

CELANESE SPECIALTY OPERATIONS
TECHNICAL CENTER
Corpus Christi, Texas

PLAINTIFF'S
EXHIBIT
CEL-756

To: *As Listed May 30, 1986
From: L. L. Henderson LLH-474-86

ESHA Policies and Procedures Manual

Attached for your use is the first installment of the ESHA Policies and Procedures Manual. PLEASE NOTE: The procedures included in this issue (May 30, 1986) are issued on an interim basis. Although affected departments have had an opportunity to review and input to these procedures, they have not been formally approved by the Management Safety Committee.

The Committee has however, agreed to the interim distribution and implementation of these procedures while they are being given final review.

Based on the MSC's statement then, these procedures should be implemented immediately. Any comment by the full Committee review will be handled as a revision to the issued procedure.



L. L. Henderson, Chairman
Management Safety Committee

LLH/lmj

QUALITY IS OUR BRAND OF BUSINESS

008839

CORPUS CHRISTI TECHNICAL CENTER
CCTC
ENVIRONMENTAL, HEALTH & SAFETY AFFAIRS
PROCEDURE MANUAL



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Revised 7/12/89

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SECTION: ENVIRONMENTAL

DATE: 4-86

SUBJECT: INJECTION WELLS

PAGE: 1 OF 1

PURPOSE:

This statement defines CCTC's policy in the construction and use of underground injection wells, both on and off-site.

POLICY:

Summary of CCTC Injection Well Policy

The disposal of waste by injection is accepted practice by industry as well as by Texas and federal regulatory agencies for all non-treatable wastes, and in certain cases, for treatable wastes. CCTC may continue to use commercial injection wells for disposal of wastes that is appropriate and acceptable to the disposal companies as long as it is feasible.

Celanese Corporation policy is to continue to reduce the volume of generated wastes and minimization of waste volumes and toxicity by recycle, reuse, reprocessing, and treatment. The disposal of waste by injection is accepted practice by industry as well as by Texas and federal regulatory agencies for all non-treatable wastes, and in certain cases, for treatable wastes.

The Technical Center may continue to use commercial injection wells for disposal of waste that is appropriate and acceptable to the disposal company as long as feasible.

If the demand for liquid disposal is imposed on the Technical Center, one alternative should be commercial injection wells if:

- 1) Capacity is needed for emergency situations or
- 2) Segregation and treatment of a portion of the waste is not economical or
- 3) The total waste is not economically treatable above ground.

The Texas Water Commission (TWC) requires a permit before a new injection well can be constructed and notification when the composition or volume of effluent changes for existing wells.

As the increment of above ground treatable wastes grows, the probability of agency acceptance of injection well disposal practice diminishes. The TWC will consider economics of the disposal practice.

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DATE: 4-86

SUBJECT: RESPONSIBILITIES

PAGE: 1 OF 2

PURPOSE:

This statement defines CCTC's organization for addressing environmental quality and maintenance at CCTC.

POLICY:

The Environmental Coordinator working with the Administrative Manager is responsible for the environmental quality at CCTC.

PROCEDURE:

I. ORGANIZATION

The responsibility for the environmental program at CCTC is described as follows:

- A. Celanese Specialties Operations Management is responsible for environmental quality at each facility within CSO.
- B. The CCTC Management is responsible for environmental quality at the CCTC.
- C. The Environmental Coordinator will work with the Administrative Manager to plan, coordinate and execute an effective environmental quality program for the CCTC.
- D. It is the responsibility of the Environmental, Safety and Health Department to communicate environmental concerns to the Technical Center Management.
- E. Corporate Legal Counsel will advise and support environmental projects at the CCTC.
- F. To facilitate communications, the Environmental Coordinator is the principal contact with the Corporate Legal Counsel.

II. INFORMATION EXCHANGE

- A. The Environmental Coordinator will remain aware of proposed legislation and regulations by monitoring publications, by keeping informal contacts with other Celanese locations and by participating in local technical organizations when applicable.
- B. The Environmental Coordinator will work with Corporate Legal Counsel to coordinate activities with regulatory authorities.

- C. The Administrative Department will maintain files on consultants currently available to perform needed work.
- D. The Environmental Coordinator will exchange ideas with members of industry organizations having similar concerns of environmental quality.

III. TRAINING

- A. Hazardous waste training that complies with the requirements of the Texas Water Commission regulatory requirements must be given annually to CCTC personnel involved with the supervision and operation of hazardous waste activities. Documentation of all training must be kept at CCTC.
- B. CCTC shall conduct an annual training (dry run) session implementing the SPCC plan. Emergency equipment shall be checked regularly to maintain it in good condition.

IV. WASTE IDENTIFICATION

- A. CCTC will identify, maintain a description of, and analyze each gas, solid and liquid waste stream at a frequency to insure knowledge of the stream composition in order to comply with the hazardous wastes regulations.
- B. CCTC will develop or use a method for adequately estimating the flow of each waste stream. Continuous meters for each source and major streams are preferred where they can be justified.

V. WASTE REDUCTION

- A. Federal and Texas regulations require a plan to minimize the volume of wastes generated and to reduce the toxicity of wastes generated when feasible. The regulations require documentation of waste generation and toxicity reductions and efforts to achieve these objectives. CCTC will be required to report these reductions to the agency every two years.
- B. Consider reuse/recycle in lieu of waste disposal in new units and process modifications.
- C. For existing units, waste production should be minimized by maximizing recovery, rerun of material when feasible, minimizing dilution of wastes and utilization of by-products when ever possible.

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VI. FACILITY PLANNING

- A. The Environmental Coordinator will be consulted in the planning of all CCTC projects as early as possible and will identify all environmental requirements and their estimated completion dates for the CCTC project schedule.
- B. The Environmental Coordinator will detail the environmental requirements in RFAs and strategies. Each RFA should contain a section listing environmental requirements such as permits, additional disposal capacity, etc.
- C. The Environmental Coordinator together with the other CCTC departments shall prepare the capital plan, the Environmental Control A-48-b form and the Bureau of Census MA200 Form on previous year's environmental costs.
- D. The Administrative Manager shall communicate with the Corporate function that collects information on planned environmental expenditures for CCTC. Corporate must report planned environmental budget expenditures to the Securities Exchange commission.

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DATE: 7-86

SUBJECT: REPORTING

PAGE: 1 OF 16

PURPOSE:

This statement defines the reporting requirements for CCTC for incidents such as upsets, spills/releases, etc. This does not address releases resulting from permitted activities.

POLICY:

The policy is that reports of reportable releases will be made promptly to the appropriate regulatory agencies by the Environmental Coordinator or in his absence, another member of the ESHA Department with the knowledge of management. In the event that no one from ESHA is available, the report shall be made by the senior management representative. If there is a question about reporting and no one is available for assistance in deciding, report.

PROCEDURE:

The following information defines when it is appropriate to report and to whom:

VII. UPSET REPORTING

1. OUTSIDE COMPLAINTS

- a. If a complaint occurs as a result of an upset, the upset should be reported to the appropriate agency(s). The procedure for reporting a spill at the Technical Center is to use the same procedure that has been prepared for spills. The initial report will be made by telephone to the Environmental Coordinator or the Administrative Manager followed by the spill report form. The Technical Center Manager will be notified of the incident by the Administrative Manager or the Environmental Coordinator. (See attached spill form)
- b. It will be the responsibility of the Technical Center Manager, or his environmental designee, to relay pertinent information to Corporate Legal Counsel and to CSO Management by telephone immediately. Pertinent telephone numbers are given in attachment I (pgs. 11 & 12).

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- c. The Technical Center Manager, or environmental designee, will confirm all information in writing. The letter shall copy the General Counsel, Corporate Associate General Counsel and the Safety, Health and Environmental representative.

2. REPORTING UNDER SUPERFUND

- a. This applies to any release of a hazardous substance in a Reportable Quantity (RQ) to the environment - air, water and/or soil.

- 1) A release to the air only that is reported under TACB General Rules and Regulations need not be reported to the National Response Center (NRC) if it meets the conditions of 31 TAC 101.11 and 101.6 or 101.7. 31 TAC 101.11 provides a variance from the TACB regulations. Therefore, a release meeting the conditions of 31 TAC 101.11 would be considered a "federally permitted release" which is exempt from NRC reporting requirements.
- 2) A release to the air only that complies with TACB regulations/permit does not need to be reported to the NRC.
- 3) An upset release to the air only that is not currently addressed by TACB regulations/permit, (e.g., releases to a surface impoundment) should be reported to NRC and TACB if material released is at or above the reportable quantity.
- 4) A spill to the ground within the Technical Center is reportable to NRC if the material released to the environment is at or above the reportable quantity. The amount of material recovered should be excluded from the determination of the reportable quantity. Any contaminated soil produced must be reported to the local TWC.
- 5) a. If the spill or release potentially threatens human health or the environment outside the Technical Center, report it to the NRC.

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b. Hazardous substances and reportable quantities are listed in the appendix of the Technical Center SPCC. These are available in the Emergency Control Center, from the Environmental Coordinator and from the Emergency Director or his alternate.

c. Petroleum spills, covered by the Clean Water Act, should be reported pursuant to Superfund procedures. A sheen on water or one pound per day is RQ.

d. Per Corporate guideline, any PCB release (air, water or soil) shall be reported to the Corporate Environmental, Health and Safety Affairs Department or to the Associate General Counsel. A PCB release should be reported to NRC if 10 pounds or greater.

e. Discharges that are excluded from the definition of release or releases that are exempted from reporting requirements are given in Attachment II (pgs. 13 & 14).

f. Consult in this order if unsure whether reporting is required: Corporate Environmental, Health and Safety Affairs, Corporate Associate General Counsel, or Vice-President General Counsel to determine if reportable. If none of the above can be contacted in an abundance of precaution, report.

g. For all reportable releases the Technical Center Manager, or his designee, should notify the following agencies by telephone immediately: If appropriate, notify first the National Response Center at 800-424-8802. Then call the agencies shown below in the order given.

Texas Emergency Response Center	512-463-7727
Local Water Commission, District 12	512-882-2548
Local/State TACB (Air), Region 5	512-289-1696
Austin	512-451-5711
Nueces County Health Department	
Environmental Division	512-855-4051

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- h. The National Response Center will contact the regional EPA.
- i. If a weekend spill occurs, follow the above procedures immediately. DO NOT WAIT UNTIL MONDAY MORNING.
- j. The Technical Center Manager, or his designee, shall confirm all information on a "Record of Contact."

3. CONTINGENCY PLAN REPORTING

If the Texas Hazardous Waste Management Contingency Plan or SPCC Plan is activated due to a spill, fire or explosion, the Technical Center Manager, or his designee will notify the TWC immediately if events could threaten human health or the environment outside the property line. The individual reporting the incident should ask the TWC if a written report is required under the Texas Oil and Hazardous Substances Pollution Contingency Plan (GP-3-2) and follow subsequent advice. In the case of a minor spill, the TWC may write the report which would fulfill the requirements. Any time the Hazardous Waste Contingency Plan or the SPCC Plan is activated even within the facility a written report must be sent to the TWC within 15 days unless TWC says it is not required. The report should include:

- a. Name, address, and telephone number of the owner or operator.
- b. Name, address and telephone number of the facility.
- c. Date, time, and type of incident.
- d. Name and quantity of material(s) involved.
- e. The extent of injuries, if any.
- f. An assessment of actual or potential hazards to human health or environment where this is applicable.

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- g. Estimated quantity and disposition of recovered material that resulted from the incident.

Also, any event which activates the hazardous waste Contingency Plan or SPCC Plan must be recorded in the facility plans.

4. WATER PERMIT EXCURSION REPORTING

- a. The Technical Center has applied for a stormwater discharge permit.
- b. For an EPA NPDES Permit incident which does not involve Superfund or pollutants which could cause a threat to public drinking water supplies, provide the EPA Regional Administrator, the TWC Executive Director, and local pollution control agency, if necessary, with the following information, in writing, within 5 days of becoming aware of the circumstances. See Attachment I for addresses.
- 1) A description of the discharge and cause of non-compliance.
 - 2) The period of non-compliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance.
 - 3) The steps being taken to reduce, eliminate, and prevent reoccurrence of the non-compliant discharge.
- c. For an incident which does involve Superfund or pollutants which could cause a threat to public drinking water supplies:
- 1) First, follow the standard Superfund reporting procedure.
 - 2) The information described in b, 1), 2), and 3) above, shall then be provided to TWC and the EPA Region VI, Enforcement Division,

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and local pollution control agency by telephone within 24-hours from the time of becoming aware of the circumstances. The TWC and Region VI contacts are:

TWC District 12 512-882-2548

EPA Region VI 214-767-3805
The EPA does not have an after hours number.
For incidents that occur after business hours, call when the office opens.

3. Provide the State TWC Executive Director and EPA Regional Administrator with the information described in section 5 b, 1), 2), and 3), in writing, within five days of becoming aware of the circumstances.

6. MAJOR UPSET 101.6 (RULE 7) REPORTING

101.6 (Rule 7) requires notification to the TACB Executive Director and the appropriate air pollution control agencies as soon as possible of any major upset condition which causes or may cause an excessive emission. A major upset is an unscheduled occurrence or excursion of a process or operation that results in an emission of air contaminants that contravenes the TACB Regulations and/or intent of the Texas Clean Air Act and is beyond immediate control, or a release that is initiated to protect life in the immediate or adjacent areas. When a major upset occurs:

- a. If the question arises whether an upset is a major upset, the Environmental, Health and Safety Affairs representative and/or Legal Counsel should be consulted prior to notification.
- b. Notify as soon as possible by telephone:
 - 1) The Corpus Christi office of the TACB and offices of the local air control programs (Nueces County Health Department - Environmental Division), which have responsibility over the location where the upset occurs.

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2)The Compliance Division, Texas Air Control Board, Austin, Texas (512-451-5711) only if requested to do so by the TACB regional office, or if unable to reach the TACB regional office, AND

3)If the incident involves injuries or potential injuries to persons or property, contact Legal Counsel as soon as possible.

c. By written notification

1)After notification by telephone, if it is the policy of TACB region, complete and mail as soon as possible the TACB Notification Form, given in Attachment V, to the Regional Supervisor and the local air control board. Also, send a copy to the Austin TACB if requested by the region. For regions not requiring reports, the Environmental Coordinator shall publish a plant record of contact.

2)Copies should also be mailed to Texas Legal Counsel and Corporate Environmental Legal Counsel.

3)Pursuant to TACB Rule 101.11, a statement has been added to the Notification Form (Attachment IV) requesting exemption from upset air emissions.

7. MAINTENANCE 101.6 (RULE 8) REPORTING

101.6 (Rule 8) requires notification to the TACB Executive Director and the appropriate local air pollution control agencies in writing at least ten (10) days prior to any planned maintenance, start-up, or shutdown which may cause an excessive emission that contravenes the intent of the Texas Clean Air Act or the rules of the TACB. To comply with 101.6:

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- a. Complete TACB Notification Form if policy of TACB region.
- b. Mail to: Mr. Eli Bell, Executive Director
Texas Air Control Board
Attention: Compliance Division
6330 Highway 290 East
Austin, Texas 78732
- c. Copies should be mailed to the TACB regional office and the local pollution control agencies having responsibility over the location where maintenance will occur.
- d. Copies should also be sent to Corporate Legal Counsel and the Environmental, Health and Safety Affairs Department.
- e. In those circumstances where ten (10) days notice cannot be given due to an unplanned occurrence, telephone the TACB, Compliance Division, Austin, Texas, the TACB regional office and the local pollution agencies as soon as possible. Confirm with a TACB Notification Form with the same distribution as b - d, above.

8. DRINKING WATER REPORTING

The drinking water reporting requirements apply to facilities that treat their own water. The CCTC uses city water.

The regulations for separation of water for human consumption and sanitary uses from process water apply.

9. RADIATION REPORTING

The CCTC ESHA Department is responsible for employee health protection from radiation sources and radioactive waste disposal.

- a. Radiation Safety Officer will handle reporting of any radiation control upset to the Texas Department of Health (TDH). The parallel federal agency is the U.S. Nuclear Regulatory Commission.

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- b. The Environmental Coordinator is the Radiation Safety Officer and is responsible for the off-site disposal of radioactive wastes. All disposal will be off-site. The disposer and transporter must be licensed by TDH.

10. NOTIFICATION OF ASBESTOS RENOVATION OR DEMOLITION

Advance notification of asbestos renovation and demolition operations must be made to the Texas Air Control Board with a copy going to the local OSHA office. The reporting requirements for renovation and demolition differ.

For renovation, when more than 260 feet of friable asbestos containing pipe insulation is removed or stripped in several operations, regulations provide that a planned renovating operation is additive over the maximum period of time up to one year, for which a prediction can be made. Written notice is required once for planned renovation operations where the additive total exceeds the minimum amount for one year. Written notice shall be provided to the Executive Director of the TACB as early as possible prior to commencement of renovation. Such notice shall include the following information:

- a. Name and address of owner or operator,
- b. Description,
- c. Estimate of the amount of friable asbestos material,
- d. Location,
- e. Starting and completion dates,
- f. Nature of job,
- g. Procedure, and
- h. Approved landfill site.

For demolition, we always have to notify, even if below the minimum quantities. Where more than 260 feet of friable asbestos pipe insulation are stripped or removed or 160 square feet of friable asbestos containing material, notice

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shall be provided to the TACB Executive Director at least 10 days prior to the commencement of the demolition and include the items a. through h. above. When the demolition involves friable asbestos below 260 feet of pipe insulation or 160 square feet written notice shall be provided to the TACB Executive Director at least 20 days prior to the commencement of demolition. Such notice shall include the following information:

- a. Name and address,
- b. Description,
- c. Estimate of the amount of friable asbestos material,
- d. Location, and
- e. Starting and completion date.

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ATTACHMENT I

REVELANT TELEPHONE NUMBERS AND MAILING ADDRESSES

CORPORATION:

George Rodenhausen
Corporate Director, Environmental,
Health and Safety Affairs office 212-719-7953
home 718-789-2784
518-851-7594

C. D. Barrett
Corporate Director, Environmental,
Health and Safety Affairs office 212-719-8585
home 203-227-6559

S. P. Engelman
Corporate Associate General Counsel office 212-719-8644
home 201-228-7753

G. M. Rowen
Corporate Associate General Counsel office 212-719-8679
home 201-276-3172

Kennon Goleman
Texas Legal Counsel office 512-479-9707
Brown, Maroney, Rose, Barber & Dye home 512-327-0721
512-597-1954
512-472-4546

CHEMTREC 800-424-9300

TEXAS POISON CENTER 817-336-6611
1-800-392-8548
713-654-1701

NATIONAL WEATHER SERVICE 817-334-3401

USCG GULF COAST OSC 512-888-3162
COMMANDING OFFICER
MARINE SAFETY OFFICE
P. O. BOX 1621
CORPUS CHRISTI, TX

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TEXAS PARKS AND WILDLIFE

512-463-4864

512-459-7143

TEXAS DEPARTMENT OF PUBLIC SAFETY
DIVISION OF EMERGENCY MANAGEMENT
NON-DUTY HOURS

512-465-2138

512-465-2000

DEPARTMENT OF TRANSPORTATION
OFFICE OF MOTOR CARRIER SAFETY

512-482-5474

817-334-3225

TEXAS WATER COMMISSION, DISTRICT 12
MR. CHIP VOLZ
KLEE SQUARE BLDG., SUITE 515
505 SOUTH WATER STREET
CORPUS CHRISTI, TX 78401

512-882-2548

TEXAS AIR CONTROL BOARD
MR. TOM PALMER
5602 OLD BROWNSVILLE ROAD
CORPUS CHRISTI, TX 78415

512-289-1696

CORPUS CHRISTI-NUECES CO.
DEPT. OF PUBLIC HEALTH
1702 HORNE ROAD-78416
P. O. BOX 9727
CORPUS CHRISTI, TX 78408
ATTN: AIR CONTROL OFFICER

512-855-4051

MR. LARRY SOWARD
EXECUTIVE DIRECTOR TEXAS WATER COMMISSION
P. O. BOX 13087, CAPITOL STATION
AUSTIN, TX 78711

512-463-8028

MR. DICK WHITTINGTON
REGION VI ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY
FIRST INTERNATIONAL BUILDING
1201 ELM STREET DALLAS, TX 75270

214-767-2600

MR. ELI BELL
EXECUTIVE DIRECTOR
TEXAS AIR CONTROL BOARD
6330 HIGHWAY 290 EAST
AUSTIN, TX. 78723

512-451-5711

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ATTACHMENT II

DISCHARGES EXCLUDED FROM REPORTING

1. DISCHARGES EXCLUDED FROM THE DEFINITION OF A RELEASE

- a. Workplace exposures from which persons may assert claims against the employer or other persons;
- b. Emissions from engine exhaust from a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station;
- c. Releases of source, by-product, or special nuclear material from a nuclear incident subject to Nuclear Regulatory Commission (NRC) requirements for financial protection under Section 170 of the Atomic Energy Act of 1954;
- d. Any release of source, by-product or special nuclear material from a processing site designated under Section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978;
- e. Fertilizer application.

2. RELEASES EXEMPTED FROM REPORTING

- a. Federally permitted releases as defined in Section 101(10). Reportable quantity releases to the air which are not specifically permitted under SIP need to be reported under Superfund.
- b. Pesticides regulated under FIFRA.
- c. Hazardous waste regulated under State or RCRA regulations.
- d. Certain continuous releases regulated under Section 103.

3. FEDERALLY PERMITTED RELEASES

- a. CWA permits under Section 402.
- b. CWA permits under Section 404.
- c. Discharges permitted under RCRA permits.
- d. Discharges permitted under the Marine Protection, Research and Sanctuaries Act of 1972.
- e. Underground injection under the Safe Drinking Water Act.
- f. Air emissions under NESHAPS or State SIP.
- g. Injection of fluids under oil or gas regulations.

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h. A release of source, special nuclear, or by-product material under an Atomic Energy Act permit.

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CORPUS CHRISTI TECHNICAL CENTER

ESHA PROCEDURE NO.: EN-3

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ATTACHMENT III

SPILL REPORT

TO BE PREPARED FOR ALL DISCHARGES INCLUDING BUT NOT LIMITED TO
VESSEL/CONTAINER OVERFLOWS
LEAKING/FAILED HOSES, PIPES, EQUIPMENT (PUMP SEALS, MECHANICAL
CONNECTIONS) LEAKING PACKAGING (DRUMS, CYLINDERS, ETC.)
VALVES LEFT OPEN

PREPARED BY: _____

MATERIAL SPILLED: _____

ESTIMATED QUANTITY: _____

DATE: _____ TIME FOUND: _____

ESTIMATED DURATION OF DISCHARGE: _____

SOURCE: _____

CAUSE: _____

CORRECTIVE ACTION TO STOP DISCHARGE: _____

CLEANUP AND DISPOSITION OF SPILL: _____

INJURIES: _____

ENVIRONMENTAL IMPACT (ODOR, ANIMAL KILL, WATER CONTAMINATION)

DISTRIBUTION:

Environ. Coord.

008861

CORPUS CHRISTI TECHNICAL CENTER

ESHA PROCEDURE NO.: EN-3

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ATTACHMENT IV

REPORT FORM FOR NOTIFICATION REQUIREMENTS
FOR MAJOR UPSET (RULE 7), PLANNED MAINTENANCE (RULE 8), START-UP OR SHUTDOWN

MSSL Account No. _____ Region _____ (This line for State use only)

Company Name _____

Plant Location _____

Mailing Address _____ City _____ State _____ Zip _____

Owner, Operator or Responsible Management _____

Telephone Number _____

Nature of Unit or Process Affected (and Other Processes Affected, if any) _____

Inclusive Dates if for Shutdown and Start-up _____

Time and Expected Duration of Excessive Emissions _____

Reason or Cause: Maintenance ☐ Major Upset ☐

Explanation: Relief from the opacity requirements of Regulation I § 111.21 (or § 111.22, 111.23, or 111.26) and/or the particulate matter requirements of Regulation I § 111.51 and 111.52 and/or Regulation II § _____ and/or hydrocarbon emission requirements of Regulation V § _____ and/or the requirements of Special Provision _____ of Permit No. _____ of the Texas Air Control Board is specifically required.

Level of Emissions (give basis for estimate): Physical and Chemical Composition, Rate, Concentration, and Duration _____

Measures (to be) Taken to Minimize Quantity and Duration of Emissions: _____

Measures (to be) Taken to Prevent Recurrence (If not determined yet, give date when measures will be submitted) _____

Date, Time, and Means of Notification (letter, telephone, etc): _____

Executive Secretary _____

Regional Office _____

Local Program _____

Date _____

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SECTION: ENVIRONMENTAL

DATE: 10/17/86

SUBJECT: SPILL REPORTING (INTERNAL)

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PURPOSE:

This statement defines the internal requirements necessary to properly address spills at this facility and to comply with external reporting requirements.

POLICY:

All spills of raw materials, process material, and/or wastes will be reported immediately to the ESHA Department with submission of a completed spill report as soon as details of the incident are available.

PROCEDURE:

1. In the event of a spill or discharge, the Environmental Coordinator or in his absence, the Administrative Manager or one of the other personnel in the ESHA Department shall be notified as soon as possible with any information known at the time.
2. After the incident has been controlled, the individual(s) involved with the finding and the initial response shall prepare a spill report. Spill reports are to include vapor releases to the air, discharges that go into the ground and discharges that get to water (including both the rainwater runoff ditches and the sump system/ponds whether picked up or not).
3. If other personnel are necessary to determine the extent of the discharge, by calculation, vessel gauging, etc. and corrective action to prevent reoccurrence of similar discharges, the form is to be given to the Pilot Plant Superintendent, the appropriate Laboratory Manager or his designee.
4. When all portions of the form are completed, the form is to be taken to the Environmental Coordinator. For incidents that require reporting to outside agencies, the report should be made as soon as possible. The maximum time allowed for extenuating circumstances is 24 hours.
5. The reports are to be made on all discharges. A determination will be made by the ESHA Department if a release is reportable or not.

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CORPUS CHRISTI TECHNICAL CENTER

ESHA PROCEDURE NO: EN-4

SECTION: ENVIRONMENTAL

DATE: 10-17-86

SUBJECT: SPILL REPORTING (INTERNAL)

PAGE: 2 OF 2

(ATTACHMENT 1)

SPILL REPORT

TO BE PREPARED FOR ALL DISCHARGES INCLUDING BUT NOT LIMITED TO RE-LEASES TO THE AIR, WATER AND SOIL FROM VESSEL/CONTAINER OVERFLOWS, LEAKING/FAILED HOSES, PIPES, EQUIPMENT PUMP SEALS, MECHANICAL CONNECTIONS, LEAKING PACKAGING (DRUMS, CYLINDERS, ETC.) AND VALVES LEFT OPEN.

PREPARED BY: _____ TIME: _____
DATE: _____

MATERIAL SPILLED: _____

ESTIMATED QUANTITY: _____

DURATION OF DISCHARGE: _____

SOURCE: _____

CAUSE: _____

ACTION TO STOP DISCHARGE: _____

CLEANUP AND DISPOSITION OF MATERIAL: _____

INJURIES: _____

ACTIONS TO PREVENT REOCCURANCE: _____

ENVIRONMENTAL IMPACT(ODOR,ANIMAL KILL, WATER/SOIL CONTAMINATION)

DISTRIBUTION:
ENV. COORD.

008864

SECTION: INDUSTRIAL HYGIENE

DATE: 5-1-86

PAGE 1 OF 3

SUBJECT: ADMINISTRATIVE PROCEDURES

PURPOSE:

To establish and outline the policy and responsibilities for implementing and conducting a coordinated Industrial Hygiene program.

POLICY:

Technical Center management is committed to the safety and good health of its employees. The following will be the primary means for preventing significant employee exposure to chemical and physical agents:

1. Engineering controls and substitution of high risk chemicals by those with lower risk
2. Hazard review of materials
3. Education of employees on chemical hazards, work practices, regulations, and other related issues
4. Exposure monitoring
5. Personal protective clothing and equipment
6. Administrative controls

Policies and procedures will be reviewed yearly to assure that the Industrial Hygiene program is being carried out in accordance with these procedures and to update procedures, if necessary.

RESPONSIBILITIES:

The Manager of Administration is responsible to the Technical Center for overall planning, directing and coordinating the industrial hygiene, environmental maintenance, health, and safety effort. The Industrial Hygienist has the major responsibility for coordinating the Industrial Hygiene Program and for assuring that the Industrial Hygiene program is being carried out in accordance with procedures.

Engineering Controls

The Industrial Hygienist will review major new processes and process revisions to minimize employee exposure and to assure compliance with regulations. This may be accomplished as a member of the Laboratory, Pilot Plant, and High Pressure Laboratory Safety Committees or by individual

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review at the initiation of the primary researcher for those processes not reviewed by the above committees.

The Industrial Hygienist will review additions/changes/deletions to ventilation equipment that could affect the efficiency or overall performance of the equipment. This includes but is not limited to introduction of new exhaust or air filtering hoods, addition of shelves/benches/dividers to existing hoods, joining of ducts from different hoods/intakes, or addition of new intakes to existing ductwork.

It is the responsibility of the Industrial Hygienist and the Engineering Department to set face velocity Engineering Standards for exhaust ventilation. It is the responsibility of the Industrial Hygienist to develop and implement a check procedure to assure that exhaust efficiencies are maintained.

It is the responsibility of the Process Analyzer Group to calibrate fixed/automatic monitoring systems.

Hazard Review of Materials

The Industrial Hygienist will coordinate a pre-purchase/pre-use hazard review of materials through the site Celmis System and Hazard Communication Program procedures and will maintain a current chemical inventory for Pilot Plant areas, as defined in the Hazard Communication Program.

The Industrial Hygienist will communicate to employees toxicity data from company sponsored studies and other toxicity information received from company or corporate officials. The communication will be within 2 weeks of receipt of the information by the Industrial Hygienist.

Employee Education

The Industrial Hygienist is responsible for conducting employee training on the Hazard Communication Standard requirements and Tech Center Hazard Communication Program procedures and on TSCA 8(c) and 8(e) requirements and procedures and for conducting training under the Hearing Conservation Program.

Training of employees on the hazards of materials in their workareas is primarily the responsibility of line management and will address, at minimum, the items in the Training Guideline in the Hazards Communication Program. The Industrial Hygienist is available for consultation, but industrial hygiene information presented in formal group meetings by supervision/participants or incorporated into manuals must be approved by the Industrial Hygienist.

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It is the responsibility of the Industrial Hygienist to coordinate the training of on-site contractors on the Hazard Communication Program and availability of Material Safety Data Sheets. Training of on-site contractors in the hazards of materials in their workareas is the responsibility of the Celanese owning supervision (Maintenance Foremen for maintenance/engineering projects).

Exposure Monitoring

The Industrial Hygienist will institute a Sampling Program including written sampling objectives, evaluation strategy, quality assurance, and recordkeeping and report system. The Industrial Hygienist is responsible for conducting personal monitoring of employees for physical and chemical hazards in accordance with regulations and company guidelines. Employees and their supervisors will be informed of the results of personal monitoring, and the data will be used to recommend controls for reduction of exposures, if necessary.

Personal Protective Clothing and Equipment

Determination of need for respiratory protection and appropriate equipment is the responsibility of the Industrial Hygienist (with input from the Safety Supervisor). It is the responsibility of the Safety Supervisor to administer other aspects of the Respiratory Program.

Determination of need for hearing protection and appropriate hearing protective devices is the responsibility of the Industrial Hygienist. It is the responsibility of the facility Industrial Health Coordinator to dispense hearing protective devices and to instruct employees on proper use and care.

The selection of personal protective clothing and personal protective equipment is the responsibility of the Safety Supervisor (with input from the Industrial Hygienist and owning supervision).

Administrative Controls

Administrative controls such as rotation of workers will be employed to reduce employee exposure where practical.

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SECTION: INDUSTRIAL HYGIENE DATE: 5-1-86 PAGE 1 OF 6

SUBJECT: HEARING CONSERVATION PROGRAM

PURPOSE:

To outline the procedures and responsibilities for implementing and conducting an effective Hearing Conservation and Noise Control Program.

POLICY:

Technical Center management is committed to protecting our employees from the effects of exposure to excessive sound levels as defined by the Occupational Safety and Health Administration and Celanese policy. The following will be the primary means for preventing significant employee exposure to noise:

1. Engineering controls where technically and economically feasible.
2. Administrative controls where practical.
3. Monitoring of noise levels.
4. Personal protective equipment.
5. Training of employees in respect to noise and its effects.
6. Audiometric testing.

This policy will be reviewed yearly to assure that the Hearing Conservation Program is being carried out in accordance with these procedures and to update procedures, if necessary.

RESPONSIBILITIES:

The Industrial Hygienist has the major responsibility for coordinating the Hearing Conservation Program and for assuring that the Program is being carried out in accordance with procedures.

The Industrial Hygienist is responsible for the collection, evaluation, and reporting of all noise measurements; for posting notification at entrances to high noise areas; for selection of hearing protection; for assisting owning supervision in the development of administrative noise exposure controls when necessary; for submitting to the Industrial Health Coordinator a list of employees or job classifications that require review and notification to the Industrial Hygienist if a change in the audiometric profile occurs; and for reviewing major new projects and revisions for identification of potential noise problems.

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The Safety Supervisor and Industrial Health Coordinator are responsible for dissemination of hearing protection equipment; for informing employees on the proper use and care of personal hearing protection devices at the time of issue; for planning, coordinating, and computer entry of data from audiometric testing; and for notifying the Industrial Hygienist of changes in the audiometric profiles of employees or job classifications on the list supplied to the Industrial Health Coordinator by the Industrial Hygienist.

Engineering is responsible for designing equipment and systems to the lowest feasible noise level; consulting with the Industrial Hygienist on engineering changes that will affect employee noise exposure; assisting with conducting plant noise surveys, if necessary, (particularly for exhaust ventilation noise problems); and for designing and/or specifying appropriate equipment to carry out those strategies approved by Plant Management and the Industrial Hygienist.

Supervision is responsible for assuring that hearing protection is worn as required.

Although Industrial Hygiene walk-arounds and annual noise surveys are conducted for the purpose of identifying potential problems, all employees have the responsibility to report existing and potential noise problems to the Industrial Hygienist for evaluation.

PROCEDURE:

1. Criteria for Evaluating Employee Noise Exposure

The criteria for establishing noise controls include provisions for continuous, intermittent, and impact noise. All on-the-job noise exposures of 80 dB(A) or greater will be used in calculating daily total exposures.

Although employees will be required to wear hearing protection to enter areas of 85 dB(A) or greater levels, the following tables may be useful in some instances as a guide.

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Table A

Continuous or Intermittent Noise

Duration per Day Hr.	Sound Level dB(A)
16	80
8	85
4	90
2	95
1	100
1/2	105
1/4	110
1/8	115
NO EMPLOYEE WILL BE EXPOSED ABOVE 115 dB(A)	

Table B

Impulse or Impact Noise

Sound Level dB*	Permitted number of Impulses or Impacts per Day
140	100
130	1000
120	10,000

* Describes peak sound pressure level.

Impulse or impact noise is considered to be those variations in noise levels that involve maxima at intervals of greater than one second. Where the intervals are less than one second, the noise is considered to be continuous.

2. The following levels of employee exposure require the specified portions of the Hearing Conservation Program to be implemented.

A. Above 80 dB(A) for an 8 hour Time Weighted Average

- offer of annual audiometric examinations;
- annual training on the effects of over-exposure, what audiometric testing is designed to accomplish, and how to avoid potentially damaging noise exposure;
- provision of hearing protective devices for voluntary use in areas between 80 and 85 dB(A) (areas of 85 dB(A) or greater will be posted and hearing protection will be required regardless of actual 8 hour TWA exposure levels); and

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Plans submitted to vendors and those responsible for the implementation of new installations, modification, etc. should contain engineering specification indicating a noise control goal of 90 dB(A). It is important that materials used for noise level control should adhere to appropriate standards with respect to flammability.

7. Employee Training

All employees identified through monitoring who have an occupational exposure to noise above 80 dB(A) for an 8 hr TWA will be trained annually. The training will consist of

- the effects of noise on hearing;
- the purpose of hearing protectors, the advantages, disadvantages, and attenuation of different types, and instructions on selection, fitting, use, and care; and
- the purpose of audiometric testing, and the test procedures.

8. Audiometric Testing

At a minimum, each employee will receive an audiometric examination every three years as part of the Medical Surveillance procedures. Annual audiometric testing will be offered to all employees exposed to 80 dB(A) 8 hr TWA or higher.

Audiometric testing will be conducted by a technician certified by the Council of Accreditation in Occupational Hearing Conservation. The tests will be pure tone, air conducted, hearing threshold measurements at test frequencies to include 500, 1000, 2000, 3000, 4000, and 6000 Hz in each ear.

The audiometer will meet the requirements of the American National Standard Specification for Audiometers. It will be checked for function daily when in use and calibrated yearly.

the evaluation of the audiograms and the decisions for further evaluation will be done by the consulting audiologist for the Medical Surveillance Program in accordance with company and corporate policies and OSHA regulations.

CORPUS CHRISTI TECHNICAL CENTER

ESHA PROCEDURE NO.: IH-3

SECTION: INDUSTRIAL HYGIENE

DATE: 5-1-86

SUBJECT: ROOF ENTRY PROCEDURES

PAGE 1 OF 1

PURPOSE:

To outline the procedure for entering Building 130 roof area to minimize the possibility of exposure of employees or contractors to materials exhausted from laboratory exhaust ventilation systems.

POLICY:

Entrance to Building 130 roof will be granted only to employees with a specific need to perform work on the roof. Entrance to the roof will only be granted to employees who have performed the following procedures.

PROCEDURES:

- A. Access During Workhours (7:30 a.m. to 4:00 p.m., Monday through Friday)

Employee seeking access should:

1. Notify the Safety Supervisor that work will be done on specified areas of the roof and the approximate time required to perform the roof work,
2. Contact laboratories that will be affected by work which will require fan shutdown or opening of duct work.
3. Notify safety supervisor and affected laboratories when work is complete.
4. Roof worker will be notified and will evacuate the roof in case of an emergency or a lab spill.
5. All roof work will be done by the "buddy" system.

(After regular work hours, the shift supervisor should be notified instead of the safety supervisor).

Revised 9/12/88

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SECTION: INDUSTRIAL HYGIENE DATE: 5-9-86 PAGE 1 OF 1

SUBJECT: MANUAL DISPOSAL OF CHEMICALS INTO PONDS

PURPOSE:

To establish a policy and procedure for manual disposal of chemicals into the wastewater ponds.

POLICY:

The following procedure will be used when manually disposing of chemicals into the wastewater ponds. To reduce employee exposure from skin contact and inhalation, the closed-transfer system must be used unless the collection/transport vessel cannot be properly adapted.

Owning supervisors are responsible for assuring that a closed-transfer system is used, if possible, or that a Scott Air Pack is used during open-transfer procedures.

PROCEDURE:

Employees dumping chemicals into the pond either by the closed-transfer or open-transfer systems will wear the appropriate gloves for the chemical(s) being handled and will remain upwind during the transfer process.

A portable eye wash has been located at the designated dump site at the pond for use for either eye or skin contact with chemicals being dumped.

Closed-transfer System

A pump is available at the dump site which can be connected directly to the carboy, jug, etc. A drainline extends from the pump and under the pond water. Carboys, jugs, etc., used to transport waste products to the ponds can be fitted with a lid that allows the pump tube to be connected directly to the container.

Open-transfer System

If the transport vessel cannot be properly adapted to fit the pump line and the vessel must be drained manually into the pond, the employee will wear a Scott Air Pak to perform the transfer.

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SECTION: INDUSTRIAL HYGIENE DATE: 5-15-86 Page 1 of 1

SUBJECT: OPENING OF CHEMICAL WASTE SUMPS

PURPOSE AND POLICY:

To prevent exposure of employees to contaminants in chemical waste sumps, the following procedure must be followed before any chemical waste sump either inside or outside of buildings is opened.

PROCEDURE:

1. Contact the Industrial Hygienist, as much in advance of opening the sumps as possible, with notification that a specific sump must be opened and the type of work that must be done.
2. The Industrial Hygienist will determine the possible contaminants for the specific sump, determine and relay to workers the possible hazards, and determine and relay to workers the types of protective equipment necessary to perform the work.

IN ADDITION, A CONFINED SPACE ENTRY PERMIT MUST BE ACQUIRED IF WORK ON THE SUMP REQUIRES PHYSICALLY ENTERING THE SUMP.