

Congress of the United States

Washington, DC 20515

October 1, 1990

The Honorable Kenneth Carr
Chairman
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chairman:

We are writing to express our dissatisfaction with the Commission's September 21 response to our August 9 inquiry relating to the quality of welds at the Seabrook Nuclear Station.

These inquiries sought information that would explain the resolution of serious welding program deficiencies which the Commission itself admits arose during the Seabrook construction process. The Commission's reply includes statements which: are erroneous and incomplete; address questions not asked; and contradict other information supplied by the Commission. In general, we are troubled by the convoluted nature of the Commission's response.

For example, the Commission states that the performance of a 100% review of radiographs was an activity affecting quality; i.e. it was necessary to assure the quality of the Seabrook welds. This being the case, we would expect that the Commission would have required this review to be conducted in accord with the requirements of Appendix B. In the very next breath, however, the Commission states that the 100% review was not specified by a regulatory or code requirement, but was voluntarily implemented, and that these activities were in excess of Appendix B requirements. We cannot reconcile these two approaches. How can an activity be essential to the quality of the plant and at the same time be outside the scope of Appendix B?

The Commission's response starts with an unqualified reference to a 100% review of radiographs. In the NRC staff enclosure, however, this radiograph review is subsequently described as an "overview" which "from all indications appeared to have resulted in YAEC performing a 100% review on all P-H final weld radiographs." Then the response further confuses the matter by referring to the conduct of the purported 100% review during the last six months of 1983 as a "licensee management overview."

At this juncture we are troubled by the persistence of such ambiguities in the Commission's response on this question. Why is the Commission unable to produce a straightforward answer? If the

contemporaneous documentary record is insufficient to support the conclusion that a 100% review was conducted, then the Commission should so state. If the contemporaneous record is sufficient to support the conclusion that a 100% review occurred, what accounts for the persistence of these qualified and ambiguous descriptions of the process?

On the one hand, the Commission's response states, "the NRC staff initially considered the conduct of the YAEC radiograph review program at a '100%' level to be a conservative licensee measure to comprehensively address problems identified in the QA Level 1 contractor programs, not a specific program requirement." Are we to understand from this statement that the NRC staff was aware of the purported 100% review prior to December 1983? If so, why was the creation of this program not addressed in NRC inspection reports; why was this program not required to be conducted in strict compliance with the requirements of Appendix B; why did the licensee not file a report, pursuant to the requirements of 10 CFR 50.55(e), on the Pullman-Higgins (the Seabrook weld contractor) program breakdown involving hardware defects; and, why did the NRC not take enforcement action in response to the licensee's failure to file such a report? The reporting failures followed by the NRC not taking enforcement action of course deprived the Seabrook intervenors of important information to which they were entitled.

On the other hand, the NRC position to date has been that the NRC can trace back its awareness of the 100% review only to December 1983. If this is true, what then is the basis for the Commission's confidence that "NRC inspections would have evaluated the effectiveness of any reduced level of overview?" How could NRC inspections have evaluated the effectiveness of an overview process the very existence of which was unknown to the NRC at the time?

In arriving at its conclusions concerning the 100% review, the Commission has inferred that the YAEC reviewer's signature on a specific Radiographic Inspection Report (RIR) constitutes proof that the named YAEC inspector reviewed radiographs of the associated weld. What evidence has the Commission relied upon to support this judgement?

In fact, the Commission's conclusion that the Yankee Atomic Electric Company (YAEC) conducted a 100% review of weld radiographs beginning in 1979, and that this review continued "throughout the piping installation," is not supported by the preponderance of evidence. To the contrary, our staffs have concluded that the preponderance of evidence is clearly insufficient to support the conclusion that, prior to late 1983, YAEC conducted a 100% review of radiographs. We have been informed that:

- No procedures have been identified that, prior to 1984, required a 100% review.
- No document describing the preconditions for a YAEC certification signature on Radiographic Inspection Reports has been identified.

- Radiographs associated with Radiograph Inspection Reports containing a YAEC signature were rejected after the date of the YAEC signature of approval, indicating the final YAEC safety net had holes in it.
- During the recent NRC inspection, the YAEC construction Quality Assurance manager informed NRC staff that initial radiograph reviews started late in 1983; interview notes prepared by NRC staff show no mention by this manager of a 100% radiograph review.
- Surveillance reports, which the licensee suggests provide evidence of the 100% reviews, actually substantiate that YAEC reviewed only a small fraction of radiographs. The documentation of YAEC radiograph reviews, even those conducted during the post-1983 time frame, is sparse. Moreover, during the period these surveillances were being conducted, the backlog of film packages grew to about 2000 before it was discovered by the licensee sometime in 1983. This backlog could hardly have accumulated and escaped notice until the 1983 timeframe if YAEC was indeed conducting a 100% review of radiographs. [An alternative and equally disturbing explanation of the backlog is that these radiograph packages had been returned by YAEC to the welding contractor without the required documentation.]

The Commission's response slides over the question of whether the purported YAEC 100% review satisfied 10 CFR 50, Appendix B, Criterion V which states that activities affecting quality shall be prescribed by documented instructions, etc. The Commission agrees that the purported 100% review was an activity affecting quality and one which the NRC staff believed necessary if the Seabrook licensee were to meet the NRC's requirements. Contrary to the requirements of Criterion V, however, the purported 100% review was not prescribed by documented instructions.

Criterion XVII of 10 CFR 50, Appendix B requires that records shall be maintained to furnish evidence of activities affecting quality. The records of the purported 100% review, as noted above, are sparse at best and do not satisfy the requirements of Criterion XVII.

Moreover, the Commission's claim that the purported 100% review "was in excess of the ASME Code, the ANSI B31.1 Code, and 10 CFR 50, Appendix B," contradicts the fact, admitted by the NRC, that the review was essential to assure weld quality. Failure to reconcile these conflicting points papers over the YAEC failure to comply with Appendix B in the conduct of the purported 100% review, to the extent any such review was conducted.

Further, the Commission is not convincing in its claim that NRC inspections conducted during the course of Seabrook construction provide a basis for confidence in weld quality. For example, the documentation deficiencies and weld defects identified

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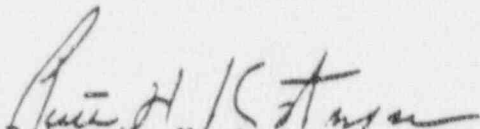
by the recent NRC inspection, which had not been identified in previous NRC inspections, raise questions as to the effectiveness of such previous inspections. Moreover, confidence in the NRC inspection process is undermined by the fact that for the period prior to December 1983 there is no documentary evidence of NRC staff awareness of the purported 100% radiograph review.

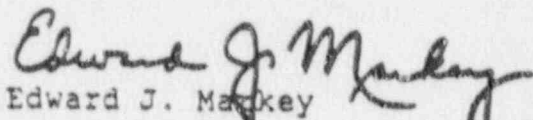
The Commission was asked to provide a coherent and comprehensive description of the YAEC review's purpose and duration, documents subject to this review, review procedures, record keeping requirements, and procedures for handling deficiencies. Neither the September 21 response nor NUREG 1425 provides such a description.

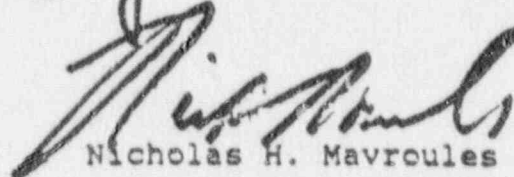
We note with particular concern the statement in the September 21 response that, "The NRC staff does not believe there are contradictions quoted in the Attachment to the Congressional letter of August 9, 1990, forwarding the current set of questions." Any fair reading of the statements in question clearly reveals apparent contradictions. That the Commission would permit its staff to blithely assert otherwise, without any analysis to reconcile these apparent contradictions, displays acceptance of an unacceptably low standard of candor in communications with the Congress.

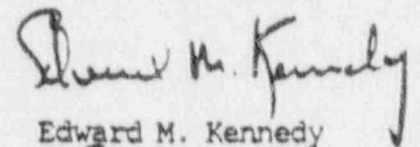
Overall, we are disturbed by the evident willingness of the Commission to tolerate ambiguities and fuzzy explanations in connection with the implementation of a quality assurance program at a nuclear power plant. Notwithstanding the Commission's dogged determination to deflect our inquiries, we will continue to pursue the matter until we are satisfied that the adequacy of Seabrook's quality assurance program, and NRC's oversight thereof, have been demonstrated.

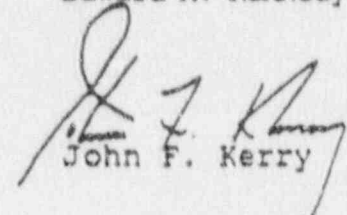
Sincerely,


Peter H. Kostmayer


Edward J. Mackey


Nicholas H. Mavroules


Edward M. Kennedy


John F. Kerry