TMI Program Office
Attn: J. T. Collins, Deputy Program Manager
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pa. 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit II (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Mini Decay Heat Removal System Overpressurization
from Steam Generator Burp

This letter is in response to your letter, NRC/TMI-80-064, dated April 16, 1980. In your letter you identify two concerns associated with option (3) specified in our letter TMI-II-R-1149 dated December 17, 1979.

The purpose of our letter was to document the assessment for the potential, on a very conservative basis, of RCS overpressurization while the MDHR System was in operation. The overpressurization was hypothesized to occur as a result of a steam generator "burp".

Operating experience since December 17, 1979 has highlighted the very conservative nature of the assumptions used in the analysis. Plant operations between February 11, 1980 and March 3, 1980 and from March 20, 1980 to the present, closely approximate the condition of the RCS when on MDHR. RCS pressure during these intervals has remained stable even though many (in excess of fifty) steam generator "burps" have occurred. Observations have been made during these "burps" that indicate RCS overpressurization, as a result of a "burp", does not occur.

Figure 1 is a recent plot of RCS pressure. The pressure peaks coincide with (and are a direct result of) operation of the pressurizer heaters. Significantly, no RCS pressure increase can be attributed to RCS heatup following a steam generator "burp". It appears that the increase in volume attributed to RCS heatup subsequent to a "burp" is compensated for by the RCS leakage rate such that overpressurization of the system does not occur.

The analysis of this recent operating data indicates stable RCS pressures, even though intermittent RCS loop flow may occur during a steam generator "burp". Furthermore, we believe precautions to preclude steam generator "burps" and implementation of the OTSG "B" long term cooling mode to 120°F is unnecessary.
Sincerely,

/s/ G. K. Hovey

G. K. Hovey
Director, TMI-II

GKH:LJL:hah

Enclosure

cc: .. -·-
RCS PRESSURE VS. TIME

Indicates Time During Which Pressurizer Heaters Were Energized

Sources:

a) Pressure - RCS Pressure (DVM) as recorded hourly in the TMI-II Daily Log.

b) Pressurizer Heater Operation - TMI-II Control Room Log

c) Time of "Burps" - TMI-II Daily Operational Curves

Figure 1