

CONOCO CHEMICALS
ABERDEEN PLANT SAFETY AUDIT
1976

AREA OF INSPECTION: VCM UNLOADING AND TANK FARM

DATE OF INSPECTION: September 30, 1976

DESCRIPTION OF PROBLEMS: Following pages 1 - 3

VCM UNLOADING AND TANK FARM

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- E -
1. Bonding wires (welded) must be installed across rail joints in the area of the unloading racks. Ground rods must also be installed. This must be done to maintain ground continuity in the unloading system.
 - O - 2. VCM car C.O.N.X. 8827 was unloaded without being attached to the unloading rack ground.
 - Q M 3. Unloading rack ground clamps do not comply with Conoco Engineering specification I-1,3.10.7. Several clamps are missing.
 4. Unloading rack ground rods do not meet Conoco Engineering specification I-1,3.10.4. Spring clamps must be used.
 4. UTLX cars 37370, 37342, and 37388 were spotted and left without car brakes being set. All cars were chocked.
 6. Unloading racks
 - a. Housekeeping and storage seems to be a problem. An assortment of gloves, tools, and pipefittings was strewn across the top of the racks. In each case, air hoses were left uncoiled on top of the rack.
 - b. The handrails on the racks are not continuous around the perimeter, and are not necessarily connected to the stair handrails. Handrails on the car access ramps are certain to claim the minimum of a first aid case as the result of someone's hand or fingers being caught between the rack and ramp handrails. The law requires handrails to be engineered with enough strength so as to be able to support a 200 pound load applied in any direction to the top rail.
 - c. Rack grating is unanchored, buckled, and in one instance, a different thickness (tripping hazard). Alligator clips are not considered safe and therefore are unacceptable as fastening devices.
 - d. The support system for the car piping booms needs to be redesigned. Particular attention should be given to the variation of car dome heights to eliminate or minimize hose damage that results from hoses colliding with handrails. In addition, consideration should be given to breathing air hose locations. This hose can be run along the boom piping. This would help to eliminate the hose storage problem.
 - e. Broken wires in the hose outer braiding could cause puncture wounds through gloves (cloth palm).
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- f. Car access ramps are not designed to support the weight of a man. Many of the top welds fusing the load bearing channels are cracked and structurally questionable. These channels are aluminum.

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Removes. Pressure gauge glass is broken out on nearly all gauges.

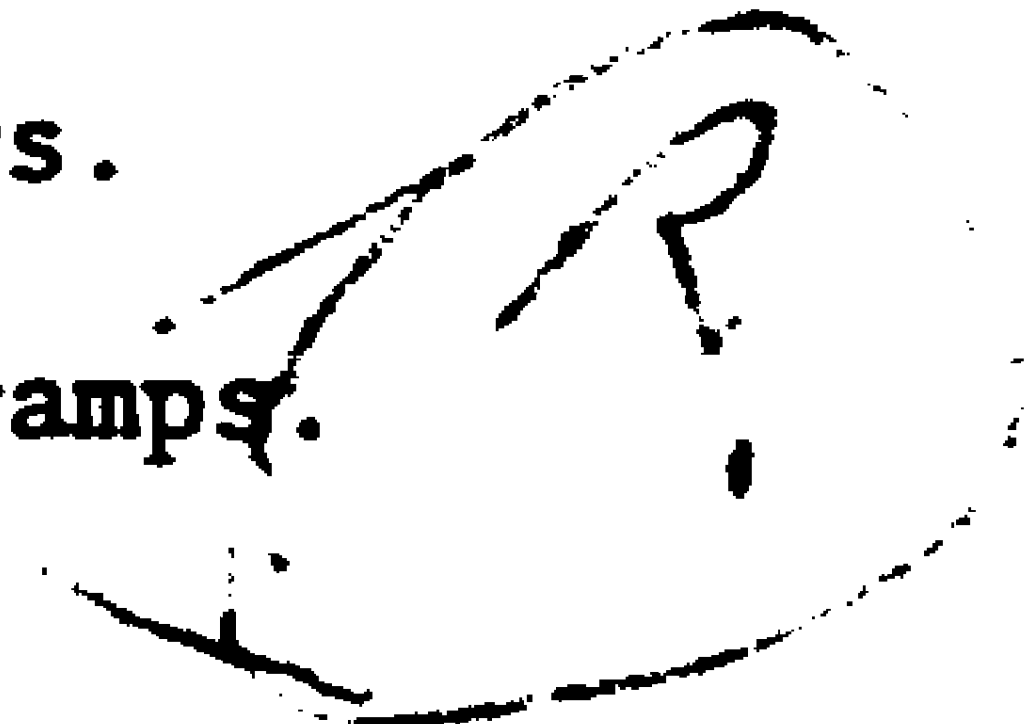
O-M

- h. Vapor line to spot 6 needs to be supported on car end of boom.

O-M

- i. Liquid line to spots 2 & 7 is not bolted to its hangars.

- j. Toe boards have not been installed on the car access ramps. In some cases, toe boards have been installed and left unanchored on the racks.



7. A derail must be installed south of the spur switch. Operating procedures should be modified or enforced to include (blue background- white letters, "Caution- Tank Car Connected" signs on the head (train) end of each car while it is hooked up).

S-EX

8. Outdoor lights currently in use in this area are not approved for use in Class I, Group D locations.

9. Conduits to control equipment may not be properly sealed.

10. Threaded junction box cover behind "Varec" tank gauge is loose. Less than hand tight.

11. Breathing air hose going to top of sphere leaks and needs to be replaced with tubing.

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12. Rupture disc on east sphere relief valve leaks and should be replaced.

13. Fill dirt west of bullets is eroding away.

14. Sphere stair transition from straight to curved stair of sphere does not provide for uniform tread rise. This should be noted by painting the culpret steps with yellow and installing a sign to call stair users' attention to the problem.

15. South regulated area boundary missing at compressor shed.

16. Is it proper to install quick-acting valves on all vents to atmosphere at compressor shed?

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17. Coupling guards to center & east bullet transfer pumps need to be reanchored.

18. How often are relief valves checked? Do we need a PM program for these vital valves?

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- M 19. Packing adjustment cover not in place on south corken compressor.
- O-M 20. Anchor relief valve discharge piping to roof above center. Corken compressor (on liquid line).
21. Rails and railbed at termination point need to be repaired, replaced as necessary, and reinforced.
- 97 22. VCM tanks need to be in dikes.
23. VCM high level alarms need to be installed in this area. We were in area from about 1:45pm to 3:20pm, being exposed to VCM unknowingly part of the time. (Found out AM of 10-1-76).

Al Sather

tp

cc; GGD, RWS, ELK, DEM, DWH, JAD