

1992 CAII CONSOLIDATED AUDIT

CEI REVIEW

PRESENTATION
DOCUMENTATION

JULY 1992

CEI PRE-AUDIT QUESTIONNAIRE

DO A 046909
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A. OPERATING PROCEDURES

1. Does the plant have checklist that are used to shutdown and clear equipment/piping to insure that the contents are not left in the equipment, or accidentally released into the environment? *NO (See reference #1)*
 - b. How is this function accomplished? *The checklist/procedures are done on a job by job basis.*
 - c. What are the plant's plans for doing this in the future? *To continue on as is.*
2. Does the plant have checklist that are used for starting up out of service equipment/piping that insures that no raw material, process streams or product will be accidentally released into the environment? *YES (See reference #2)*
3. Does the plant have procedures for the initial opening of lines and equipment? *YES (See reference #3)*
4. Does the plant have procedures that define exactly who is responsible for the operation, inspection and maintenance of adjacent and intra/interplant pipelines and associated equipment? *NO. WE CURRENTLY USE THE DIVISION PIPEWAY POLICY B-5. WE WILL DEVELOP A LIST THAT DEFINES WHO IS RESPONSIBLE FOR THE OPERATION, INSPECTION AND MAINTENANCE OF INTRAPLANT PIPELINES.*

B. PLANT COMMUNICATIONS

5. Does the plant have up-to-date emergency call list? *YES (See reference #4)*
6. Does the plant have written notification procedures for the following emergencies? *(See reference #5)*
 - a. Gas Release? *YES*

6. cont.

- b. Spill? YES
- c. Fire? YES
- d. Emergency Response? YES
- e. Other? - Hurricane YES

7. Does the plant have procedures for establishing contact with field headquarters during an emergency? **YES. The emergency plan details who should carry the radios and maintain contact with field headquarters. (See reference #5)**

C. AREA MONITORING SYSTEMS

8. Does the plant use an area monitoring system for toxic materials? **YES (See reference #6)**
a. How often are these monitors checked and calibrated? **They are checked and calibrated to five ppm monthly.**
9. Are plant personnel trained to respond to alarms from area monitors? **YES We train people informally on shift. We will develop a IPT module to better accomplish this function.**

D. PLANT PIPING SYSTEMS

10. Does the plant monitor corrosion in the piping systems of the facility? **YES (See reference #7)**
a. How is monitoring done? **A visual inspection is completed semiannually by operations as part of our C9 program.**
11. Does the plant have areas in the piping system that requires constant or repetitive repairs? **YES**
a. Please describe what is being done to prevent recurrence. **We try to upgrade piping as moneys allow.**

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12. Does the plant have a preventive maintenance program in place to monitor the integrity of the piping system? *NO. Beau Dunn, our new PPM coordinator, will be developing this program.*
13. Are outside-the-block material distribution systems monitored for leaks? *YES (See reference #7)*
 - a. How is this done? *Operations walk out every line leaving our block. This is required by our C9 program.*
 - b. How frequently? *Every six months.*
14. Do the plant's toxic material distribution systems undergo pressure testing on a routine basis? *PARTIALLY. We try to pressure test line and equipment during shutdowns or whenever it is practical. (See reference #2)*
15. Do the plant's toxic material distribution systems have prominently displayed phone numbers for the notification of problems and emergencies? *YES (See reference #7)*

E. PLANT MECHANICAL EQUIPMENT

16. What kind of pumps does the plant use in toxic service?
*H2SO4 - MAG DRIVE
CHLORINE - CANNED PUMPS
CCL4 - NO PUMPS - NITROGEN PRESSURE*
17. Are these the kind of pump systems that will minimize leak potential? *YES*
18. Does the plant have a preventive maintenance program in place for mechanical equipment? *YES (See reference #8)*

F. TRAINING FOR EMERGENCY RESPONSE

19. Have the scenarios for chemical spills and gas releases, that have the most probable chance of occurring, been reviewed with;

19. cont

- a. Plant operators? *NO*
- b. Supervision? *YES*
- c. Other affected employees? *NO*
- d. Process Engineering? *YES*
- e. Safety and loss Prevention? *NO*
- f. Environmental? *NO*
- g. Adjacent plant supervision? *NO*

20. Have your reviews included all possible scenarios that would be deemed "major releases", affecting the public beyond the Dow fence line? *YES*

21. Does the plant conduct routine, periodic "what if" emergency drills on the release of toxic chemicals? *YES*

- a. Is each shift involved? *YES*
- b. Do supervisors participate? *YES - PLANT SUPERINTENDENT*
- c. Is there a regular schedule for these exercises? *YES THIS IS IN OUR SAFETY PROGRAM.*
- d. Is Industrial Security involved in these practice drills in any way? *SOMETIMES*
- e. How often are the drills conducted? *QUARTERLY*
- f. When was the last time your plant had a planned emergency drill involving the release of a toxic gas or liquid? *1ST QTR 92*
- g. What chemical was used in your last planned emergency drill? *CAUSTIC*
- h. Have you used different toxic or odorless chemicals in previous drills? *YES (See reference #9)*

22. Does the plant have a formalized training program for those people who conduct periodic inspections of concerned facilities? *NO - WE NEED TO DEVELOP A IPT MODULE TO ADDRESS THIS CONCERN.*

23. How do you insure that "lessons to be learned" from incident investigations are passed on to all concerned personnel? *WE DO THIS THROUGH SAFETY MEETINGS AND COMMUNIQUÉS. (See reference #10)*

24. Does the plant have written procedures detailing how to mitigate releases of toxic chemicals in the plant? **YES**

a. ~~Does the plant periodically train operating personnel on these procedures and methods for mitigating liquid spills or gas releases from the facility?~~
NO (See reference #5)

25. Has the plant reviewed its emergency response personnel protective equipment inventory with Industrial Hygiene? **YES** *Our Industrial Hygiene contact, Dale Crochet, has kept the Industrial Hygiene department informed of our equipment. If at any time Dale has a question relating to this topic, he calls the department.*

26. Does the plant have sufficient quantities of emergency response personnel protective equipment on hand to satisfy the need in the event of a major emergency? **YES**

a. Is it kept at strategic locations for ease of access in case of emergency? **YES (See reference #5)**

27. Are there checklist employed for the periodic inspection, maintenance, and testing of the plant emergency equipment? **YES (See reference #11)**

a. How often? **VARIES**

b. Who does it? **OPERATIONS**

28. Are all plant personnel trained in the proper use of the various personnel protective equipment employed for combating liquid spills, gas releases, and fires? **YES**

a. How often? **YEARLY**

b. How is this training documented? **THIS IS PART OF OUR C9 PROGRAM. (See reference #12)**

29. How many people are involved in training on the proper emergency response to a liquid/vapor chemical release of concern?

- a. Operations 32
- b. Supervision 08
- c. Others 06
- d. Total of above 46

30. Have you consulted with neighboring plants immediately surrounding your facility to determine the effects of spills/releases by them on your plant and personnel?

NO

Please describe what the plant does in the event of one of these emergencies, and future plans. *In the event of a release by one of the surrounding blocks, we are protected by our current emergency response equipment.*

modify

EVAPORATION WASH PROCEDURE

D-511, E-511, E-512, & E-513

EQUIPMENT NEEDED:

- 2 - 21000 GALLON FRAC TANKS
- 2 - DIESEL PUMPS
- 1 - SUMP PUMP
- 2 - DOW OPERATORS TO FOLLOW JOB

PRE WASH:

- 1) REMOVE E-511 & E-512 POPPING VALVES
- 2) INSTALL BB WITH 2" BLEEDS ON VESSEL SIDES OF POPPING LINE
- 3) INSTALL BB ON LINE SIDE (LEAVE LOOSE FOR PURGING)
- 4) REMOVE E-513 OH BV
- 5) INSTALL BB ON LINE SIDE (LEAVE LOOSE FOR PURGING)
- 6) INSTALL BB WITH 2" BLEED ON VESSEL SIDE
- 7) INSTALL BB ON D-511 OH SNIFF
- 8) INSTALL SB ON LINES TO D-511 PSV'S
- 9) INSTALL SB ON LIQUID CL2 TO D-511
- 10) REMOVE AND BB BOTH LEVEL TX TAPS ON D-511
- 11) REMOVE AND BB PRESSURE TX TAP ON E-513
- 12) REMOVE AND BB BOTH LEVEL TX TAPS ON E-511

WASH HOOKUP:

- 1) HOOK UP WASH INLET AT 2" BLEEDS ON E-511
AND E-512 POPPING VALVES
- 2) HOOK UP WASH OUTLET ON 2" BLEED AT E-513
OVERHEAD OUTLET
- 3) START CONDENSATE FLUSH
- 4) CONTINUE TO WASH FOR 30 MINUTES
- 5) SYSTEM IS NOW READY FOR HIGH PH WASH
- 6) WAIT UNTIL INLET AND OUTLET PH'S ARE THE SAME.
- 7) DRAIN SYSTEM
- 8) DO P/W FLUSH