CINTICHEM, INC.
a wholly owned subsidiary of
Medi-Physics, Inc. P.O. BOX 816, TUXEDO, NEW YORK 10987 (914) 351-2131

March 16, 1990

Dr. Malcolm R. Knapp
Director, Division of Radiation
Safety and Safeguards
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Dr. Knapp:

Reference: Dockets 50-54 and 70-687, CAL No. 1-90-005 Dated February 23, 1990

The above referenced Confirmatory Action Letter (CAL) defines the limits and methods that are being used to monitor and discharge water from the surface water drainage retention pond on the Cintichem site. Cintichem has been employing the actions defined by the referenced CAL and to date, it has proven practicable; however, we are concerned about our ability to apply them in the event of unusually adverse weather conditions.

We have asked our hydrogeologist consultant to estimate surface water drainage flow rates under two extreme storm conditions. The estimated resultant flow rates are summarized in the attached table. It is apparent from these estimates that if precipitation becomes severe enough the water flow into the retention pond will exceed the flow capacity of our 001 drain line which is measured to be approximately 700 GPM.

We want to prevent the inadvertent discharge into the reservoir of any water from the retention pond, and we have a proposed contingency plan to prevent this if and when the flow into the pond exceeds our capacity to drain the pond through the 001 outfall. In this event we propose that S-7 be diverted away from the retention pond and into the reservoir. We believe that, by doing this, the water that drains from the area having the highest probability for contamination (i.e. Zone 1) can still be monitored and controlled during severe rainstorms. The water from Zones 2 and 3 is drained from areas that are all up-gradient of Zone 1 and there is no contribution from drainage pipes associated with the reactor (building 1), hot laboratory (building 2), boiler house (building 5) and the engineering building (building 3).

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This alternative drainage plan will be employed only during the times when precipitation is severe enough to cause flow into the retention pond to exceed the actual flow rate through the 001 drain pipe. This contingency plan will be used as necessary only until the new site drainage system is constructed. The new site drainage system will be designed to accommodate the maximum credible storm condition for our local area.

Your prompt favorable response to this proposed contingency plan will enable us to prepare for quick implementation as necessary.

Very truly yours,

J. J. McGovern
Plant Manager

JJMcG/bjc

cc: Dr. F. Bradley, New York State Department of Labor
Dr. F. Caporuscio, Environmental Protection Agency
Ms. A. Dorozynski, Town of Tuxedo
Mr. J. Riley, Sterling Forest Corporation

TABLE 1

Calculated Peak and Average Discharge Rates Derived by the Rational Method of Calculation

The site area is subdivided into 3 zones, namely:

Zone 1 - 7.39 acres of drainage area upstream of S-1 & 2 (retention pond) and downstream of S-7

Zone 2 - 15.05 acres of drainage area upstream of S-7 and downstream of the south parking lot

Zone 3 - 18.02 acres of drainage area upstream of south parking lot

Summary of the calculated flow rate data under the hypothetical 100 year maximum storm and 2 year maximum storm events is as follows:

	ZONE 1		ZONE 2		ZONE 3	
	avg. flow	peak flow*	avg. flow	peak flow*	avg. flow	peak flow*
2 year max. storm	370 GPM	12,000 GPM	767 GPM	30,000 GPM	852 GPM	28,000 GPM
100 year max. storm	800 GPM	30,000 GPM	1,670 GPM	60,000 GPM	1,860 GPM	67,000 GPM

* Peak flows are of 5 minute duration.

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