

TO: A.M. Matyger
FROM: W.C. Smith

Pedricktown

1/28/86

Near Miss
Pedricktown, N.J. Plant
Repetitive Accident Type 10A
Toxic Chemical Release

GV
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SUMMARY

On January 17, 1986, Vinyl Chloride was released into the Mass Resin Process Building when the manhead o-ring on Autoclave 8300 partially blew out. No injuries occurred.

Board of Review

A board of review was held at 0830 hours following the incident. Those attending the meeting were:

Al Matyger
Stu McDonald

Area Manager
Mass Resin Engineer
Mass Resin Lead technician
Mass Resin Technician
Mass Resin Technician
Computer Console Technician

NARRATIVE

The Mass Resin area was in the process of running a routine product. At 1230 hours on 1/17/86, Autoclave 8300 (RE8300) was "set-up" for charging and became "ready" at 0253 hours. The charging technician reported that the o-ring looked good and fit snugly into the o-ring groove. He also stated that he did not have any difficulty in seating the manhead. The autoclave passed the vacuum test and at 0343 hours was charged with initial vinyl chloride under standard operating procedure without any incident.

At 0453 hours, the seed charge was dropped from the prepoly. The charging technician added the rinse catalyst at 0503 and reaction temperature and pressure was achieved at 0552 hours.

At 0635 hours, reported that he heard a sound similar to a gas discharge but he could not isolate the source of the noise. At 0639 hours, Console Technician, stated that the computer alarmed indicating that Autoclave 8300 had a low internal pressure of 138 psig (set point of 155 psig).

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put on a Scott Air Pak and proceeded to investigate the source of the low internal pressure on REB300. Upon determining that a leak was occurring by the manhead, notified the Mass Resin building personnel, the Console Technician, and sounded the gas alarm. The autoclave was immediately put on full recovery and given full cooling water by the Console Technician.

Simultaneously, while not being immediately aware of the situation (he had been breaking for the Console Technician) entered the Mass Resin Building. He sensed the presence of VCM, left the building, donned a Scott Air Pak and joined

All three Mass Resin personnel, wearing Scott Air Paks, worked to minimize the extent of the leak by applying wet rags, exhaust hoses, and emergency covers to the manhead. called the Spray Dryer Technician and told him to shut down both direct fired spray dryer burners. (Standard Operating Procedure). Within a few minutes the leak was under control because REB300 pressure had dropped.

Facts Surrounding the Incident

- 1 Autoclave 8300 passed all precharging tests and checks.
2. The manhead o-ring was inspected and looked good prior to reinstallation.
3. The manhead was installed properly.
4. are all experienced in the Mass Resin operation and safety procedures.
5. There were no injuries.
6. There was no damage to equipment.
7. All emergency procedures were followed.

Conclusion of Findings

The cause of this release was equipment failure due to a failure of the autoclave's manhead o-ring.

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Management System Investigation

1. Autoclave 8300 o-ring was inspected, as part of the standard operating procedure, prior to the installation of the manhead.
2. All operating procedures were followed by the Mass Resin personnel.
3. All Mass Resin personnel are trained to operate the building independently of each other.
4. One of the Scott Air Paks, that was used initially, had some dust in the face mask.
5. The North door gas alarm switch was not conveniently accessible due to the presence of the leaking manhead.
6. There was good cooperation between the different manufacturing departments.
7. The loss was approximately 1,830 pounds of a combination of vinyl chloride monomer and poly vinyl chloride resin.

Corrective Action

1. An inspection of all Scott Air Paks located outside will be made to insure that they are ready for use. Particular attention will be paid to the cleanliness of these units. Face masks will be placed in plastic bags. (Safety Department by 2/15/86)
2. Investigate the need to install a gas alarm switch by the west outside door. (Bill Smith by 2/10/86)
3. Evaluate the o-ring that failed as well as other similar o-rings for any possible defects. (Bill Smith/Stuart McDonald/Kevin Bodine by 2/15/86)
4. Review the incident at all shift safety meetings. (Al Matyger)

Bill Smith

Gak/013/re

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To: C. R. Carter

one page

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THE COURIER-JOURNAL, SUNDAY, JANUARY 5, 1988

Chemical spill at Goodrich is contained

Fifty to 100 gallons of methyl acrylate and ethyl acrylate overflowed from a storage tank at B. F. Goodrich Co. about 7 p.m. last night, authorities said.

The spill was contained inside the plant at the plant at 4100 Bella Lane and presented no danger to the public, but a small amount entered the plant's internal sewage system, plant manager Ed Beeler said.

Firefighters from Lake Dreamland, Pleasure Ridge Park, Dixie Suburban and Louisville responded to the spill.

Lake Dreamland Assistant Chief John Wilkinson said about 85 firefighters were on the scene, but most were standing by as a safety precaution.

The plant stopped its sewage flow to Metropolitan Sewer District sewers immediately after the spill and began diluting its own system, Beeler said.

Wilkinson said 12 firefighters wearing air tanks and masks spread an absorbing power on the chemical that was on the ground.

He said fumes from the spill were dissipated by light winds.

Wilkinson said firefighters cleared from the scene by 8 p.m.

Beeler said two employees were exposed to the chemical and were observed by Emergency Medical Services technicians and company medical personnel but neither suffered any harmful effects.

Chronic exposure to methyl acrylate has produced injuries to lungs, liver and kidneys in laboratory animals.

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