

- (b) A significant number of people that the plan is intended to protect are not likely to avoid lethal radiation doses within the first eight hours after a major accident? If not, why not?

ANSWER.

Commission regulations and practice applicable to the siting and design of reactors, for example those in 10 CFR Parts 50 and 100, provide assurance that licensed nuclear power reactors do not pose any significant risk of lethal doses of radiation to the public. The Commission's emergency planning regulations further the Commission's objective of assuring adequate protection of the public health and safety by requiring measures to accommodate a spectrum of accidents (including those beyond design basis) to further enhance the protection offered by design, siting, and operational controls. In light of the foregoing, then, the premise of the question is incorrect.

Analyses of severe accidents conducted by NRC indicate that the vast majority of severe accidents would not lead to lethal radiation doses off site within the first eight hours after a major accident. All of the information available to the NRC indicates that the chances of a severe fuel damage accident are very low, perhaps one chance in ten thousand reactor years of operation. Even in the event of a severe fuel damage accident, associated safety systems would, in the great majority of cases, prevent lethal radiation doses off site within the first eight

hours after the onset of the accident. Consequently, for the major portion of the spectrum of potential accidents, including all design basis accidents, there are no projected early fatalities, and protective actions would significantly reduce radiation exposure for nearby populations. Thus, protection of the public from the consequences of extremely low probability accidents is accomplished by limiting the probability of their occurrence through system design and operating procedures, and by providing mitigation features, such as containment systems, as well as by requiring the capability for emergency response protective actions.