

IA-26  
~~Additional~~  
Materials

TASK CLOSE OUT DOCUMENT

FOIA G

Task Scope Additional calcs in  
support of IA-26-a

To: M. Levenson  
S. Levy  
E. Zebroski

Task No. IA-26-a addendum Date Complete 4/27/79

Reason felt task is complete:

Natural circulation initiated this date

Members of Committee

- R D Kelly
- J Hench
- E Stroupe
- D Touker
- 
- 
- 

R D Kelly  
Signed  
Committee Leader

Auxiliary Calculations In Support of IA-26-a

1. Reestimate equilibrium temperature after aborting natural circulation attempt at 3 hours considering A OTSG steamed down to 100°F to condenser vacuum.

Answer:  $\sim 250^\circ\text{F}$ ,  $\therefore$  no undue contraction

Estimate of equilibrium heat content after 3 hours of failed natural circulation

Primary side 11000 ft<sup>3</sup> @235°F +3 hrs. @2500 Btu/sec

Assuming 1°F/Btu

<del>11000</del> × 235	3 × 3600 × 2500
.01681	
153 × 10 <sup>6</sup> Btu	27.0 × 10 <sup>6</sup> Btu
• 11000 lbm	
.01681	654 × 10 <sup>3</sup> lbm

Secondary side OTSG B 15000 gals  
(deadlocked at initial normal operations  
conditions)  $\sim 120$  000 lbs.  
120,000 @235°F

28.2 × 10<sup>6</sup> Btu

Secondary side OTSG A  
(assumed steamed down to condenser vacuum)  
120,000 @ 100°F 12.0 × 10<sup>6</sup> Btu

Total 221 × 10<sup>6</sup> Btu  
and 894 × 10<sup>3</sup> lbm

Average = 247 Btu/lbm

i.e.: final mixed temp  $\sim 250^\circ\text{F}$