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RECORD #76

TITLE: Emergency Worker Doses

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

May 30, 1984

IE INFORMATION NOTICE NO. 84-40: EMERGENCY WORKER DOSES

Addressees:

All nuclear power plant facilities holding an operating license (OL) or construction permit (CP), research and test reactor facilities and fuel cycle licensees.

Purpose:

This information notice is provided to inform licensees of instances of misunderstandings concerning the proper management of personnel radiation exposures in excess of regulatory limits occurring from emergency response activities. Guidance from the NRC staff is provided to clarify this issue and to inform potential emergency preparedness volunteer workers of possible post emergency work restraints subsequent to emergency response activities.

Recipients are expected to review the information for applicability to their training programs and instructions to personnel. Although no response is required, licensees are expected to correct instances of misinformation regarding NRC regulations supplied to potential emergency preparedness volunteer workers.

Description of Circumstances:

The NRC staff has recently become aware of several instances where misinformation concerning the handling of emergency personnel exposures was being presented during reactor operator and general employee training at nuclear power plants.

Licensees are required [10 CFR 55.23(j)] to provide operator training in several areas, including the significance of radiation hazards at levels in excess of permissible regulatory limits. Emergency planning standards [10 CFR 50.47(b)(11)] require a means of controlling radiological exposures to emergency workers consistent with the Environmental Protection Agency's (EPA) Emergency Workers and Lifesaving Activity Protective Action Guides (25 rem whole-body dose for emergency workers and 75 rem for lifesaving activities).

Several nuclear power plant licensees have misinterpreted these regulations and misinformed reactor operators and general plant employees that doses received as part of performing volunteer emergency duties are not included as part of the worker's current quarterly occupational exposure record and are not added to the previous accumulated occupational exposure record of the worker.

Under current NRC regulations, all occupational doses including emergency doses are required to be included as part of a workers' exposure history, and hence can affect the workers allowable exposure during the current quarter and subsequent quarters. For example, if a worker received a dose greater than 3 rem [10 CFR 20.101(b)(1)], the worker could not be allowed to receive any more occupational dose for the remainder of that quarter; and, that same worker, could not exceed 1.25 rem in any subsequent quarter until again permitted in accordance with the 5(N-18) dose-averaging equation to satisfy the requirements of 10 CFR 20.101(b)(2).

Evidently, in the absence of definitive NRC regulatory guidance, footnote 2 to 10 CFR 100.11(a)(1) has been misinterpreted. Referring to dose limitations on the sizing of exclusion areas for power reactor siting considerations, footnote 2 says, in part:

The whole body dose of 25 rem referred to above corresponds numerically to the once in a lifetime accidental or emergency dose for radiation workers which, according to NCRP recommendations may be disregarded in the determination of their radiation exposure status (see NBS Handbook 69 dated June 5, 1959).

No endorsement of the NBS (National Bureau of Standards) Handbook 69 emergency dose guidelines/recommendations nor application to 10 CFR 20 was ever intended.

If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office or this office.


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and Engineering Response
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Attachment:
List of Recently Issued IE Information Notices