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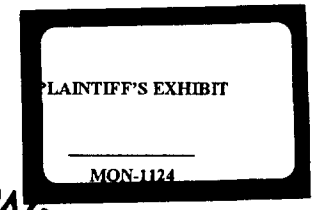


CONFIDENTIAL

MONSANTO CHEMICAL COMPANY
TEXAS CITY, TEXAS

July 10, 1959

cc: Plant Manager's Safety Board

To: W. R. Nisbet

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R. W. Rotzler
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S. L. Hunter

Subject: Investigation of a Process Spill in VCM - Department 23

SUMMARY:

At 8:37 AM, July 9, 1959, a spill alarm was turned in from the VCM area. The spill consisted of an overflow of ethylene dichloride from the EDC drain tank (23T2). The spill was stopped almost immediately, with loss of an estimated 50 gallons of EDC to the sewer. The all-clear sounded at 8:42 AM.

DESCRIPTION:

A reactor exchanger, 23E2-3, had been drained to the EDC drain tank (23T2), on July 8, 1959, to prepare for blinding of the process piping. The blinding was not done on July 8. On July 9, the department 23 operator proceeded to check the exchanger prior to turning it over to maintenance for blinding. In checking the exchanger, the operator drained less than a quart of EDC, and noticed only steady dripping after rodding through the drain valve. The operator told the fitter leadman that the exchanger was ready for blinding. The operator went on to other duties.

The fitters had removed all but two or three bolts from a ten inch flange on the exit (top) of the exchanger when EDC began to flow from the flange opening. When the fitters realized that the quantity of EDC was more than the spool could contain, they notified the operator and chief operator who were checking other equipment nearby. To try and stop this small leak at the flange, the operator and chief proceeded to open the valves which drain the exchanger to the 23T2. Soon thereafter the overflow of EDC from the 23T2 atmospheric vent was noticed. The chief and operator attempted to seat the exchanger block valve, but the leak continued. They then opened the exchanger drain valves to the 23T2.

Soon thereafter, EDC started to flow from the vent of the 23T2 tank onto the concrete pad. The chief operator then shut off the EDC circulating pump while the operator closed the exchanger drain valve. Because the spill was adjacent to the department 22 EDC crackers, the chief operator returned to the control room for the purpose of turning in the spill alarm. The overflow stopped about the time the spill alarm sounded. No fire department action was required at the scene.

PROBABLE CAUSE:

The primary cause was improper preparation of the 23E2-3 for maintenance. The secondary cause, and the one directly associated with the spill, was failure of the operator to personally check the level of liquid in the 23T2.

ACTION TO BE TAKEN:

All conditions which led to this spill were reviewed with the operator and chief involved. Corrective action will be taken with respect to the negligence of the operator involved.

Written operating procedures will be reviewed and altered as necessary as the result of this incident.

H. M. Keating

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