FEB 23 1984

MEMORANDUM FOR: Brian Sheron, Chief, Reactor Systems Branch, DSI

THRU: Norman Lauben, Section Leader, Section A, RSB

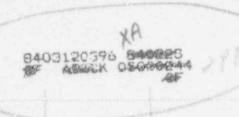FROM: Jack Guttmarn, Section A, Reactor Systems Branch

SUBJECT: STATUS REPORT REGARDING THE GINNA SGTR ANALYSIS
BY ANL (FIN NO. A-2311)

On February 14, 1984, I was contacted by ANL regarding the subject
analysis they are performing for RSB. At program initiation, we be-
lieved that given the RETRAN input model of the Ginna event (developed
by INPO), a reanalysis of the steam generator tube rupture event would
be straightforward and uncomplicated. Unfortunately, we are finding
this n t to be the case. The INPO analysis consisted of over 20 re-
starts which included extensive input model modifications. As it
turns out, this is not easily replicated. Also, we do not have the
exact version of the code used by INPO and are encountering diffi-
culties making their input execute on our version of the code. Due
to the extensive computer time required to complete the base case
analysis and our present understanding of the complexities of the
analysis, it is becoming apparent that the task of analyzing the
event with a PORV stuck open and another with continued ECC injection
may not be accomplished under present funding levels. These cases
are not just trip logic modifica' ons to the input deck as we pre-
viously believed them to be.

My instructions to ANL (Paul Abramson) were to complete the analysis
with the INPO model. Upon completion of this analysis, ANL was di-
rected to report to us the status, conclusions, and the requirements
for completing the contracted work.

It should be noted that ANL has developed a RELAP5 input deck and a
TRAC-PF1-MOD1 input deck for the Ginna plant. These decks are being
developed at ANL by foreign students at no manpower cost to our pro-
gram (IAEA funded). The Ginna deck developed and QA'd by the industry
was found to be significantly different from the Generic 2-Loop plant
developed on TRAC by SNL. Based on previous discussions with RG&E, we
learned that there exist two designs of a Westinghouse 2-Loop plant.
The generic (SNL) plant we believe may be more typical of the Kewaunee
NSSS design.

OFFICE ▶

SURNAME ▶

DATE ▶

FEB 23 1984

Based upon my understanding of the INPO model, it would not be surprising if neither TRAC nor RELAP5 could recreate the Ginna event with reasonable accuracy (this is not to imply that the analyses would be non-conservative). This observation is based on the lack of a mixture level calculation within a node and the potential for repressurization as the liquid level increases within a node (piston effects). Should either of these codes be able to recreate the event with reasonable accuracy, then the sensitivity studies outlined in the program could be accomplished with little effort (excluding computer costs).

I will keep you appraised of the progress being made.

Original signed by:

Jack Guttmann, Section A
Reactor Systems Branch, DSI

cc: R. W. Houston
S. Boyd
P. Abramson (ANL)

DISTRIBUTION
Docket File
RSB Rdg.
RSB Subject
JGuttmann
Guttmann Rdg.
NLauben

OFFICE ▶	RSB:DSI	RSB:DSI					
SURNAME ▶	JGuttmann:cs	NLauben					
DATE ▶	2/22/84	2/27/84					

NRC FORM 318 (10-80) NRCM 0240

OFFICIAL RECORD COPY