

OCCUPATIONAL HEALTH
PLANT/DEPARTMENT PROGRAM REVIEW
CONSOLIDATED AUDIT
LOUISIANA DIVISION

PLANT/DEPT. GLYCOL 1

BUILDING 1501

REVIEW DATE & TIME Nov. 21, 1996

OCCUPATIONAL HEALTH AUDIT TEAM:

SUPERINTENDENT CHARLES JACKSON

AUDIT FACILITATOR BRUCE HEINZE

SAFETY SUPERINTENDENT JULIE BROOM

TECH CENTER REPRESENTATIVE _____

INDUSTRIAL HYGIENIST(S) BRUCE HEINZE

I.H. PLANT/DEPT. CONTACT H. CAVALIERE / D. JONES

I.H. MANAGER DAVE ALBERT

PHYSICIAN Dr. RALPH McLAURY

OTHER _____

GENERAL PROGRAM REVIEW

1. PREVIOUS AUDIT STATUS

1. When was the Occupational Health Program previously audited?

November, 1993

2. What is the status of the recommendations made in the previous audit summary report?

All must do and highly recommended action items have been completed.

3. Have there been any major changes or additions to the plant/unit since the last evaluation?

Yes. T-2 was removed and new T-1000 installed. T-1200 was replaced T-102A. Two additional MRU's were put in service; MRU-7 A&B. Crude PDC tank T-301 and DV-2003 were removed from service. Crude PDC tank DV-900 which vents to the THROX was placed in service. Glycol tank 2005 was placed in service as well as glycol columns T-500 and T-700. Glycol columns T-7 and T-13 were removed.

4. Are there any specific concerns that you feel should be addressed in this audit?

No.

DOW CONFIDENTIAL

2. INDUSTRIAL HYGIENE- MEDICAL SURVEILLANCE

Hazard Identification

Question	Response
1. Is the plant I.H. manual current (i.e., program updates less than two years old)?	(Y) N NA
2. Are all plant chemicals (raw materials, intermediates, products, water treatment chemicals, etc.) included on a chemical listing (either CPAI or Hazard Communication list)? Date of most current CPAI: <u>August 1995.</u>	(Y) N NA
3. Are all maintenance chemicals (solvents, lubricants, paints, welding rods, etc.) on either the CPAI or Hazard Communication list?	(Y) N NA
4. Are all laboratory chemicals on the CPAI or the Hazard Communication list?	(Y) N NA

5. List any chemical stresses controlled by specific OSHA or state health standards (benzene 29 CFR 1910.1028, ethylene oxide 29 CFR 1910.1047 vinyl chloride 29 CFR 1910.1017 etc.) or EPA TSCA 5(e) consent orders. Benzene (1.5 % in Allyl PDC offload to Solvents). Monitoring shows levels (none detected) below the Action limit.

Monitoring

Question	Response
6. Have all chemical and physical stresses with a Priority Rating of 1, 2, or 3 been evaluated (monitoring or other appropriate control measure)? What are the chemical/physical stresses? <u>PO, noise, propionaldehyde, chlorine.</u>	(Y) N NA
7. Has all monitoring been documented in an industrial hygiene report (i.e., annual I.H. report)?	(Y) N NA
8. Were the results of the recommendation of the previous year's report shown as conclusions (or a status update) in the following year's report?	(Y) N NA
9. Was the documentation including raw data sent to Industrial Hygiene Department?	(Y) N NA

Continued on next page

DOW CONFIDENTIAL

Monitoring
(cont'd.)

Question	Response
10. Is industrial hygiene monitoring of non-Dow personnel performed?	(Y) N NA
11. How are non-Dow employees appraised of their monitoring data in a timely manner? <u>Monitoring report is sent to employee's supervision.</u>	

12. What are the future industrial hygiene monitoring plans for this facility?
Monitoring of Tank Car loading after engineering and procedural improvement and initial monitoring of Tank Truck loading rack.

CAMs
CLDs

13. If a continuous air monitor (CAM)/continuous leak detector (CLD) in use, complete the CAM/CLD description below: otherwise, go to the next question.

CAM/CLD Description
Chemicals Monitored: <u>Chlorine, Combustibles</u>
Analytical System (GC, IR, etc.): <u>Gas Chromatography</u>
Purpose (leak detection, area monitor, etc.): <u>Area monitor and leak detection</u>
Alarm Set Points (Concentration): <u>Cl₂ - 2 ppm . Comb. - 5% LEL</u>
Written Maintenance Procedures (Yes/No): <u>Yes</u>
Written Calibration Procedures (Yes/No): <u>Yes</u>
What is done with data generated? <u>Continuously monitored. No data recorded.</u>

Contamination Control

Question	Response
14. Are Dow employees provided eating facilities with proper food storage space?	☒ Y ☐ N ☐ NA
15. Are non-Dow employees provided eating facilities with proper food storage space?	☒ Y ☐ N ☐ NA
16. Is there a written policy concerning the washing of face and hands before eating or smoking?	Y ☒ N ☐ NA
17. Is food or tobacco carried into process areas, laboratories, or other areas where chemicals are present?	Y ☒ N ☐ NA
18. Are employees required to shower before leaving work?	Y ☒ N ☐ NA
19. Are non-Dow employees required to shower before leaving work?	Y ☒ N ☐ NA
20. Are change/shower rooms supplied for non-Dow employees?	☒ Y ☐ N ☐ NA
21. Are laundry services provided?	Y ☒ N ☐ NA
22. Is there evidence of "tracking" of chemicals from one area to another?	Y ☒ N ☐ NA

Medical Assessment

23. Identify and list any records for OSHA recordables/injuries and illnesses and first aid reports, etc. during the past two years pertaining to chemical exposures, thermal stress or ergonomics. For example:

- a. Skin Rash/Dermatitis
- b. Chemical Exposure Injury
- c. Cumulative Trauma Disorder
- d. Thermal Stress
- e. Musculoskeletal Injuries
- f. Standard Threshold Shifts(STS) Approvals

Eye scratched by foreign object; probably sand blown by wind.

Prescription given for pain. (OSHA recordable)

Continued on next page

DOW CONFIDENTIAL

DO A 045515
CONFIDENTIAL

Medical Assessment
(cont'd.)

24. What Medical Surveillance Requirements (MSRs) Dow or OSHA are applicable to this plant/unit? Chemical Specific.

Noise.

Question	Response
25. Are the content and rationale for the medical surveillance program communicated to the employees?	☒ Y N NA
26. Is the Medical Department asked to review an employee's medical history and any restrictions when he/she transfers into the plant/department?	Y ☒ N NA
27. Are contractor medical surveillance programs in compliance with applicable OSHA standards for this plant? How is this verified? <u>On file in contractor's office's.</u>	☒ Y N NA
28. Have you received a health status report from Medical? If yes, the date of the latest report was <u>May, 1995</u>	☒ Y N NA
29. Do you have any questions regarding the health status report? <u>No.</u>	

3. HAZCOM - TRAINING PROGRAMS

(Ref. OSHA 29 CFR 1910.1200)

**New People
and Chemicals**

Question	Response
1. Is there a plant/unit specific Industrial Hygiene orientation program for:	
a. Employees new to the plant/unit?	☒ Y N NA
b. Long-term contractors?	☒ Y N NA
c. Short-term contractors?	☒ Y N NA

Continued on next page

DOW CONFIDENTIAL

DO A 045516
CONFIDENTIAL

New People
and Chemicals
(cont'd.)

Question	Response
2. Are technical, supervisory, clerical, laboratory and maintenance personnel included in the new employee orientation?	☒ Y N NA
3. Are the following elements included in the orientation program?	
a. Overview of the HAZCOM standard.	☒ Y N NA
b. Location, availability of information sources (written programs MSDS, TIME, etc.).	☒ Y N NA
c. Major chemical and physical stresses for the job/task.	☒ Y N NA
d. Stationary container labeling systems.	☒ Y N NA
e. Protective equipment programs.	☒ Y N NA
f. Written documentation of training?	☒ Y N NA
4. What is the review procedure for bringing a new chemical/physical agent into the area? <u>MOC procedure must be followed. This means adding to HAZCOM list, MSDS put in manual, training for folks with potential exposure.</u>	
a. Are employees trained on potential health effects?	☒ Y N NA
b. Is there written documentation of training; including records retention?	☒ Y N NA
5. Was training documentation in questions 3f and 4b put in the annual report backup data package and sent to I.H. Department for 75 year record retention? <u>Note: now beginning to follow standard record retention policies.</u>	☒ Y N NA

DOW CONFIDENTIAL

DO A 045517
CONFIDENTIAL

**On-Going
Health Hazard Training**

Question	Response
6. Is the written Hazard Communication Program available to all employees throughout each work shift?	☒ Y N NA
7. Is a current copy of OSHA HAZCOM standard in the Industrial Hygiene Manual?	☒ Y N NA
8. Regarding the Chemical and Physical Agent Inventory (CPAI) Last updated (date) <u>August, 1995</u>	
a. Does a CPAI exist for each job classification?	☒ Y N NA
b. Is the CPAI updated annually?	☒ Y N NA
9. Are up-to-date information sources (MSDS, TIME, etc.) available for all chemicals listed on the CPAI?	☒ Y N NA
10. Are MSDSs available to Dow and non-Dow employees at all times?	☒ Y N NA
11. Is annual health hazard training conducted on all chemicals or physical stresses with a Priority Rating of 2 or 3 on CPAI? How is this information communicated? <u>Annual HAZCOM training (CETA sheets, MSDS, exposure monitoring results.)</u>	☒ Y N NA
12. How are the results of exposure monitoring/control methods communicated to Dow and contract employees in a timely manner? <u>Posted and/or reviewed in monthly safety meeting. Results of monitoring is sent to contract supervision and may be communicated directly with workers.</u>	
13. How is new health effects information communicated to employees? <u>Monthly Safety meeting, HAZCOM training, or MOC process.</u>	
14. Is the documentation in questions #11, #12 and #13 appropriately retained?	☒ Y N NA

Container Labels

Question	Response
15. Are all stationary containers marked to identify the contents in the manner specified in the plant/unit's written Hazard Communication Program?	☒ Y N NA
16. Are all portable containers labeled in accordance with the Dow Internal Sample Label Guide?	☒ Y N NA

DOW CONFIDENTIAL

DO A 045518
CONFIDENTIAL

4. HEARING CONSERVATION

(Ref: LAD S&LP S-103 & OSHA 29 CFR 1910.95)

Action Level

Question	Response
1. Are all job classifications exposed to noise levels less than 85 dBA as an 8-hour time-weighted (TWA) or 82 dBA as a 12-hour TWA?	Y ☒ N NA
2. Are all plant/unit sources less than 90 dBA?	Y ☒ N NA

If the answer to 1 or 2 is no, complete the following questions; otherwise, go to the next section, Respiratory Protection.

Program Details

Question	Response
3. Is there a copy of the OSHA Occupational Noise Exposure Standard readily available to employees?	☒ Y N NA
a. Is a copy posted?	☒ Y N NA
4. If employees are exposed to equal to or greater than 85 dBA as an 8-hour TWA or 82 dBA as a 12-hour TWA, are they provided the following?	
a. Annual training	☒ Y N NA
b. Annual audiograms	☒ Y N NA
c. Hearing protectors	☒ Y N NA
5. If employees are exposed to area noise levels equal to or in excess of 90 dBA, have they been trained in the proper use of hearing protectors?	☒ Y N NA
6. Do you supply hearing protection to non-Dow employees?	☒ Y N NA
7. Has an area monitoring survey been conducted annually and a personal dosimetry monitoring survey been conducted within the past 3 years?	Y ☒ N NA

DOW CONFIDENTIAL

DO A 045519
CONFIDENTIAL

Program Details

Question	Response
8. Have all plant/unit areas in excess of 90 dBA been posted with noise warning signs?	☒ Y ☐ N ☐ NA
9. Have all plant/department areas in excess of 105 dBA been posted with "Danger Noise" signs (double hearing protectors required)?	☐ Y ☐ N ☒ NA
10. Are there any areas in the plant where employees receive exposures to greater than 115 dBA for any length of time? If yes, what job assignment? <u>(OS) Opening steam vent on THROX (2-4 times/vr)</u>	☒ Y ☐ N ☐ NA
11a. Have any employees experienced a "standard threshold shift" within the last two years?	☐ Y ☒ N ☐ NA
b. Have they been retrained on hearing protection requirements?	☐ Y ☐ N ☒ NA

12. What future plans do you have to reduce noise levels throughout the plant?
Timetable? None planned.

Engineering considerations when purchasing new equipment.

13. Do purchased specifications for equipment include limits on noise level when appropriate?	☒ Y ☐ N ☐ NA
---	---

5. RESPIRATORY PROTECTION

(Ref: LAD S&LP S-102 and OSHA 29 CFR 1910.134)

General

If respirators (including escape-only respirators) are used in this plant/unit, complete the following questions; otherwise, go to the next section, Personal Protective Equipment.

1. What types of respirators are issued for the following uses?

Escape Only: Mouthbit (AO)

Routine Use: MSA GMEO-SSW full face canister mask (block)
MSA Comfo II / 3M-6000 half-face with OV
cartridge (CLR)

Emergency Use: SCBA (Scott air pack),
Breathing air and SKA-PAKS in control room.

Non-Routine: Breathing air (Scott-a-ramic mask)

Continued on next page

DOW CONFIDENTIAL

General (cont.)

Question	Response
2. Is there a written respiratory program? Last update (date) <u>June 28, 1996</u>	(Y) N NA
3. Does the written program include visitors and non-Dow employees?	(Y) N NA
4. Are there jobs that require the routine use of respirators? If yes, what are they? <u>PO sample catching, connection and disconnection of loading lines at the CLR.</u>	(Y) N NA
5. Have exposure levels been assessed during these jobs?	(Y) N NA
6. What steps have been taken to engineer the above out? <u>Engineering controls are currently being evaluated for implementation at the CLR.</u>	(Y) N NA
7. In accordance with Division respirator training requirements, has annual training been conducted for all users?	(Y) N A
8. Has fit testing been conducted within the past 2 years for all routine users? What provisions are made for those employees wearing glasses in full-face respirators? <u>N/A</u>	(Y) N NA
9. Is the medical approval for all routine respirator users current (within the last two years)?	(Y) N NA
10. Is there a regular documented inspection and evaluation to determine the continued effectiveness of this program?	Y (N) NA
11. Are respirators used by non-Dow employees?	(Y) N NA
12. Do you supply respirators for non-Dow employees?	(Y) N NA
13. Is it verified that non-Dow employees are fit tested, medically approved and trained for respirator use? How is this done? <u>On file in contractors office's. Verified through contractor supervision.</u>	(Y) N NA
14. Has a respirator cleaning station been identified in the written respirator program?	(Y) N NA
a. Is the cleaning station posted?	(Y) N NA
b. Is the cleaning procedure posted?	(Y) N NA

Continued on next page

DOW CONFIDENTIAL

DO A 045521
CONFIDENTIAL

General
(cont.)

**Air Purifying
Respirators**

If this plant/unit uses air-purifying (cartridge/canister) respirators, answer the following questions; otherwise, go to the next topic, Air-Supply Respirators.

Question	Response
15. Are air-purifying respirators being used with materials having poor warning properties? If yes, list chemical. <u>Propylene Oxide</u>	☒ Y N NA
16. If yes, have cartridge types (i.e., OV, AG, ammonia, etc.) been tested for breakthrough?	☒ Y N NA
17. Are respirators individually assigned?	☒ Y N
18a. Do individually assigned respirators have the owner's name on the body of the respirator?	☒ Y N
18b. Does the cartridge have the date it was put into service recorded on it?	☒ Y N
19. Are respirators stored properly as to not cause distortion and placed in a clean environment when not in use?	☒ Y N NA

Continued on next page

DOW CONFIDENTIAL

DO A 045522
CONFIDENTIAL

General
(cont.)

**Air-Supply
Respirators**

If this plant/unit uses air-supply respirators, answer the following questions; otherwise, go to the next topic, Personal Protective Equipment.

Question	Response
19. Are SCBAs (5, 10, 30 & 60 minute) inspected:	
a. Monthly by the owner?	☒ Y N NA
b. Annually by an Authorized Agent?	☒ Y N NA
20. If air-line systems are used,	
a. Are breathing air line taps-in identified?	☒ Y N NA
b. Are only Hansen or Shrader BK and HK series fittings used?	☒ Y N NA
c. Are waist belts provided for the air-line systems?	☒ Y N NA
d. Are air line systems equipped with 5 min. escape bottles?	☒ Y N NA
e. Are air line systems inspected?	
1. Monthly by the owner (bottle pressure)	☒ Y N NA
2. Monthly by the owner (condition, alarm regulator)	☒ Y N NA
21. If air compressors are used,	
a. Is the compressor located in a clean area?	Y N ☒ NA
b. Is the compressor used during plant/unit emergencies?	Y N ☒ NA
c. If there is not a CO alarm, are daily CO checks conducted?	Y N ☒ NA
d. Are the compressor alarms on the plant/unit's critical instrument checklist for annual testing?	Y N ☒ NA
e. Was testing conducted and documented?	Y N ☒ NA
22. Are back-up persons with suitable rescue equipment provided for persons working in confined spaces with supplied air?	Y N ☒ NA

DOW CONFIDENTIAL

6. PERSONAL PROTECTIVE EQUIPMENT

Question	Response
1. Is there a written protective equipment program addressing selection, use and limitations, decontamination, maintenance and storage?	☒ Y N NA
2. Have all job tasks that pose significant exposure potential to physical and/or chemical agents been identified in your plant/unit and the protective equipment required?	☒ Y N NA
3. Is this information specified in a table, job procedures or other?	☒ Y N NA
4. Are the industrial hygienist and/or safety superintendent contacted when new PPE is considered for use in your plant/unit?	☒ Y N NA
5. Is all the PPE used in this plant/unit approved by the Personal Protective Equipment Division Committee and the Plant for specific use?	☒ Y N NA
6. Is there adequate documentation of breakthrough time and permeation rate on the chemical protective clothing (CPC) used in this plant/unit (especially CPC that is reused)?	☒ Y N NA
7. How is contaminated chemical protective clothing (CPC) cleaned or decontaminated? <u>Rinsed with water and soap if necessary. Cotton gloves are sometimes laundered</u>	
8. If contaminated clothing is sent to a commercial laundry, have they been notified of the potential contaminants by labeling and MSDS?	☒ Y N NA
9. Are clean room/shower/dirty room areas designated?	Y ☒ N NA
10. How is in-use PPE stored? <u>If uncontaminated, stored on hooks in C/R or in personal lockers.</u>	
11. Are Nomex fire resistant work clothes being furnished for individual use? a. Are they laundered? On-site____or At home____	Y ☒ N NA
12. Are street clothes stored separate from work uniforms and PPE?	Y ☒ N NA
13. Have all employees required to wear PPE been trained in the proper use, inspection prior to use, donning and removal of contaminated equipment?	☒ Y N NA
14. Has the training been documented?	☒ Y N NA

DOW CONFIDENTIAL

DO A 045524
CONFIDENTIAL

Personal Protective Equipment
(cont'd)

Question	Response
15. Are non-Dow employees required to wear personal protective equipment (PPE) as a part of the job?	☒ Y ☐ N ☐ NA
16. Do you provide PPE used by non-Dow employees?	☒ Y ☐ N ☐ NA

7. ERGONOMICS

Question	Response
1. Has ergonomics awareness training been conducted?	Y ☒ N ☐ NA
2. Have you ever had an ergonomics evaluation in your workplace for:	
a. Lifting practices (<u>Central Loading Rack</u>)	☒ Y ☐ N ☐ NA
b. Office	Y ☒ N ☐ NA
c. Machinery	Y ☒ N ☐ NA
d. Tools	Y ☒ N ☐ NA
3. Are there areas of manual materials handling such as process additives handling or packaging (drum handling, bulk packaging, foam boards, fiber packs)?	Y ☒ N ☐ NA
4. For frequent tasks such as equipment cleaning, filter changes, etc., is there adequate access to equipment?	☒ Y ☐ N ☐ NA
5. Do any of the routine job task require awkward body positioning?	Y ☒ N ☐ NA
6. Are there tasks that require employees to perform repetitive motion movements?	Y ☒ N ☐ NA
7. Are there jobs which require employees to stand for long periods of time?	Y ☒ N ☐ NA
8. For office tasks, do data entry personnel (more than 4 hours/day) have well-designed, properly adjusted work stations?	Y ☒ N ☐ NA
9. Is there a plant/unit ergonomic team to address the needs of your operations?	Y ☒ N ☐ NA

DOW CONFIDENTIAL

DO A 045525
CONFIDENTIAL

8. THERMAL STRESS

(Ref: LAD S&LP F-1)

Question	Response
1. Do you provide training for thermal stresses for recognition and prevention?	(Y) N NA
2. Are non-Dow employees covered by a thermal stress training?	(Y) N NA
3. Do written job procedures or safe work permits address methods to avoid thermal stress on jobs where thermal stress may be a concern?	(Y) N NA
4. Are there any heat stress areas (hot equipment or work conditions such as chemical suits) within the plant/unit?	(Y) N NA
5. Is thermal stress considered during pre-job planning?	(Y) N NA

9. VENTILATION

(Ref: LAD S&LP E-13)

Question	Response
1. Are there lab exhaust hoods or other local exhaust ventilation systems in use?	(Y) N NA
2. Are the air intakes for the building located near any of the exhaust points for the fume hoods or local exhaust ventilation devices? What is the height of the exhaust stacks? <u>7 ft. from top of building, 7.5 ft from top of building, and approx 15 ft. above grade.</u>	Y (N) NA
3. Is there a procedure for maintaining clean air in the control room and major offices in case of a gas release?	(Y) N NA
4. Are the fume hoods equipped with flow sensing devices?	(Y) N NA
a. If no, has an airflow survey been conducted within the past year?	Y N (NA)
b. If Yes, has an airflow survey been conducted within the past three years?	(Y) N NA
c. Is there a procedure to weekly check the flow sensing devices?	(Y) N NA
5. Is there a preventative maintenance program for ventilation systems?	Y (N) NA
6. Have recommendations from the I.H. Department evaluation check been implemented?	(Y) N NA

Continued on next page

DOW CONFIDENTIAL

VENTILATION
(cont'd.)

7. How is the housekeeping in the hoods? <u>Needs improvement.</u> Are there objects present that restrict adequate air flow to the back baffle?	☒ Y N NA
8. What type of ventilation is provided for operations such as spray painting, solvent/degreasing tank, etc.? <u>Outdoors, large warehouse for degreaser.</u> Has such ventilation systems been evaluated?	Y N ☒ NA
9. Are blast gates used in the ventilation system? If so, are operating procedures established?	Y ☒ N NA Y N ☒ NA

10. WELDING/CUTTING/BRAZING/SOLDERING

(Ref: OSHA 29 CFR 1910.252)

If there is any welding, brazing, cutting, and/or soldering activities in your operations, complete the following questions; otherwise, go to the next topic, Asbestos.

1. Identify the welding, cutting, etc. operations in your location. (SMAW, TIG, plasma arc cutting, soldering) SMAW, TIG, MIG, oxy-acetylene cutting, arc gouging.

Question	Response
2. Is the ceiling in the area where welding, cutting, etc., is performed at least 16 feet high?	☒ Y N NA
3. Is there at least 10,000 cubic feet of space for each welder?	☒ Y N NA
4. If the answer to #2 or #3 is No, is mechanical or local exhaust ventilation available?	Y N ☒ NA
5. If mechanical ventilation is used to reduce fume below the exposure guidelines, is the flow at least 2000 cubic feet per minute for each welder?	Y N ☒ NA
6. Where booths or screens are used, is there at least two feet of open space at floor level to allow adequate circulation of air (unless the work is at floor level)?	☒ Y N NA
7. Are MSDSs available for all compressed gases used in the operation?	☒ Y N NA
8. Are MSDSs available for each category of welding rod, steel wire, solder, flux, etc.?	☒ Y N NA

Continued on next page

DOW CONFIDENTIAL

Welding/Cutting/Brazing/Soldering

(cont'd.)

Question	Response
9. Have welders and associated personnel been trained on symptoms, causes, and prevention of metal fume fever?	☒ Y N NA
10. Are welders properly trained in effective ventilation methods for confined space welding?	☒ Y N NA
11. Are welders periodically trained on symptoms, preventative measures, and first aid for thermal stress?	Y ☒ N NA
12. Have surveys been conducted to determine if welders are exposed to welding fume above the exposure guidelines	Y ☒ N NA
13. Are welding related warning signs posted?	☒ Y N NA
14. When a new welding rod or other potential hazardous substance is introduced into your area, is a MSDS obtained and hazard communication presented to the persons affected?	<u>MSDS is obtained and put into HAZCOM book. No special training is conducted.</u>
15. Are containers of welding rods labeled with caution signs as per the OSHA welding standards?	☒ Y N NA
16. Are welding rod ovens labeled with warning signs?	☒ Y N NA

11. ASBESTOS

(Ref: LAD Handling Requirements and OSHA 29 CFR 1910.1001 and OSHA 29 CFR 1926.58)

If this plant/unit has any asbestos (insulation, gaskets, transite, etc.), complete the following questions; otherwise, go to the next topic, Plant/Unit Specific Program Review.

Question	Response
1. Has all asbestos material been identified?	☒ Y N
a. Are asbestos materials storage areas properly labeled?	☒ Y N
2. Are "DANGER" signs posted to alert employees to the hazard (i.e., Block Entrance Signs)?	☒ Y N
3. Are permanent records (inventory) available showing the location of asbestos materials?	☒ Y N
4. Are asbestos containing materials inspected yearly for signs of deterioration?	☒ Y N
5. Is there a program to identify asbestos containing materials prior to demolition, renovation, maintenance and removal operations?	☒ Y N

Continued on next page

DOW CONFIDENTIAL

Asbestos (cont'd.)

Question	Response
6. Are specific job procedures available for work involving asbestos materials (i.e., to remove gaskets, uncover valves, short sections of insulation)?	☒ Y N
7. Has annual training (health hazard, PPE, removal procedure, OSHA Regulations, etc.) been completed for all employees who work with asbestos (outlined in Division requirements)?	☒ Y N
8. Has monitoring of personal exposures to asbestos been conducted? <u>Conducted by PETRIN</u>	☒ Y N
9. Were any job classifications exposed to greater than 0.1 f/cc as a 8-hour TWA and 1.0 f/cc for 30-minute excursion? If the answer to 9 is yes, have all OSHA requirements been met for: a. Annual health hazard training,	Y ☒ N
b. Medical Surveillance,	Y N
c. Respiratory program/regular fit testing.	Y N
10. Are there copies of the most recent OSHA Asbestos Regulation 29 CFR 1910.1001, 29 CFR 1926.58, NESHAP Asbestos Regulation and LAD Handling Requirements?	☒ Y N
11. Is there a current program to evaluate asbestos gasket replacement materials?	☒ Y N
12. Has any asbestos been removed within the past twelve months? Describe: <u>502 linear feet of piping insulation in Dec., 1995.</u>	☒ Y N
13. Are there any further asbestos abatement plans? Describe: <u>Piping insulation during 1997</u>	☒ Y N

DOW CONFIDENTIAL

PLANT/DEPARTMENT SPECIFIC PROGRAM REVIEW

12. SCREENING QUESTIONS

Complete the following questions which are designed to identify specialized programs required by some plants/units. For each yes answer, complete the associated appendix which contains the detailed questions for that program. Attach the completed appendices to this audit questionnaire.

Question	Response
1. Are there any radioactive sources, radiation devices (e.g., x-ray, etc.), or lasers in the plant/unit? If the answer is Yes, fill out Appendix A.	Y ☒ N
2. Are RCRA wastes stored more than 90 days or is there a facility Emergency Response team who can respond to emergencies involving RCRA wastes? HAZWOPER (Ref: OSHA 29 CFR 1910.120) If the answer is Yes, fill out Appendix B.	☒ Y N
3. Is acrylonitrile used or produced in the plant/department in concentrations greater than 0.1%? (Ref: OSHA 29 CFR 1910.1045) If the answer is Yes, fill out Appendix C.	Y ☒ N
4. Is benzene used or produced in the plant/unit in concentration greater than 0.1% and not exempted by the OSHA benzene standard? (Ref: OSHA 29 CFR 1910.1028) If the answer is Yes fill out Appendix D.	Y ☒ N
5. Is ethylene oxide (EO) used or produced in the plant/unit in concentrations greater than 0.1%? (Ref: OSHA 29 CFR 1910.1047) If the answer is Yes, fill out Appendix E.	Y ☒ N
6. Is formaldehyde (liquid or gas) used or produced in the plant/department in concentrations greater than 0.1%?(Ref: OSHA 29 CFR 1910.1048) If the answer is Yes, fill out Appendix F.	Y ☒ N
7. Is vinyl chloride used or produced in the plant/unit? (Ref: OSHA 29 CFR 1910.1017) If the answer is Yes, fill out Appendix G.	Y ☒ N

DOW CONFIDENTIAL

Page 20

DO A 045530
CONFIDENTIAL