

LOUISIANA



DOW CHEMICAL U.S.A.

LOUISIANA DIVISION
P. O. BOX 150
PLAQUEMINE, LOUISIANA 70765-0150
504 389-8000

R&S 029188

August 18, 1987

Herm Waltemate
Manager, Safety, Health and Environment
The BF Goodrich Company

xc: Bob Oubre
Manager, VCM Tech Center
Dow Chemical Co.

Re: Survey on Unloading/Loading of VCM

Please see the attached for the survey data you requested.

For additional information just give me a call at

504-389-6655.

A handwritten signature in cursive script, appearing to read "Bud".

Bud Balentine
VCM Quality Assurance Coordinator
Dow Chemical Company

1. Is this response for loading or unloading of vinyl chloride. Please circle:

(Loading)

Unloading

2. How many liquid hoses do you attach? One/Tankcar Size? 2"
3. How many vapor hoses do you attach? One/Tankcar Size? 1"
4. Do you have an excess flow valve in the piping? (Not the excess flow valve in the railroad car.)

Yes

(No)

If yes, please describe the type of valve and where it is located.

5. Do you have a check valve in the piping of each unloading hose?

Yes

No

If yes, please describe the type of valve and where it is located

6. Do you rely on the railroad car excess flow valve? Yes
7. How do you measure the VCM level in the railroad tank car? Please describe.

Midland magnetic gauging device is used for loading. T/C is weighed before leaving division for shipment to customer.

8. What type of safety protection is provided in your railroad tank car loading/unloading operation? Please describe.

Warning light, derailleurs and metal flags; Loading area vent/liquid ABV's; remote pump shutoffs; Audio-visual ground indication/alarm; water monitor system; breathing air each station and SCBA in shack and ground level; protective clothing for loaders.

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9. Do you have a GC monitoring system in the loading/unloading area?

(Yes) No Other

10. Do you install a remote operated shut off valve at the tank car connection?

Yes (No)

If yes, what activates this valve? _____

11. What type of hose do you use in this service? Please describe.

S/S bra d, teflon lined is the hose presently used.

12. Do you have an inspection or testing program for these hoses? Please describe.

Yes. Annual hydro test and visual inspection before each use.

13. What type of disconnect do you use in this service? Please describe.

Hammer unions with a viton "O" ring seal.

14. Do you require constant attendance by an operator during loading or unloading?

(Yes) No Other

15. How do you remove the VCM vapors in the hoses for disconnect? Please describe.

Purge with nitrogen

16. What are your requirements for chocking and setting the brakes on the railroad car? Please describe.

Wheels are checked with one check in each direction and hand brake is set on each
car.

17. Have you ever experienced an uncontrolled release in the loading/unloading operation? Please describe the incident, the cause and the corrective measures taken.

A hose failure occurred approximately five years ago. At completion of loading the
manual liquid valve at the T/C loading station #1 was closed. The loading operator
started walking to the next T/C to check its progress. After hearing a noise he
turned to see that the hose at #1 had completely seperated at the ring that couples
the individual hose components to the flanged section. The T/C excess flow valve
checked so that only the contents of the hose were spilled. The cause of the failure
was improper assembly by the hose manufacturer.

R&S 029191

Company:

Dow

Location:

Plaquemine, La

Preparer:

PLEASE RETURN TO:

Herm Waltemate
BFGoodrich Company
6100 Oak Tree Boulevard
Cleveland, Ohio 44131
U.S.A.

BFGoodrich

FORT SASKATCHEWAN

The BFGoodrich Company
Geon Vinyl Division
6100 Oak Tree Boulevard
Cleveland, Ohio 44131
216-447-6000

Steve Stetko
Please fill out
I send copy to
Waltemate & me.
Bob Aubre

VCSA Member:

I would appreciate the completion of the attached survey on the unloading/loading of vinyl chloride. I will report on the results of the survey at the forthcoming October 1-2, 1987 meeting.

This survey was initiated because of a serious accident within BFGoodrich. The quick disconnect on an unloading hose separated during unloading releasing liquid VCM. An operator who was nearby, without protective equipment, shut off the tank car valves and reconnected the hose. He was seriously burned with second and third degree burns from the direct contact with liquid vinyl chloride. I will provide further details as part of the case history discussion.

Thank you for your cooperation in providing me this information.

Sincerely,

THE BFGOODRICH COMPANY
Geon Vinyl Division

Herm Waltemate

Herm Waltemate
Manager, Safety, Health
and Environment

HW/kp
0841j

Attachment

RECEIVED
AUG 17 1987
CEP & TOX TECH -TR.

RECEIVED
JUL 14 1987
CEP & TOX TECH -TR.

R&S 029192

Is this response for loading or unloading of vinyl chloride. Please circle:

Loading

Unloading

2. How many liquid hoses do you attach? DO NOT USE HOSES USE SWIVEL JOINT ARMS Size? 2-3"
3. How many vapor hoses do you attach? DO NOT USE HOSES USE SWIVEL JOINT ARMS Size? 1-3"
4. Do you have an excess flow valve in the piping? (Not the excess flow valve in the railroad car.)

Yes

No

If yes, please describe the type of valve and where it is located.

5. Do you have a check valve in the piping of each unloading hose?

Yes

No

check valve located on discharge of loading pump

If yes, please describe the type of valve and where it is located.

6. Do you rely on the railroad car excess flow valve? _____

7. How do you measure the VCM level in the railroad tank car? Please describe.

LOAD ON SCALES

8. What type of safety protection is provided in your railroad tank car loading/unloading operation? Please describe.

- Monitor visually with flammable gas detectors
(quick response) & with Permanent Air Monitor (GC type, slow response)

→ Yes, for for vapor from Tank Car. Emergency block valve on pump and on tank car, which would stop flow if

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9. Do you have a GC monitoring system in the loading/unloading area?

☒ Yes

No

Other

10. Do you install a remote operated shut off valve at the tank car connection?

☒ Yes

ON LOADING
RACK No

If yes, what activates this valve?

T/C SCALE WEIGHT
OR MANUALLY AT LOADING RACK OR FROM
BUILDING CONTROL ROOM ADJACENT TO LOADING RACK

11. What type of hose do you use in this service? Please describe.

DO NOT USE HOSES USE CONTINENTAL
EMSCO SWIVEL JOINTS

Do you have an inspection or testing program for these hoses?
Please describe.

Currently Ultrasonics of thickness checks done
periodically. Will change this in 1994.

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13. What type of disconnect do you use in this service? Please describe.

KAMUALOCK, PRESENTLY EVALUATING
HILLTAP CONNECTORS

14. Do you require constant attendance by an operator during loading or unloading?

Yes

☒ No

Other

loading racks are highly
visible from control room
adjacent to loading racks

15. How do you remove the VCM vapors in the hoses for disconnect?
Please describe.

BLOW DOWN WITH N₂ INTO T/C

16. What are your requirements for chocking and setting the brakes on the railroad car? Please describe.

Hand brakes are set by switching crew
checked by loaders. Chocks are placed by
loaders. Alarmed grounding cables. ^{use a loading} sheet check list

17. Have you ever experienced an uncontrolled release in the loading/unloading operation? Please describe the incident, the cause and the corrective measures taken.

NO

R&S 029195

Company:

Dow

Location:

Fort Saskatchewan, Canada

Preparer:

Steve Statsko

PLEASE RETURN TO:

Herm Waltemate
BFGoodrich Company
6100 Oak Tree Boulevard
Cleveland, Ohio 44131
U.S.A.

Send Copy
to me.
Bob Aubre