

## GENERAL INFORMATION

PLANT LOCATION

The plant is located at the southeast corner of Texas City. Total plant area is 358 acres of which 243 are in use for manufacturing. This total acreage includes 80 acres northeast of Texas City in the Amburn Tract, 18 acres south of the plant at Swan Lake, and 18 acres of peripheral property adjacent to the plant. The Amburn Tract property is the site of our fire training area and a lagoon used to decant river mud from the plant water treating clarifier. The Swan Lake property is used for non-hazardous waste disposal.

ORGANIZATION

Manufacturing operations at Texas City are administered by the Fibers and Intermediates Company, which operates the acrylonitrile and acetone cyanohydrin units, site utilities, and environmental control operations. The Polymer Products Company is a guest operator of six manufacturing units - ethylbenzene, styrene, oxo alcohol, phthalic anhydride, phthalate esters, and tertiary butylamine. The Industrial Chemicals Company is a guest operator of the acetic acid and methanol manufacturing units. The Agriculture and Nutritional Products Company is a guest operator of the lactonitrile, lactic acid, and iminodiacetic acid manufacturing units (IDA is currently mothballed).

Other Manufacturing functions at Texas City include MISD, Accounting, Personnel, Plant Engineering and Distribution. The Personnel department includes the medical dispensary, industrial hygiene laboratory, plant security, and cafeteria. Plant Engineering includes instrument, electrical and mechanical maintenance, project construction groups with a large central shop facility, purchasing, stores, an engineering design group for plant projects and a material/mechanical technology group. The Distribution department includes material handling, production planning and scheduling, and the quality assurance laboratory.

The Technical Center at Texas City includes a process engineering group which supports capital project development, research and development laboratories and a CED project support group.

The Texas City plant has historically used contractors to supplement Monsanto craftsmen and to execute capital project work. For the last few years, the number of contractor supplement to maintenance has gone down significantly. Monsanto Maintenance now works in our Plant Capital Projects group which in the past has been total contract manpower. We have provided an average of 40 Monsanto craftsmen per day to Capital Project work. Overall the contractor headcount has been down during 1983 and 1984 except for turnarounds that have occurred.

MAP 001410

LAM023286

EMPLOYMENT

The plant employs 1364 people in the following classifications:

|                               |          |
|-------------------------------|----------|
| Wage                          | 855      |
| Salaried:                     |          |
| Manufacturing, Exempt         | 263      |
| Non-exempt                    | 101      |
| Process Technology, Exempt    | 81       |
| Non-exempt                    | 47       |
| Corporate Engineering, Exempt | 12       |
| Non-exempt                    | 2        |
| MPP Distribution, Exempt      | <u>3</u> |
| Total                         | 1364     |

Plant operating and craft wage personnel are represented by the Texas City, Texas, Metal Trades Council, an association of thirteen craft and operating unions. Cafeteria workers are represented by Local 347, International Union of Operating Engineers, AFL-CIO. Security guards are represented by the Associated Guards of the United States.

MAJOR PRODUCTS

The major finished products of the plant are as follows:

Acrylonitrile used for fibers, nylon and structural plastics.

Acetic Acid used in making cellulose acetate and vinyl acetate monomer, and for fiber and agricultural production.

Acetone Cyanohydrin used for manufacturing polymethyl methacrylate plastic.

Iminodiacetic Acid used as a raw material for Roundup.

Synthetic Lactic Acid used in the food industry as a preservative.

Methanol used in the production of anti-freeze, formaldehyde and acetic acid.

Oxo Alcohol used in manufacture of phthalate esters.

Phthalic Anhydride used in plasticizers, polyesters, alkyd resins, dyes and pharmaceuticals.

MAP 001411

LAM023287

Phthalate Esters used in food-grade plastics, floor tile, film, fabrics and adhesives.

Styrene Monomer used for plastics, synthetic rubber, and surface coating materials.

Tertiary Butylamine (TBA) used as intermediate for the rubber and tire industry.

#### TEXAS CITY PLANT HISTORY

- 1941 ... Thirty-acre tract purchased under auspices of Defense Plant Corporation.
  - 1942 ... Construction started on Styrene monomer unit and supporting Ethylene units.
  - 1946 ... Plant purchased by Monsanto from United States Government.
  - 1947 ... Ship explosions in harbor completely destroyed plant; reconstruction of Styrene and Ethylene units started immediately.
  - 1951 ... Construction begun on Acrylonitrile, Hydrogen Cyanide, and Vinyl Chloride monomer units plus supporting Oxygen and Acetylene units; major expansion in Styrene.
  - 1952 ... Started up Oxygen, Acetylene, Hydrogen Cyanide, Acrylonitrile and Vinyl Chloride monomer units.
  - 1954 ... Construction begun on Methanol and low density Polyethylene units plus high-purity Ethylene units.
  - 1955 ... Started up TBA unit and low density Polyethylene.
  - 1956 ... Construction begun on new Ethylene units.
  - 1957 ... Started up new Ethylene unit.
  - 1959 ... Tract of 68 acres adjacent to plant acquired and filled by dredging for future plant expansion.
  - 1962 ... Construction begun on high density Polyethylene unit.
  - 1963 ... Started up Lactic Acid unit.
  - 1969 ... 22 acres adjacent to south side of plant acquired for new deep water docking facility and product storage area.
- Construction started on new Methanol and Acetic Acid units.
- Construction begun on Phthalic Anhydride and Esters units.

MAP 001412

LAM023288

- 1970 ... Started up new Methanol, Acetic Acid and Esters units.  
Acetylene, Acrylonitrile, Vinyl Acetate and old Methanol units shut down and dismantled.  
Construction begun on Oxo Alcohol and new Styrene units.
- 1971 ... Started up EVCL unit.  
Started up Phthalic Anhydride and Oxo Alcohol units.
- 1972 ... Part of low density Polyethylene shut down.  
Started up new Styrene unit.  
Started up new primary waste water treatment.
- 1973 ... Signed contract for secondary waste water treatment at Gulf Coast Waste Disposal Authority (GCWDA) regional treatment facility.
- 1974 ... Started up new Ethylbenzene unit.  
Construction begun on new Acrylonitrile unit.  
EVCL unit shut down.
- 1975 ... Construction started on Acetone Cyanohydrin unit.  
Low density Polyethylene unit shut down and dismantling started.  
Started up GCWDA secondary treatment facility.
- 1976 ... Acetone Cyanohydrin started up.  
Low density Polyethylene dismantling complete.
- 1977 ... Started up new Acrylonitrile unit.  
Hydrogen Cyanide unit shut down.
- 1978 ... Chrome-Zinc removal project completed.  
Storm water diversion project completed.
- 1979 ... Major energy conservation project completed.  
Boiler fuel conversion project completed.

MAP 001413

LAM023289

1980 ... Acrylonitrile Exposure Reduction project completed.

Ethylene plant shut down, dismantling.

Started up GCWDA regional disposal facility for hazardous solid waste.

1981 ... Evaluation of coal utilization.

Benzene Exposure Reduction project completed.

Benzene pipeline from Shell and Exxon put on line.

8.7 acres south of plant leased.

CO<sub>2</sub> line from Air Products to Methanol completed.

1982 ... AN conversion to Nitto catalyst.

Demonstration of Phthalic Anhydride energy conservation project.

Startup and shutdown of IDA II.

High density Polyethylene shutdown.

1983 ... Install packing in EB/SM splitter column.

Texas City site study.

1984 MAJOR PROJECTS

Cogeneration evaluation.

Acetic Acid debottlenecking.

Methanol reformer rehabilitation.

Complete cooling tower consolidation.

MAP 001414

LAM023290