

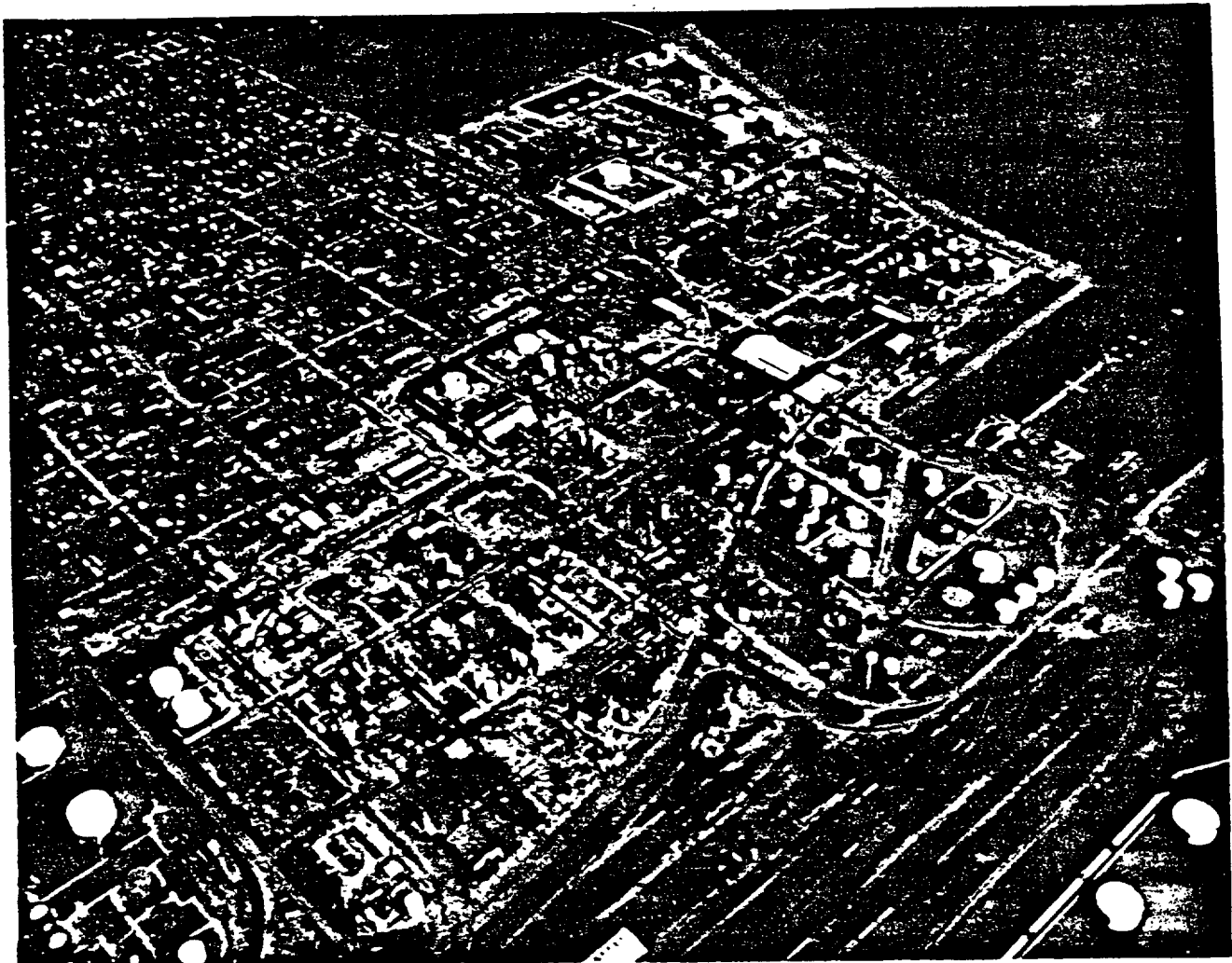
SAFETY & HOUSEKEEPING

PLANT INSPECTION

1980

PLAINTIFF'S EXHIBIT

MON-907



MONSANTO CHEMICAL INTERMEDIATES COMPANY

TEXAS CITY

STG 1084055

SC 17635

COMPANY CONFIDENTIAL

LAM025889

TO: THE 1980 PLANT INSPECTION COMMITTEE

Welcome to the Texas City plant. We look forward to sharing with you our experiences, philosophies, and approach to safety. These inspections provide for us an opportunity to obtain an unbiased assessment of our effectiveness in managing safety.

Our emphasis in Texas City is not on statistics, but on incidents. We have continued to focus on ALL incidents to try to determine root cause and take corrective action. We strongly believe that if we are responsive in taking corrective action to prevent recurrence of these, the statistics will take care of themselves. We also encourage safety suggestions through our unit and craft safety suggestion log books. We are committed to responding to and providing feedback on each of these. We are finding that more and more of these suggestions are being taken care of at the unit level as they should be.

You will hear more about our safety programs during our presentations; however, there are a few points I would like to make. Based on a detailed analysis of our safety organization, training, and emphasis, we feel that the key elements are in place. Our current thrust is on emphasizing basic safety principles and attitudes with the objective of improving the quality and followup on safety programs plantwide. We are consciously avoiding any type of hoopla program. Instead, our emphasis is on making safety awareness an integral part of the way we conduct our business.

As a special emphasis of this inspection, we would very much appreciate it if, during your tour of our facilities, you talk to as many of our wage and first-line supervision as possible. This is "where it all happens" and we would like your help in assessing how this group perceives our safety procedures, programs and most importantly, our commitment. During the feedback session, we encourage you to be candid with us and "tell it like it is" in this as well as all other areas.

We hope your visit with us will be helpful, informative, and enjoyable. We are proud of our people and our facilities and are anxious to introduce them to you.

Sincerely,



G. L. Tromblee
Plant Manager

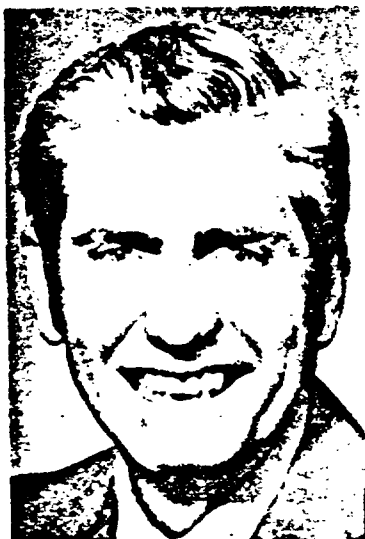
Sept. 1980

SC 17636

STG 1084056

LAM025890

1980 INSPECTION TEAM



GEORGE F. KNOLLMEYER, Chairman

Plant Manager
J. F. Queeny Plant, St. Louis

EDUCATIONAL BACKGROUND:
BS-ChE University of Missouri

1951



WILLARD (Will) F. DUNN

Manufacturing Supervisor
Pensacola, Florida

EDUCATIONAL BACKGROUND:
BS-ChE Georgia Institute of Technology

1953



GLEN E. MERTZ

Engineering Specialist
W. G. Krummrich Plant, St. Louis

EDUCATIONAL BACKGROUND:
BS-ChE University of Missouri
MS-ChE University of Missouri

1973
1976

SC 17637

STG 1084057

LAM025891



PATRICK (Pat) M. PAYNE

Personnel Supervisor
Columbia, Tennessee

EDUCATIONAL BACKGROUND:
MS-Labor & Industrial Relations
Michigan State

1974

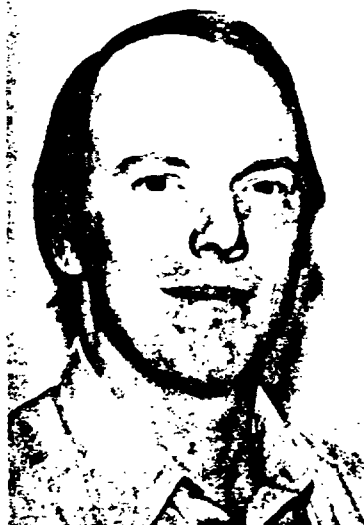


CARL L. SCHENCK

Supt. of Accounting & Control
Soda Springs, Idaho

EDUCATIONAL BACKGROUND:
MBA Washington University

1973



TERRY WOLLIN

General Manufacturing Supervisor
Soda Springs, Idaho

EDUCATIONAL BACKGROUND:
BS-ChE Illinois Institute of Technology

1970

SC 17638

STG 1084058

LAM025892

PLANT MANAGER'S SAFETY BOARD



W. G. JUHL
PT Director



G. T. RYAN
Supt. Mfg.



G. A. DANNER
Supt. Plant Serv.



G. W. BOSTICK
MISD Manager



J. G. TRAFTON
Supt. Mfg.



G. L. TROMBLEE
Plant Manager



D. W. METTEN
Supt. Acctg.



B. C. LANCASTER
CED Site Supt.



G. W. DAUES
Supt. Mfg.

SC 17639



D. E. KALDENBERG
Supt. Personnel



C. F. NAVARRETE
Supt. Mfg.



G. E. SMALL
Mgr. Proc. Engr. CED



C. M. McCULLOUGH
Plant Engineer

STG 1084059

LAM025893

**SAFETY and HOUSEKEEPING ACTION COMMITTEE
(SHAC)**



E. G. FIESINGER
Mfg. Specialist



C. M. CRUSE
Chairman
Mfg. Supt.



J. A. GLASS
Supt. LP&S



C. N. McCLANAHAN
Maint. Zone Supt.



W. R. STOCKWELL
Engr. Specialist
Plant Serv.



J. M. WILLOCK
Proc. Tech.
Group Supv.

SC 17640

STG 1084060

LAM025894

GENERAL
INFORMATION

SC 17641

STG 1084061

LAM025895

Monsanto

Texas City

People



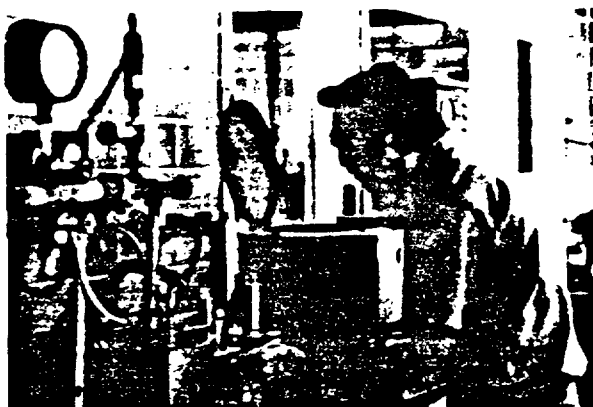
Making



Safety



Happen



SC 17642

STG 1084062

LAM025896

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 Chemical Intermediates Company, which operates seven manufacturing units plus site utilities and environmental control operations. The Industrial Chemicals Company is guest operator of six manufacturing units.

Other Manufacturing functions at Texas City include MISD, Accounting, Personnel, Plant Engineering and Plant Services. The Personnel department includes a medical dispensary and industrial hygiene laboratory. Plant Engineering includes instrument, electrical, and mechanical maintenance and project construction groups with a large central shop facility, as well as plant security and off-shift supervisory personnel. Plant Services includes purchasing, stores, production planning and scheduling, and material handling functions, an engineering design group for plant projects, and a materials/mechanical technology group responsible for fabrication and rotating equipment specification as well as inspection of existing equipment. The plant also operates a Control Laboratory for process and product analyses.

Process Technology at Texas City includes a major laboratory and engineering center which supports product line operations and capital projects and provides process and analytical technology development as well as business planning guidance. Styrene and acetic acid licensing are also administered through the Process Technology department.

Corporate Engineering at Texas City includes a process engineering group which supports Chemical Intermediates capital project development and a construction group which executes CED projects at the plant.

Other staff functions at Texas City include Marketing and Patent offices.

SC 17643

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LAM025897

EMPLOYMENT

The plant employs 1736 people, in the following classifications:

Wage	1029
Salaried:	
Manufacturing, Exempt	356
Non-exempt	139
Process Technology, Exempt	118
Non-exempt	68
Corporate Engineering, Exempt	13
Non-exempt	2
Marketing/Patent, Exempt	5
Non-exempt	<u>6</u>
Total	1736

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:

CHEMICAL INTERMEDIATES COMPANY

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

High Density Polyethylene used in the plastics industry as film, wire coating and molding material. This unit is expected to operate until 1983 under contract to Cities Service.

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

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.

Acrylonitrile used for fibers, nylon and structural plastics.

INDUSTRIAL CHEMICALS COMPANY

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

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

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

Oxo-Alcohol used in manufacture of phthalate esters.

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.
- 1952 ... Started up Oxygen, Acetylene, Hydrogen Cyanide, Acrylonitrile and Vinyl Chloride monomer unit.
- 1954 ... Construction begun on Methanol and low density Polyethylene units plus high-purity Ethylene units.
- 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.

SC 17645

STG 1084065

LAM025899

- 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.
- 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 unit.
- 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 unit 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.

1980 ... Acrylonitrile Exposure Reduction project completed.

Ethylene plant shut down, dismantling.

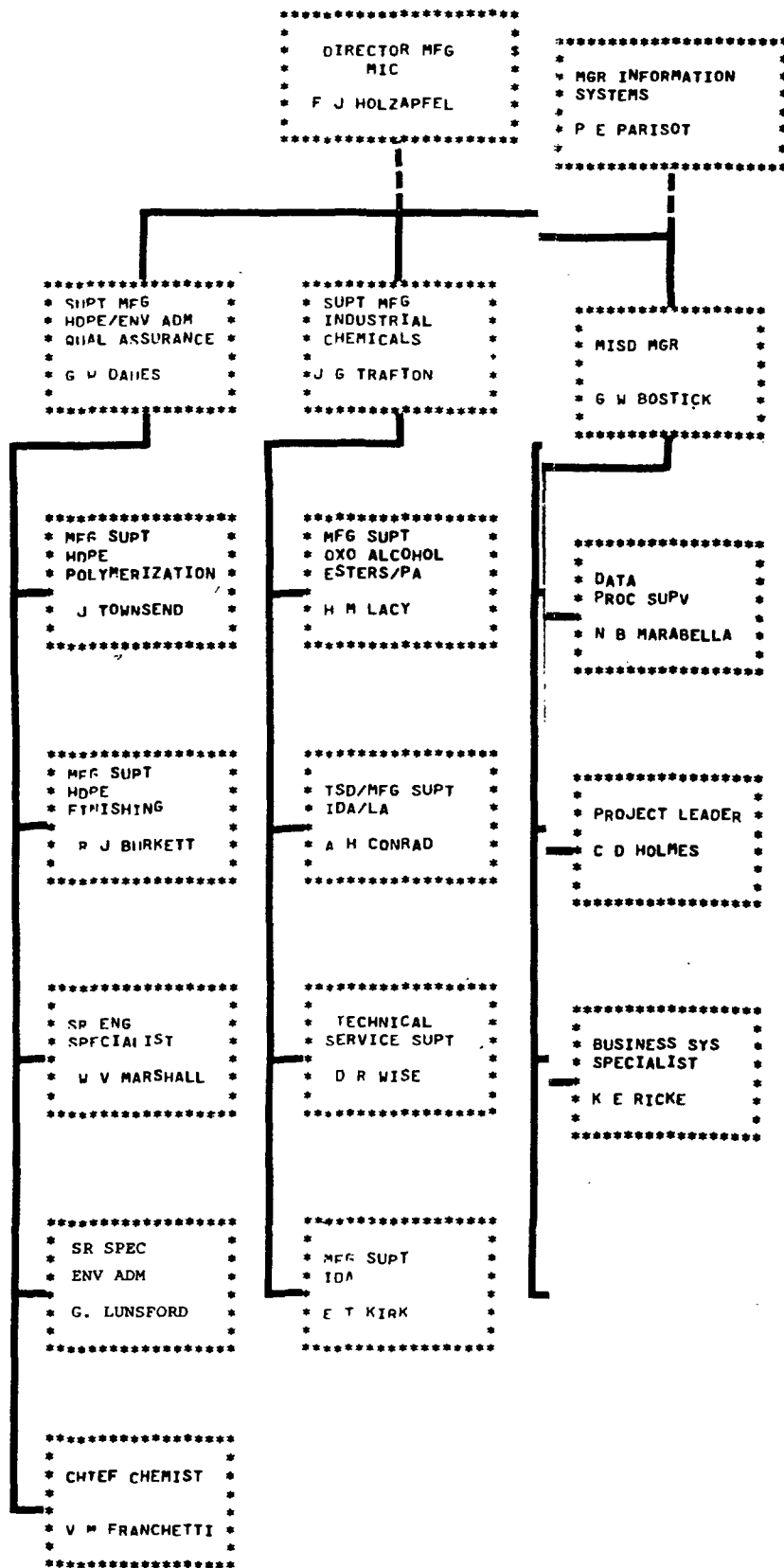
Started up GCWDA regional disposal facility for hazardous solid waste.

1981 MAJOR PROJECTS

Plasticizers expansion.

Phthalic Anhydride energy conservation and debottlenecking.

IDA II.

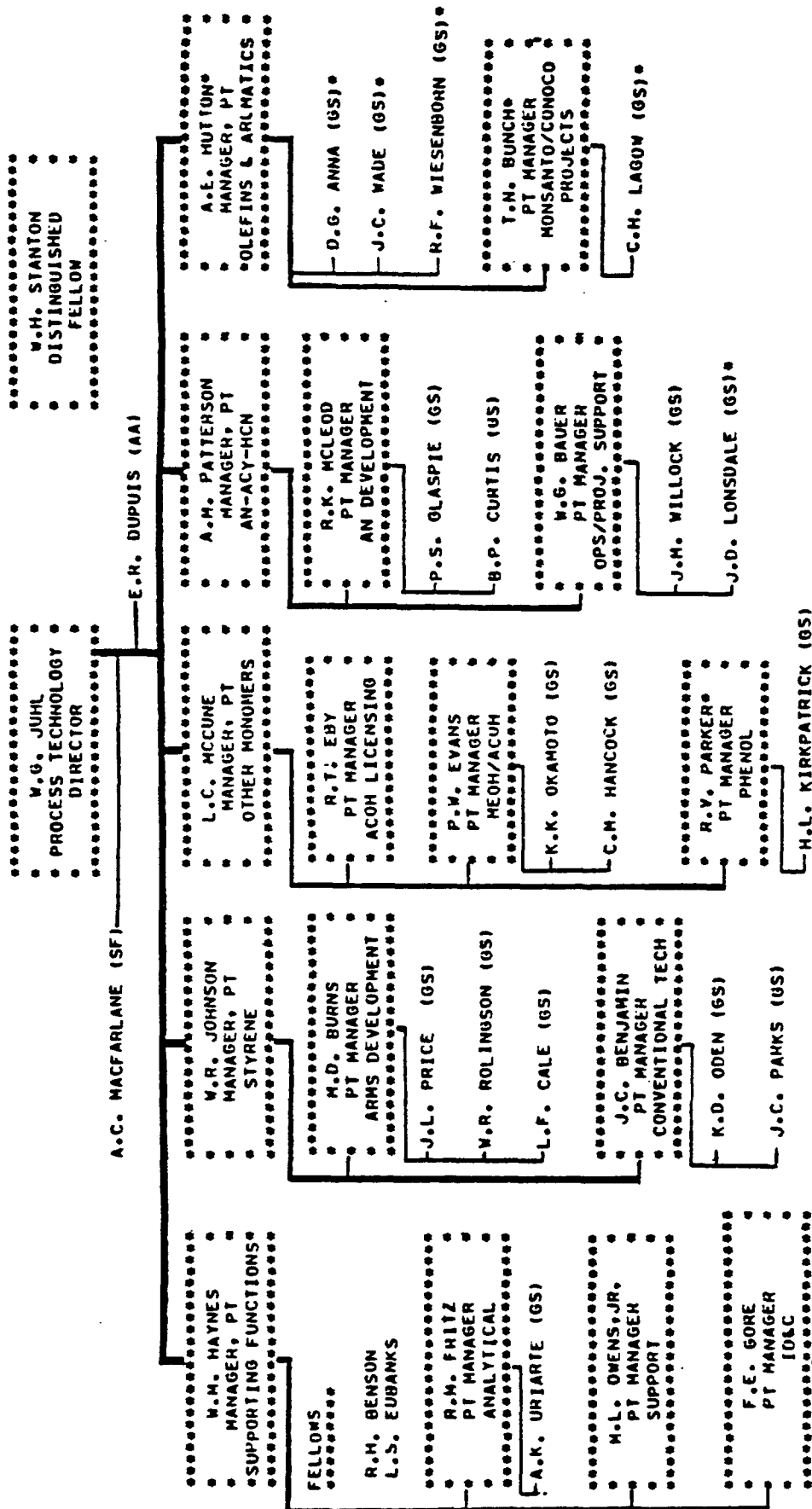


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NSANTO CHEMICAL
INTERMEDIATES COMPANY
MANUFACTURING DEPARTMENT
KAS CITY TEXAS
DTFMRFR 1. 1980

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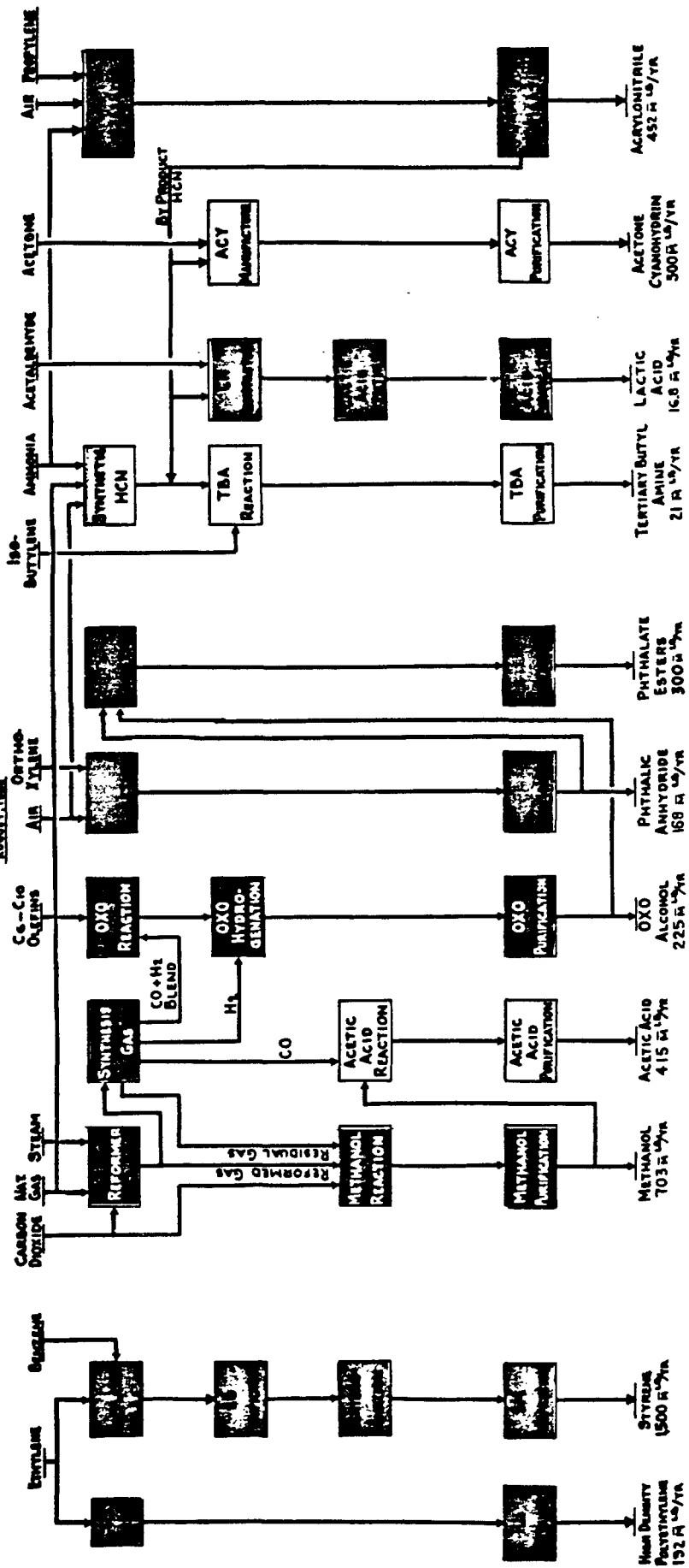
Process Technology Department
Texas City
Sept. 1980

SC 17648

STG 1084069

LAM025903

BLOCK FLOW DIAGRAM - TULAR CITY



100-110

SC 17649

STG 1084070

LAM025904

**SAFETY
INFORMATION**

SC 17650

STG 1084071

LAM025905

**Accelerated
Vessel
Inspection
Program**



SC 17651

STG 1084072

LAM025906

ACCELERATED VESSEL INSPECTION PROGRAM (AVIP)

Monsanto Texas City began a comprehensive program of vessel inspection after failures of atmospheric storage tanks in 1978 and 1979, one causing five fatalities. Over 1300 major vessels in the plant have been scheduled for regular inspection each 1-5 years depending on the nature of the service and the extent of previous inspection data. Metal vessels are inspected visually, with thickness readings and condition of plates and welds recorded. FRP tanks are inspected visually and with acoustic emission techniques.

1980 was the second full year of the AVIP program, with a high level of inspection effort. Over 93% of scheduled inspections are presently complete, and more will be accomplished in shutdowns scheduled through October. The inspection schedule is regularly reviewed by the Safety and Housekeeping Action Committee and reported each month at meetings of the Plant Manager's Safety Board.

As a result of the program, extensive repairs and replacements of FRP vessels have been completed. Of 25 FRP vessels inspected, 9 were replaced, 9 required major or minor repairs, and 7 passed inspection.

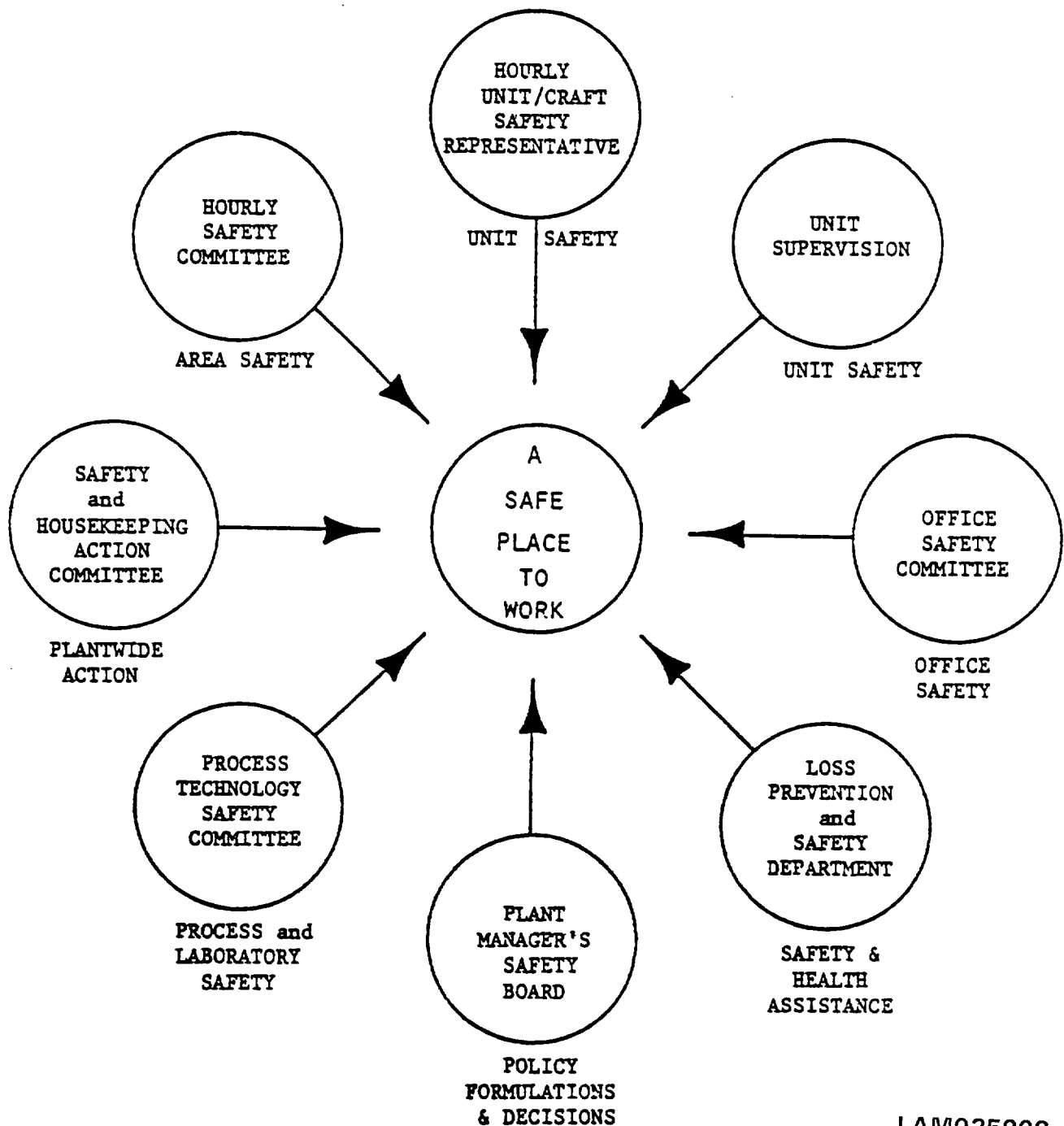
Among metal vessels surveyed, a 30,000 gallon rubber-lined acid tank in the Power Department was condemned and replaced after visual internal inspection. The tank had been in service since 1956 without previous history of internal inspection. A 15,000 gallon sulfuric acid tank in the acrylonitrile unit was found to have 20% of welds defective. This tank had been in service since 1977. Many other vessels have also been found to require major or minor repairs, and confidence in the condition of all vessels has been significantly increased as a result of the inspection, the documentation of vessel condition, and the follow-through to correct any deficiencies noted.

To improve and facilitate the inspection program, more than \$75,000 has been spent for new inspection equipment, including acoustic emission test equipment. Test procedures have been refined and published, and the program is now being extended to cover critical heat exchangers.

This comprehensive program of equipment inspection complements existing programs for relief valve and turbine overspeed testing to assure that plant capital assets are maintained in safe operating condition. It also assures that a sound engineering definition of equipment condition and performance history is available to guide present and future maintenance programs. Through this effort, a major contribution is made in assuring the safety of personnel and reliability of plant operations.

Monsanto, Texas City

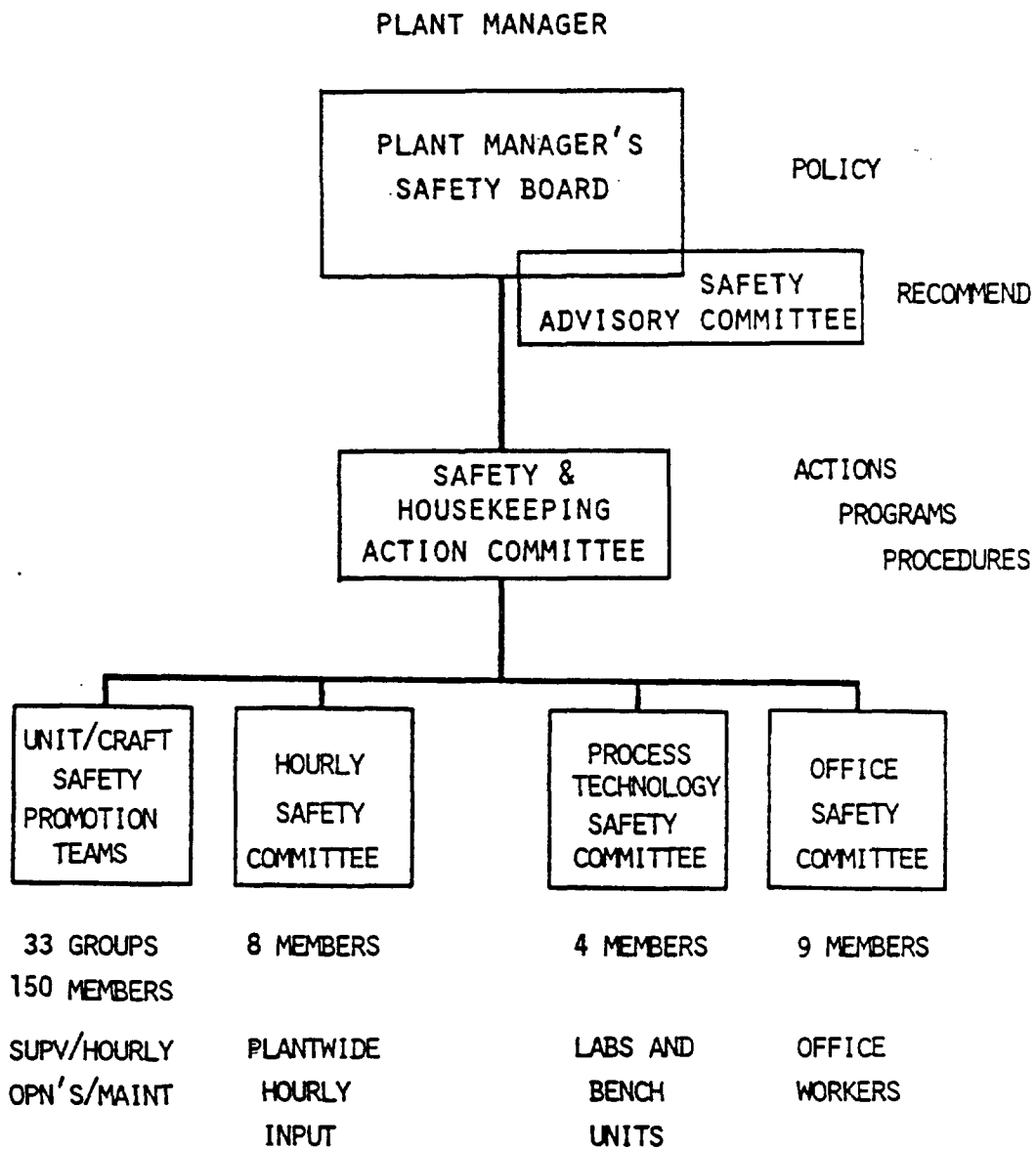
Safety Organization



LAM025908

SC 17653

STG 1084074



SC 17654

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LAM025909

TEXAS CITY SAFETY PHILOSOPHY

WHERE SAFETY STARTS

CORPORATE SAFETY POLICY - It is the safety policy of the Monsanto Company that every employee is entitled to a safe and healthful place in which to work. To this end, every reasonable effort will be made in the interest of accident prevention, fire protection, and health preservation. This policy covers all employees at the Texas City plant. All of the plant organizations — line, staff and formal safety-oriented organizations — are designed to fulfill the spirit and the letter of this policy.

ROLE OF MANAGEMENT AND THE INDIVIDUAL - Management is fully responsible for initiating and administering an effective safety program. Each employee must fully accept the responsibility for his safety and that of his co-workers by conscientiously observing safe work practices and cultivating safe working habits in himself and his fellow workers. Thus the management and the individual workers are mutually involved in a continuing effort to eliminate acts and conditions which could lead to accidents, fires, or to be injurious to the health of anyone. The Plant Manager, although responsible for the entire safety program, assigns responsibilities for the administration of program details.

SAFETY TRAINING

A KEY ELEMENT IN ALL JOB TRAINING - Safety training is an integral part of job training, and as such, is the responsibility of the supervisory staff. Job training is incomplete unless it considers and properly addresses the hazards of the job. Unless a way has been developed to do a job and do it safely, the plans for the job and the training of the employees to perform the job is incomplete. In addition to the on-the-job safety training, plantwide safety training programs are conducted. They are the responsibility of the Safety and Housekeeping Action Committee (SHAC); however, joint accountability for the effective plant training program is shared by the Loss Prevention and Safety Department.

SAFETY PERFORMANCE

INJURY STATISTICS - Injury and illness rates in specific categories are developed on a plantwide basis and are broken down by department, crafts or operating areas to provide indicators of safety performance in large and small work groups throughout the plant. These

safety statistics are developed and plotted on a weekly, monthly and annual basis to show the responsible supervisors where their area performance stands in relation to their own history and to plantwide performance goals. Plant safety goals are established by general management for the plant as a whole.

SAFETY PERFORMANCE REVIEW AND CONTROL - Injury and illness records are reviewed weekly, monthly, quarterly and annually in every review of overall plant performance at every level. Significant deviations require explanation as to cause and appropriate corrective or preventive actions. The greater the deviation from expected performance, the higher in the organization the deviation will be reviewed.

SUMMARY

At Texas City, safety is an integral part of our everyday work. Job training is not complete until the person performing the work knows how to do the job safely. Work planning is not complete until the safety considerations are satisfied. Work execution requires prior review of the possible hazards and necessary actions required to meet them safely. Safety performance is a primary consideration in the evaluation by supervisors of employee job performance. Safety performance is reviewed at regular intervals along with all other aspects of the job or work in progress. All employees are involved in safety considerations in the work place. Safety performance is reviewed by management at every level and is a key element in judging managerial performance and control. Safety is not a thing apart. It is an integral part of our way of doing business.

SC 17656

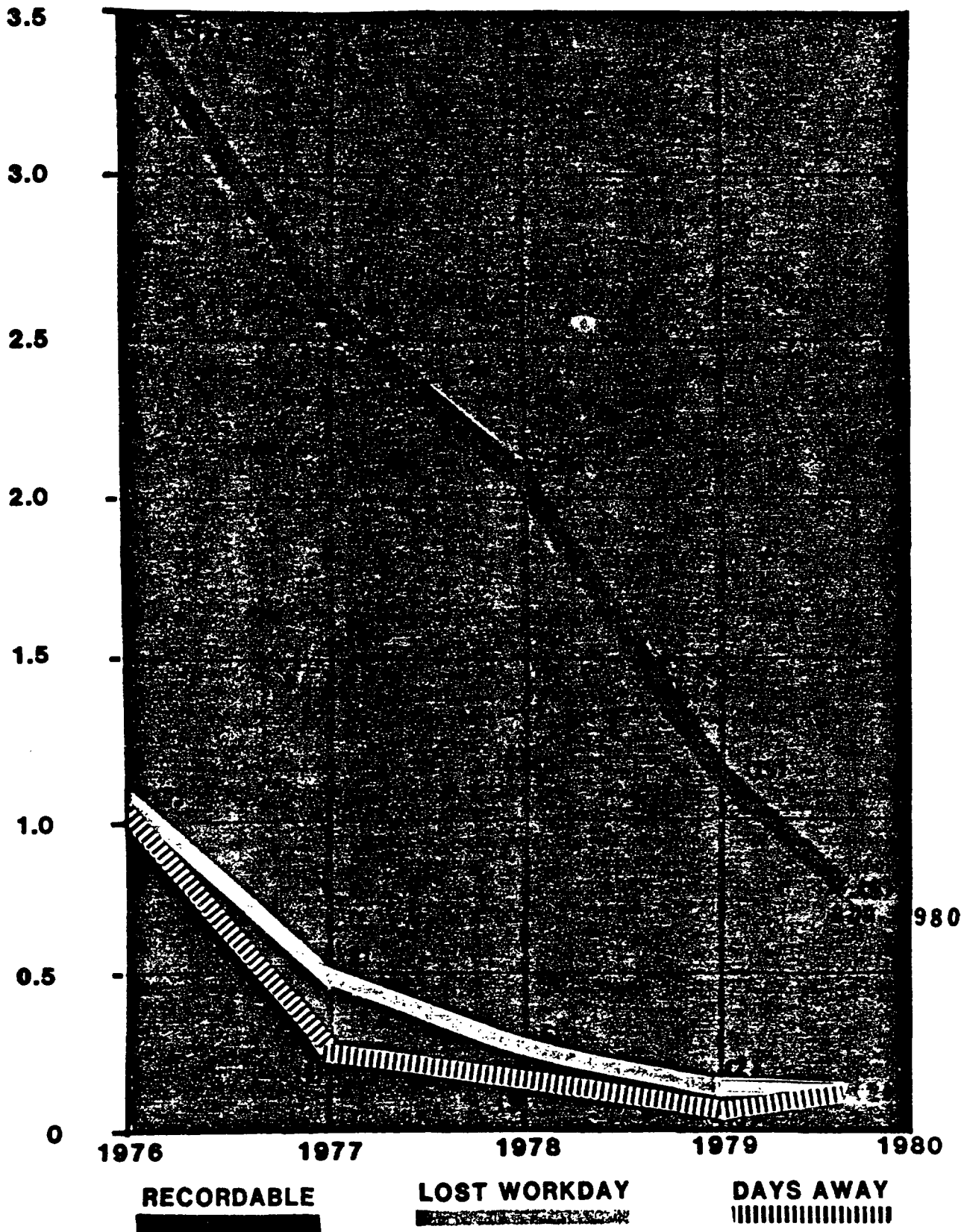
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LAM025911

TOTAL INJURY RATES/(CASES)

Recordable, Lost Workday, and Days Away

4-YEAR COMPARISON



STG 1084078

LAM025912

SC 17657

1979 INSPECTION
STATUS

SC 17658

STG 1084079

LAM025913

MCI 1979 INSPECTION REPORT
RECOMMENDATIONS and RESPONSES

1. Consistency. The plant has many outstanding safety procedures; however, we found a number of variations being followed. We recommend a review of safety procedures and practices with an eye towards greater consistency throughout the plant.

RESPONSE: Concerns about consistency in plant safety procedures and practices have been studied by SAC. Much of the variety arises from actual differences in nature and extent of hazards involved. One frequently mentioned area of concern has been the use of work permits.

SAC has reviewed the use of work permits with responsible plant personnel, and recommended that the use of work permits be left as an option for individual manufacturing units. The decision to use them or not should be made jointly by Manufacturing and Maintenance. The Loss Prevention and Safety Department will publish a description of the work permit system along with advantages and disadvantages during the 4th quarter of this year so that the units can review the matter and make a decision.

2. Safety Tape. Yellow safety tape is used for a number of non-safety purposes. We recommend its use be restricted to safety related purposes and that an identification tag be required to identify the reason for the tape's use and the individual responsible.

RESPONSE: SAC has reviewed existing policies for the use of safety tape and recommended that the present policy be retained — red tape used by the Fire Department for fires and spills, and yellow tape used to identify general hazards. A plantwide bulletin board notice has been posted to remind people on the proper use of safety tape. The use of more kinds of tape and/or signs to identify why the tape was put up was considered and rejected because of the additional complexity involved.

3. Car Seals. These were evident throughout the plant. While everyone knew they represented the equivalent of a lockout device, few people knew who had the authority to remove them. We recommend a formal plantwide procedure be established identifying who has the authority to install or remove car seals.

RESPONSE: SAC is responsible for making recommendations on the proper use of car seals as a lockout device. This item has been included in the inspection checklist for the quarterly Guest Housekeeping Inspections. The practice is also under study by the Hourly Safety Committee and their recommendation is expected in October.

SC 17659

STG 1084080

LAM025914

4. Breathing Air Supplies. Conversion to a central breathing air supply raises additional questions about system reliability. Some areas of the plant are alarmed if local conditions jeopardize the breathing air supply. Others are not so alarmed. We suggest a careful study be made of the reliability and safety of the central breathing air system, including alarms.

RESPONSE: The Utilities Department is responsible to assure the reliability and safety of the central breathing air system, including alarms. An Advisory Investigating Team has been formed to provide input about user's needs for improving the system. A report on breathing air filters installed in operating units has been issued by Plant Engineering. An analyzer which continuously monitors the breathing air system for organic contamination has been installed. An engineer in the Utilities Department has been assigned to complete a study with recommendations for further improvements in the breathing air system.

5. Eye Wash Stations/Safety Showers. Use of alarms and green identification lights on safety showers was inconsistent. We recommend all safety showers be reviewed for the consistent use of lights and alarms. We further recommend consideration be given to the installation of hose-type eyewash stations rather than the currently fixed type so that a second person can irrigate the eyes of an injured individual.

RESPONSE: SAC is currently studying this question. A plant survey has been completed to provide data on the number and type of shower/eyebath installations and alarms provided. OSHA has recently issued for review a proposed standard for eyebath and safety showers. Until the OSHA position is clarified, SAC recommends against upgrading existing systems that do not now have alarms or lights. SAC does recommend that in new construction, all eyebaths and safety showers have alarms and lights, and further that the situation be reviewed again in six months taking into account the status of the OSHA standard at that time.

6. Phthalic Anhydride Tank Vent. Fumes from a phthalic anhydride storage tank were quite strong, thus creating an industrial hygiene concern. We recommend the project to control vent vapors from phthalic anhydride tanks be expedited.

RESPONSE: A trial installation of a vent condenser employing new technology is being installed on one Phthalic Anhydride storage tank. The system is scheduled for an October, 1980 startup. If it proves successful, other tank vents will be similarly equipped.

7. Use of Yellow Safety Markings. We recommend each location where safety yellow is used be clearly marked to identify the specific safety concern. We further recommend consideration be given to extending the use of safety yellow to identify extra-hazardous intra-department piping.

RESPONSE: SAC currently has this item under study. They are reviewing the existing plant procedure on Super-hazardous Materials as it applies both to piping within and between operating units. A recommendation is expected in the 4th quarter of this year.

8. Shift Fire Protection and Emergency First Aid. We found the plant to be excellently staffed with trained fire protection and first aid personnel and equipment during day shifts on weekdays. However, we recommend a review of these areas during off-shifts. Specifically:

- A. Is the volunteer fire protection group's response time adequate, especially under adverse weather conditions such as street flooding?
- B. Should additional monitor nozzles be considered for fire protection?
- C. Does the plant need to expedite the training of additional emergency first aid personnel (EMT) for off-shift coverage?

RESPONSE:

- A. Volunteer fire crew response has been improved by the inclusion of volunteers from among shift workers in the plant. Eight new volunteers have been added to date, and more are being recruited.
- B. We have continued to add monitor nozzles to increase our fire protection coverage throughout the plant. Two additional monitor nozzle systems have been added since the 1979 Annual Inspection. There are several more under consideration for new projects.
- C. The training of additional Emergency Care Attendants has been emphasized this past year. We now have 135 Monsanto Industrial Emergency care attendants (MIECA's) and 6 Emergency Medical Technicians (EMT's). Plans have been approved to increase the number of MIECA's to serve some areas that do not have coverage at this time. Participation in this program is being encouraged by special identity jackets and tuition refund.

9. Identification of Hazardous Chemical Handling Areas. Most departments identify the hazardous chemicals handled within their area by the use of charts within their control rooms. However, we recommend more emphasis be placed on identifying the specific locations within each department where extra hazardous chemicals are handled, especially if they cannot be readily identified, such as carbon monoxide.

RESPONSE: SAC have reviewed this recommendation and feel that the existing policy, which requires that anyone working in an area be aware of potential hazards in that area and knowledgeable in emergency response, is adequate. It is the responsibility of supervision in each area to assure that the existing policy is effectively implemented. SAC suggests that the Unit-Craft safety promotion teams in each area review their procedures, labeling, etc., for effectiveness and make any necessary corrections.

10. Face Shields. Use of personal safety equipment was evident throughout the plant. However, we recommend further expansion of the use of such equipment to include mandatory use of face shields in addition to goggles during sampling or decontamination procedures involving hazardous chemicals.

RESPONSE: SAC has reviewed the use of face shields with plant maintenance groups. They have concluded that the use of face shields would increase the level of personnel protection provided for some jobs within the plant. SAC has recommended that an audit of jobs done in each unit be conducted by operating and maintenance foremen with the assistance of plant safety inspectors to assure that adequate face protection is provided. The results of these audits will be reported to responsible supervision for incorporation into job procedures during the 4th quarter of this year.

SC 17662

STG 1084083

LAM025917

TOUR GUIDE

SC 17663

STG 1084084

LAM025918

T O U R G U I D E S

Chairman
G. Knollmeyer

W. Dunn G. Mertz P. Payne C. Schenck T. Wollin

TUESDAY A.M. - September 23

Methanol; Acetic Acid;
Acrylonitrile

Cruse Glass Willock Conrad Fiesinger Stockwell

TUESDAY P.M. - September 23

Zone 1 Office; Ethylbenzene-
Styrene; Control Lab; Material
Handling Office; Docks; Primary
Treatment - North 68 Storage

Stockwell Cruse Glass Willock Conrad Fiesinger

WEDNESDAY A.M. - September 24

Stores; Shops; Garage; Water
Treating; Power 2

Fiesinger Stockwell Cruse Glass Willock Conrad

WEDNESDAY P.M. - September 24

Hydrogen Cyanide complex;
AN Loading Rack; Warehouses;
Zone 2 Office; CED Office &
Shops; Capital Projects Area
Lactic Acid; Oxo-Alcohol-
Esters; Phthalic Anhydride;
Polyethylene facilities; West
Gate; South 22 Storage

Conrad Fiesinger Stockwell Cruse Glass Willock

SC 17664

STG 1084085

THURSDAY A.M. - September 25

Personnel Building; Lockers-
Safety Supply; Main Gate;
Cafeteria; Dispensary; Fire
Station; Office Annex; Main
Office; Research Buildings

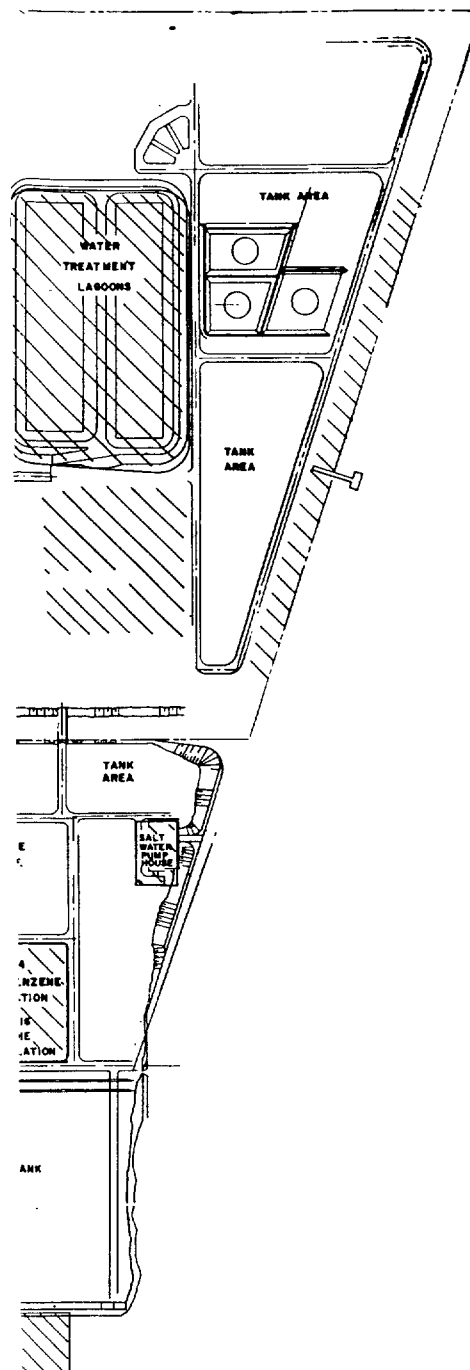
Willock Conrad Fiesinger Stockwell Cruse Glass

SITE MAP

SC 17665

STG 1084086

LAM025920



SC 17666

STG 1084087

LAM025921

TUESDAY
INSPECTION

SC 17667

STG 1084088

LAM025922

INSPECTION TOUR SCHEDULE

TUESDAY, SEPTEMBER 23

Arrive Texas City (Personnel Building Training Room) 8:10 a.m.

PRESENTATIONS

Minutes

- | | | | |
|-----|---|---|----|
| 1. | Introduction - Welcome
- Plant History and
Operating Status | G. L. Tromblee (Gene)
Plant Manager | 15 |
| 2. | Overall Texas City
Safety Program | J. A. Glass (Arnold)
Loss Prevention
& Safety Supt. | 15 |
| 3. | Plant Manager's Safety
Board (PMSB) and Safety
Advisory Committee (SAC) | G. W. Daues (Greg)
Supt. of Mfg.,
Polyethylene | 15 |
| 4. | Safety and Housekeeping
Action Committee (SHAC) | C. M. Cruse (Max)
Mfg. Supt., Ethylene
and Ethylbenzene | 15 |
| 5. | Hourly Safety Committee
(HSC) | J. E. Lonsford (Joe)
Boilermaker, Plant
Engineering | 5 |
| 6. | Process Technology
Safety Committee | L. L. Lewis (Linda)
Sr. Chemist, Process
Technology | 5 |
| 7. | Office Safety Committee | P. A. Wansbrough (Peggy)
Clerk, Distribution
Scheduling | 5 |
| 8. | Plant Manager's Comments | G. L. Tromblee | 5 |
| 9. | Inspection Kickoff | J. M. Willock (Mike)
Group Supv., Process
Technology | 5 |
| 10. | Discussion | | 10 |
| | Distribution of Safety Equipment | | |
| 11. | Coffee Break | | 15 |

BEGIN INSPECTION

10:00 a.m.

SC 17668

STG 1084089

LAM025923

TUESDAY, SEPTEMBER 23

DEPTS. 44-45-~~56~~ METHANOL

10:00 a.m.

Raul Hernandez	(Knollmeyer, Cruse)
Tommy Nelson/Don Carter	(Dunn, Glass)
Earl Johnson	(Mertz, Willock)
Lee Vickery/Leon Latimer	(Payne, Conrad)
Pinky Cole/Jimmy Desormeaux	(Schenck, Fiesinger)
Doug Ziesse	(Wollin, Stockwell)

COFFEE BREAK (Acetic Acid)

10:30 a.m.

DEPT. 50 ACETIC ACID

10:45 a.m.

Raul Hernandez	(Knollmeyer, Cruse)
Byron Johnson	(Dunn, Glass)
Frank Weis/Bobby More	(Mertz, Willock)
Dennis Dorsey/Yankee Wilson	(Payne, Conrad)
Olan Johnson	(Schenck, Fiesinger)
Charlie Elfstrom	(Wollin, Stockwell)

DEPT. 51 - ACRYLONITRILE

11:15 a.m.

Jessie Butler	(Knollmeyer, Cruse)
Bill Howe	(Dunn, Glass)
Mark Devore	(Mertz, Willock)
Hap Ferguson	(Payne, Conrad)
James Freeman	(Schenck, Fiesinger)
Robert Bolen	(Wollin, Stockwell)

CARS to MAIN OFFICE

12:15 p.m.

SC 17669

STG 1084090

LAM025924

Tuesday, September 23 cont'd

CAFETERIA CONFERENCE ROOM (Tray Lunch)

12:30 p.m.

CARS to ZONE 1 OFFICE

1:00 p.m.

ZONE 1 OFFICE

1:05 p.m.

Sam West	(Knollmeyer, Stockwell)
Rodie Santarelli	(Dunn, Cruse)
Jimmy Gibbs	(Mertz, Glass)
Bill Burkett	(Payne, Willock)
Ivy Partain	(Schenck, Conrad)
Alvin Soderberg	(Wollin, Fiesinger)

DEPT. 15 - DEHYDROGENATION

1:20 p.m.

Hugo Darden	(Knollmeyer, Stockwell)
Al Mofley	(Dunn, Cruse)
Rob Fransham	(Mertz, Glass)
Jim Ryan	(Payne, Willock)
Earl Moore	(Schenck, Conrad)
John Couch	(Wollin, Fiesinger)

DEPTS. 14-16 STYRENE - EB DISTILLATION

1:40 p.m.

Al Mofley	(Knollmeyer, Stockwell)
Rob Fransham	(Dunn, Cruse)
Evelyn Tolden	(Mertz, Glass)
Jim Gore	(Payne, Willock)
Rudy Willis	(Schenck, Conrad)
Jerry Mitchiner	(Wollin, Fiesinger)

SC 17670

STG 1084091

LAM025925

Tuesday, September 23 cont'd

DEPT. 13 ALKYLATION

2:10 p.m.

Carroll Smith	(Knollmeyer, Stockwell)
Rudy Willis	(Dunn, Cruse)
Evelyn Tolden	(Mertz, Glass)
Bill Platt	(Payne, Willock)
Larry Wheaton	(Schenck, Conrad)
Houston Milstead	(Wollin, Fiesinger)

CONTROL LABORATORY

2:40 p.m.

Victoria Franchetti	(Knollmeyer, Stockwell)
Jerome Caffey	(Dunn, Cruse)
Winnifred Evans	(Mertz, Glass)
Art Buitron	(Payne, Willock)
	(Schenck, Conrad)
	(Wollin, Fiesinger)

COFFEE BREAK (Material Handling Office)

2:50 p.m.

MATERIAL HANDLING OFFICE BUILDING

3:10 p.m.

Conrad Berg	(Knollmeyer, Stockwell)
Frank Bales	(Dunn, Cruse)
Dante Paganucci	(Mertz, Glass)
Rusty Wilson	(Payne, Willock)
Charlie Loney	(Schenck, Conrad)
Leo Garcia	(Wollin, Fiesinger)

SC 17671

STG 1084092

LAM025926

Tuesday, September 23 cont'd

BARGE & SHIP DOCKS (1,2,3,4,5)
(Pick up Cars)

3:20 p.m.

Conrad Berg
Frank Bales
Dante Paganucci
Rusty Wilson
Charlie Loney
Leo Garcia

(Knollmeyer, Stockwell)
(Dunn, Cruse)
(Mertz, Glass)
(Payne, Willock)
(Schenck, Conrad)
(Wollin, Fiesinger)

PRIMARY TREATMENT, AMMONIA TANK, NORTH 68

4:00 p.m.

Vernon Fields
Bill Wooley
Jack Hutchinson
Bruce Fortenberry
Raeann Reid
Ed Hendricks

(Knollmeyer, Stockwell)
(Dunn, Cruse)
(Mertz, Glass)
(Payne, Willock)
(Schenck, Conrad)
(Wollin, Fiesinger)

END of FIRST DAY of INSPECTION

SC 17672

STG 1084093

LAM025927

WEDNESDAY
INSPECTION

SC 17673

STG 1084094

LAM025928

WEDNESDAY, SEPTEMBER 24

STORES

8:10 a.m.

Tom Crump	(Knollmeyer, Fiesinger)
Terry Grubbs	(Dunn, Stockwell)
Vernon Bruggman	(Mertz, Cruse)
Helen Guinn	(Payne, Glass)
Sonny Hobbs	(Schenck, Willock)
L. C. Gilmore	(Wollin, Conrad)

SHOPS BUILDING

8:35 a.m.

Leonard Schwab	(Knollmeyer, Fiesinger)
George Clark	(Dunn, Stockwell)
Jack Fasetta	(Mertz, Cruse)
Howard Scoggins	(Payne, Glass)
Wes Noel	(Schenck, Willock)
Tommy Glover	(Wollin, Conrad)

COFFEE BREAK (Shops Building, 2nd Floor)

9:15 a.m.

SOUTH MAINTENANCE BUILDINGS & GARAGE

9:30 a.m.

Jack Goodson	(Knollmeyer, Fiesinger)
Doyle Beard	(Dunn, Stockwell)
R. C. Williams	(Mertz, Cruse)
Curtis McGowen	(Payne, Glass)
Vernon Mapes	(Schenck, Willock)
Leonard Schwab	(Wollin, Conrad)

SC 17674

STG 1084095

LAM025929

Wednesday, September 24 cont'd

WATER TREATING - PLANT AIR

9:45 a.m.

Larry Young	(Knollmeyer, Fiesinger)
Jim Uptmore	(Dunn, Stockwell)
Donis Shotwell	(Mertz, Cruse)
Dan Moore	(Payne, Glass)
Bill Bazemore	(Schenck, Willock)
George Orum	(Wollin, Conrad)

POWER 2

10:00 a.m.

Larry Young	(Knollmeyer, Fiesinger)
Jim Uptmore	(Dunn, Stockwell)
Donis Shotwell	(Mertz, Cruse)
Dan Moore	(Payne, Glass)
Bill Bazemore	(Schenck, Willock)
George Orum	(Wollin, Conrad)

INSTRUMENT SHOP

10:25 a.m.

Sam Scarcella	(Knollmeyer, Fiesinger)
	(Dunn, Stockwell)
	(Mertz, Cruse)
	(Payne, Glass)
	(Schenck, Willock)
	(Wollin, Conrad)

CAFETERIA CONFERENCE ROOM (Tray Lunch)

11:05 a.m.

SC 17675

STG 1084096

LAM025930

Wednesday, September 24 cont'd

DEPTS. 19-25-27-29 (HCN-TBA-LN-ACY)

11:50 a.m.

Jasper Jennings
Bill Taylor
Mike Sweeney

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

AN LOADING RACK

12:30 p.m.

Vic Osburn
Glen Vogtman
Frank Bales
Rusty Wilson
Charlie Loney
Jim Uptmore

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

WAREHOUSE A-B-C

12:40 p.m.

Tom Crump
Terry Grubbs
Vernon Bruggman
Kathryn Woodard
Norman Frazier
Lawrence Hogan

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

ZONE 2 OFFICE

12:55 p.m.

Rufus Baca
Bill Riddick
Alvin Berry
Andy Kuehl
Sue Lessa
Donna Wade

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

SC 17676

STG 1084097

LAM025931

Wednesday, September 24 cont'd

CED OFFICES & SHOPS

1:10 p.m.

Bill Nappier	(Knollmeyer, Conrad)
Bruce Rule	(Dunn, Fiesinger)
Ralph Tidwell	(Mertz, Stockwell)
Howard Bahr	(Payne, Cruse)
	(Schenck, Glass)
	(Wollin, Willock)

CAPITAL PROJECTS AREA

1:30 p.m.

Ben Arnold	(Knollmeyer, Conrad)
Calvin Wills	(Dunn, Fiesinger)
Sam Sadler	(Mertz, Stockwell)
Woody Silvertooth	(Payne, Cruse)
Carlos Mata	(Schenck, Glass)
Mickey Nye	(Wollin, Willock)

DEPT. 33 - LACTIC ACID

1:45 p.m.

Frank Bates	(Knollmeyer, Conrad)
Lester Congor	(Dunn, Fiesinger)
Joe Johnson	(Mertz, Stockwell)
Don Thomas	(Payne, Cruse)
Alan Tovrea	(Schenck, Glass)
Fred Menotti	(Wollin, Willock)

DEPT. 48-56, OXO-ALCOHOL - PHTHALATE ESTERS

2:05 p.m.

Tom Kennedy	(Knollmeyer, Conrad)
Bill Recknor	(Dunn, Fiesinger)
J. T. Shipley	(Mertz, Stockwell)
Norbert Novak	(Payne, Cruse)
Charlie Balez	(Schenck, Glass)
Ron Istre	(Wollin, Willock)

SC 17677

STG 1084098

LAM025932

Wednesday, September 24 cont'd

DEPT. 53 - PHTHALIC ANHYDRIDE

2:40 p.m

George Hart	(Knollmeyer, Conrad)
Bill Crowder	(Dunn, Fiesinger)
John Ringer	(Mertz, Stockwell)
Kelley Stinson	(Payne, Cruse)
Billy Thompson	(Schenck, Glass)
Charlie Freeburgh	(Wollin, Willock)

COFFEE BREAK (Polyethylene Safety Lab)

3:00 p.m.

POLYETHYLENE CONTROL LAB

3:25 p.m.

Bernie Jacobs	(Knollmeyer, Conrad)
Richard Bledsoe	(Dunn, Fiesinger)
Tommy Stewart	(Mertz, Stockwell)
Mary Ann Moore	(Payne, Cruse)
Don Jordan	(Schenck, Glass)
Ed Carr	(Wollin, Willock)

DEPT. 35F - POLYETHYLENE

3:35 p.m.

Ray Burkett	(Knollmeyer, Conrad)
Charles Griffith	(Dunn, Fiesinger)
Ken Gore	(Mertz, Stockwell)
Tom Gongora	(Payne, Cruse)
Trinidad Salazar	(Schenck, Glass)
Horace Bullock	(Wollin, Willock)

DEPT. 35P - POLYETHYLENE

3:55 p.m.

Riley Townsend	(Knollmeyer, Conrad)
John Townsend	(Dunn, Fiesinger)
Tom Kessler	(Mertz, Stockwell)
Tom Herring	(Payne, Cruse)
Wendy Youngdoff	(Schenck, Glass)
Jim Horan	(Wollin, Willock)

Wednesday, September 24 cont'd

HIGH DENSITY POLYETHYLENE
PACKOUT & WAREHOUSING/BULK LOADING

4:20 p.m.

Ralph Anderson
Hy Treaccar
Tom Hartnett
Ben Mundy
Harlan Bessier
Betty Dunquez

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

WEST GATE

4:35 p.m.

Fred Herzog
Bob Steinkuehler

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

LOCKER BUILDING

4:45 p.m.

Tony Ozarchuk
Weldon Nonnenmacher
Louis Decker
Gordon Dillon
Eddie Gay
Booker T. Watson

(Knollmeyer, Conrad)
(Dunn, Fiesinger)
(Mertz, Stockwell)
(Payne, Cruse)
(Schenck, Glass)
(Wollin, Willock)

SOUTH 22 (in Cars)

4:55 p.m.

END of SECOND DAY of INSPECTION

SC 17679

STG 1084100

LAM025934

SC 17680

STG 1084101

THURSDAY
INSPECTION

LAM025935

THURSDAY, SEPTEMBER 25

PERSONNEL BUILDING

8:15 a.m.

Donna Dickson	(Knollmeyer, Willock)
Glenda Meisetschlaeger	(Dunn, Conrad)
Amelia Padilla	(Mertz, Fiesinger)
Gloria Cash	(Payne, Stockwell)
Martha Fletcher	(Schenck, Cruse)
Frances Bond	(Wollin, Glass)

LOCKER BUILDING NO. 1 &
SAFETY SUPPLY

8:25 a.m.

Ken Milner	(Knollmeyer, Willock)
Gordon Dillon	(Dunn, Conrad)
Louis Decker	(Mertz, Fiesinger)
Weldon Nonnenmacher	(Payne, Stockwell)
Tony Ozarchuk	(Schenck, Cruse)
	(Wollin, Glass)

RECEPTION OFFICE & GUARD HOUSE

8:40 a.m.

Glendora Hill	(Knollmeyer, Willock)
Joe Walters	(Dunn, Conrad)
Fred Herzog	(Mertz, Fiesinger)
	(Payne, Stockwell)
	(Schenck, Cruse)
	(Wollin, Glass)

CAFETERIA

8:50 a.m.

Adele McCoy	(Knollmeyer, Willock)
Laverne Chandler	(Dunn, Conrad)
Ursula Rodriguez	(Mertz, Fiesinger)
Selma Beal	(Payne, Stockwell)
	(Schenck, Cruse)
	(Wollin, Glass)

SC 17681

STG 1084102

LAM025936

Thursday, September 25 cont'd

DISPENSARY

9:05 a.m.

Judy Wade
Dora Sandejas
Patty Burke
Tony Ozarchuk

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

FIRE STATION

9:15 a.m.

Jim White
Ham Hamilton

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

OFFICE ANNEX (1st floor)

9:30 a.m.

Maxie Dillon
Keith Okamoto
June Edwards
Else Jackson

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

OFFICE ANNEX (2nd floor)

9:40 a.m.

Frieda Jones
Juanita Samsom
Les Salles
Carol Holmes

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

SC 17682

STG 1084103

LAM025937

Thursday, September 25 cont'd

MAIN OFFICE (2nd & 3rd floors)

10:00 a.m.

Chris Rodriguez
Irma Williams
Dora Hundley
Mary Williams
Evelyn Harrison
Gerry Kelley

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

COFFEE BREAK (Cafeteria Conference Room)

10:20 a.m.

RESEARCH NO. 1

10:35 a.m.

Linda Lewis
Bill Temple
Lynell Cale
John Thorman
Lee Owens
Rose Mary Fritz

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

RESEARCH NO. 2

11:00 a.m.

Linda Lewis
Bill Temple
Lynell Cale
John Thorman
Lee Owens
Rose Mary Fritz

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

SC 17683

STG 1084104

LAM025938

Thursday, September 25 cont'd

RESEARCH NO. 3

11:50 a.m.

Linda Lewis
Bill Temple
Lynell Cale
John Thorman
Lee Owens
Rose Mary Fritz

(Knollmeyer, Willock)
(Dunn, Conrad)
(Mertz, Fiesinger)
(Payne, Stockwell)
(Schenck, Cruse)
(Wollin, Glass)

CAFETERIA CONFERENCE ROOM (Seated Lunch)

12:30 p.m.

CAFETERIA CONFERENCE ROOM
Committee Caucus

1:15 p.m.

RESEARCH 2 CONFERENCE ROOM
Committee Report to Expanded Staff

3:00 p.m.

END of INSPECTION

SC 17684

STG 1084105

LAM025939

NOTES

Their impressions

1. Composed good people - tremendous people resources
2. Proud, well trained, enthusiastic, knowledgeable
3. Strong identity & Morale
4. Reputation is excellent

Safety & Housekeeping

1. Safety results - improving each year
 - minor injuries improving
2. Adherence to Safety Procedures
 - Lockouts - 3 lockouts - 1 executed perfectly
 - 1 in L.A. - OK
 - 1 in Sept 14 - 2 of 3 locks on
 - Permitting - clearly well performed
 - Tank entry - 6 properly executed
 - Breaking into - understood procedure - some dept. have work permits - others don't - may lead to some confusion
 - Safety value check - excellent program, follow up - mechanic extremely knowledgeable - 83% on schedule - would recommend 90%
 - Some dept. in 60's range -
 - AVIP - outstanding program - probably the best in Monsanto
 - Safety Showers - response to alarms excellent
 - Ladder inspection - on schedule
 - Fire Extinguishers / Protection - no deficiencies, well maintained
 - Monitors - good shape - well inspected, maintained
 - No uniform approach to extinguishers on mobile equipment. Reacts 3, 4, 5 didn't appear to have some level of protection on Dock 1 & 2
 - Contractor Safety - overall program good. Trend excellent. Appl in excellent. They are appreciation of Monsanto Safety Communication - doc told plant work force recognizes contractor safety improvement.
 - Training - although initially oriented to Contractor need reinforcement on fire / spill / evacuation

SC 17685

STG 1084106

LAM025940

NOTES

Follow up on 1979 Inspection

- well underway
- suggest faster followup on several items

Total Safety Program

- Very impressive, outstanding program
- good housekeeping
- few leaks, drips
- were were "up" for the inspection

Involvement of People

- 15% of people
- well done

Recommendations

1. Re-emphasize lockout procedure
2. Hose procedure
3. Breathing Air - continue - further evaluate method for contamination notification
4. Evaluate contractor safety program re - alarm/action
5. Evaluate mobile equip Fire Extinguishers
6. Continue Deck 3 & 5 fire protection
7. Expand maint. Training for hazardous materials
8. O₂/C₂H₂ gas cylinder separated by barrier
9. Improve effectiveness of safety meetings - improve quality
10. Audit critical laboratory flammable storage
11. Better identification of MESA when they are, etc on off shifts

Rating

Outstanding -

Standards
people
program
results

SC 17686

STG 1084108

LAM025941