

July 2, 1987

Mr. Walter Allen
PPG INDUSTRIES
P.O. Box 1000
Lake Charles, LA 70602

Dear Walter:

Enclosed is our recommended procedure for unloading 6,000 gallon/40,000 pound containers of Butylene Oxide. Please be advised that nitrogen pressure and/or a dedicated unloading pump are recommended.

If you have any additional questions or desire our assistance in any way, do not hesitate to call me at 201-316-4418.

Very truly yours,

Mitch Jackson/PTT

Mitchell M. Jackson
Product Specialist
Energy Chemicals

/jmc

Enclosure

cc: Walt T. Goode

See Paragraph 174.67(j)

If necessary to discontinue unloading of tank car for any reason, all unloading connections must be disconnected. All valves must first be tightly closed, and the closures of all other openings securely applied.

See Paragraph 174.67(k)

As soon as tank car is completely unloaded, all valves must be made tight, the unloading connections must be removed, and all other closures made tight.

See Paragraph 174.67(m)

If oil or gasoline has been spilled on the ground around connections it must be covered with fresh dry sand or dirt.

See Paragraph 174.67(n)

All tools and implements used in connection with unloading should be kept free of oil, dirt and grit.

See Paragraph 174.69

After tank car is unloaded, the party unloading the car must remove all placards from the car. For empty tank cars the placards must be removed, replaced or reversed in accordance with paragraph 172.510(c).

See Paragraph 172.510(c)

Each empty tank car must be placarded with an empty placard that corresponds to the tank car last contained.

See Paragraph 174.525

"Dangerous - Empty" placards



TANK CAR LOADING

Wear Proper Protective Equipment.

1. If tank car has not been in previous butylene oxide service, check to determine if car has been cleaned. Then pressurize tank car to 35 psig with nitrogen and check for leaks with soap solution.
 - o Make repairs as required.
 - o Check operation of valves, condition of couplers, and general car condition.
 - o Chock tank car wheels.
 - o Set tank car brakes.
 - o Attach caution sign - "STOP - TANK CAR CONNECTED" - to track.
 2. Reduce tank car pressure to 1 - 2 psig.
 3. Attach loading hose to liquid valve. See drawings:
 - Fig 1: Section view of dome and fittings
 - Fig 2: Details of connections in dome of Butylene Oxide -
 4. Attach vent hose to tank car vent valve (side valve).
 5. Attach pressure gauge to tank car vent line.
 6. Raise outage gauge rod to provide outage.* See drawings.
 - Fig 2: Details of connections in dome of Butylene Oxide -
 - Fig 3: Tank car gauging device.
- *Proper Outage is calculated as follows:
- a) Multiply tank car water weight by 0.79 to obtain maximum weight of butylene oxide.
 - b) Divide answer obtained in "a" by 6.9 to determine maximum gallons of butylene oxide.
 - 1) Tank car innage = tank car stenciled gallonage - outage.

c) Use tank car outage table to determine outage setting of the gauging rod.

7. ATTACH GROUND WIRE.
8. Load tank car until gases stop escaping from the gauging tube.
9. Close gauge rod needle valve, push rod assembly down and lock in place, replace housing to secure the gauging device.
10. Adjust tank car pressure to 5 - 15 psig with nitrogen.
11. Blow hoses with nitrogen, to remove liquid butylene oxide, before disconnecting.
12. Replace plugs in all tank car valves.
13. Seal tank car dome - record seal numbers on bill of lading.
14. Attach placards (flammable) to all four (4) sides of tank car.
15. Remove tank car wheel chocks.
16. Remove "Caution" sign from track.
17. Detach ground wire.

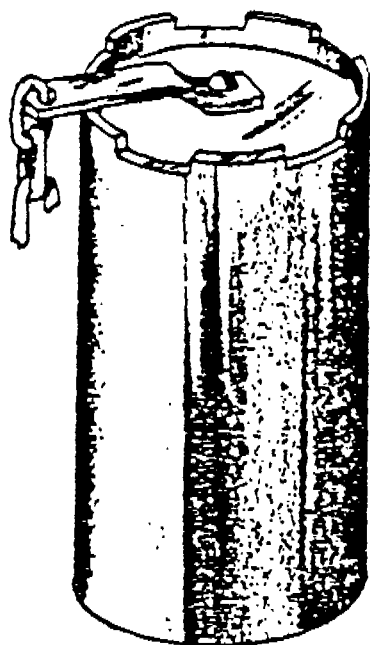
18. Weigh tank car. Shipping weight is determined as follows:

Net Weight (shipping weight) = Gross Weight - Stenciled Tare Weight.

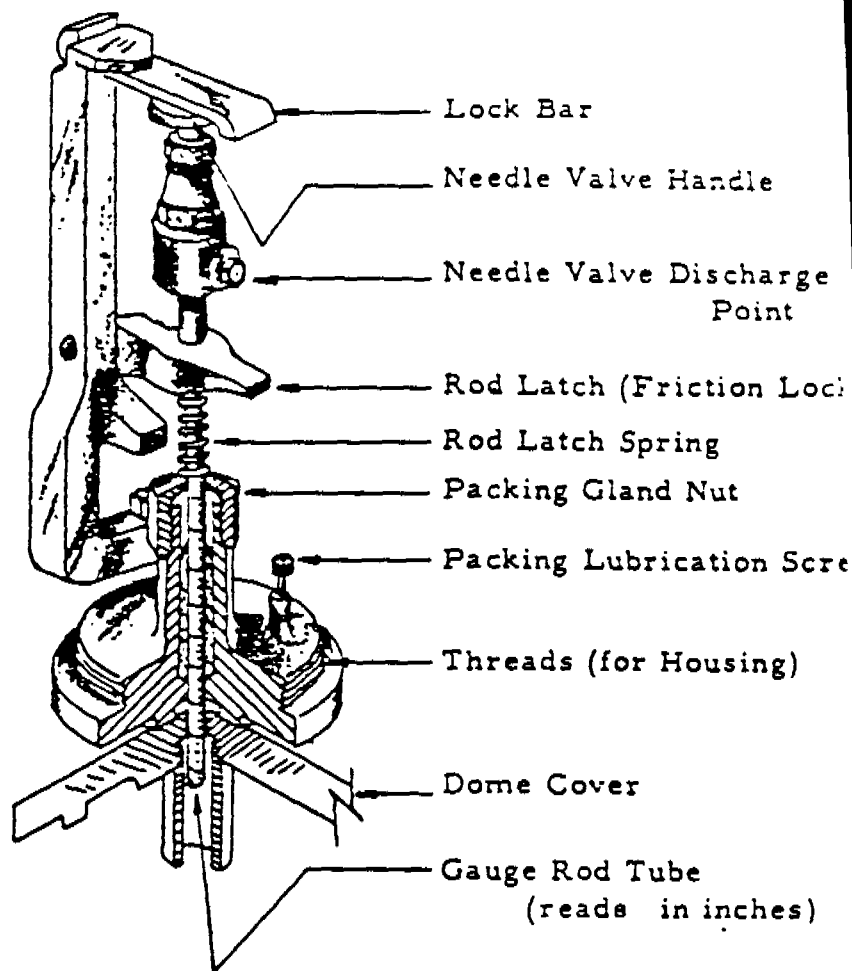
19. Notify railroad to ship tank car.

NOTE: If tank car is overweight, some product must be unloaded.

MAX GWT = 100,000 LBS

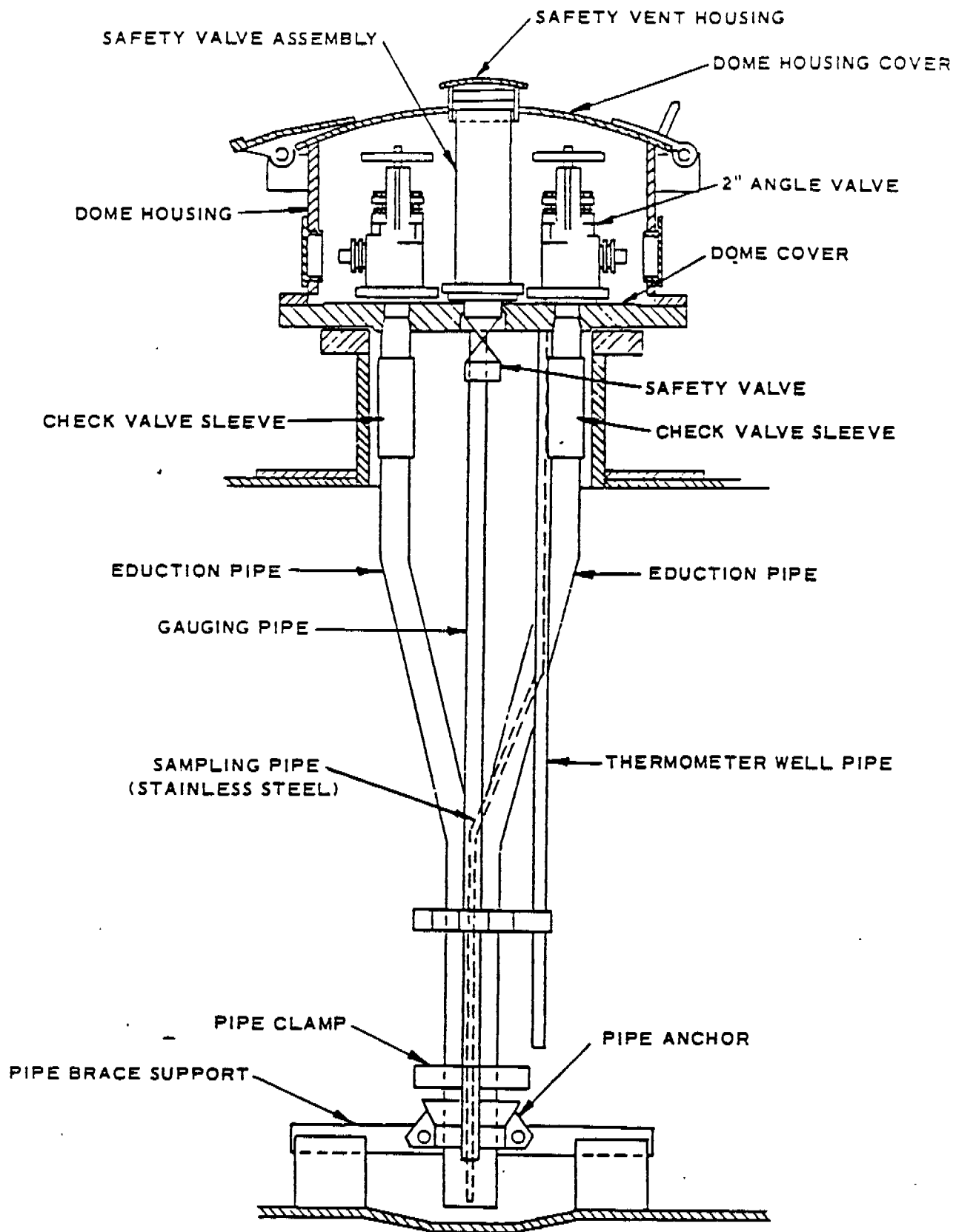


HOUSING



OPERATING INSTRUCTIONS

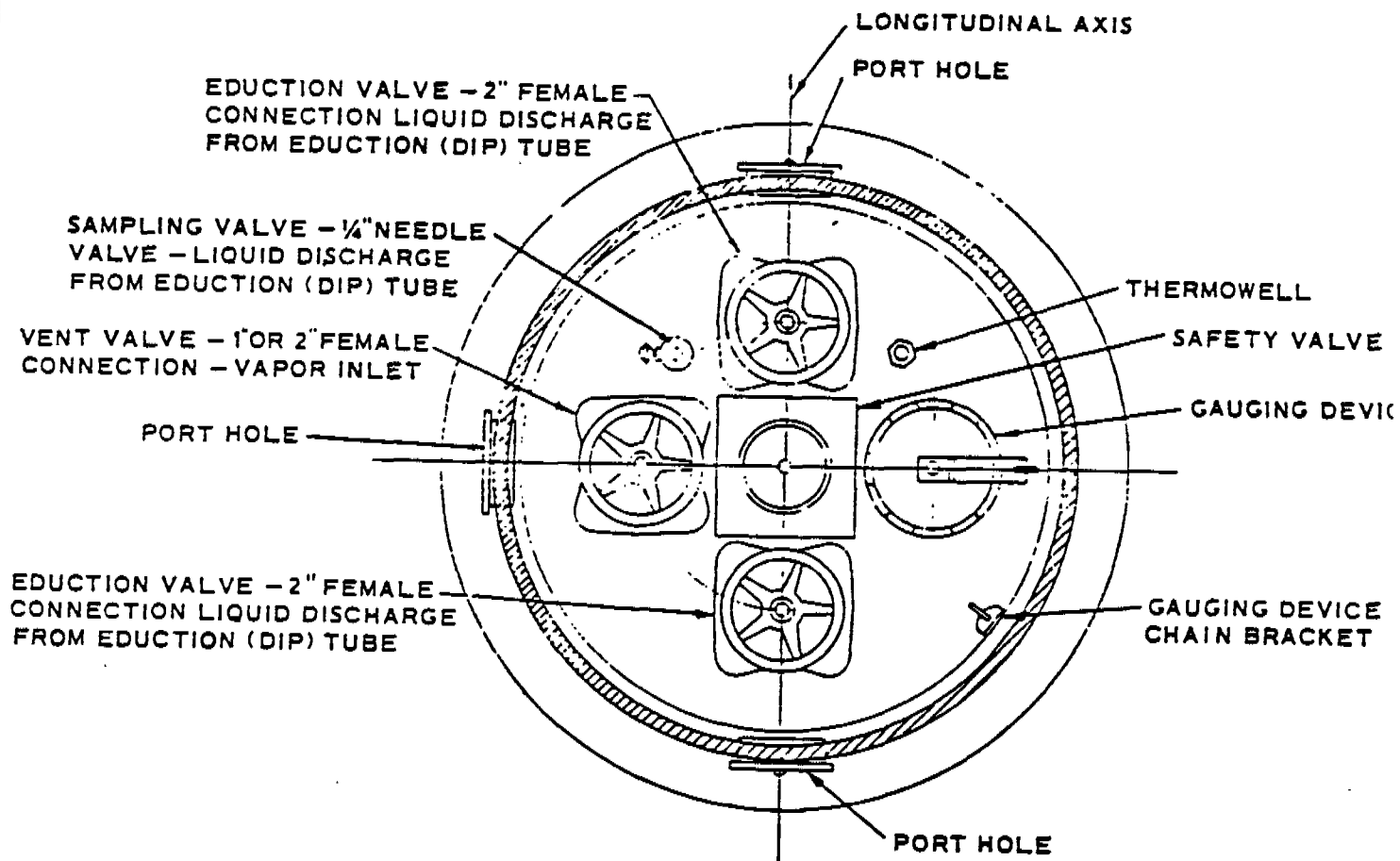
1. Remove housing by unscrewing. (If leak is noticed around packing gland, tighten packing lubricating screw one or two turns.)
2. Push gauge rod tube assembly down slightly and move lock bar away from the top of the tube assembly.
3. Hold the tube assembly firmly to prevent it from shooting up as the rod latch (friction lock) is depressed.
4. Depress rod latch. Allow tube to rise to completely extended position. (It might be necessary to pull the tube to a fully extended position while holding the rod latch depressed.)
5. To gauge the tank liquid level, turn the needle valve handle 1/2 turn. This will allow vapor to escape through the tube. Push the tube down very slowly until liquid squirts out of the needle valve discharge point. Close valve immediately. The liquid level in the tank is indicated by the marking on the tube corresponding to the point at which liquid started to come out of the needle valve. Keep valve closed except when gauging.
6. To secure the gauging device, check the following: (a) needle valve handle must be closed. (b) Push gauge rod tube assembly down and move the lock bar back into position to hold the tube assembly in place. (c) Replace the housing.



SUPERSEDES ALL 01

Figure 1- Section View of Dome & Fittings

SL 049822



SUPERSEDES ALL OTHER

Figure 2 - Details of Connections in Dome

SL 049823