



DOCKET NUMBER PR-140
PROPOSED RULE (50FR 13978) ⑥

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July 22, 1985

DOCKETING AND SERVICE
BRANCH

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTENTION: Docketing and Service Branch

REFERENCE: Request for Public Comments on Proposed Change To 10 CFR Part 140;
Criteria for an Extraordinary Nuclear Occurrence

Gentlemen:

The following comments are submitted by the Baltimore Gas and Electric Company in response to the Federal Register notice of April 9, 1985, regarding criteria for an Extraordinary Nuclear Occurrence (ENO). We welcome this opportunity to comment on the Commission's proposed revisions to the Code of Federal Regulations (CFR) covering financial protection requirements and indemnity agreements. We request you consider the following comments on the specific items addressed in the proposed rule change.

We firmly believe that this aspect of NRC Regulation warrants critical examination. However, as will become apparent from our responses to your proposed changes, we believe that most of the existing rule is reasonable and effective and that adoption of any proposed option would put the nuclear utility industry, and our nuclear insurers, in a worse position as compared to the present ENO criteria. Lowering the threshold for an ENO would lead to higher insurance premiums and could, at some point, endanger the availability of insurance coverage.

PROPOSED MODIFICATIONS TO 10 CFR 140

10 CFR 140.84 Criterion I - Substantial discharge of radioactive material or substantial radiation levels offsite.

1. In Part 140.84(a), the words "... one or more persons offsite were, could have been or might be exposed ..." would be changed by Option 1 to "... one or more persons offsite were or will probably be ..." This proposal would change the subjectivity of

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this criterion little. We acknowledge that eliminating the "could have been" or "might be" is advantageous, but replacing them with "will probably be" is not more objective. We feel that the determination of an ENO should be based on actual events and occurrences, not subjective predictions. We recommend changing this such that persons who were exposed to radiation specified is the only criteria.

2. Option 2 proposes a similar change to Part 140.84(a) as described above except that this option would specify not only "could have been" but changes the location of the individual from offsite to "... located on or near any site boundary throughout the duration of the accident." The elimination of "offsite" as a condition for location suggests that an individual onsite could qualify for Criterion I. We believe that defeats the purpose of this criteria by allowing a potentially insignificant event to meet the first ENO requirement.
3. The proposed Criterion I for Option 3 suggests a different approach to decide whether an ENO should be determined, in that it emphasizes the "will probably result" aspect in dealing with substantial injury or damages. Rather than requiring enumeration and evaluation of actual damages and identification of actual injuries, Option 3 oversimplifies the Commission's task and introduces an element of subjectivity. Our opposition to this philosophy is discussed in items 1 and 2 above.
4. Criterion I in Option 3 departs from the "two-tiered" approach which first requires a finding that substantial releases (or doses) occurred and then determines that substantial injury or damages resulted. Instead, just one set of criteria is given for the magnitude of the releases and doses that the Commission believes will satisfy the conditions for both substantial releases and "will probably result" in injury or damages. This again leaves the determination of injury or damage up to a subjective evaluation that could adversely affect the industry. We believe that enumeration techniques should be required in determining anything as controversial as an ENO.

For example, if an event at a Nuclear Power Plant produces "substantial releases", and meteorologic and plume conditions are just right, no substantial injury or damage may take place, yet in accordance with the proposal, an ENO could be ascertained.

5. In both Options 1 & 2, the proposed change to the table on Total Projected Radiation Doses shows a significant reduction in the various dose levels. These proposed reductions would lower the existing dose levels to values not much different from the current 10 CFR 20 limits. We believe that these level reductions seriously lower the threshold of an ENO and that the original purpose may be somewhat diminished by the adoption of these reduced limits. In the original conception of 10 CFR 140, "Congress intended that the waiver of defenses be limited to incidents resulting in **significant** (italics mine) injury or loss" and that current ENO criteria should be consistent with this. It is possible that the seriousness or significance of an ENO may be lessened somewhat by this lower criteria. We recommend retention of the current criteria.

10 CFR 140.85 Criterion II - Substantial damages to persons offsite or property offsite.

1. Option 1 proposes that the existing definition of substantial damage to persons be changed from the current "death or hospitalization" requirement to one where a radiation dose equivalent to the whole body or any organ in excess of 100 rads is received by five or more people. We could support this change, however we recommend that the dose be clearly stated as 100 rads/person in order to avoid any confusion about the dose and how it is to be applied.
2. Option 2 proposes a different way to measure "substantial damage to persons" by the use of a calculated collective dose of 100,000 person-rem delivered within a 50-mile radius of the site. We believe that this alternate is significantly more restrictive than Option 1 and difficult to calculate for an area of 7,854 square miles. A demographic study of the area around Calvert Cliffs shows that this collective dose would work out to be approximately .1 rem/person. The projected population growth would only lower the dose per person even further. Although the knowledge of meteorologic and plume conditions would help concentrate a release over a known area, this is still subjective and difficult to determine accurately. Because of the low dose levels and inexactness of the calculations, we suggest that a criteria for determining substantial injury similar to that espoused in Option 1 be adopted with the recommended alterations we discussed in item 1 above.
3. We believe the changes proposed in Options 1 & 2 for determining substantial property damage to be completely different and unrelated to the existing criteria. The elimination of a requirement to assess the cost of recovery or decontamination in 10 CFR 140.85(b) omits or fails to recognize the cost of substantial property damage to the owner. Property value is independent of the recovery, repair, or decontamination cost. A one-for-one substitution of property value for property damage neglects that the cost to the owner is based upon what it takes to replace or restore the property to the original value. Therefore, offsite property having a value of \$2,500,000 is not totally or completely lost under all credible scenarios of contamination. It is possible that this property could have a recovery or decontamination cost of \$25,000 for example. The determination of an ENO should be based upon replacement and decontamination cost to the owner, not the value of the property. We recommend retention of the current criteria in 10 CFR 140.85 (a)(2).
4. Option 2 proposes an additional criterion for determining substantial damage offsite by counting or estimating lost employment and the number of people evacuated. Even though unemployment and evacuation are certainly potential damages brought on by "nuclear occurrences", there is significant subjectivity involved in measuring the degree or magnitude of this damage. We feel this alternate means is inappropriate. Evacuation could result from various rational or irrational responses to an occurrence, or may even be unwarranted or unnecessary. In short, we agree that evacuation and unemployment are damages that could potentially result but because of the inexactness and conjecture involved in estimating this amount, we

feel an inappropriate conclusion could be easily reached. A criterion such as this could actually encourage hostile intervenors to precipitate actions leading to an unwarranted evacuation. An irrational, unnecessary evacuation may even result in more damage than the alternative of not evacuating. Therefore, we believe that the current criteria for measuring substantial damage should be retained.

SUMMARY

In conclusion, our Company acknowledges that weaknesses in the present criteria for determining an ENO do exist, however, the options proposed could lead to an inadvertent and unwarranted decision. Although the technique currently used is complex and involved, we feel that it is fair and devoid of subjectivity. The proposed options could lower the threshold of an ENO and may actually impact public safety negatively.

Should you have questions regarding these comments, we would be pleased to discuss them with you.

Very truly yours,

Steinar

JAT/SRC/sjb/dlm

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