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December 30, 1982
 4410-82-L-0073

TMI Program Office
 Attn: Mr. L. H. Barrett, Deputy Program Director
 US Nuclear Regulatory Commission
 c/o Three Mile Island Nuclear Station
 Middletown, PA 17057-0191

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
 Operating License No. DPR-73
 Docket No. 50-320
 Reactor Coolant System (RCS) Temperature

This letter is to inform you of the results of test measurements of RCS water temperature. The measurements were taken on December 2, 1982, by lowering a temporary, portable sensor through the open CRDM E-9. These measurements were taken to provide data independent of the incore thermocouples and was intended to verify the incore thermocouple readings.

When the test instrument was inserted, the RCS level was at 332'6". The attached table shows the temperature data obtained, along with reference points. At the time the instrument was inserted, the average core temperature, as determined by incore thermocouples, was 105.7°F. The reading from the incore thermocouple directly below CRDM E-9 was 106.4°F.

Comparison of this data indicates that the incore thermocouples are providing a reasonable measurement of the temperature of the water in the core cavity.

If you have any questions or desire further information, please contact Mr. J. E. Larson of my staff.

Sincerely,

B. K. Kanga
 B. K. Kanga
 Director, TMI-2

8301040692 821230
 PDR ADOCK 05000320
 P PDR

BKK/RBS/jep
 Attachment

CC: Dr. B. J. Snyder, Program Director - TMI Program Office

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U.S. NUCLEAR REGULATORY COMMISSION

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DATA
TEMPORARY TEMPERATURE PROBE

	<u>Elevation (ft.)</u>	<u>Reading (°F)</u>
RCS water	333	76
level 332'6"	332	81
	331	91
	330	97
	329	99
	328	99
	327	100
	326	101
	325	101
	324	102
	323	103
Top of Plenum	322	103
322'6"	321	102
	320	102
	319	102
	318	102
	317	102
	316	102
	315	102
	314	107
Top of	313	107
Brazement	312	107
313'	311	107
Bottom of	310	107
Plenum	309	107
312'0½"	308	107
	307	107
approximate		
level of rubble		
bed		