

J-

cc to SHAC

MR

7/13/83

NOTES FROM THE 1982 ANNUAL INSPECTION
FOR SAFETY AND HOUSEKEEPING
IN THE TEXAS CITY PLANT
OCTOBER 18, 19, 20, 1982

Inspectors

E. H. Crow
G. W. Daues
R. M. Fritz
M. A. Riddle
J. H. Swain
G. L. Tromblee

SC 002275

LAM003480

GENERAL COMMENTS

- Use of Safety Logs inconsistent.
 - Mixed bag, frequent to infrequent use.
 - The intent is that the log should have timely and creditable feedback.
 - Some responses late (2-3 weeks).
 - Improper use such as improper remarks, bitches.
- Involvement of hourly personnel in reviews and new projects.
- Faded Safety Showers/eyebaths signs.
- + • STOP has made more aware/think more about job before doing.
- Inconsistent labeling of storage cabinets. Much overcrowding.
- Four demonstrations of donning vapor proof suits showed need for practice.
- Wind Socks - look at location, visibility, height.
- Psychological change during shutdowns.
- Recommend P.T. Safety Committee review storage of chemicals in labs, & lips on shelves.
- Security of dock area needs review.
- Review use of breathing air cylinders - procedures, etc.
- Sign on microwaves - "Do not place metal or foil in oven" needed throughout the plant.

DEPT. 13

(13-14)	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	5	10.61	1	2.12
<u>1981</u>	5	8.07	1	1.61

- + • No Safety practice deficiencies.
- + • Housekeeping - looked good even though some evidence of turnaround still in area.
- 100 Bldg. storage areas cluttered inside & outside.

DEPT. 15

(15-16)	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	22	52.63	2	4.78
<u>1981</u>	36	71.28	3	5.94

- + • No Safety practice deficiencies noted.
- + • Housekeeping excellent considering shutdown.
- Portable building located under pipe rack by old 5&7 control house.

DEPT. 14-16

(13-14)	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	5	10.61	1	2.12
<u>1981</u>	5	8.07	1	1.61

(15-16)	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	22	52.63	2	4.78
<u>1981</u>	36	71.28	3	5.94

- Housekeeping marginal even considering shutdown.
- SWPH looked good & clean even with maintenance activities on-going.
- Control house congested.
- Computer room cluttered.
- + • Positive attitude of people.

LAM003482

SC

002277

DEPARTMENTS 19-23-25-27-29

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	6	18.5	2	6.18
<u>1981</u>	5	12.4	3	7.48

- Overall Housekeeping - excellent.
- + • Good bulletin board with use of pictures for safety info.
- Coupling guard on NN4-1 missing.
- + • Safety log book well used - good feed back.
- Flush nozzle near 25T9 needs mounting.
- HCN storage "Do Not Enter" signs should be relocated.
- Question use of electrician's plywood ofc. in breaker room also tarp.
- Phone missing sticker in control room.
- Height of Scott Air-Paks should be looked at.

DEPARTMENT 33

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	0	0.0	0	0.00
<u>1981</u>	2	12.8	1	6.41

- + • Overall Housekeeping - excellent.
- Do not check block valves on relief valves weekly.
- + • Good presentation at beginning.

DEPARTMENT 48/56

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	2	6.8	0	0.00
<u>1981</u>	7	18.3	1	2.61

- + • Overall Housekeeping - excellent.
- + • Training program with questionnaire excellent.
- + • Excellent display in conf. room.

LAM003483

DEPARTMENT 51

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	21	27.8	1	1.32
<u>1981</u>	35	37.7	2	2.15

- + • Impressed with Safety attitude of people.
- Observed stores employee eating apple at drum area.
- Generally good except HQ area.
- Ground cables missing on drums in south purification, one drum not labeled, drip pan out of place under kerosene drum.
- Two deteriorated hoses - vaporizer area top level.
- Unit lab messy - titration rack corroded.
- + • PT Lab looked good.
- Safety shower light out in north alleyway- ground level east side.
- Two defective plastic safety shower heads (R1-3 East side & D-7 West side).
- Head knocker on slide valve for overhead line - top level of reactor structure (Both).
- Steps to new slip stream control house should be highlighted.
- Too many hoses on racks - R1-3-3rd level.
- Maintenance shop in south area needs better ventilation for welding.
- + • Start-up checklist for pumps in purification good idea.
- + • East Maintenance shop neat & orderly.
- D1-1 - 6' length of pipe leaning against column.

DEPARTMENT 44-45-46

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	6	19.1	0	0.00
<u>1981</u>	3	7.3	1	2.46

SAFETY & HOUSEKEEPING

- Gas cylinder chained to conduit - north end by oil drum area.
- Two instruments with rotameters painted over.
- + • Good presentation.
- Hose on Hunter oil cleaning solution not on checklist.
- Relief valve checklist indicates block valve closed and no car seal?
- Hose on top of reformer wired to handrail rather flimsily.
- Confusion over use of dilute acetic acid for first aid?
- Sign at analyzer house indicating high CO not covered.
- + • Use of CO continuous monitors - impressive new technique.
- Algae growth on pad near cold box.
- All hoses inspected and tagged except one.
- Hearing protection areas not highlighted as good as could have been.
- Some valve stems not highlighted.
- Valve wrenches need hangers/storage racks.
- Unit in general appeared not ready for Housekeeping Inspection.
- Oil drum storage area covered with metal plates
- + • Maintenance Shop area clean & orderly.

SC 002280

1983 TEXAS CITY SAFETY AND HOUSEKEEPING INSPECTION

GUIDELINES

THEME

SAFETY AWARENESS PREVENTS ACCIDENTS—WITH EMPHASIS ON
SAFETY PERFORMANCE
INDIVIDUAL KNOWLEDGE & SAFETY ATTITUDE
GROUP SAFETY EMPHASIS
MANAGEMENT INVOLVEMENT
STOP INVOLVEMENT

INSPECTION DATE

The plant will be inspected October 24, 25, 26, 27, 1983.

INSPECTION TEAM

Chairman: G. L. Tromblee, Plant Manager

D. A. Barfoot
G. A. Danner
Ken Gore

W. M. Haynes
Leonard Schwab

RATINGS

The inspection committee will not give the plant an overall rating.

Individual areas will be given ratings and plaques will be awarded to the best area in each of four categories: units, crafts, labs, and offices and services.

Evaluations will be made based on safety performance, policies and practices, housekeeping conditions and involvement of people that ensures an effective, sustained safety attitude for outstanding safety performance.

- Outstanding - Stands out from all areas (comparison based on theme criterion).
No safety practice deficiencies.
Housekeeping performance equal to achievement potential.
- Excellent - Very favorable compared to acceptable standard (based on theme criterion).
Very few safety practice deficiencies.
Housekeeping performance nearly equal to achievement potential.
- Good - Favorable compared to acceptable standard (based on theme criterion).
Few safety practice deficiencies.
Housekeeping performance at acceptable level.
- Unsatisfactory - Inferior compared to acceptable standard (based on theme criterion).
Unacceptable level of safety deficiencies.
Unacceptable housekeeping level.

Areas rated will be all units (including outside battery limits), main shops, instrument shop, electrical shop, stores, control lab, Research 1, 2 and 3.

INSPECTION RESULTS

The general results of the plant inspections, including the outside areas, will be communicated Friday, October 28, 1983.

A. H. Conrad
A. H. Conrad
1983 SHAC

SC

LAM003486
002281

DEPARTMENT 50

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	5	21.8	1	4.37
<u>1981</u>	4	13.4	0	0.00

- Rotary dial phone in analyzer building.
 - Eyebath sign on ground - east side of unit.
 - All hoses/ladders tagged, but one rolling platform ladder was inspected but in bad condition.
- + • Good presentation at beginning.
- + • Clean, neat & orderly.

DEPARTMENT 53

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	3	14.0	0	0.00
<u>1981</u>	9	25.9	0	0.00

- Overall - excellent
- Albiclad Fireproofing - structure needs inspection.
- Need personnel protection for heat TIC-3331.
- Ladder not inspected - Top level 53 OX-4.

DEPARTMENT 513

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	1	8.5	0	0.00
<u>1981</u>	1	6.7	0	0.00

- + • Neat & orderly in all areas.
- + • No Safety deficiencies noted.

SC 002282

DEPARTMENT 77

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	4	12.9	1	3.23
<u>1981</u>	-	---	-	---

Overall: Excellent, considering status of start-up.

- + • Good presentation at beginning.
- + • Valve, T.S.V. 180-12, not car sealed opened.
- + • "Medical" System; sign-out board; design of control area in control room - impressive.
- + • Personnel attitude, operations & maintenance excellent.
- + • Whse. - clean & orderly.
- + • Maint. job procedure manual - excellent.
- + • Two telephones in shift office with no sticker.

POWER 2

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	6	15.9	1	2.65
<u>1981</u>	11	22.2	0	0.00

Water Treating

- + • Overall Housekeeping - excellent.
- Control Room/Lab needs refurbishing.
- One phone with wrong code.

Plant Air

- + • Overall Housekeeping - excellent.
- Old 17 structure should be reviewed as to use & cleaned up.
- + • Good scaffolds.

Power & D.M. Area

- + • Excellent safety meeting records & involvement of people.
- Grounding of lube oil drums should be looked at.

SC

002284

SOUTH 22

- Maint. Shop
- Considerably improved, outside storage of materials neat.
 - Need to look at ventilation for welding operations.

- Tank Storage
- Excellent
 - 51 waste water tanks identification faded.
 - Styrene tanks need better identification.
 - Fence broken.

MATERIALS HANDLING

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	8	19.9	2	4.97
<u>1981</u>	7	12.7	0	0.00

- + • All docks excellent.
- + • Loading racks - AN & Esters excellent.
- + • Involvement of people super.
- Old TBA loading rack - cylinder rack with cylinder leaning.

CAPITAL PROJECTS

- + • Safety presentation at start good.
- Welding in progress with no shields.
- Ladder not inspected - Carp. Shop
- + • People-positive attitude.

BUILDINGS

- + • Zone 1
 - Neat & orderly.
- + • Zone 2
 - Looked great - impressed by preparation of personnel.
- 5 & 7 Building
 - Generally cluttered.
- Applications Building
 - Excellent Housekeeping
 - Review need of exit for office areas on north end.
- CED Office
 - No emergency lighting.
 - Floor in north entrance may be rotting?
 - Fire Ext. needed next to print room.
- CED Warehouse
 - Well organized - excellent.
- Personnel
 - Looked great except equipment room.
- + - Tags on personnel files - good idea.
- Display case - empty.
- + - Looked like people really went out of way to clean up.
- No bicycle rack for visitors.

BLDGS. (Cont'd)

Safety Supply

- Bldg. maintenance less than desired - 55 gal detergent drum stored in ladies locker room; trash can blocking door; metal plate loose on washstand.
- Consider removal of galvanized trough on south wall.
- + • Shelves neat & orderly - Bldg. clean.

Main Gate

- + • Sign on microwave saying "Do not place metal or foil in oven". A good idea. We should purchase signs for use throughout the plant.
- Elect. supply to soft drink machines needs to be made permanent.
- Fuel tank for auxiliary generator next to air conditioner - is this safe?
- + • Key area housekeeping improved.
- Rain guage needs improvement.

Fire Station

- + • All equipment looked in good shape.
- Small amount of trash stored on shelves with equipment.
- EMT kit broken despite sign on it that said "Do not sit".
- Garden hose deteriorated.
- Missing P-Bulletins.

Medical

- + • Looks good!

SC 002287

BLDGS. (Cont'd)

Cafeteria

- + • Tastefully well done.
- Janitorial eg. stored by transformer.
- Evaluate escape from walk-in freezers.
- Replace rickety wooden step stool.

Main Ofc.

2nd Floor

- Reception area dirty.
- Flip charts stored by vending machines.
- Storage cabinet outside Daues' ofc. cluttered inside.
- Elect. plug in Travis Mc Donald's ofc. broken.

3rd Floor

- Conf. room - misc. materials stored improperly.
- + • Attitude of people good, housekeeping good.

Cafeteria Conf. Room

- Uninspected ladder.
- Table in corner cluttered.
- Head knocker - stand for slide projector.

Office Annex

1st Floor:

- + • Overall - Excellent.
- Computer cables strung across floor - Suggest cable tray.
- Janitorial supplies stored by motor control center breaker.
- Equipment room needs cleaning.
- Exit sign for middle of building should be reviewed.

LAM003493

BLDGS. Cont'd)

Office Annex

2nd Floor: Overall - excellent

Accounting; excellent

MMTS; needs considerable attention

- Johnson & Paratore offices need to be refurbished.
- Area near Sandberg's office should be evaluated for emergency exits.
- C. Jackson's office - Yuck +
- P. Gupton's office - Yuck -
- Computer office - cluttered

MISD:

- + • Housekeeping - Excellent.
- Metal tape reels stacked on table - Unsafe

STORES; WAREHOUSE A, B, & C; SALVAGE

Stores

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	0	0.00	0	0.00
<u>1981</u>	0	0.00	0	0.00

- + • Orderly, neat.
- Suggest food not be stored with glues in refrigerator.
- Phones in receiving area - Alarm stickers illegible.
- Rear exit at 2nd level not clearly marked.
- Overflow of box storage needs elimination.

Warehouse A

- Crates stacked high in S.W. corner appeared unstable.
- Safety latch sprung on hoist over pipe rack.
- + • Impressed with Safety lights on blind corners.
- Have nylon slings been inspected?

WAREHOUSE B

- + • Appeared orderly & in good shape.

WAREHOUSE C

- + • Plastic cups stack appeared unstable; otherwise neat & orderly.

SALVAGE

- + • Considerable improvement.
- + • Orderly overall.

SC 002290

CONTROL LAB

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	3	8.1	0	0.00
<u>1981</u>	8	15.7	0	0.00

- + • Housekeeping - neat & orderly.
- Analysts attitude appeared good & positive - not consistent with remarks in safety log.
- + • Sample retaining area - neat & orderly, but leaking refrigerator should be replaced.
- Solutions lab cluttered, but in process of moving.
- Broken window pane - bottle breaking area.

ENVIRONMENTAL LAB

- Review smoking area policy.
- Relabel Fire Blankets to "Safety Blankets".
- Two hoods out-of-date on velocity checks.
- + • People positive.

IDA LAB

- Very crowded but orderly - broken glassware in one cabinet.
- Exit to roof not marked.
- + • Attitude of people appeared good.

SC 002291

RESEARCH

Research 1

- + • Overall looked good, except for overcrowded conditions.
- IDA Lab especially congested.

Research 2

- 2nd Floor - uninspected ladder in A/C room and an uninspected ladder in janitor's closet.
- + Overall good.
- 1st Floor - I.H. Lab - Variac on top of high cabinet unsecured.
- Glass tubing stored on manifold.
- AN Bench Unit - Rotary phone.
- + Stock room good shape.
- + RPU - melt crystallizer - excellent safety audit - Technician well informed.

Research 3

- + • Overall good.
- Machine shop looked good - some breaker boxes needed marking.
- MMTS area excellent.
- Some trash in A/C Building.
- Outside by seawall needs clean-up.

LAM003497

MAIN SHOP BLDG.

- + • Overall excellent.
- Emergency light not functioning - 2nd floor.
- Pipe storage improved tremendously.
- Visitors just walking through (taking short cut) reduced.
- Should smoking be allowed near cleaning bath in Machinist's area?
- Need hose rack by BM shop.
- + • Good safety suggestion & feedback for shift workers.

VALVE SHOP

- + • Housekeeping excellent.
- Capacity on beam not marked.
- Air hose not inspected or pinned.
- Broken window on east side.
- Breaker box in LAP room not marked.

GARAGE

- + • Housekeeping - good.
- Exhaust fan unguarded.
- Is shower needed along with present eyebath by battery charging?
- Steam hose not inspected.
- Extinguisher location not marked.

SC 002293

CARPENTER/INSULATOR SHOP

- + • Overall excellent.
- + • Excellent safety suggestion book & feedback system.

ZONE 4 OFFICE

- + • Overall - excellent
- + • Attic storage area considerably improved.

INST. SHOP

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	0	0.0	0	0.00
<u>1981</u>	7	14.6	2	4.19

- + • Overall excellent.
- Grateing causing tripping hazard outside-east side.
- Shelves in storage area overflowing.

ELECTRICAL DEPT.

	<u>TI</u>	<u>TIR</u>	<u>TR</u>	<u>TRR</u>
<u>1982</u>	2	5.7	0	0.00
<u>1981</u>	2	4.4	0	0.00

- + • Excellent - very orderly & neat.
- Need to formalize Safety suggestion & feedback system.

Shop Safety Analysis - 2nd Quarter

<u>Craft</u>	<u>TIR</u>	<u>RI</u>	<u>Score</u>
Instrument	0	0	100
Painters	0	0	100
Electricians	8.6	0	90
Insulators	33.9	0	60
Pipe Fitters	34.3	0	60
Carpenters	40.2	0	50
Boilermakers	51.2	1	10
Machinists	—	2	0

SC

002296

LAM003501

Unit Safety Analysis - 2nd Quarter

<u>Dept.</u>	<u>TIR</u>	<u>RI</u>	<u>Score</u>	<u>Group</u>
513	0	0	100	I
33	0	0	100	I
53	0	0	100	I
48/56	0	0	100	I
Power II	0	0	100	I
13/14	6.3	0	90	II
44	9.5	0	90	II
50	13.1	0	80	II
51	20.6	0	70	II
Material Handling	22.8	1	30	III
15/16	72.4	1	10	III
HCN Complex		2	0	III

Quarterly Inspections

Crows feet, utility stations and training on these. Do they have check lists or any way to control crows feet and then fitting installed on process lines.

Quarterly Housekeeping Inspection

- Storage of chemicals in offices
- Use of barricade tape
- Hearing awareness
- Ladders - extension - proper use of
- P-Bulletin review in safety meetings
 - recently issued

P0116 - Area Safety Inspections 10/12/82

P0122 - Procedure for Testing & Labeling Metal Sample Containers 11/1/82

- Safety Log - (Feedback, timely, quality, etc.)
- P-Bulletin - Safety - Updated status
- Scaffolds
- Crowsfoot & Thor fittings - presence on process & condition
- Storage cabinet labeling
- Utility stations - condition, correct

Quarterly

- 1) Safety Meetings - P-Bulletins review
- 2) Safety log book - Feed back, bites,
- 3) Procedure bulletins - updated
- 4) Util. station / process - crosscheck of the fitting, ~~for~~
growers
- 5) Scaffolds
- 6) Signs
- 7) Hearing protection

Safety Equipment

1) Shower / eye bath -

- a) Visibility
- b) Condition of cups on eye bath
- c) Condition of signs

2) Respiratory equipment

- a) 5 min. masks - Sealed bag @ 7500psi pressure
- b) Scott Air Paks - Pressure ok, good condition
- c) Air hoses - ends together
- d) Air masks - in sealed plastic bag

Procedures

- 1) Open area permits - small shacks, work areas, etc.
- 2) Safety log book
- 3) Protective devices bypass tag
- 4) Procedure for testing safety shower/eyebath alarms
- 5) Samples in offices

Area Equipment

- 1) Scaffolds - installed correctly - toeboards, etc.
- 2) Ladders - proper tags, extension ladders in use tied down, none from other depts., etc.
- 3) Portable buildings - numbered - properly tied down.
- 4) Hoses - correct inspection tag (white), condition of crow's foot, safety pin installed, etc.

SAMPLE BOTTLE DISPOSAL

I 1) EMPTY BOTTLE

2) MULTIPLE RINSE BOTTLE

a) RINSE SOLVENT ^{IF NOT} WATER SHOULD BE DISPOSED
OF CONSISTENT WITH OTHER DISPOSAL METHODS
FOR SPECIFIC CHEMICAL

3) LEAVE CAP OFF BOTTLE

who?

4) CRUSH BOTTLE IN CONTROL LAB BOTTLE
CRUSHER

5) DISPOSAL OF GLASS IN CITY LANDFILL

II 1) EMPTY

2) DISPOSAL AT GCLWDA FOLLOWING EXISTING
ENVIRONMENTAL CONTROL PROCEDURES

SC

002304

LAM003509