information to the Licensing Boards. These would require that (1) individual Boards be routinely given all correspondence and documentation flowing between the staff and the applicant relevant to the specific application, (2) once the public hearing in a particular proceeding begins, all information sent to the Board is assessed, at that time or soon thereafter, by the staff for its significance, and (3) all other Commission offices would provide information to the Office of Nuclear Reactor Regulation or the Office of Nuclear Material Safety and Safeguards who would be responsible for notifying the Boards.

The advantages of the proposed procedure are that (1) all new information on a particular application will be routinely

1/A person who has alleged his interest may be affected by the proposed action.

given to the Boards for consideration and (2) the staff will not have the burden of deciding what to send to the Boards, because everything will go.

On the other hand, the Boards will receive larger volumes of unreviewed information. Some Board members have already said that they will not accept unreviewed information and will return it to the staff. Both the Chairman of the Licensing Board Panel and the Chairman of the Atomic Safety and Licensing Appeal Board Panel have said they do not have the clerical and technical staff to review the information, nor the space or facilities to store it.

On January 24, 1978, the Commissioners reviewed the newly proposed procedure and, because of the criticism, asked the Office of Nuclear Reactor Regulation to reevaluate its proposal. No time frame has been established for this reevaluation.

They also requested the Chairmen of the Licensing Board Panel and the Appeal Board Panel to submit their recommendations for a new procedure. Their reply, dated February 7, 1978, recommends that the staff not submit any information to the Licensing Board on a particular application until after the staff has completed its environmental and safety reviews and submitted its final environmental impact statement and safety evaluation report. Afterwards, all information would be submitted to the Board with either an immediate or promised evaluation by the staff.

OTHER PROBLEMS AFFECTING THE FLOW OF INFORMATION TO THE LICENSING BOARDS

During our review, we found that the flow of information within the Commission was not good and that the procedures for submitting information to the Boards did not apply directly to the technical review staff within the Office of Nuclear Reactor Regulation or to other operational units within the Commission. These units include the Offices of Nuclear Regulatory Research, Inspection and Enforcement, Standards Development, and Nuclear Material Safety and Safeguards. Unless these offices are specifically included in the procedure, new information which comes to them first and is material and relevant to licensing proceedings may not reach the Licensing Boards in a timely manner.

Flow of information within the Commission needs to be improved

In 1975 a Commission task force identified problems with the flow of information within the Commission. It said that

the staff members within each of the Commission offices tended to retain information in their own offices. Consequently, staff members (in particular those in the Office of Nuclear Reactor Regulation) who needed much of the information contained in the reports of other offices did not see the information and often did not know of its existence. This is important because the Office of Nuclear Reactor Regulation has the prime responsibility for identifying information in reactor licensing proceedings which should be provided to the Licensing Boards.

As a result of the task force report, a special division was established to develop an action plan to improve the Commission's flow of information. In November 1976, the Commissioners approved the action plan, which calls for an automated microfiche storage, retrieval, and distribution system. The Commissioners' approval of a contract to develop such a system is now pending.

Staff members are unaware of the flow of information to the Licensing Boards or the Boards' responsibility

In October 1977 the Acting Director, Office of Nuclear Reactor Regulation, reminded his staff of their responsibility to inform Licensing Boards about material and relevant information that becomes available during the course of their reactor license application reviews. In keeping with this policy, the Acting Director asked each staff member on a one-time basis to search his memory and files to recall any instances where there might be an appearance of withholding, or proposing to withhold, information from the Boards.

Some of the staff members who responded in writing to this request said they really did not have a clear picture of what information flows or should flow from the Office of Nuclear Reactor Regulation to the Licensing Boards. One staff member said that the November 1976 operating procedures for notifying Licensing Boards were written for project managers and not for technical reviewers, such as himself. He identified an instance when a decision was made to notify a particular Licensing Board of new information. However, this staff member said that, because the project manager was not available, the notification was not made because he did not know how to do so. In providing oral comments on this report, a Commission official said that this information was later submitted to the Licensing Board without any appreciable delay. He also said that it is the responsibility of all staff members to identify and submit information to the Boards but

conceded that the Commission has not done a good job of educating its people in this area.

Another staff member said that in July 1974, he became aware of a possible geological fault at the Millstone, Connecticut, site after public hearings were completed and just weeks before a construction license was due to be issued for the plant. After a site visit and a determination that the fault was not active, he said no consideration was ever given to notifying the Board. The response showed that this staff member was unaware that knowledge of the fault and the staff's investigation should have been provided to the Licensing Board.

OTHER INSTANCES WHERE LICENSING
BOARDS HAVE NOT BEEN PROVIDED
INFORMATION ON A TIMELY BASIS

During our review, members of the Commission staff and the Licensing Boards told us that since 1973 the staff's submission of information which was material and relevant to a particular licensing proceeding or proceedings has been acceptable. However, in addition to the fault at the Millstone site discussed earlier, we identified these examples to the contrary.

1. In 1973 and 1974 the Turkey Point nuclear plants in Florida experienced a loss of offsite electric power as a result of a number of disturbances in the Florida power network. Offsite electric power is the primary source for operating the powerplant as well as its safety-related equipment. Thus, even though back-up onsite power supplies are available, a reliable offsite system is necessary to adequately protect the public.

In August 1974 the initial staff reaction to this problem was that the instability in the power network might also involve the two St. Lucie powerplants which were farther north but under construction at the time. However, a Commission staff member told us that because any further investigations could have delayed the licensing of the two St. Lucie plants, the subsequent Commission investigation was restricted to the offsite power failures at Turkey Point. On May 12, 1977, one of the St. Lucie plants experienced a loss of offsite power caused by network disturbances. Data surrounding the power network problems of 1974 and their possible relationship to the St. Lucie site were not submitted by the staff to the Licensing Board until

October 1977 after an intervenor brought this to the attention of the U. S. Attorney General and charged the Commission staff with actions bordering on criminal negligence. The Commission is currently investigating this situation.

2. In September 1976 the New England Power Company submitted an application to build two nuclear plants on Federal property held in excess by the General Services Administration. The General Services Administration must issue an environmental impact statement that considers alternative uses for the property other than a powerplant. This is not expected to be issued in final form until the end of September 1978. Because another Federal agency has also requested use of this site, it is not at all certain that the ownership will be transferred to the utility. Nonetheless, the Commission has proceeded with the New England Power Company's application to construct two nuclear powerplants on the site and is in the process of preparing its own environmental impact statement for the plants.

The Environmental Protection Agency, however, has told the Commission staff that its environmental impact statement is premature at this time because (1) the utility does not own the site and (2) the Environmental Protection Agency will not issue a water discharge permit until the question of site ownership has been resolved. (A water discharge permit is required before the licensing of a nuclear powerplant.) Yet, the Commission staff did not tell the Licensing Board of the ownership problem or the Environmental Protection Agency letter until it was brought to the attention of the Board on November 15, 1977, by an intervenor to the licensing proceeding. The Board told the staff that the information was important because it could affect future hearing schedules.

While commenting on a draft of this report, the Commission advised us that, under present procedures, the Licensing Board would have been notified of this matter in conjunction with the filing of the staff final environmental impact statement preparatory to the start of the hearing, and not before. Further, the Commission believes that the Licensing Board Panel and the Appeal Board Panel agree that this is appropriate and that this type of notification

should continue until a revised procedure is developed and approved by the Commission.

3. In July 1977 Sandia Laboratories in New Mexico found that a type of electrical connector which is used in some operating nuclear powerplants failed to perform properly. The connectors are used to join electrical cables in certain safety-related systems. Sandia forwarded these results to the Commission's Office of Nuclear Regulatory Research which, in turn, discussed them with the Office of Nuclear Reactor Regulation and the Office of Inspection and Enforcement.

On November 8 1977, in an attempt to verify the Sandia findings, a bulletin was sent to all operating plants and those under construction asking the utilities to check the type of connector in use. The Commission found that 19 of 65 operating plants had insufficient data on the quality of connectors in use and temporarily shut down two plants because of the lack of any data at all. In mid-December 1977, the Office of Nuclear Reactor Regulation decided to notify appropriate Boards of the Sandia test results based on the results of the bulletin. The staff is now tabulating the results from nuclear plants under construction and will notify the appropriate Licensing Boards at that time--almost 8 months after the potential safety problem with electrical connectors was initially identified, but in the Commission's opinion, only 4 months after Board notification would be required under the staff's proposed new procedure.

LICENSING BOARD PERFORMANCE

Section 191 of the Atomic Energy Act of 1954, as amended, requires that one of the three Licensing Board members must be qualified in administrative proceedings and the other two shall have such technical or other qualifications as the Commission deems appropriate. It has become the Commission practice to appoint a lawyer as Chairman of the Board, a physicist or reactor engineer as the second member, and an environmental scientist as the third. There are currently 63 full- and part-time members in the Licensing Board Panel.

During our review, we spoke with 10 different people that have experience in the licensing proceedings. They are members of the Atomic Safety and Licensing Appeal Board, an intervenor, and attorneys who represent intervenors and utilities. Nine

of these people told us that there was a wide variance in the performance of Licensing Board members. Some said that Board members were either not qualified or well trained for their position, others said that some Board members had a pro-Commission bias and were not truly impartial judges of the facts. While we did not attempt to verify these criticisms, we found that:

- The position descriptions for the Board members do not include minimum qualifications for each position and there is no meaningful criteria for evaluating candidates for vacancies to the Licensing Board. While the Board does have some general evaluation criteria and there are attempts to identify potential candidates for Board vacancies, we found that the criteria was very subjective and that the Commission has not attempted to publicize vacancies or screen all the interested and qualified people available. In fact, four of the five permanent Board members we interviewed said they did not go through any type of open competitive selection system but received their positions through knowing someone already on or connected with the Board.
- There may not be an adequate formal training program for Board members. However, according to the Chairman of the Licensing Board, an extensive in-house training program exists for all new Board members, including a week-long orientation program, periodic seminars, and the availability of informal technical or legal assistance whenever a Board member feels he needs help. For the most part, the Chairman also said Board members are expected to train themselves through experience on the job and by talking with fellow Board members.

Our interviews with five full-time Board members does not indicate that an extensive training program exists. They told us that (1) not all Board members were subjected to the week-long orientation program, (2) in-house seminars have been on selected topics and have not been attended by all Board members, and (3) there is no requirement that Board members attend seminars or instructional courses held outside the Commission.

- There was little attempt to determine the independence of new Board members. According to the Chairman of the Licensing Board, each candidate interviewed for a position on the Board is told that, as a member of the Board, he must be impartial and independent in his views on nuclear matters. The candidate is asked if there is anything in his background that would prevent him from rendering an independent decision. During our

review, we found that 18 Board members were previously employed by the Commission or by national laboratories which do work for the Commission. While the Atomic Energy Act of 1954, as amended, specifically allows the Commission to select persons for the Board from the staff of the Commission, this raises a question whether they can independently decide between contentions of intervenors and the Commission staff.

--There has been no attempt to evaluate the performance of members serving on the Licensing Board. We believe such an evaluation is desirable to insure that Board members are fulfilling their responsibilities. The Chairman of the Licensing Board told us that Federal regulations prohibit the Commission from performing this evaluation. These regulations were intended to protect the independence of such employees. We currently have underway a separate review which will address the problem of evaluating the performance of administrative law judges while assuring their independence is maintained. After this review is concluded, we intend to determine its applicability to the Licensing Board and report on what actions can or should be taken to evaluate Board members' performance.

These factors require the immediate attention of the Commission to decide whether or not the Licensing Board's performance has been satisfactory.

CONCLUSIONS

In 1973 and again in 1976 the Commission changed its reporting practices for submitting new information to the Atomic Safety and Licensing Board. These changes have improved the staff reporting practices, but we still found instances where the Boards were not notified of important information. While we could not determine whether these instances were representative of the staff's notification process or exceptions to the norm, they appear to have been caused by the officials handling of the information rather than by deficiencies in the Commission's procedures for notifying the Licensing Boards of new information. To correct this situation, it is necessary that the information flow within the Commission be improved and that the staff be specifically trained on how and what to submit to the Boards.

New procedures are being developed for improving the staff practice of submitting information to the Boards. The staff advocates sending all documents to the Boards, whereas the Chairmen of the Licensing Board Panel and the Appeal Board

Panel favor a practice closely resembling the current procedure. During a Commission meeting on the new procedures, a question was raised on the responsibility of the Board. Should the Board review only the information submitted to it in reports and testimony by the staff, the applicant, and other parties; or is the Board also responsible for all other information that is available on a license application? The answer to this question will be a determining factor in deciding what information should be submitted to the Boards and whether the Boards need their own technical review staffs. We see no reason to create another review level within the Commission. The Boards have historically been responsible for ruling on information presented to them by the Commission staff, the applicant and intervenors, and we see no reason why this cannot continue. It will require some positive action by the Commission, however, to provide greater assurance that all relevant information is given to the Boards in a timely manner.

The Licensing Boards' performance is regarded by some parties both inside and outside the Commission as less than satisfactory. No efforts, to our knowledge, have ever been made by the Commission to (1) evaluate the Board members' performance, (2) establish minimum qualifications for persons appointed to the Licensing Board, and (3) determine if a more formalized training program is needed for the lawyers and technical members of the Board.

RECOMMENDATIONS TO THE CHAIRMAN,
NUCLEAR REGULATORY COMMISSION

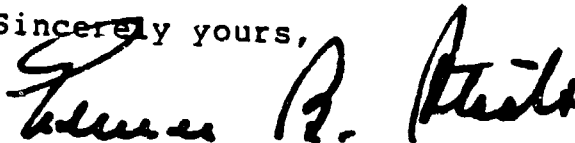
The Chairman, Nuclear Regulatory Commission, to improve the licensing review process for nuclear powerplants, should

- require training of all Commission technical staff members on the role and activities of the Licensing Board and their responsibilities for keeping the Board informed;
- establish minimum qualifications for persons appointed to the Licensing Board and determine if a more formalized training program is needed for both lawyer and technical members appointed to the Licensing Board; and
- develop an open and competitive selection system for filling vacancies to the Board.

B-127945

As arranged with your office, we are sending copies of this report to interested parties and others upon request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Thomas B. Smith". The signature is written in a cursive style with a large initial "T" and "S".

Comptroller General
of the United States