GEN 55 (REV.6/74)

Interoffice Memorandum

TO (Name and Location)	DATE
Mr. M. John, Mr. J. Doedyns, Mr. J. Cantrell	December 23, 1975
FROM (Name and Location)	**REFERENCE NO.**
J. A. Pierce	JAP-21-75

SUBJECT: Recommended Revisions to Insulation Section

1) An addition should be made to the description on page 5 - 2.1.1 - Calicium Silicate--"New insulation containing asbestos cannot be used without the approval of the Safety Dept." Also this statement should be inserted on Page 6 under 2.1.1 and Page #37 under 2.1.1

2) The use of asbestos in the calcium silicate insulation is dangerous to the worker. The calcium silicate insulation presently specified by the Chemcel Plant does not contain asbestos. However, at some future date it may be necessary to use asbestos type insulation and the safety department should have prior knowledge.

The use of asbestos tape (to wrap around steam tubing), asbestos gloves and asbestos tarpaulins has not been restricted by OSHA regulations (information obtained from Joe Cantrell)

J. A. Pierce

J. A. Pierce

gdr

cc: Plant Engineers
Bay City
Clear Lake
Pampa

000217

PLAINTIFF'S EXHIBIT
tabbies
CEL-2724

Section VII OCCUPATIONAL HEALTH & ENVIRONMENTAL MAINTENANCE

Bishop No. VII-4 ASBESTOS HANDLING & DISPOSAL PROCEDURES

Effective October 5, 1979

PURPOSE

To establish uniform procedures for the handling of raw asbestos or asbestos containing materials. To assure that no employee is exposed to asbestos in concentrations that may be hazardous to his health. To comply with Occupational Safety and Health regulations (Code of Federal Regulations, Title 29, Section 1910 Series) and with Environmental Protection Agency Regulations (Code of Federal Regulations, Title 40, Section 61 Series) for the protection of employee health and removal and disposal of waste asbestos materials.

POLICY

All operations involving the handling of loose asbestos materials (powders) or asbestos manufactured products that crumble or pulverize (insulation, coatings, cements) or materials that are firmly bonded but when cut, sawed or otherwise reshaped give off asbestos fibers, will be performed in accordance with strict procedures described below. All unidentified insulation materials or dust near asbestos equipment (such as dump chambers, mixing vessels, etc.) will be considered and handled as asbestos. Every effort will be made to replace asbestos materials, such as welder's gloves and blankets, and rope, etc. with non-asbestos materials of similar quality. No new insulation containing asbestos will be used in the Plant. Personal protective equipment, including respirator and disposable coveralls, will be used by all employees handling asbestos. Every employee handling asbestos will have an annual physical.

PROCEDURE

A. Celanex and Special Products

1. SEO Blend Operation

(a) Protective suits and respirators are not required when unloading or moving sealed asbestos bags from truck to pallet to SEO Blend Area.

(b) A shipment containing broken asbestos bags will be rejected and sent back to the supplier.

(c) Asbestos bags damaged after arrival into the warehouse will be handled after protective suits and respiratory equipment has been donned.

(d) Damaged asbestos bags will be retaped or resealed to prevent further contamination and moved to the SEO Blend Area for immediate use. (See part A-3 for cleaning of spills.)

(e) No asbestos bags will be opened outside of the Asbestos Dump Chamber.

(f) No SEO blend will be made if the SEO dust collection system is malfunctioning.

(g) All employees preparing the SEO blend shall wear disposable coveralls, shoe covers and respirators during the entire SEO blend and clean-up.

(h) A fiber drum, containing a plastic bag liner, shall be placed in the drum compartment of the dump chamber prior to starting the blend operation.

(i) The SEO Blend Area will be conspicuously marked with approved warning signs.

2. Housekeeping and Personal Hygiene

(a) Operations employees making the SEO blend are responsible for vacuuming the SEO Blend Area after each blending operation.

(b) Ventilation fans shall be turned off prior to opening the SEO Drum Chamber and removing the drum.

(c) The SEO Drum Chamber shall be vacuumed after each SEO blend.

(d) Disposable coveralls and shoe covers shall be removed in the SEO Blend Area after all cleaning has been done. These shall be placed in fiber drums for disposal.

(e) Plastic bag liner shall be closed and drum lid securely fastened prior to removal of drums from the SEO Blend Area.

(f) The outside of drums shall be vacuumed prior to removing from the SEO Blend Area.

(g) All drums shall be conspicuously marked with an approved asbestos warning label.

(h) Drums shall be temporarily stored in a secured and sheltered holding area until Maintenance picks them up.

(i) Employees shall wash (hands, face, neck) after each SEO blend.

000219

3. Clean-Up of Spills

(a) All asbestos contaminated areas shall be cleaned by vacuuming into the SEO Dust Collection System.

(b) High pressure air will not be used for cleaning floors, walls, beams or equipment, etc. in areas where asbestos materials are used.

(c) Where vacuum outlets to the SEO Dust Collection System are not accessible, loose asbestos shall be cleaned up by vacuuming using an approved portable vacuum cleaner or thoroughly dampening the dust prior to sweeping.

(d) During any clean-up operation, employees shall wear respiratory protective equipment, disposable coveralls, and shoe covers.

4. SEO Dust Collection System

The SEO Dust Collection System shall be maintained according to manufacturers recommendations with the following additional requirements.

(a) Opening of the system shall not result in the release of asbestos or asbestos containing dust into the air.

(b) Employees entering or opening any portion of the SEO Dust Collection System shall be fully protected including a full-face positive pressure airline respirator, disposable coveralls, and shoe covers.

5. Enforcement Responsibility

The responsibility for assuring that the above requirements are fullfilled shall lie with the owning shift supervisor, safety department, and the employee's immediate supervisor. The owning shift supervisor shall be responsible for noting on the AVO whether an asbestos entry or general maintenance permit is required. He will assure that the equipment to be worked on is down and ready for maintenance. The following permits and the protective equipment required for each is listed below:

(a) Entry Permit - When entry is to be made into any vessel or confined space of the SEO Blend System, the following safety equipment shall be worn:

(1) Positive pressure, airline respirator,

(2) Disposable coverall, including shoe covers and suitable head covering.

(b) General Maintenance Permit - When any portion of the SEO Dust Collection System/Product Conveying System is opened for either maintenance or inspection, the following safety equipment shall be worn:

(1) Approved disposable filter respirator,

(2) Disposable coveralls.

The General Maintenance Permit shall be issued by the owning shift supervisor who will be responsible for insuring that the above protective equipment is worn.

6. Reporting of Asbestos Spills

   (a) All incidences involving the release of asbestos raw materials (e.g. broken asbestos bags, blown out or leaking rubber connectors, etc.) shall be reported to Management, with a copy to the Industrial Hygienist and the Environmental Health Chemist, on the form provided. This will insure adequate historical exposure documentation for the Health Surveillance System.

   (b) Additionally, any asbestos spills involving visible emission outside of the compounding area and to the environment shall be reported to the Environmental Coordinator.

B. Insulation Removal, Demolition, Renovation

The following procedures will be adhered to by all employees, whether Celanese or contractor, prior to starting any operation which requires the removal or stripping of asbestos insulation from pipes, tanks, reactors, furnaces, buildings, etc.

1. Determine whether the insulation material is or contains asbestos. This can be facilitated with assistance from the Chemical or Plastics Laboratories or the CC Tech Center.

2. If unable to confirm the type of insulation, assume that it is asbestos.

3. Contact the Environmental Maintenance Coordinator at least 30 days prior to starting the project. The law requires that the Texas Air Control Boar be notified in advance to starting asbestos removal projects. In order to comply with this requirement, provide the Environmental Coordinator with the following information:

   (a) Area (in square feet) of asbestos insulation to be removed or,

   (b) Linear feet of pipe insulation to be removed.

4. Mark off immediate area with approved caution signs to prevent unauthorize or unprotected employees from entering the area.

5. Assume that respirators and disposable coveralls are worn by employees removing insulation or working with asbestos containing materials.

6. If feasible, remove pipes, ducts, boilers, furnaces or structural members covered with asbestos in units, to holding areas approved for the removal of asbestos. While in the holding area, exposed insulation will be covered to prevent airborne emission. The holding area will be suitably marked with approved signs indicating asbestos.

7. When demolishing a building containing pipes or equipment covered with non-weatherproof asbestos insulation, remove the insulation first so as not to expose the insulation to the elements causing airborne particulates.

8. All friable asbestos materials shall be thoroughly wetted prior to cutting or removal, to minimize asbestos dust.

9. Materials covered with asbestos shall not be thrown to the ground or to a lower floor. When removing material covered with exposed asbestos at a height greater than 50 feet, transport to the ground in a dust tight chute or container.

10. When drilling or sawing into transite type asbestos materials, both sides shall be thoroughly wetted to reduce asbestos dust emissions.

11. Portable power tools shall have vacuum attachments to minimize asbestos release. There shall be no visible emission from the vacuum attachment. The asbestos dust collected in the vacuum device shall be disposed of in a manner similar to SEO asbestos or insulation asbestos.

12. All efforts will be taken to eliminate emission of asbestos dust to the work environment where other employees may unknowingly breathe the dust.

13. Removed insulation will be sealed in plastic bags. The area will be swept immediately with the sweepings wetted to avoid airborne particles. These sweepings will be sealed in plastic bags. All plastic bags will have an approved "asbestos" caution tag attached.

000222

C. Asbestos Waste Disposal

All drums or bags shall be securely closed and in a clean condition such that visible dust emission does not result during transport of drums from the temporary holding area to the approved waste disposal site. The following operating procedures shall be followed.

1. Employees transporting drums and bags are <u>not</u> required to wear respirators or disposable coveralls during the operation.

2. Drums and bags will be handled such that they do not open and release asbestos. (If there is a release, please follow procedures outlined in part A-3, Clean-up of Spills.)

3. No visible emissions shall occur from the waste disposal site.

oved warning signs shall be displayed at all entrances and along the erty line of the disposal site, at intervals of 300 feet or less. perimeter of site will be fenced according to law.
stos containing drums or bags shall be covered every 24-hour with at t 6 inches of non-asbestos containing material. The final graded area have at least 2 feet of compacted non-asbestos containing material.

drum or bag breakage in the landfill pit shall immediately be covered revent airborne particulates. Cover with at least 6 inches of dirt.

. Monitoring

operations involving the handling, removal or cutting of asbestos or stos containing materials shall be initially monitored to determine liance with federal regulations.

ractors shall be responsible for complying with all federal regulations, uding personal monitoring of their employees, with their own equipment, ss otherwise specified.

ling intervals shall not exceed 6 months for employees whose exposure stimated to exceed regulatory limits.

l Training

onnel (Celanese employees and contractors) involved in handling of containing materials shall be trained in the above asbestos policies edures and be warned of the potential long-term hazards of asbestos on. This training shall be the responsibility of the employee's e supervisor.