



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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JUL 12 1979

MEMORANDUM FOR: Don Grimsley, Chief  
Freedom of Information & Privacy Branch

FROM: R. M. Scroggins, Director  
Administration & Resource Control Staff, RES

SUBJECT: RES RECORDS - DOCKET 50-320, TRANSMITTAL OF  
MONDAY, JULY 2, 1979

Please refer to my memorandum dated July 5, subject above.  
The enclosed page was inadvertently omitted from our transmittal  
and belongs in the May 22 (Enclosure 1 of my July 5 memorandum)  
letter from Denning to Cunningham as page 3 to the write-up entitled:  
"March/Corral Analyses of Hypothetical Meltdown Scenarios for  
Contingency Manning."

A handwritten signature in cursive script, appearing to read "R. M. Scroggins".

R. M. Scroggins, Director  
Administration & Resource Control Staff  
Office of Nuclear Regulatory Research

Enclosure:  
As stated

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Cunningham RES/PAS  
 BCL Meltdown Analysis  
 May 22, 1979

TABLE 2. MARCH RESULTS

Event	T, hr	P, psia	TSUMP, F	Z, cm	ΔR, cm	T, hr	P, psia	TSUMP, F	Z, cm	ΔR, cm
No Spray, No Coolers										
T <sub>0</sub> = 14d						T <sub>0</sub> = 21d				
Core uncovers	28.4	31				34.8	29			
Begin core melt	31.4	29				38.8	27			
End core melt	36.1	33				44.4	32			
Head failure	36.2	46				44.5	44			
Debris quench	36.3	70				44.6	68			
Begin concrete melt	38.5	49	197	0	0	47.6	46	194	0	0
10 hr concrete melt	48.5	36	230	1.3	21	57.6	35	219	0.3	17
20 hr concrete melt	58.5	49	257	35	53	67.6	42	252	31	47
Containment overpressure failure	300	135	384	85	319	360	135			
Spray On, No Coolers										
T <sub>0</sub> = 14d						T <sub>0</sub> = 21d				
Core uncovers	28.4	21				34.8	21			
Begin core melt	31.4	20				38.8	20			
End core melt	36.1	27				44.4	33			
Head failure	36.2	38				44.5	42			
Debris quench	36.3	60				44.6	64			
Begin concrete melt	38.5	28	185	0	0	47.6	28	187	0	0
10 hr concrete melt	48.5	27	182	1.7	20	57.6	28	182	0.3	17
20 hr concrete melt	58.5	31	190	37	51	67.6	31	190	32	46
Containment overpressure failure	372	135				450	135			
No Spray, Coolers On										
T <sub>0</sub> = 14d						T <sub>0</sub> = 21d				
Core uncovers	28.4	15				34.8	15			
Begin core melt	31.4	14.4				38.8	14.4			
End core melt	36.1	21				44.4	21			
Head failure	36.2	30				44.5	30			
Debris quench	36.3	49				44.6	49			
Begin concrete melt	38.5	17	125	0	0	47.6	17	123	0	0
10 hr concrete melt	48.5	17	156	2	19	57.6	17	149	0.3	16
20 hr concrete melt	58.5	20	220	42	51	67.6	20	219	38	46
Containment overpressure failure	None					None				
Spray On, Coolers On										
T <sub>0</sub> = 14d						T <sub>0</sub> = 21d				
Core uncovers	28.4	15				34.8	15			
Begin core melt	31.4	15				38.8	15			
End core melt	36.1	23				44.4	21			
Head failure	36.2	30				44.5	29			
Debris quench	36.3	49				44.6	47			
Begin concrete melt	38.5	18	115	0	0	47.6	18	110	0	0
10 hr concrete melt	48.5	18	102	2	19	57.6	18	97	0.3	16
20 hr concrete melt	58.5	21	107	40	51	67.6	20	102	38	46
Containment overpressure failure	None					None				

Notes

Initial conditions: primary full of 280° F water at 1000 psia; secondary assumed to be dry.

Z = downward concrete penetration, cm.

ΔR = radial concrete penetration, cm.

Spray on = 3000 gpm, injection from RWST, recirculation from sump.

Coolers on = 3 building coolers (with Oconec specs).

Overpressure failure times were extrapolated.

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