

Interoffice Communication

To R. D. Gamblin - Lake Charles
From Al Zulka, Ed Romero, Walter Jenkins
Date July 17, 1974
Subject Inspection of Walking and Working Surfaces - VCM Plant -
Lake Charles

As requested by Mr. Vernon, a detailed inspection was made on June 26, 1974. The recommendations are listed on the attachments as follows:

- Attachment A -- Priority I items
- Attachment B -- Priority II and III items
- Attachment C -- General Recommendations

The items were given the following suggested priorities:

- I -- Items involving serious hazards which should be given immediate attention.
- II -- Moderate hazards which require a short-term program for correction (12 months).
- III -- Deficiencies or minor violations of Standards that may be corrected under a long-term program.

The cooperation of your staff in making this inspection is appreciated and if we can be of further assistance, please let us know.

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Attachment A
Priority I Items
VCM Plant - Lake Charles

1. T 202
Platform on West Side - Add handrail on east side.
2. C-500
Top Platform - Add handrail on side next to outlet pipe.
3. C-202
 - A. Install safety screen where ladder is adjacent to end of platform (3 required).
 - B. Fifth level - replace corroded grating on north side.
4. Furnaces - North End
 - A. Install handrails on top and intermediate platforms where sides are open.
 - B. Install self closing gate on second ladder down from top (top ladder is 24" from entrance to second ladder).
5. H 303A
Rope off entrance to area where grating has been removed for maintenance.
6. C 101
Install vertical bar in opening between ladder cage and railing.
7. Light Ends Column
Add screens between ladder cage and handrail on 3rd and 5th levels.

Items correct, except as noted

Attachment B
Priority II and III Items
VCM Plant - Lake Charles

C 102

- Done* → II - Relocate conduit behind ladder rungs from 1st level to ground level.
- 12/1/74* II - Replace chain with safety bar at platform levels 1, 2, 3, 4, 6, 7, 8, 9, and 10. Safety bars also needed at top and 5th levels where there are no chains.
- Order bar* →
- 4/1/75* { II - Remove foot obstruction behind the ladder at 6th level platform.
II - Install safety screen or vertical bars from ladder cage to handrails on the 6th level (distance is 3' from the rung to the handrail).

T 202

- 2/15/75* II - Platform on south side has missing toe plate under the head of the drum.
- Order bar* → *2/1/74* II - Replace chain with safety bar.
- Order bar* → *12/1/74* II - On the west side platform install handrail on the side of the drum. Also replace chain with safety bar.
- Order bar* → *12/1/74* II - Replace chain with safety bar on top of drum.

C 202

- 2/28/75* II - On 1st, 4th, and 6th level platforms install safety screen or vertical bars from cage to the handrail (3' from ladder rungs to handrail). Note: Priority I items included screen requirements at 2nd, 3rd, and 5th levels.
- Order bar* → *12/1/74* II - Replace chains with safety bar on platform levels 1, 2, 3, 4, 5, and 6.
- 2/1/75* II - Replace grating on east side of 6th level.
- Order bar* → *12/1/74* II - There are no chains at ladder entrance at top level platform. Install safety bar.
- 10/1/74* II - Revise insulation behind two rungs at top level - foot obstruction.

Reactors 301, 302 and 303

1st Level

- II - Replace missing toe plate north of R 302.
- II - Remove short sections of grating and replace with long sections. Weld or J-bolt sections down.
- II - Toe plate wired together north of R 301 - Replace with bolts.

2nd Level

- 9/1/74* II - Floor hole between H 308 and H 309 with rotten wood covering half the hole. Repair the floor hole with a metal cover.
- II - Repair floor hole east of R 301.
- II - Around H 211 the grating is beginning to corrode and some floor holes need to be repaired.

2nd Level (Cont.)

- Order bar* 12/1/74 ~~II~~ - Install safety bar on ladder at east side of H 303C.
9/1/74 II - All grating on west end of platform should be secured.

S 208, H 202A and H 202B

- 9/1/74 II - Grating is saddle clipped and wired. It should be welded or J-bolted.
Order bar 12/1/74 - Chain missing on platform on east side of H 202A and H 202B. Replace with safety bar.

EL 501

- Order bar* 12/1/74 ~~II~~ - No chains on short ladder on entranceway. Install safety bar.
12/1/74 II - On the table at the handrails, install back plate so material can not fall off and hit someone walking by BL 501. It is 8' high.

T 601 and T 611

- Order bar* 12/1/74 ~~III~~ No safety bars on ladder entranceway.

Loading Rack - SE Corner of Plant

- 9/1/74 II - Provide toe boards.

CL 2 T/c rack

S 401 and S 402

- 9/1/74 II - Small platform at bottom of S 401 on the north side - Secure grating.
11/1/75 II - Remove wood scaffold on north side of S 402.

H 408 Fin Fan

- 4/1/75 III - Replace expanded metal grating or add supports.

Furnaces

- 9/1/74 II - Weld grating to supports and remove saddle clips.
Done II - On east end of furnaces add toe boards, handrails, and midrails as required.
9/1/74 II - Increase hand clearance at top rung on upper ladder.

C 103 Heavy End Column

- Order bar* 12/1/74 ~~II~~ - Install safety bars at ladder entrances.

T 511 Anhydrous Ammonia

- 9/15/75 II - Install handrails on steps to dike.

C 101 Steam Stripper

- 9/1/74 { II - Top platform saddle clips loose.
II - Secure grating at first level.

T 103

- 9/1/74 II - Grating bent and needs securing on north platform at manway.

T 101 Crude EDC Tank Platform

- 9/1/74 II - Grating secured with saddle clips - Use J-bolts.
2/1/75 ~~III~~ - Ladder rung not in alignment with platform.

H 104

2/28/75 III South of H 104-railing is substandard (28").

S 102 Lower Light End Column Overhead Accumulator

9/1/74 { II - Install toe board inside on west side.
II - Saddle clips loose - Install J-bolts.

H 106

2/1/75 III On both ladders top rung is not in alignment with platform.

S 103 Lower Heavy Ends Column Reflux Accumulator

9/1/74 II - Grating secured with saddle clips.

H 109A Upper EDC Condenser

2/1/75 III - Ladder rung not in alignment with platform.
9/1/74 II - Grating secured with saddle clips.

DeMag Compressor Room

9/1/74 { II - Grating loose at west ladder crossover.
II - Grating saddle clipped.
12/1/74 II - Install midrail east side wall opening.

R 304 Platform

9/1/74 II - Grating saddle clipped on 1st level.

H 207A and 207B VCM Condenser Platform

Done { II - Grating bent both sides - Add supports to structure to support weighted load of bell heads from condensers. *heads to ground?*
II - Short pieces of grating should be replaced with long spans.
Order line 12/1/74 II - Install safety bars at ladders.

S 307

9/1/74 II - Grating Bent.- Replace.

H 303C

9/1/74 II - Complete standard railing south above S 309 drum.

T 503

3/1/75 II - Steam pipe running vertically at top section of ladder obstructing clearance of rungs.

T 506

9/1/74 II - On walkway north of compressor building install standard railing (part of railing installed on east end).

Light Ends Column

Order line 2/1/74 II - Replace chain with safety bar.

9/1/74 III - Improve housekeeping of 1st level.

II - Cover floor holes on 2nd and top levels.

1/1/76 III Add intermediate platform on ladder - exceeds 20 feet.

Recommend sequence

Steam Flash Tanks No. 150 and 250

Order for
12/1/74 II - Install ladder safety bar.

Platform Over S 207A and 207B, S 108 and S 109

Done
9/1/74 → II - Secure grating - remove saddle clips.
→ II - Improve housekeeping.
II - Remove top ladder rungs *Look at.*
Done → II - Cover floor holes.
? 4/1/75 → II - Install handrail on grating top S 109.
12/1/74 → II - Promote ladder safety bars.

Structure At T 103A, T 110 and T 102

9/1/74 { II - Secure grating.
II - Cover floor holes at H 111, above T 103A and east end T 103A.
II - Install toe boards on west side of platform at east end of T 103A.
3/15/75 → II - Add safety screen at west ladder to platform over T 103A (43" opening).

S 104A and 104B

Done → II - Cover floor holes on top platform.

Vertical Tanks West of HCl Tank

5/1/75 II - Install toe boards on west side of platform. (*Propylene Area*)

HCl Tank

9/1/75 { II - Secure grating.
II - Install toe board - west side.

Shell Pit

Done → II - Install handrails.

C 500 Scrubber

Done → II - Portable scaffold had no handrails or toe boards and boards not tied down. Scaffolds should be removed after use.
7/17/75 II - Provide intermediate platform or safety climbing device - ladder is about 35' high. *Angus m this*

Cooling Tower

What ladder for? *Done* → II - Extension ladder is not tied off at SE corner of cooling tower area - Enforce procedures.
9/1/75 II - Secure grating in pump area.
Repair 8/1/75 II - Platform above pumps needs toe board and some clips are loose.
Style 2/28/75 II - T 70 has wood platform with rotten steps and platform boards.
II - Replace broken rung on NE ladder - distribution bay.

Tank Farm

T 401A, B, and C

8/1/75 { III - Install toe boards
III - Cover floor holes.

T 402, 405, 422, 452, and 460

11/1/76 III - Ladder is substandard - side rails are 14" apart. *Chase*

T 411A, B, and C

9/1/79 II - Secure grating on top platform - saddle clips are corroded or loose.

T 461

5/1/75 II - Ladder is substandard - replace with vertical ladder.

Vertical Drum Near T 461

5/1/75 II - Cover holes in floor plates.

III Toe boards are substandard ($2\frac{1}{2}$ " high).

Dikes

6/1/75 II - Install handrails on all crossover steps.

Warehouse

6/1/75 II - Add toe board and midrail on handrail at overhead storage area.

Attachment C
General Items
VCM Plant - Lake Charles

- III - At several locations there are toe boards at the platform entrance to ladders. On future construction they should be omitted. Top ladder rung should be even with platform.
- III - At locations where it is feasible we recommend grating be *use J bolts* secured by welding.
- II - Prepare a program on storing and using scaffolding equipment. *← ?*
- III - Walking and working surfaces should be inspected annually.

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