VINYLIDENE CHLORIDE (VDCM) TANK CAR LOADING PROCEDURE

1988

SL 086840

VINYLIDENE CHLORIDE TANK CAR LOADING PROCEDURE

1. Close derails and setup blue flag.

   Set hand brakes and position chocks under tank car wheels.

2. Secure area against unauthorized personnel and all sources of ignition.

   Check cars for the following:

   a. Insert four UN 1303 placards.

   b. Proper stenciling, i.e., DOT No., water capacity, VINYLIDENE CHLORIDE in four inch letters, tare weight.

   c. Test dates for tank and safety relief valve. Tank test interval is 10 years, safety relief valve interval is 5 years. Year tested and year due test should be stenciled on car.

      EXAMPLE: SRV TESTED - 1988 DUE - 1993
               TANK TESTED - 1988 DUE - 1998

   d. Check all valves and equipment inside dome. All appurtenances should be in good working condition.

   e. Check underframe of tank car for damaged wheels, couplers, bolsters, etc.

3. Check gauging device to insure it is operational.

   Float Device - Operate gauge rod until magnets in device engage. If rod and float magnets cannot be engaged, or if the float is stuck at upper level, notify Foreman.

4. Attach two grounding cables. One from loading line to dome of tank car and one from rack to tank car handrail.

   Check both ends of the grounding cables with a continuity meter.

   Proper grounding of tank car during loading is necessary to prevent static electricity build up.

5. Remove plugs from all valves and leave out during loading.

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CAUTION: Possible leak through on any car valve will trap vinylidene chloride behind plug. Remove with caution.

6. Install one 2" nipple into liquid valve and one 2" nipple into vapor valve.

   Hook up vapor and liquid hoses to 2" nipples.

   Bleed valves on vapor, liquid fittings to car and header must be closed after connecting hoses.

   a. Before removing plugs from end of hoses, pressurize four times with nitrogen and blown down to VDCM incinerator header.

   b. There must be less pressure on incinerator header than on hose.

7. Connect portable oxygen analyzer to vent header.

8. Check oxygen in car by venting vapor from car through vapor hose and VDCM incinerator header.

   a. Vent from car must go to VDCM incinerator header.

   b. Car pressure must always exceed incinerator header pressure.

   c. If insufficient pressure is on car to allow oxygen sampling, pressurize car with nitrogen to appropriate pressure.

9. If oxygen content is greater than 200 ppm, the car must be pressurized to 50 psig with nitrogen, blown down to the incinerator, and the oxygen rechecked with the analyzer.

   a. Blowdown from car must go to the VDCM incinerator header.

   b. Car pressure must always exceed incinerator header pressure.

10. Contact Operations for day tank clearance (phone #2563).

    After obtaining day tank number, open suction line from day tank, suction and discharge valves at pump. Make sure recirculation line back to storage tank being used is open slightly. Also make sure recirculation valves to storage tanks not being used are closed.

Use caution during line up of day tank and pump. Look for valve and packing leaks. Correct all leaks before commencing loading.

11. Before opening loading line to car, check to make sure:

    a. Bleed valves on loading hose connections are closed.

    b. Bleed valves on vapor hose connections are closed.

    c. Liquid valve on car is open.

12. Open loading valve and gravity feed car a few minutes before starting pump.

    Watch for leaking flanges, hose connections and hoses. Leaks must be corrected before continuing loading.

13. Start loading pump and adjust discharge pressure to appropriate level.

    Loading pump must be started at pump only. When starting pump, check for seal and valve leaks. Correct all leaks before continuing loading.

14. Consult applicable tank car outage table for loading outage.

15. Gauging Car with Float Device

    From the applicable outage table, determine the gauge rod setting. The gauge rod is calibrated for inches of outage.

    After the gauge rod starts to move upward from its lowest setting, continue to monitor the outage until the final outage is reached. During the last few inches of outage, loading valve may be partially closed to allow the car to be filled slowly with product.

    Car may be overfilled if gauging is done improperly.

    Remove any excess product from car if overfilling occurs.

16. When loading is completed:

    a. Shut down loading pump and close liquid valve on product line.

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KEY POINTS

A. Hands on training will be provided by experienced personnel.

B. Per DOT regulations, severe penalties can be imposed upon us for not placarding tank cars properly.

C. Use new placards for each shipment.