

From: Glenn Kelly *NR*
To: George Hubbard, Mark Rubin *NR*
Date: Tue, Apr 18, 2000 1:25 PM
Subject: My thoughts on issues raised in Orange County response to Board

George,

Enclosed are my thoughts/ readings of the issues raised by Orange County that are pertinent to the Draft Decommissioning Risk report. I also noted my thoughts as to whom would be the best person to respond to the issues. Some of this is similar to what you showed me earlier today.

Glenn

9/1/66

COMMENTS ON DRAFT DECOMMISSIONING RISK
BY ORANGE COUNTY, S.C., MARCH 29, 2000

COMMENT: (a) Draft study does not address how and with what probability partial drain down events can cause a zirconium fire.

(b) The Draft study uses NUREG/CR-0649 as a basis for resolving partial drain down events, but the NUREG/CR is deficient in its treatment of partial drain down events (no radiative heat transfer along axis of fuel assembly, no consideration of steam-zirc reaction, no propagation of exothermic reactions to nearby assemblies, assumed larger center-to-center distances between fuel). Even so, it still supports partial drain down as a concern.

(c) Older fuel is more vulnerable to ignition in a state of partial drainage than in a state of total drainage.

(d) A steam-zirconium reaction during partial drain down will produce hydrogen gas that could explode.

Tasked to: Joe Staudenmeier

COMMENT: Draft study does not address the risk of a criticality accident that arises from having low burnup fuel assemblies in a spent fuel pool.

Tasked to: Tony Ulses

COMMENT: No basis given for the threshold dose for relocation of 4 rem over a period of 5 years.

Tasked to: Jason Schaperow