Fabs Dept 246

Monsanto 246

FROM (NAME & LOCATION): George Ostroot, (6073) - General Offices (Zone 262)

DATE: July 31, 1970

cc: S&PP Project File
S&PP Location File

SUBJECT: Pre-Project Loss Prevention
Report No. 70-38

REFERENCE: CEA 8042

TO : Mr. N. B. Wolk

COPIES TO THOSE PRESENT

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DATE AND PLACE OF MEETING July 23, 1970, Creve Coeur, Missouri.

CEA 8042 Aroclor Incineration, W. G. Krummrich Plant, Sauget, Illinois.

The objective of this project is to destroy used Aroclor retuned by customers, to destroy residue from the distillation of Aroclor and to provide flexibility for future incineration of solid wastes containing Aroclor. Capital investment will be in the range of $400,000 with a completion date targeted for May, 1971.

The scope of the project includes:

Drum unloading facilites and facilities for pumping contents into storage tanks.

Tank truck unloading facilities.

Use of existing dock for unloading tank cars.

Three 20,000 gallon agitated tanks with heating coils and insulation.

15M BTU/hr incinerator, gas fired, No. 2 oil standby.

Quench pot, venturi scrubber, jacketed tower and stack and carbon absorption column.

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High pressure (85" H_2O) air blower with motor drive.

Use of the present Phenol fusion area for the installation of the facilities.

SAFETY AND LOSS PREVENTION RECOMMENDATIONS

1. Provide weak seam roofs for explosion venting of the 20,000 gallon storage tanks. Inert the vapor space in the tanks. The waste Aroclors contain oils and solvents that provide an explosion hazard.

2. Design tank filling piping so as to avoid free fall of material.

3. Provide explosion venting for the incinerator by installing a weak seam on the back end of the incinerator and line this end with light weight refactory to minimize the inertia effect.

4. Provide the incinerator burner with FIA approved type combustion safeguards and process interlocks, generally as reviewed in the meeting. When specific information on actual type of burner is available details of combustion safeguards should be reviewed with the project safety manager.

5. Locate the air blower so that its air intake is as far as possible from the Interim PNA (future ONP) area. The middle of the incinerator system area lies about 125 feet from Interim PNA. S&PP Design Guide #16 calls for a 150 foot separation of open (incinerator) from a high hazard process unit.

ENVIRONMENTAL CONTROL This project is an environmental control measure. The allowable contribution of PCB's from the incinerator system to the total plant sewer stream has been set at 3 PPB (0.012 pounds per hour).

Incineration tests on Aroclor 1242 and 1260, Inerteen PPO and residues indicate that the required level of destruction can be obtained by burning at temperatures between 2000°F and 2800°F. Thus, the primary potentials for exceeding the total minimum contribution of PCB's appear to be in the following areas:

1. Curbing, paving, and draining all handling and unloading areas to completely capture sumps in order to contain leaks and spills and contaminated rainwater. Special attention should be paid to tank truck and tank car unloading areas. It is contemplated to pump all collected contaminants through the carbon absorption column to remove residual PCB's. Provisions should be made to recycle concentrated solutions from spills through the incinerator system.

2. Washing out tank cars and tank trucks before releasing to the railroad or trucking firm.

3. Washing out or safely disposing of drums in which Aroclor has been returned.

RISK EVALUATION The major loss exposure on this project is a potential combustion chamber explosion in the incinerator, with a maximum foreseeable loss of $50,00 property damage.

Toxicity and Pollution This facility is designed to thermally destroy PCB's to level which will limit its concentration in the total plant sewer to 10 ppb. HCl and particulates will be scrubbed from the incinerator flue gas and, therefore, future neutralization of the scrubber liquor may be required. The system will include facilities to collect and treat spills, tank car and drum wash water, and contaminated rainwater. The effluent from this facility is expected to meet foreseeable regulations for PCB's.

LOSS PREVENTION CHECKLIST Attached to Mr. Wolk's copy of this report is a copy of Form G-1425 Loss Prevention Review and Environmental Control Checklist, which should be considered for this project.

LOSS PREVENTION FREVIEW BY PLANT The S&PP Branch of CED cannot review design prints and follow construction progress in detail during the project. S&PP requests interested plant personnel, including safety personnel, to hold additional loss prevention reviews at the plant to follow the development of design drawings, and to check the compliance with loss prevention recommendations.

SAFETY MANAGER George Ostroot will be Safety Manager for this project.

The Project Manager should arrange a Loss Prevention Design review, including plant safety personnel, as soon as sufficient details are available.

George Ostroot, Jr.

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Attachment

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