

POOR ORIGINAL

OCT 15 1980

Mr. A. Philip Bray  
Vice President and General Manager  
General Electric Company  
Nuclear Power Systems Division  
175 Curtner Avenue  
San Jose, CA 95125

Dear Mr. Bray:

In your letter to Chairman Ahearne, dated March 7, 1980, you furnished your views and comments on the subject of BWR containment inerting for use in the Commission's consideration of certain proposed inerting requirements of BWR containments. We are now responding to your letter, cited above, since the Commission has elected to go forward with the rulemaking proceeding dealing with inerting of Mark I and II BWRs.

The Commission has benefited from and considered the information and comments provided to date by the General Electric Company on this topic.

Recognizing the importance of this issue, the Commission has made a serious effort to obtain all relevant input on the matter. This is illustrated by the chronology of events that have occurred to date, a copy of which is enclosed. As discussed by the NRC staff at various Commission briefings, there are several factors which impact on the inerting question. They include the potential overall accident risk reduction, the possible reduction of safety margins via inerting, the cost and operational impact due to inerting, as well as considerations of delay until more thorough studies have been completed in the accident scenarios and safety system design bases.

The degree of risk reduction due to inerting is difficult to determine using state-of-the-art techniques. Probabilistic risk assessment studies, although useful, must be viewed as only one of the factors in the inerting decision recognizing the uncertainty associated with inability to treat intermediate states for the various accident scenarios. Furthermore, potential safety margin decreases due to inerting has not been demonstrated to be significant, based on operational experience to date. Cost and operational impacts, similarly, have been shown to be small.

In view of the above and the demonstrated sensitivity of the small volume Mark I and II containments to the effects of hydrogen generation from large amounts of metal-water reaction, the Commission believes it would be prudent to consider inerting Mark I and II BWRs.

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Mr. A. Philip Bray

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To this end, the proposed interim rule has been published in The Federal Register (45FRG5466) for comment. Since, as we understand it, you have had certain related studies that will be completed during the time frame of the comment period, I strongly urge that any new information be transmitted in the form of comments to the proposed interim rule.

Sincerely,

(Signed) T. A. Rehm

*for* William J. Dircks  
Executive Director for Operations

Enclosure:  
Chronology of Events

- Distribution:
- Central files
- CSB Rdg
- EDO
- EDO Rdg File
- G. Errter (EDO-08542)
- SECY(3)(EDO)-08542)
- H. Denton
- E. Case
- K. Cornell
- H. Berkow
- W. Russell
- D. Ross
- D. Muller
- F. Schroeder
- NRR (EDO-08542)
- PDR
- LPDR
- OELD
- L. Rubenstein (2)
- S. Cavanaugh (EDO-08542)
- W. Butler
- J. Kudrick

OELD - *Concerned in similar  
ltr to J.E. Tribble  
dtd 10/15/80*

EDO *[Signature]*  
WDircks  
10/15/80

|         |          |         |             |          |          |          |
|---------|----------|---------|-------------|----------|----------|----------|
| OFFICE  | CSB:DSI  | CSB:DSI | AB:CS:DSI   | D:DSI    | DD:RR    | D:NRR    |
| SURNAME | JKudrick | WButler | LRubenstein | DRoss    | ECase    | HDenton  |
| DATE    | 10/9/80  | 10/9/80 | 10/9/80     | 10/10/80 | 10/10/80 | 10/17/80 |

CHRONOLOGY OF EVENTS

|                   |   |
|-------------------|---|
| February 22, 1980 | Staff issued SECY 80-107, Interim Hydrogen Control Requirements for Small Containments.               |
| March 19, 1980    | Commission Briefing on SECY 80-107.   |
| March 28, 1980    | Commission requested additional information Re: SECY 80-107.  |
| April 22, 1980    | } Staff issues SECY 80-107A and SECY 80-107B as responses to Commission's Requests of March 28, 1980. |
| June 20, 1980     |   |
| June 26, 1980     | Commission Briefing on SECY 80-107 series.  |
| July 11, 1980     | ACRS Meeting on Sequoyah.   |
| July 15, 1980     | ACRS Letter on Sequoyah.  |
| August 14, 1980   | } Commission Briefings on Hydrogen at Sequoyah.   |
| August 21, 1980   |   |
| August 28, 1980   | ACRS Meeting on Hydrogen Control.   |

ENCLOSURE