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March 12, 1984
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Office of Nuclear Reactor Regulations
Attn: John F. Stolz, Chief
Operating Reactors Branch No. 4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

Three Mile Nuclear Station, Unit I (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Radiation Monitor Setpoints

Attached for your information is a copy of a letter to the PaDER
concerning the setpoints for RMA5 and RM-G25.

Sincerely,

H. D. Hukill,
Director, TMI-1

HDH:CWS:mle
Attachment

cc: H. Silver

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SUMMARY OF CONDENSOR OFF GAS
RADIATION MONITORS RESPONSES
AS THEY RELATE TO OTSG LEAKAGE

RMA-5 (Low Channel)

High Alarm Set Point: 2.5E5 cpm *

Basis:

A primary to secondary leak rate of 7 gph (0.12gpm) at a nominal failed fuel fraction of 0.03% will indicate 2.5E5 cpm. This high alarm set point also corresponds to the GPUNC administrative shutdown limit of 7 gph primary to secondary leakage.

Alert Alarm Set Point: 1E5 cpm *

Basis:

A primary to secondary leak rate of 3 gph (0.05 gpm) at nominal failed fuel fraction of 0.03% will indicate 1×10^5 cpm on RMA-5 low range. This alarm is set at a value higher than the baseline leak rate, approximately 50% of the administrative shutdown limit.

RMA-5 (High Channel)

High Alarm Set Point: 3E4 cpm *

Basis:

An Alert emergency classification** is declared at 3E4 cpm on RMA-5 High which corresponds to 10 mR/hr dose rate at the site boundary assuming a nominal failed fuel fraction of 0.03% and adverse meterology. A 250 gpm primary to secondary leak rate at a nominal failed fuel fraction of 0.03% is actually required to reach a dose rate of 10 mR/hr at site boundary.

Alert Alarm Set Point: 130 cpm *

Basis:

An Unusual Event is declared at 1 gpm primary to secondary leak rate which corresponds to 130 cpm on RMA-5 High based on a nominal failed fuel fraction of 0.03%. The 1 gpm is the Tech. Spec. shutdown limit.

RMG-25

High Alarm Set Point: 5.5E3 mR/hr *

Basis:

A Site emergency classification is declared at 5.5E3 mR/hr on RMG-25, which corresponds to 50 mR/hr dose rate at the site boundary assuming a nominal failed fuel fraction of 0.03% and adverse meterology.

RMG-25 (Continued)

Alert Alarm Set Point: 1.1E3 mR/hr *

Basis:

An Alert emergency classification ** is declared at 1.1E3 mR/hr on RMG-25, which corresponds to 10 mR/hr dose rate at the site boundary assuming a nominal failed fuel fraction of 0.03% and adverse meteorology. A 250 gpm primary to secondary leak rate at a nominal failed fuel fraction of 0.03% is actually required to reach a dose rate of 10 mR/hr at the site boundary.

* These values may change slightly due to instrument response characteristics.

** An Alert emergency classification is also declared for greater than 50 gpm primary to secondary leakrate when saturation margin is not lost regardless of radiation monitor reading.