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SEP 17 1970

Honorable Albert H. Quie
House of Representatives

Dear Mr. Quie:

The enclosed letter from Mrs. Eugene A. Imhoff that you referred to us comments to the effect that the AEC makes no tests of its own while inspecting nuclear power plants to make sure they meet requirements, but instead relies heavily on reports of tests actually conducted by the builders of the plants.

The AEC inspection program, carried out by its Division of Compliance was described in detail during the AEC hearing in the matter of the Northern States Power Company, Monticello Nuclear Generating Plant, Unit 1, Docket No. 50-263. The principal information is in Supplement 1 to the AEC Regulatory Staff Safety Evaluation and portions of the testimony on August 5, 1970. Copies of this material are enclosed. This material is also available for inspection at the Office of the Clerk, Wright County Court House, Buffalo, Minnesota.

Summarizing briefly, the Atomic Energy Commission in its regulatory program holds its licensees responsible for safety in the design, construction and operation of their nuclear reactor facilities. The AEC inspection program is directed toward assuring that the licensees are fulfilling these safety responsibilities. Among the requirements imposed upon licensees to accomplish this is one that requires them to establish quality assurance programs that include suitable provisions for independent reviews of quality of construction. Specifically, Part 50.34 of AEC regulations (copy enclosed) states in part that "A program for inspection of activities affecting quality shall be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity. Such inspection shall be performed by individuals other than those who performed the activity being inspected." After work is performed by craftsmen under responsible supervision, it is reviewed by appropriate quality assurance personnel. In many cases this includes quality control personnel from the workman's organization, the construction contractor, the architect-engineer, and the licensee. Independent testing laboratories are often employed by these organizations. The licensee is responsible for auditing the entire program and for assuring that it is functioning properly.

50-263
Hearing

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Honorable Albert H. Quie

- 2 -

The Division of Compliance then inspects the performance of all these groups through a system of spot checks, record reviews, interviews, and observation of work in progress. We believe that this system of independent checks and audits provides adequate assurance of the quality of construction.

As to Mrs. Imhoff's question with respect to the authority of the State of Minnesota to establish more restrictive standards regarding releases of radioactivity from nuclear power plants licensed by the AEC, this matter is now in litigation before the U. S. District Court for the District of Minnesota.

Sincerely,

(signed) Harold L. Price

Harold L. Price
Director of Regulation

Enclosures:

1. Cy ltr Mrs. Imhoff to Rep. Quie, dated August 7, 1970
2. Cy Supplement 1
3. Cy Monticello Testimony
4. Cy Federal Register

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(Note: Retyped on 9/14 per Dr. Beck's comments)

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DATE ▶	9/14/70		concurr'd 9/3	9/16/70	9/17/70

Honorable Albert H. Quie
House of Representatives

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Summarizing briefly, the Atomic Energy Commission in its regulatory program holds its licensees responsible for safety in the design, construction and operation of their nuclear reactor facilities. The AEC inspection program is directed toward assuring that the licensees are fulfilling these safety responsibilities. Among the requirements imposed upon licensees to accomplish this is that they must establish quality assurance programs that include suitable provisions for independent reviews of quality of construction. "Independent reviews" in this context means reviews by people who do not have responsibility for performing the work in question or for related costs or scheduling. The reviews are carried out by successive layers of people; for example, the workman himself, his foreman, the quality control personnel from his own organization, quality assurance people from the construction contractor organization, the architect-engineer, and the licensee. In many cases, an independent testing laboratory is employed by one of these organizations. The licensee is responsible for auditing the entire program and for assuring that it is functioning properly.

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Honorable Albert H. Quie

- 2 -

The Division of Compliance then inspects through a system of spot checks, record reviews, interviews, and observation of work in progress on the performance of all of these people by audit of records and by independent onsite observations. We believe that this system of layers of independent checks and audits provides the desired assurance with respect to the quality is being achieved.

As to Mrs. Imhoff's question with respect to the authority of the State of Minnesota to establish more restrictive standards regarding releases of radioactivity from nuclear power plants licensed by the AEC, this matter is now in litigation before the U. S. District Court for the District of Minnesota.

Sincerely,

Harold L. Price
Director of Regulation

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DATE ▶	9/3/70	9/4	9/3/70		

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UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)

NORTHERN STATES POWER)
COMPANY)

Docket No. 50-263

TESTIMONY OF BOYCE H. GRIER

The Division of Compliance's inspection program has been generally described in the introductory part of Supplement No. 1, the AEC Regulatory Staff safety evaluation. Questions were raised during the deposition and since the submittal of Supplement 1. As a result of these, I will provide some further discussion of the inspection program.

The inspection role assigned to the Division of Compliance in the AEC regulatory program is based on certain fundamental decisions made by the Congress and on implementing policies adopted by the Commission. The Congress has established a system of licensing privately owned and operated nuclear facilities.

Inherent in the concept of private activities, subject to licensing and regulation by a government agency is the fact that the licensee is held responsible for meeting the objectives of the licensing and regulatory system. In this case, protection of the health and safety of the public. This is in contrast to the situation in which operational activities are carried on by the agency, itself, and in which the agency carries out operational safety activities. Let me reiterate that the Atomic Energy Commission in its Licensing and Regulatory program holds its licensees responsible for safety in the design, construction, and operation of nuclear reactor facilities.

ENCLOSURE 3

The Division of Compliance's inspection program is designed to assure that a licensee is carrying out his safety responsibilities. The Commission's regulations in Appendix B to Part 50 require a licensee to have a quality assurance program which includes provisions for independent safety and quality reviews of design, construction, and operation. By independent, it is meant that reviews are conducted by persons who do not have responsibility for performing the work in question or for related costs in scheduling.

In the case of a construction project, the Division of Compliance's inspection activities are directed toward verifying that a licensee has implemented the required assurance program. Typical inspection activities which are carried out in this regard are identified on Page 3 of Supplement No. 1. Specifically, these include such things which I would like to mention of witnessing the performance of major construction tests such as hydrostatic tests of piping and pressure tests of containment vessels and review of program for a functional or preoperational testing of system and equipment including the test program, the test procedures and the test results.

We have concluded that these inspection activities provide an adequate basis for verifying independent reviews of construction activities and provide reasonable assurance that the completed facility will conform to AEC regulatory requirements. Let me emphasize one area of our inspection program which I've just mentioned, that related to preoperational testing of the facility. The licensee is required to develop and carry out a comprehensive

preoperational testing program. The procedures developed under this program are reviewed by Compliance inspectors. The comments are directed to the licensee. The performance of selected preoperational tests are witnessed by Compliance inspectors.

The results of the tests and the licensee's evaluation thereof are reviewed by the inspectors. This testing of the plant to the extent possible prior to the loading of fuel demonstrates whether the plant systems and components are capable of performing their intended functions under both normal and abnormal conditions. These tests also serve to demonstrate the adequacy of plant operating procedures.

Satisfactory completion of the preoperational testing program is an important part of the basis for our finding of plant completion. Division of Compliance inspection personnel are experienced and knowledgeable in the practical aspects of construction and operation of nuclear reactors. This is demonstrated by the qualifications of the inspectors which have been entered in the record of this proceeding.

In addition to the inspectors, specialists in appropriate fields of engineering and technology who are assigned to the Division of Compliance headquarters staff and to other divisions within the regulatory staff are utilized to assist in special inspections.

Further, consultants to the AEC also provide assistance. The experience

and technical competence of the inspection personnel are important factors in the success of the inspection program. We seek uniformity and objectivity in the conduct of the Division of Compliance inspection program by a system of internal checks and balances. This system includes preparation of inspection plans prior to an inspection, review of the results of these inspections by the supervisor, the preparation and distribution of the written inspection report to headquarters groups, onsite visits by supervisors with inspectors, accompaniment of inspectors by headquarters or other Compliance staff including specialists and consultants, rotation of inspection assignments, and in the case of operating facilities, assignment of back-up inspectors who participate in onsite inspections.

The matter of our reliance on the licensee to maintain accurate and complete records has been raised. For example, records pertaining to the installation and testing of a particular system. It has been implied that these records could be falsified. It is true that through intent, negligence or oversight, incorrect records may be generated. In my opinion, our inspection program cannot be readily frustrated by falsified or incorrect records. As a basis for this opinion let me point out, first, in order to achieve a coherent coverup of some adverse information, a large number of licensing and contractor personnel would have to be a party to the concealment. This is almost inconceivable.

Second, the licensee does not know where our spot checks will take place. These checks may, indeed, be random and with so much interrelated data, it would be very difficult to conceal inconsistencies.

Thirdly, the systems in question are tangible and our inspectors do verify information in records or request verification under their observation. Again, bear in mind as pointed out previously, our inspection personnel are experienced in reactor construction and operation. Because of this experience, they are familiar with what records ought to look like and what typical relationships exist among data through reviews of records, observation of work in progress, discussion with licensee and contractor personnel at all levels they are able to formulate judgments as to the validity of the records.

My comments so far have related principally to the construction and inspection program. The frequency of inspection after the operation begins depends upon the status of the facility. During the period after initial fuel loading when low power and power sensing testing is in progress, inspections are performed on at least a monthly basis. Inspections may be more frequent if tests which we want to witness are in process or if any operational difficulties have developed. Inspection frequency will be reduced only after the plant completes full power testing and commences routine operation. It is at this time, after satisfactory performance of the plant has been demonstrated, that the minimum frequency becomes four times per year. To

repeat, this is minimum frequency. If the plant maintenance or refueling operations are scheduled, or if operational difficulties develop, our inspection frequency will be increased.

The Division of Compliance was initially established in 1960. I have been a member of the Division since shortly after its formation. Mr. Thornburg, the supervisory inspector for Monticello, has also been a member of the Division since approximately that time. During this ten-year period the fundamental philosophy of inspection has remained the same; that is, a system for selectively examining the manner in which the licensee is meeting his responsibilities. The program has, of course, undergone period review and updating. The program as it has been described for Monticello is no different than that which has been and is being followed elsewhere. Based on our experience during the period since the establishment of the Division, we conclude the Division of Compliance inspection program as it applies to the facilities under construction provides an adequate basis for the findings which must be made, namely, that a facility has been completed in accordance with AEC regulatory requirements.

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HOUSE OF REPRESENTATIVES, U.S.
WASHINGTON, D. C.

August 12 19 70

Mr. Robert O'Neill
Director of Congressional Relations
U.S. Atomic Energy Commission
Washington, D.C. 20545

The attached communication is submitted for your consideration, and to ask that the request made therein be complied with, if possible.

If you will advise me of your action in this matter and have the letter returned to me with your reply, I will appreciate it.

Very truly yours,

Albert H. Quie

ALBERT H. QUIE M.C.

Minnesota, First District.

Rec'd Off. Dir. of Reg.
Date 8/17/70
Time 3:30

DE-2755

934 Bellows Street
West St. Paul, Minnesota 55118
August 7, 1970

The Honorable Albert H. Quie
United States House of Representatives
Washington, D. C. 20515

Dear Congressman Quie:

Thank you for your letter of June 23, which has given me much food for thought, and which has prompted me to write again.

We did not receive a questionnaire from you this year, so knew nothing of the questions until the result was printed in our local newspaper just a couple of days before your letter came. From the newspaper, we learned that one of the questions dealt with radioactive emission from atomic power plants, and that eighty per cent of those responding favored giving the states authority to set up more stringent standards than those established by the Federal Government. It is a hopeful sign that so many felt that way.

Your letter of June 23 also mentioned the Air Quality Act, which you understood gave states the right to establish stricter standards if they could prove the need for them. Apparently, the Air Quality Act is easily misunderstood. You sent me a copy of the Act back in 1967. Upon reading it, I interpreted it that only California was given permission to adopt more stringent standards, and I wrote you to that effect on November 22, 1967. I believe you were of the opinion that I had misinterpreted the Act. Recently, a newspaper column by Stewart Udall concerning a clean air bill passed by the U. S. House of Representatives, stated: "...Like its 1967 predecessor, the new act prevents 49 states from setting automobile pollution standards as high as those in California. The excuse for this provision is that California's air pollution problem is 'unique'..." It would seem that Mr. Udall is as confused as I was in interpreting the 1967 Air Quality Act.

Be that as it may, the sentence in your June 23rd letter that has given me so much food for thought is: "Under the Air Quality Act, states were given the right to establish stricter standards IF THEY COULD PROVE THE NEED FOR THEM (emphasis mine)". You stated you were hopeful that this approach could be written into more of the Federal anti-pollution programs. My question is this. Why should any state HAVE to PROVE the right to establish stricter standards? It is my belief that the Federal Government should have national standards, to which every state must adhere, but that the states should be allowed to set more strict standards in ANY kind of pollution without having to prove anything!

This business of nuclear power plants is just one example. It now comes out at the hearing being conducted in St. Paul that the AEC makes no tests of its own while inspecting nuclear power plants to make sure they meet requirements, but instead relies heavily on reports of tests actually conducted by the BUILDERS of the plants. Doesn't that sound ridiculous to you? I believe Minnesota should not have to prove such negligence, but should be able to establish as strict standards as it wants, to protect its citizens.

The Honorable Albert H. Quie

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August 7, 1970

Each state can, and does, have different problems, and they should be allowed to deal with them to ANY extent over and above Federal standards without having to prove anything. If there are special problems that the states do not correct, then the Federal Government could step in again and force cleanup. This is the type of legislation I would like to see passed.

Thank you for your consideration of my personal opinions and for your past letters. I hope we can lick this pollution battle before it licks us. We have our choice of mercury, lead, hydrocarbons, carbon monoxide, sulphur dioxide, radioactive wastes, solid wastes, phosphates, enzymes, smoke, taconite tailings, pesticides, nerve gas, oil, poisons dumped into the sea, nitrates, noise, etc., etc. Not a very pleasant prospect or choice! Please let us be as strict as possible in dealing with these problems.

Respectfully yours,

Grace E. Imhoff

(Mrs. Eugene A. Imhoff)

[Handwritten signature]

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U.S. ATOMIC ENERGY COMM.
MAIL & RECORDS SECTION