Monsanto

FROM (NAME & LOCATION) A. L. Rasmussen, Krummrich

DATE : March 5, 1971

SUBJECT : WASTE AROCLOR DISPOSAL
KEY PREMISES REVIEW

REFERENCE :

TO :

cc: Messrs.
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Messrs.
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The above three people met to review the "key premises" for the Waste Aroclor Disposal project, CEA 2415. We agreed that all of the key premises as stated in our memo of 12/7/70 are still valid. In addition, we added premise #9.

Key premises:

1. The incinerator-scrubber package will perform as designed.

   This system is being purchased from John Zink Company, consequently Monsanto is relying upon Zink's technology. Two days of tests on Aroclor materials were run at Zink's pilot plant. A performance warranty has been signed which specifies rates, efficiency, pollution emissions, etc.

2. The incinerator has sufficient capacity to burn all waste PCB liquids returned over the next 2-3 years.

   At the present time, it is impossible to predict how much PCB will be returned. A completely "closed-system" return for incineration of PCB's manufactured would greatly overload the incinerator. Installation of a solids burning system in conjunction with the incinerator could require 1/3 of the incinerator capacity.

3. The incinerator will satisfactorily dispose of PCB liquids containing contaminants.

   The tests at Zink were run only on pure Aroclors, Montar, and Inerteen PPO. We know that the PCB liquids being returned contain various contaminates such as mineral oil, kerosene, xylene, etc. Since these materials can be considered fuels, they should present no major difficulty in incineration.

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3. (cont'd.)

Some Pydrauls are also to be incinerated. Mixing Pydrauls (containing phosphate esters) with 1260 Aroclor could produce a mixture difficult to burn. With the small quantities involved, we do not feel it justified to run further tests (~$1500 cost) at Zink at this time.

4. The materials of construction will have an acceptable life.

The materials were selected on the best knowledge available to CED and WGK materials specialists. However, these selections were based on anticipated conditions and no corrosion tests have been made.

5. The tight PCB emission criteria to the sewers can be met without additional treatment of the sewered streams.

The overflow water from the settling basin and the HCl stream from the scrubbing tower will go directly to the sewer. The project carries some money in undeveloped design for a carbon absorption or other system. However, technology is not currently available for designing such a system.

6. The Montar pickup and handling system will function as envisioned.

Several problems may prove themselves difficult to resolve:

a) Pumping the high-crystallizing point Montars.

b) Proper mixing of the 1242 and Montars.

c) Settling out of the lime.

7. The incinerator must operate on a round-the-clock, 7 day a week basis.

The present state of knowledge relative to costs, safety, and maintenance dictate such a mode of operation. The incinerator will be started-up in this manner.

Initially, we plan to run full-out until inventories are exhausted and then shut down. This will require part-time supervision - possibly the Dept. 246 supervision.

Experience may dictate another method of operation for subsequent runs.

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8. The Aroclor incinerator will be able to burn other combustible waste generated by Monsanto.

   This assumption is in the back of most people's minds. However, this assumes, a) the incinerator will have excess capacities, b) all materials of construction are compatible, and c) the products of combustion will be scrubbed out in the existing system.

   Each proposed material for incineration will need to be considered separately and some sort of tests likely run.

9. The Aroclor incinerator will meet all State and Federal criteria and regulations to permit operation.

   An Installation Permit Application has been filed with the Illinois Environmental Protective Agency. This permit must be approved before the incinerator can start-up.

A. L. Rasmussen
Manufacturing Representative

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