THE BABCOCK & WILCOX COMPANY
POWER GENERATION GROUP   PRELIMINARY   (10)

DISTRIBUTION	
From	
J. A. WEIMER/R. L. HARNE	BOS 663.5
Cust.	File No. or Ref.
TMI-2	
Subj.	Date
BOILING CONDITIONS IN CORE	APRIL 1, 1979

This letter to cover one customer and one subject only.

The following curve (and attached calculations) shows estimated time required to bring the water in the core to saturation temperature at 300, 600 and 1000 psia from its present 280°F energy level. This calculation assumes a no-flow condition with 161" of stagnant coolant available for heat transfer. A second calculation was made to determine additional time required to vaporize the coolant such that active fuel will be exposed to steam.
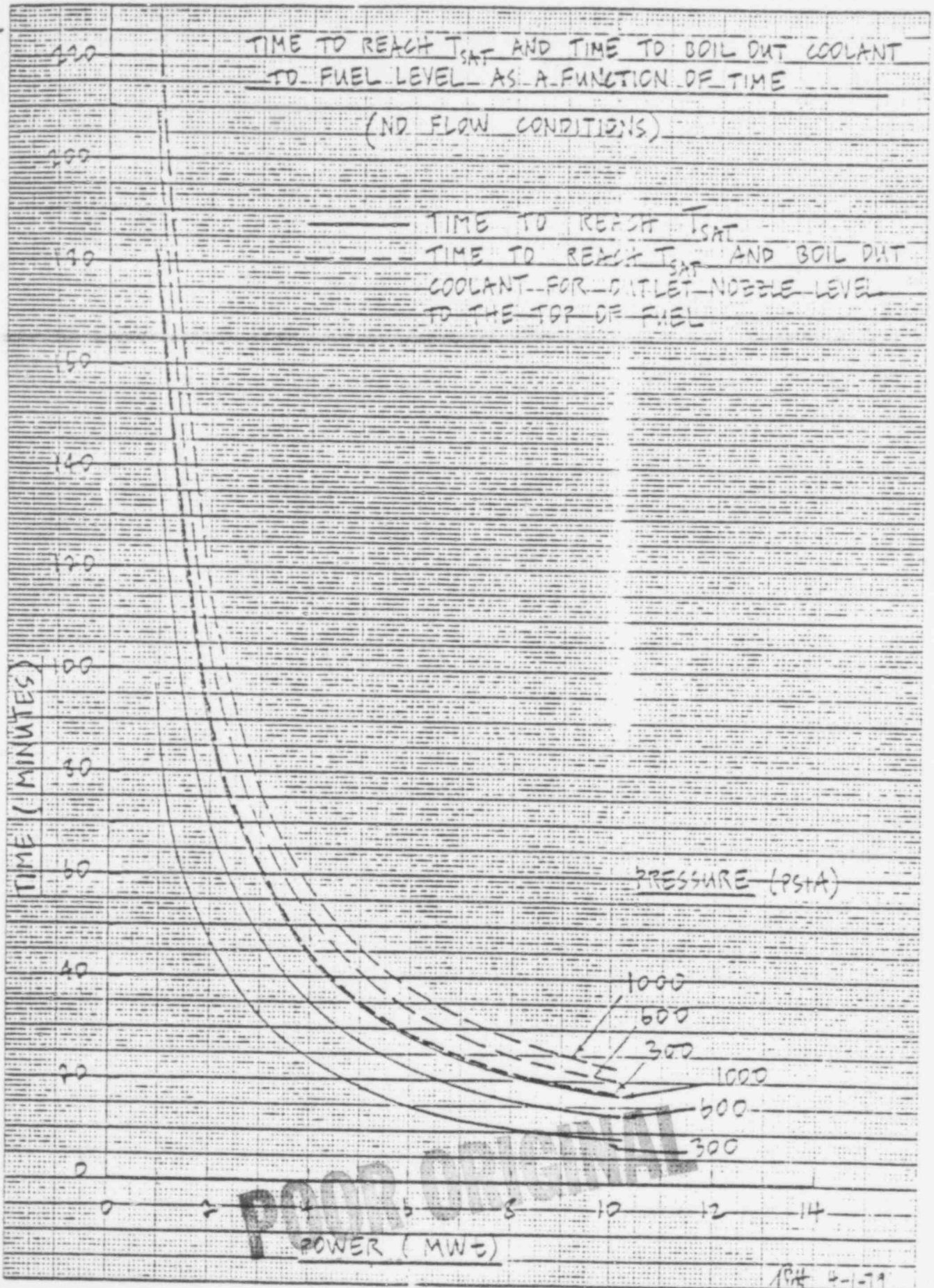
JAW/RLH:cmw
Attachment

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TIME TO REACH T_{SAT} AND TIME TO BOIL OUT COOLANT
TO FUEL LEVEL AS A FUNCTION OF TIME
(NO FLOW CONDITIONS)

——————— TIME TO REACH T_{SAT}
— — — — — TIME TO REACH T_{SAT} AND BOIL OUT
COOLANT FOR OUTLET NOZZLE LEVEL
TO THE TOP OF FUEL

PRESSURE (PSIA)

1000
600
300
1000
600
300

Y-axis: TIME (MINUTES) — 220, 200, 180, 160, 140, 120, 100, 80, 60, 40, 20, 0

X-axis: POWER (MWt) — 0, 2, 4, 6, 8, 10, 12, 14

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