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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

February 12, 1974

D. Okrent

THEOFANOUS' COMMENTS ON GRAND GULF

On February 5, 1974, I received a telephone call from Dr. Theofanous in which he identified the following list of items as still open to resolution:

A. ECCS

1. GETAB calculations for Grand Gulf
2. Jet Pump data quality at the suction
3. Inertia effects and asymmetries in the downcomer node
4. Adequacy of long term model for water inventory
5. System effects and modeling for short and long term models
6. System effects for application of FLECHT data
7. Significance of dissolved gases on lower plenum flashing
8. Evaluation of design margins for blowdown forces on internals (acoustic decompression)
9. Adequacy of the Moody model and current noding for break flow (possibility of the discharge coefficient (c) being a function of time or $c > 1.0$)

B. Containment

1. Adequacy of blowdown calculations for determining containment design criteria
2. Adequacy of noding and added mass calculation for the vent clearing model
3. Vent clearing for large scale tests do not compare as closely with predictions as do the small scale tests
4. There is very little fundamental understanding of the initial air sweeping transient for the Mark III containment as well as all previous pressure suppression containments (Mark I and II)
5. Quantification of splashing (also relevance of Swedish tests)
6. Experimental information on pool stratification and effects on containment pressure

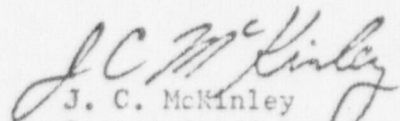
ATTACHMENT A

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7. Flow regimes at injection points (vents and relief valve discharge)
8. Experimental and theoretical information on loadings due to pool splashing

Dr. Theofanous plans to visit GE and discuss these matters prior to the March 4, 1974 meeting of the Grand Gulf Subcommittee.


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cc: ACRS Members
T. Theofanous