- 1 -

3426.1/MJG/83/07/29/0

MEMORANDUM FOR:	M. J. Wise				
	High-level Waste Licensing				
	Management Branch				
	Division of Waste Management				

FROM:

いたいというないないないないないないないないない

Matthew J. Gordon High-Level Waste Licensing Management Branch Division of Waste Management

Distribution WM File: /A-1166 MMHL r/f NMSS r/f REBrowning MJBe11 MRKnapp MJGordon & r/f HJMiller JOBunting **PSJustus** JTGreeves DRMattson

REVIEW OF PROBLEMS 3.1 & 3.2, VERIFICATION AND VALIDATION SUBJECT: SWIFT (SNLA, 5/83, FIN A-1166)

Both Problems 3.1 and 3.2 are simplified heat transport problems. They provide limited verification of SWIFT since fluid density and velocity variations in either time or space are not considered. They are most useful as analogs for radionuclide transport problems, in which concentrations are generally too small to cause density variations.

Within the limits of its assumptions, Problem 3.1 provides a successful verification of the solution techniques in SWIFT. The only comment that I have is that it would be useful to know the actual temperatures used for initial and boundary conditions instead of dimensionless temperatures.

In Problem 3.2, the linear length scale was chosen to be much smaller than in Problem 3.1 for no stated reason. There is also no explanation for the difference in chosen length scales between the linear and radial cases within Problem 3.2. The Ross et. al (1983) reference should be included in the reference list at the end of the document. Also, in Figures 3-3 through 3-6, the dashed line notation should be included in the "Legend".

Each problem was apparently tested on both SWIFT II, but only one set of results are given. It is unclear which code these results apply to. or if they apply to both.

WM Record File WM	Project 10 11/5	Grigin	n <del>prizen</del> na:		
Distribution:	(Pi)a Et MI L(E, M, S)	Matthew J. Gordon High-Level Waste Licensing Management Branch Division of Waste Management			
Return to WM, 523-SSA	C2	······································			· · · · · · · · · · · · · · · · · · ·
OFC : WMHL H J - :	•	:	:	:	•
NAME :MJGordon:lem	8410190141 PDR WMRES E	B30729 KIBANL		;	::
DATE :7/21/83 :	A-1166	PDR :	:	:	