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Mr. Samuel J. Chilk
Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

We have reviewed the Advance Notice of Rulemaking: Revision of Reactor Siting Criteria and have the following comments:

General

The following four summary recommendations are detailed later in this letter:

Characteristics related to geoscience should be considered on a site-specific basis in regard to Class 9 accidents.

In addition to considerations of flood hazards, floodplains should be avoided in compliance with Executive Order 11988.

Volcanism should be considered a hazard requiring minimum standoff distances.

Siting should be strengthened as a factor to protect major regional water resources.

Report of the Siting Policy Task Force (NUREG-0625)

Very explicit discussion of the potential land-use conflicts and the opportunities for early coordination with Federal land-managing agencies such as the Bureau of Land Management and the Forest Service (see pp. 55-56) would be useful, because inevitably, when discussions of siting facilities in areas of lower population densities are undertaken, such areas include the public lands in the Western United States.

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Acknowledged by card.....

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Federal Register Notice of July 29, 1980

Page 59351, item A, no. 1. We believe that characteristics related to geoscience should be considered on a site-specific basis in evaluating possible consequences of Class 9 accidents. We are not willing to assume that design features could compensate for all unfavorable geoscience-related site characteristics that might adversely affect the consequences of a core melt-through. We understand that this concern has already been announced as interim policy by NRC, effective as of June 13, 1980 (F.R., v. 45, no. 116, p. 40101-40104). Accordingly, we strongly endorse the announcement that "It is the Commission's position that its Environmental Impact Statements shall include considerations of the site-specific environmental impacts attributable to accident sequences that lead to releases of radiation and/or radioactive materials, including sequences that can result in inadequate cooling of reactor fuel and to melting of the reactor core" (op. cit., par. 2).

NUREG-0625 is not entirely consistent in its summary of present practices with regard to geoscience-related site characteristics. Table 1 (p. 27-28) identifies only two such characteristics that are currently considered to be sufficiently critical to serve as a basis for possible rejection of reactor sites, these being "surface faulting" (p. 28) and "dam stability" (p. 29). The table is inconsistent with the accompanying text, which correctly identifies two additional geoscience-related site characteristics that could also be bases for site rejection: liquefaction and volcanism (p. 24, item 3).

Page 50353, item C, alt. A, no. 6. Sites on floodplains should be excluded or restricted by criteria even when they are not downstream from major dams. Executive Order 11988 prohibits Federal Agencies from supporting development on floodplains unless there is no practical alternative. For nuclear reactor sites the floodplain should be defined as the area inundated by the Probable Maximum Flood. For sites downstream from major dams the area to be avoided can be defined as the area inundated to significant depth in the event of catastrophic dam failure.

Page 50354, item C, alt. A, no. 2. It is stated in NUREG-0625 (p. 24, item 3) that volcanism is one of the natural phenomena which, under special circumstances, could be a basis for reactor site rejection. We believe it would be advisable to require minimum standoff distances around active or potentially active

volcanoes, in evaluating sites suitable for nuclear facilities. The specific distance would need to be evaluated in each case on the basis of topography and geology, precluding a specific answer to Question C3.

Page 50354, item D. We support the intent of this recommendation to limit potential consequences of Class 9 accidents on water resources. However, the recommendation is not clearly enough in accord with the first of the three conceptual goals of the Task Force: to strengthen siting, independent of plant design, as a factor of defense in depth. "Requiring a reasonable assurance that interdictive measures are possible" has implications both on site characteristics and design of engineered measures. But the emphasis is on man-made measures rather than on site characteristics; the thrust of the recommendation is analogous to the dose-assessment provision of the criteria to be revised which, as stated by the Task Force, has permitted engineered measures to compensate for unfavorable site characteristics. We believe the goal of strengthening siting as a factor in defense should also be applied to avoid compromising major regional water resources such as major rivers, estuaries, and the Great Lakes. (Physical site characteristics either can aid in containing the consequences of Class 9 accidents as they affect water resources or can exacerbate them.) We believe that site-criteria can be written to avoid sites that exacerbate the consequences of Class 9 accidents to water resources in the spirit of the third goal of the Task Force, minimizing risks without eliminating the nuclear option from large regions of the country. However, a more vigorous evaluation of accident effects on water resources than was evident from WASH-1400 would be required as a basis for such criteria.

We hope these comments will be helpful to you.

Sincerely,

James H. Rathlesberger
Special Assistant to
Assistant SECRETARY