

Donald P. Knuth
Director of Inspection and Enforcement
Nuclear Regulatory Commission
Washington, D.C. 20545

Dear Mr. Knuth:

This is in response to your letter of November 12, 1974, wherein you described the Nuclear Regulatory Commission (NRC) criteria for enforcement action and radiation monitoring programs. Two important points of my July 27 letter, however, were not addressed. One of the questions which I had asked was not answered. In addition, your comments on radiation control program non-standardization were not convincing.

My July 27 letter pointed out that one of the corrective actions following radiation overexposures to Consolidated Edison workers was the establishment of a limit of 2 rem. After this limit is reached a worker is excluded from radiation work for the remainder of the quarter. The source for my statement was a letter from Consolidated Edison to the Atomic Energy Commission (AEC), which said:

"Further, we have revised our administrative control of radiation exposure by precluding any individual whose cumulative radiation exposure is in excess of 2000 [2 rem] from working in high radiation areas." (Letter from William J. Cahill, Vice President, Consolidated Edison, to James P. O'Reilly, Director, Directorate of Regulatory Operations, Region I, AEC, May 16, 1974)

Mr. Cahill's letter went on to state that no new overexposures had occurred since the imposition of the 2 rem limit.

My July 27 letter listed four cases (out of six applicable) in which the overexposures that occurred would have been prevented by this 2 rem limit, even if it had been in effect earlier. These four cases involved men whose dosimeter doses were less than 2 rem, but whose film badge doses were greater than 3 rem. These were cases B, F, G, and H in Table 1 of Region I Inspection Report 50-3/74-11.

The Inspection Report and clarifying conversations between my staff and AEC personnel show that there may be extenuating circumstances in two of these cases. That still leaves two cases for which application of the 2 rem limit would have been inadequate.

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I am sure you are aware that Con Ed's proposal to require permission for an individual to exceed 1250 mrem per quarter does not represent sufficient corrective action. One has the disquieting feeling that this permission will be merely an administrative formality, particularly since it is to be granted before an individual reaches the 1250 mrem level. This disquiet is reinforced by the implication in Mr. Cahill's statement that the 2 rem limit represents the real corrective action. It is further reinforced by the fact that the dosimeter "verification" level has not been changed from 2000 mrem.

The inadequacy of Con Ed's 2 rem limit was perhaps the major factor which prompted my July 27 letter. Neither your letter nor the Inspection Report addressed the case-by-case inadequacy of this limit. I therefore repeat the question which you failed to answer:

Question: Was the AEC aware of this case-by-case inadequacy in the company's corrective action? If the AEC was not aware of the inadequacy, why was it overlooked? If the AEC was aware of the inadequacy, why did it accept the company's action?

To the suggestion that radiation control programs be standardized, you enclosed a list of applicable guides and standards and made this statement:


"Due to major differences in licensees' personnel, organizations, type and complexity of radiation-related activities, it is not possible that all radiation control programs be identical." (p. 3, your letter of November 12, 1974)

Conceivably, this might justify differences in the radiation control programs of a power plant and a reprocessing plant, for example. But there seems to be no reason why different power plants should have different programs. The Naval Reactors (NR) program, as an example, has for years required the same personnel radiation control program for each of its submarines. The NR program is standardized, and has much more detailed requirements than the list of guides you enclosed. While the list of guides and standards you enclosed may seem impressive to the uninformed you must admit that they provide only general, not detailed guidance.

The NR program directly addressed the possible problem of film badge-dosimeter discrepancy by requiring more frequent film badge checks as an individual gets closer to his exposure limit. This program is more detailed and more comprehensive than either the Consolidated Edison or Rochester Gas & Electric programs mentioned in my July 27 letter. The Navy's program would have prevented most or all of the Con Ed and Rochester overexposures. Liaison between Regulatory Operations and NR in this matter would seem advisable.

At present different nuclear plants have different designs and different technical specifications. But since there seems to be no geographical variation in the effects of radiation on workers, why do different power plants have different radiation control programs? Your July 27 letter did not adequately explain this non-standardization of radiation control programs. Why does NR have a stricter and standardized program that addresses film badge-dosimeter differences while the NRC does not have such a program?

Sincerely,



Ralph Nader

cc: William A. Anders, Chairman
Nuclear Regulatory Commission