

PLAINTIFF'S EXHIBIT

UC-P-73

HSEA
DOCUMENTS

DE 004883



INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

To (Name) K. G. Townsend

Date December 18, 1979

Company Brownsville Plant

Originating Dept.

Location

Answering letter date

Subject EP Technician Work Schedule

Copy to

Shown on the attached yearly schedule sheets are the cyclic duties of the EP Technician. Other typical routine duties are supervising collection of EP and NPDES samples, collecting special samples, overseeing operation of process sewer system, drum cleaning station and managing evaporation ponds and solid waste disposal.

The EP Technician is responsible for preparing trip tickets for special shipments (such as asbestos) and assuring that correct procedures are followed.

Heddy Butler

HB:mfw
Attachment

DE 004884

EP AUDITS SCHEDULE

	J	F	M	A	M	J	J	A	S	O	N	D
Fish on Cooling Water Pump Screens	X											
Air Emission Control Device Operation			X									
Oil Transfer Manual Update Audit			X									
<i>Drain Procedure</i> Dike Valve Compliance Audit			X									
Waste Collection Facilities Audit				X								
Recovery Process Sewer Audit				X								
Fire Pit Sump Audit				X								
Dike Compliance Audit					X							
Special Shipments Procedure Audit					X							
Evaporation Ponds Audit						X						
Drum and Waste Disposal Procedure Audit							X					
SPCG Plantwide Facilities Audit									X			
Oil Spills Training Audit									X			
PCB Control Audit											X	
Loading <i>ie</i> Test Audit								DE 004885				X

EP MANUALS UPDATE

[illegible]

EP SURVEYS AND MISCELLANEOUS

	J	F	M	A	M	J	J	A	S	O	N	D
Selected Atmospheric Vents Evaluation	X			X			X			X		
Pollution Monitoring Inst. Calib.		X		X		X		X		X		X
Flow Meter Accuracy	X		X		X		X		X		X	
Process Sewer Waste Load Assignment	X				X				X			
Annual Solid Waste Report							X					
Solid Waste Summary							X					
NPDES Reports	X	X	X	X	X	X	X	X	X	X	X	X

DE 004887

WORK ASSIGNMENTS FOR EP TECHNICIAN

ASSIGNMENT

ASSIGNED COMPLETION
DATE DATE

DE 004888

WORK ASSIGNMENTS FOR EP TECHNICIAN

MANUALS TO BE KEPT EVERGREEN

EP Procedure manual
Waste Water Treatment Manual
Drum Cleaning Procedure Manual
Texas Air Control Board regulations manual
RCRA regulations manual

PERIODIC GOVERNMENT REPORTS

Reports to EPA and TDWR
Industrial Solid Waste Summary to TDWR
Trip Ticket summary to TDWR
PCB report (kept on file)

Monthly
Annual
Monthly
Annual

DE 004889

EP ANNUAL AUDITS CHECKLIST FOR 19 _____

<u>CATEGORY</u>	<u>CRITERIA</u>	<u>DATE COMPLETED</u>
1. Air emission devices (refrig. units for vents, S&H vent units, scrubber, opacity meter, etc.)	Proper operation	_____
2. Oil transfer manual (Dist. or Energy)	Maintained & updated	_____
3. Special shipments procedure (shared responsibility with Distribution)	Procedure & compliance	_____
4. Waste collection facilities	Proper operation, compliance	_____
5. Dike and dike valve drain	Procedure, content, compliance with procedure	_____
6. Drum cleaning facility	Procedure, compliance, and proper operation	_____
7. Evaporation ponds	Procedure, compliance, records	_____
8. Fish off screen at pumphouse (shared with Energy/O2)	Records (Numbers, dates, species)	_____
9. Inventory of pollution abatement material (hay etc.)	Proper inventory and storage	_____
10. Oil spill training (shared with distribution)	Review of spills procedure	_____
11. Loading hose (shared with distribution)	Test procedure compliance	_____

DE 004890

SUBJECT: AIR POLLUTION CONTROL AND REPORTING PROCEDURE**I. PURPOSE:**

To establish guidelines for reporting and controlling emissions of smoke, hydrocarbons, and chemical vapors in significant amounts.

NOTE: Steam is not considered an emission and is not addressed in this procedure.

II. DEFINITIONS:

Reportable emissions are defined as discharges of significant amounts of smoke or organic vapors or hazardous chemicals. This includes leaks, venting, ruptures, overflows or misdirected flows and stack emissions.

Guidelines as to significant amounts:

1. Visible emissions (smoke, white or black) from any stationary flues exceeding an opacity of 20% averaged over a 5-minute period.
2. Any visible emission (except steam) from a waste gas flare for more than five minutes in any 2-hour period. *R.
3. Abnormal venting of hydrocarbons of 100 pounds or more in 24 hours.
4. Hazards of chemical emissions include, but are not limited to: fire, explosion, personnel injury or health and air pollution.

III. NOTIFICATION REQUIREMENTS**A. Major Upsets**

The Texas Air Control Board shall be notified by standard TACB form as soon as possible of any major upset condition which causes or may cause an excessive emission to the atmosphere. The S.H.A.R.E. Department Head will be responsible for submitting this form.

SUBJECT: AIR POLLUTION CONTROL AND REPORTING PROCEDURE (Cont'd)

III. NOTIFICATION REQUIREMENTS (Cont'd)

B. Maintenance

The Texas Air Control Board shall be notified in writing, by the S.H.A.R.E. Department, at least 10 days prior to any planned maintenance, startup, or shutdown which will or may cause an excessive emission. If 10 days notice cannot be given due to an unplanned occurrence, notice will be given by the S.H.A.R.E. Department as soon as practical prior to the occurrence.

C. Fire Pit Training

When fire pit training is planned that will result in visible smoke, the Fire Protection and Equipment Safety Specialist will notify the S.H.A.R.E. Department at least 10 days in advance of the occurrence when possible. The S.H.A.R.E. Department will notify the Texas Air Control Board and the local U.S. Coast Guard Station.

IV. RESPONSIBILITY FOR CONTROL

- A. Each department shall establish a written set of emission control and cleanup instructions for its products and processes.
- B. Each supervisor shall instruct all personnel under his direction in the handling of emissions and require that every incident be reported and documented.

V. EMERGENCY ACTION

- A. In the case of unanticipated visible, hydrocarbon, or hazardous material emissions the employee's initial responsibility is to protect the personnel and equipment involved and then take appropriate action to control the emission, spill and hazards per departmental instructions, then report the incident.

SUBJECT: AIR POLLUTION CONTROL AND REPORTING PROCEDURE (Cont'd)

VI. IN-PLANT REPORTING

- A. When the extent of an emission exceeds the allowable limit an excessive emission report form will be prepared and distributed to the S.H.A.R.E. Department and the Department Head of the unit concerned, within the same 24 hours period. In addition, if the emission occurs during a normal work day (8:00 A.M. - 4:30 P.M.) a verbal report will be given to the S.H.A.R.E. Department. The Shift Coordinator/Supervisor is responsible for the reports.
- B. The S.H.A.R.E. Department Head or K. G. Townsend will prepare and mail the standard TACB report form to TACB at Harlingen after review with the Operating Department Head. If necessary, due to the magnitude of the emission and after conferring with the Managers' Department, the TACB at Harlingen may be notified of the emission by phone.
- C. A report form will be sent to the S.H.A.R.E. Department at least 15 days prior to any planned maintenance, startup or shutdown which will or may cause an excessive emission. If 15-days notice cannot be given, notice shall be as soon as practical. The operating department is responsible for this report.

1.00.03

DE 004893

EXCESSIVE EMISSION REPORT

This report is to be filled out by the Shift Coordinator/Supervisor in the event of any excessive emission to the air due to unit upsets, startup or shutdown, or required maintenance, whether planned or unplanned. The original of the report should be kept at the Shift Coordinator's office. One carbon copy to be sent to the S.H.A.R.E. Department and one carbon copy to the concerned operating department.

WHAT SHOULD BE REPORTED?

Visible emissions (smoke, etc.) from any flue, stack or flare that continues for a duration of five minutes or more. This includes a source which has a visible emission intermittently over any two-hour period for a cumulative time of five minutes or more.

Hydrocarbons venting from any process system column, still, etc., due to any of the above-mentioned reasons and emitting 100 pounds or more in any 24-hour period.

Time and date occurred: _____

Unit and source of emission: _____

What was emitted: _____

Duration of emission: _____

Amount emitted: _____

Reason or cause: Maintenance ☐ Malfunction ☐

Nature of problem: _____

Emission or anticipated emissions: Physical and Chemical composition,
Rate and Concentration _____

Measures (to be) taken to minimize quantity and duration of emissions: _____

Measures (to be) taken to prevent recurrence: _____

DATE _____ SIGNED _____

SUBJECT: AIR POLLUTION EPISODE PLAN

I. PURPOSE

To provide a uniform and effective Air Emission Episode plan for the Brownsville plant.

DISCUSSION: The Texas Air Control Board requires that any owners or operators of a stationary source emitting 100 tons or more per year of certain air contaminants shall have an emission reduction plan. This plan will be initiated if an Air Pollution Episode is declared for one or more air contaminants and applies to the geographical area of the Brownsville plant. The Texas Air Control Board may declare an emergency if atmospheric conditions due to air contaminants reach a level which creates an emergency requiring immediate action to protect human health or safety. The air contaminant controlled by this regulation and relating to the Brownsville plant are Nitrogen Dioxide emitted from the boilers (1 thru 4) and carbon monoxide emitted from Reaction #1 and Reaction #2 via the exhausting column and partial condenser vents.

The Texas Air Control Board has classified Air Pollution Episodes into two categories, Level 1 and Level 2. The Brownsville Plan outlines action to be taken should the Texas Air Control Board, with the concurrence of the Governor, declare an Air Pollution Episode exists.

II. POLICY

NITROGEN DIOXIDE LEVEL 1

Action to be taken if an Air Pollution Episode
Level 1 is declared for Nitrogen Dioxide

The Energy System Department Head will:

1. Determine the existing emissions of nitrogen dioxide from the boilers and report this information to the SHARE Department Head.
2. Immediately identify and implement all reasonable available methods to reduce the emissions of nitrogen dioxide from the boilers and report action taken and emission reductions obtained to the SHARE Department Head.
3. Prepare to shut down boilers in anticipation that a Level 2 Episode be declared for nitrogen dioxide.

NITROGEN DIOXIDE LEVEL 2

Action to be taken if an Air Pollution Episode Level 2 is declared for Nitrogen Dioxide.

SUBJECT: AIR POLLUTION EPISODE PLAN

II. POLICY (CON'T)

NITROGEN DIOXIDE LEVEL 2 (CON'T)

The Department Head of Energy System will prepare to shut down one or more boilers if the Executive Director, T.A.C.B. orders these boiler sources to curtail or cease operations. Close coordination and communication between Plant Management, Energy System and SHARE Department will be required during all Air Pollution Episodes.

CARBON MONOXIDE LEVEL 1

Action to be taken if an Air Pollution Episode Level 1 is declared for Carbon Monoxide.

The Department Head of the Reaction Unit will:

1. Determine the existing emissions of carbon monoxide from the reaction units and report this information to the SHARE Department Head.
2. Immediately identify and implement all reasonable and available methods to reduce the emission of carbon monoxide from the Reaction units and report action taken and emission reductions obtained to the SHARE Department Head.
3. Prepare to shutdown one or both of the Reaction Units in anticipation that a level 2 episode be declared for carbon monoxide.

CARBON MONOXIDE LEVEL 2

Action to be taken if an Air Pollution Episode Level 2 is declared for Carbon Monoxide.

The Department Head of the Reaction Department will prepare to shutdown one or both of the Reaction Units if the Executive director TACB orders the Reaction emission sources (exhausting column vents) to curtail or cease operations. Close coordination between Plant Management, Reaction Department personnel and the SHARE Department must be required during all Air Pollution Episodes.

The SHARE Department will coordinate all communication between the Texas Air Control Board personnel and Plant Management. In case of an Air Pollution Episode notification after hours or on a weekend or holiday the SHARE Department Head will be notified at once by the Shift Coordinator.

NOTE: A. Level 1 and Level 2 values are controlled by The Texas Air Control Board.

B. Boilers #5 and #6 are excluded as a result of low emission capability.

Reference: Texas Air Control Board, "Regulation VIII, Control of Air Pollution Episodes", March 5, 1975.

DE 004896



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P.O. BOX 3370, BROWNSVILLE, TEXAS 78520

September 7, 1979

Re: Demolition - Asbestos

Mr. Cecil Bradford
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, TX 78758

Dear Mr. Bradford:

The attached notification relative to the demolition of facilities containing friable insulation is provided per requirement of 40 CFR 61, Subpart B, Section 61.22 (d).

Please contact the writer if there are any questions concerning information contained in the notification.

Very truly yours,

K. Gran Townsend

KGT:mfw
Attachment

CC: Mr. Robert J. Guzman
Texas Air Control Board
Matz Bldg., 511-1/2 E. Jackson
Harlingen, TX 78550

DE 004897



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

*Example of TACT asbestos removal
notification
(this letter was not actually sent!)*

September 7, 1979

Re: Demolition - Asbestos

Mr. Cecil Bradford
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, TX 78758

Dear Mr. Bradford:

The attached notification, relative to the demolition of facilities containing friable insulation, is provided per requirement of 40 CFR 61, Subpart B, Section 61.22 (d).

Please contact the writer if there are any questions concerning information contained in the notification.

Very truly yours,

K. Gran Townsend

KGT:mfw
Attachment

CC: Mr. Robert J. Guzman
Texas Air Control Board
Matz Bldg., 511-1/2 E. Jackson
Harlingen, TX 78550

BCC: Heddy Butler
J. D. Dockins
R. C. Glock
R. E. Theisen
L. T. Windel

DE 004898

Form of Notification [See also Attachment 1 - § 61.22]NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner (Location Street Address)
- (3) Description of Facility Various buildings, equipment and piping used in manufacture and distribution of chemicals and plastics. An estimated xx square feet and yy lineal feet of insulation to be removed.
- (4) Address of Site (Same as item 2 above)
- (5) Scheduled Start and Completion Dates (Either calendar year or other specified dates)
- (6) Nature of planned demolition or renovation and methods employed Demolition of obsolete facilities and renovation of existing facilities.
- (7) Procedures employed Insulation wetted before removal, lowered to ground, disposed in a site which is (fenced or protected by natural barrier or covered daily).
- (8) Name and address of disposal site (Either same as 1 and 2 above or information for contractor site)
- (9) Agency ordering demolition Not applicable

Form of Notification

NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner _____
- (3) Description of Facility _____

- (4) Address of Site _____
- (5) Scheduled Start and Completion Dates _____

- (6) Nature of planned demolition or renovation and methods employed

- (7) Procedures employed _____

- (8) Name and address of disposal site _____

- (9) Agency ordering demolition _____

DE 004900



September 30, 1982

Mr. Bill Davies
Union Carbide Corp.
Coatings Material Division
P.O. Box 3370
Brownsville, Texas 78520

Dear Bill,

I have discussed the routine collection of asbestos along with solid waste at your service location with Bill Clay, Texas Dept. of Health, Region 8 Solid Waste Division, Larry Smith, Texas Dept. of Water Resources and Mr. Torres Texas Air Quality Control.

I explained to them Union Carbide does not generate more than 20 cubic yards per year and the asbestos is wet and placed in plastic bags for disposal.

They do not have problem with this method of collection, you will not have to separate the asbestos.

Sincerely Yours,

Al Young
District Manager

cc: Bill Clay, P.E. T.D.H. Solid Waste Division
Larry Smith - Texas Dept. of Water Resources
E. Torres - Texas Air Quality Control

NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner (Location Street Address)
- (3) Description of Facility Various buildings, equipment
and piping used in manufacture and distribution of chemicals
and plastics. An estimated xx square feet and yy lineal feet
of insulation to be removed.
- (4) Address of Site (Same as item 2 above)
- (5) Scheduled Start and Completion Dates (Either calendar
year or other specified dates)
- (6) Nature of planned demolition or renovation and methods employed
Demolition of obsolete facilities and renovation of existing
facilities.
- (7) Procedures employed Insulation wetted before removal, lowered
to ground, disposed in a site which is (fenced or protected by
natural barrier or covered daily).
- (8) Name and address of disposal site (Either same as 1 and 2 above
or information for contractor site)
- (9) Agency ordering demolition Not applicable

Form of Notification

**NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION**

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner _____
- (3) Description of Facility _____

- (4) Address of Site _____
- (5) Scheduled Start and Completion Dates _____

- (6) Nature of planned demolition or renovation and methods employed

- (7) Procedures employed _____

- (8) Name and address of disposal site _____

- (9) Agency ordering demolition _____

DE 004903



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

November 19, 1979

Re: Demolition - Asbestos

Mr. Cecil Bradford
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, TX 78758

Dear Mr. Bradford:

The attached notification relative to the demolition of facilities containing friable insulation is provided per requirement of 40 CFR 61, Subpart B, Section 61.22 (d).

Please contact the writer if there are any questions concerning information contained in the notification.

Very truly yours,

L. T. Windel

HB:mfw
Attachment

CC: Mr. Robert J. Guzman
Texas Air Control Board
Matz Bldg., 511-1/2 E. Jackson
Harlingen, TX 78550

- BCC: Heddy Butler /
A. L. Barefoot
R. C. Glock
R. E. Theisen
K. G. Townsend

DE 004904

Form of Notification

NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner P. O. Box 3370, Brownsville, TX 78520
- (3) Description of Facility Approximately 600 lineal feet of 1-1/2 inch
pipe covered with asbestos containing insulation which is in the
southeast section of the plant
- (4) Address of Site State Hwy. 48, Port of Brownsville
- (5) Scheduled Start and Completion Dates 12/3/79 through 12/10/79
- (6) Nature of planned demolition or renovation and methods employed
Renovation of condensate line
- (7) Procedures employed Insulation wetted before removal, lowered to
ground, placed in labeled plastic bags, and disposed in an approved
site
- (8) Name and address of disposal site Brownsville City Landfill
- (9) Agency ordering demolition NA

Heddy - File with Sales/Marketing



INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

To (Name) Mr. F. D. Bess, 511
Company ~~Mr. R. R. Rankin, 515~~
Location ✓ Mr. K. G. Townsend, 526

Date June 26, 1979

Originating Dept.

Answering letter date

Subject Asbestos Disposal

Copy to Mr. R. C. Glock, w/o attachments

Gentlemen:

Attached is correspondence with the State related to asbestos disposal. We now have permission to use the Brownsville Municipal dump for asbestos disposal provided trip tickets are used.

Very truly yours,

L. T. Windel

LTW/gr

Attachments

PERMIT CHANGE ATTACHED

DE 004906



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

May 7, 1979

Mr. Allan M. Seils
Self Reporting Section
Industrial Solid Waste Disposal Permits
Texas Department of Water Resources
P. O. Box 13246, Capitol Station
Austin, Texas 78711

Re: Union Carbide Corporation
Brownsville Plant
Solid Waste Registration
31108

Dear Mr. Seils:

We would like to update our solid waste registration, #31108, with the Texas Department of Water Resources, issued August 10, 1977, by the addition of asbestos as a generated solid waste. We request your comments and suggestions on our proposed disposal method.

The small quantity of asbestos waste is mainly old insulation containing approximately 15% asbestos which is removed from time to time when equipment alterations or repairs are made. No new asbestos insulation is used in the plant.

The insulation is removed wet, placed in plastic bags, sealed and labeled in accordance with OSHA rules. The sealed bags of asbestos are collected on-site until there is enough for a load (approximately 1 or 2 cubic yards - every 3 or 4 months).

We propose to send the bagged asbestos to the Brownsville City landfill. The officials in charge of the landfill have agreed to accept the asbestos wastes and dispose of them properly. Your comments on this method of disposal are requested.

Both the Brownsville Union Carbide plantsite and Brownsville City landfill are located in the Brownsville Navigation District. The asbestos would be hauled by a Brownsville Navigation District collection truck to the landfill site. The collection truck would contain only the asbestos

DE 004907

Mr. Allan M. Seils
Texas Department of Water Resources

May 7, 1979

in sealed, properly labeled bags and the truck driver would be given instructions concerning the hazard and handling of this material. Landfill personnel would be notified prior to each shipment. We need to know if a trip ticket (Ind. Waste Shipping - Control Ticket) is required to accompany each truck carrying asbestos to this site.

Summarized, we are requesting you to include asbestos in our solid waste registration and advise us about our proposed disposal method.

If you or your staff need any other information to evaluate this request, please feel free to contact me at (512) 831-4501, extension 324 or K. G. Townsend, extension 228.

Very truly yours,

L. T. Windel

L. T. Windel
Department Head
Environmental Protection Department

LTW/grv

cc: Mr. John Sturgis, Texas Department of Water Resources, Weslaco, Texas

bcc: K. G. Townsend, Union Carbide Corporation, Brownsville, Texas

DE 004908

TEXAS DEPARTMENT OF WATER RESOURCES

1700 Congress Avenue
Austin, Texas

TEXAS WATER DEVELOPMENT BOARD

A. L. Black, Chairman
W. O. Bankston
Milton T. Potts
John H. Garrett
George W. McCleskey
Glen E. Roney



Harvey Davis
Executive Director

June 15, 1979

TEXAS WATER COMMISSION

Felix McDonald, Chairman
Dorsey B. Hardeman
Joe R. Carroll

Mr. L.T. Windel
Department Head
Environmental Protection Department
Union Carbide Corporation
Chemicals & Plastics Division
P.O. Box 3370
Brownsville, Texas 78520

Dear Mr. Windel:

RE: Solid Waste Registration 31108

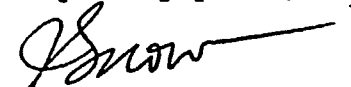
Pursuant to the request in your letter dated May 7, 1979, this is to transmit the enclosed change to Registration 31108. This document should be retained with the original Notice of Registration previously transmitted.

We note that the management methods detailed in your letter appear to adequately protect the environment from airborne exposure to asbestos particles.

Please be aware that shipping tickets should be used for each truckload of this waste.

If you have any questions or comments you wish to make concerning this action, please feel free to contact E. Moody Pickard of our Solid Waste Unit at AC512/475-2041.

Very truly yours,


Jay Snow, P.E., Head
Solid Waste Unit

EMP/mlk
Enclosure
cc: TDWR District 11 Office - Weslaco

CHANGE TO NOTICE OF REGISTRATION

Industrial Solid Waste Generation/Disposal
(This document modifies and becomes part of this record as described below)

REGISTRATION NO: 31108

COMPANY NAME: Union Carbide Corp.

The above referenced Notice of Registration is to be changed to reflect the addition of waste no. 6.

SECTION I: (Add waste no. 6)

<u>WASTES GENERATED</u>	<u>CLASS</u>	<u>CODE</u>	<u>DISPOSITION</u>
6. Asbestos insulation	I	179390	Off-site

SECTION II: (Add waste no. 6)

6. 179390 - insulation containing asbestos

SECTION III: (No change)

SECTION IV: (No change)

EMP/mlk

Date: June 15, 1979

TDWR-0502

DE 004910

ADDITION OF SODIUM HYDROXIDE 20%

AND SOLIDS FOR TANKS TO OUR

TDWR DISPOSAL REGISTRATION

DE 004911



UNION CARBIDE CORPORATION
COATINGS MATERIALS DIVISION
P O BOX 3370, BROWNSVILLE, TEXAS 77820

October 30, 1980

Re: Update Solid Waste
Generation TDWR
Reg. No. 31108

Mr. Jay Snow
Solid Waste Section
Texas Department of Water Resources
P. O. Box 13087, Capitol Station
Austin, TX 78711

Dear Mr. Snow:

We would like to update our solid waste registration #31108 with the addition of two generated items; #7 sodium hydroxide solution approximately 20% and #8 solids from tanks and production vessels. These two items will be placed in the on-site surface impoundment or disposed of off-site with an approved waste disposal company.

Annual generated quantities are approximately 200,000 lbs. of the caustic solution and 2,000 lbs. of the solids from the storage tanks and process vessels.

If you or your staff need any other information to evaluate this request, please feel free to contact me at 512-831-4501, extension 2324 or K. Gran Townsend, extension 2228.

Very truly yours,

L. T. Windel
Department Head
Environmental Protection Dept.

- KGT:mfw

cc: John Sturgis, TDWR, Weslaco, Texas

bcc: R. C. Glock, UCC, Brownsville, Texas
✓ K. G. Townsend, UCC, Brownsville, Texas

DE 004912

ASBESTOS PROCEDUREI. PURPOSE:

To protect Plant personnel from the danger of breathing asbestos fibers released from friable (dusty) asbestos containing materials.

II. DISCUSSION:

Inhaled asbestos fibers are considered to be carcinogenic (cancer causing). Asbestos containing material in the Plant includes old in-place insulation, gaskets, packing, Transite, and asbestos cloth. No new asbestos insulation material will be purchased or installed. Efforts will be made to find alternate non-asbestos containing material to replace any asbestos material capable of emitting fibers or dust. Materials in which the asbestos is secured by a bonding agent or coating are less of a hazard unless they are sanded or drilled.

III. RESPONSIBILITIES:A. SHARE:

1. Advise maintenance of disposal methods and write trip tickets for off-site asbestos disposal.
2. Conduct air monitoring in the area of asbestos insulation removal.
3. Notify EPA ten days before removal of more than 80 meters of asbestos pipe insulation or 15 square meters of insulation on a boiler, reactor or similar equipment.

B. OPERATING DEPARTMENTS:

1. Responsible for proper and safe handling of any asbestos insulation, packing, gaskets or other asbestos containing material present in the unit.
2. Notify SHARE Department of intended asbestos insulation removal. It must be reported to the EPA Regional Administrator ten days prior if it exceeds 80 meters of pipe covering or ^{160 sq. ft.} 15 square meters of boiler or reactor covering.

DE 004913

III. RESPONSIBILITIES (Cont'd)

C. MAINTENANCE:

1. No asbestos containing insulation will be installed in the Plant.
2. Follow maintenance asbestos procedure for removing old asbestos insulation. Essentially, don't make dust. Only handle it wet. Don't drop insulation or insulation covered members. Ref. Maintenance Procedure #MF-II-6.2).
3. Personnel doing asbestos insulation removal will wear protective clothing and respirators.
4. Seal all asbestos wastes (wet insulation) in plastic bags, label with asbestos warning labels, and store in asbestos holding area (old wire cage incinerator in the N.E. section of the plant).
5. When there is sufficient asbestos waste to make a load, contact SHARE Department for disposal instructions. An industrial waste shipping control ticket will have to accompany each load leaving the plant.

D. STORES:

1. No asbestos-containing insulation will be purchased.
2. Efforts will be made not to purchase other asbestos containing materials that are capable of emitting dust and fibers.
3. Store all asbestos packing, gaskets, etc., in tied plastic bags where practical.
4. Label shelves and storage areas where asbestos materials are kept with asbestos warning label.
5. All clean-up in asbestos material area will be done with a vacuum sweeper or under wet conditions to avoid dust in the air.
6. Waste asbestos material such as gasket material, ends of packing rolls, vacuumed dust, etc., will be sealed in plastic bags, labeled with asbestos warning label and stored in asbestos waste storage area.

ASBESTOS MAINTENANCE PROCEDURE

DE 004915



PROPER HANDLING & DISPOSAL OF ASBESTOS

1. SCOPE

The purpose of this procedure is to make known to all employees the health hazards and required work procedures for removing and disposing of insulation containing asbestos, allowing this task to be performed within the limits as prescribed by OSHA, article 1910.93a, ASBESTOS, dated October 25, 1978.

2. PROCEDURE

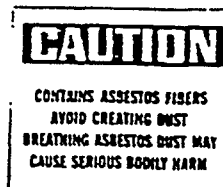
- 3.1 All personnel, whenever removing asbestos insulation, shall wear protective clothing -- rain slicker suit or paper disposable type coveralls.
- 3.2 Cotton or rubber work gloves shall be worn while handling asbestos.
- 3.3 Each employee working with or in the immediate area where the asbestos is being removed, shall wear a 3-M disposable type respirator. These shall be changed as the users feel necessary or daily depending on use.
- 3.4 Foot gear worn should be of a type that can be washed or vacuumed at completion of job or daily basics.

4. HANDLING & DISPOSING

- 4.1 Asbestos shall always be handled, cut, removed, and disposed of in a wet state sufficient to prevent the emission of airborne fibers.
- 4.2 Asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing consigned for disposal, shall be collected and disposed of in sealed impermeable bags. These bags are in Stores specially for this purpose.

Proper Handling & Disposal of Asbestos

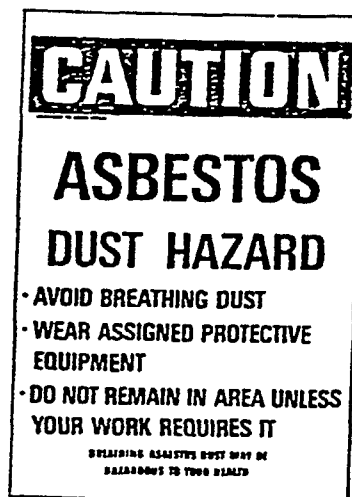
- 4.3 OSHA approved labels shall be affixed to each bag containing the waste asbestos. A "stick-on" type label is available in Stores. These labels shall read:



- 4.4 Bags of waste asbestos shall be held in the Salvage Yard "cage" for proper disposal.

5. WORK PRACTICES & PRECAUTIONS

- 5.1 When asbestos is being removed, barricade the work area by erecting rope guardrails. Caution signs shall be posted at the work site, located at a distance which will allow an employee to take necessary protective steps before entering the area. These signs shall read:



- 5.2 Notify the Industrial Hygiene Dept, Ext. 228 or 337 before commencing to remove asbestos so air sampling monitoring of the atmosphere can be arranged.

DE 004917



Proper Handling & Disposal of Asbestos

5.3 An excellent level of housekeeping Must be maintained including cleaning of all surfaces maintained free of accumulation of asbestos fibers. Area should be wet cleaned or vacuum cleaned. Never use a broom, brush, or blow with air.

6. CUTTING ASBESTOS SIDING OR PIPING

6.1 Employees cutting asbestos siding or piping shall wear 3-M dust respirators.

6.2 Special circular saw equipped with a vacuum unit shall be used.

6.3 All scrap, waste, and vacuum bag accumulation shall be disposed of per paragraph 4.

7. RESPONSIBILITY

7.1 It shall be the craft foreman's responsibility to see that all regulations, in regards to handling and disposing of asbestos are followed.

ASBESTOS DISPOSAL REGULATIONS 40 CFR61 AND UCC

HANDLING AND DISPOSAL PROCEDURES

DE 004919



INTERNAL CORRESPONDENCE

QC TO
KGT

4-3-79

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 78520

To (Name) Mr. F. D. Bess, 511
Company
Location

Date July 19, 1977

Originating Dept.

Answering letter date

Subject Asbestos Disposal

Copy to Mr. R. C. Glock, w/o attachments
Mr. J. D. Martin, 510

Dear Doug:

Attached are procedures from UCC Maintenance Operations (Dick Huber's letter), OSHA regulations and Brownsville Plant Maintenance practices related to asbestos handling. There appears to be inconsistency between EPA disposal requirements and OSHA guidelines.

We currently package asbestos as described in the attached procedure and dispose of the packaged material in the Brownsville city dump.

The City dump has no warning signs as required by the EPA procedure. Should we dispose of this material on-site or continue our current practice? Your guidance would be appreciated.

Very truly yours,

L. T. Windel

LTW/gr

Attachments

DE 004920



INTERNAL CORRESPONDENCE

KGT lets discuss -
CTG

CHEMICALS AND PLASTICS

P. O. BOX 8361, SOUTH CHARLESTON, WEST VIRGINIA 25303

To (Name) See Attached Distribution List

Date June 22, 1977

Originating Dept

Subject Guidance for Compliance with
EPA Asbestos Regulation

Gentlemen:

Enclosed is an outline providing guidance for compliance with Environmental Protection Agency regulation, 40 CFR 61, Hazardous Air Pollutants, as it applies to the removal and disposal of asbestos-containing insulation and the notification of appropriate regulatory agencies.

The outline summarizes key requirements of the regulation and suggests a standard format for use in notifying regulatory agencies.

It is recommended that current location procedures be reviewed and any appropriate changes implemented to conform with specified removal and disposal requirements. It is also suggested that locations within the same EPA Region coordinate the timing for initial notification of the proper regulatory agencies to make the submissions reasonably concurrent (August 1 might be a realistic target date).

It is further suggested that larger locations will find that annual notification on a calendar year basis (in early December of the prior year, except for 1977) using the best estimate of expected activity will minimize their paperwork.

The EPA regulation is in addition to an OSHA standard governing worker exposure (29 CFR, Chapter XVII, Section 1910.1001). However, only EPA requires notification of removal and disposal activities. The cost impact of modifying procedures to meet EPA regulations appears to be quite variable within Chemicals and Plastics, but would seem to be in the range of \$100,000 - \$200,000 total, on an annual basis.

Any requests for clarification of the plan requirements should be directed to Mr. D. G. Moshier of the Maintenance Operations Team. Copies of the regulation can be provided upon request (they may be found in the Environment Reporter at 121:0461).

Sincerely,

R. A. Huber
Maintenance Operations Manager

RAH/w

DE 004921

GUIDANCE FOR COMPLIANCE WITH
EPA ASBESTOS REGULATION

REGULATION AND APPLICABILITY

Regulation - 40 CFR 61, Subparts A and B

Applicability - To the demolition of structures or renovation of equipment and piping that involves removal of more than 160 square feet or 260 lineal feet of insulation containing more than one percent asbestos by weight, either in a single project or a predictable series of projects over the course of one year that are additive to this amount.

OVERALL REQUIREMENTS OF REGULATION

Practices - Comply with defined removal and disposal practices.

Notification - Provide timely notification of EPA.

KEY REQUIREMENTS - REMOVAL PRACTICES

- (1) Insulation shall be removed prior to demolition where the demolition would likely damage and expose insulation.
- (2) Insulation must be wetted prior to removal and kept wet until disposal is accomplished.
- (3) Insulation on pipe or equipment which is to be removed in sections must have exposed surfaces wetted and kept wet during dismantling.
- (4) Stripped insulation must not be dropped or thrown to the ground. Dust tight containers or chutes must be used for lowering insulation removed that is more than 50 feet above ground level.

KEY REQUIREMENTS - DISPOSAL PRACTICES

- (1) No visible emissions of insulation are allowed in transport to the disposal site.
- (2) No visible emissions may result from disposal operations.
- (3) For disposal areas one of the following requirements must be met:
 - (a) A six-inch earth cover is provided over disposed insulation within 24 hours.
 - (b) An effective resinous or petroleum-based dust suppression agent is applied at the end of each operating day.
 - (c) A natural barrier adequately deters public access to the site.

- (d) The area is fenced and (20 x 14 inch) warning signs are posted at least every 330 feet. [See Attachment 1, § 61.25]

REQUIREMENTS - EPA NOTIFICATION

Timing - EPA and applicable States are to be notified either:

- (a) Annually, or
- (b) 10 days prior to planned demolition or renovation, or
- (c) As soon as possible after beginning an unplanned (emergency) removal project.

The above notification requirement applies whenever the total amount for the project or time period exceeds 160 square feet of equipment or 260 lineal feet of pipe insulation.

Office to be Notified - [See Attachment 1, § 61.04]

Federal: Director, Enforcement Division
Environmental Protection Agency
(Regional Office City Address)

State: (Applicable only in the following C&P states)
California (Sacramento County)
(Bay Area)

Georgia
New York
North Carolina

Suggested Text of Notification Letter

The attached notification relative to the demolition and/or renovation of facilities containing friable asbestos insulation is provided per requirements of 40 CFR 61, Subpart B, Section 61.22 (d).

Please contact the writer if there are questions concerning information contained in the notification.

Signed _____

EXAMPLE OF TACB 10 DAY PRIOR NOTIFICATION OF ASBESTOS REMOVAL.

TACB IS ENFORCING EPA 40 CFR 61, HAZARDOUS AIR POLLUTANTS AS IT
APPLIES TO ASBESTOS.

DE 004924



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P. O. BOX 3370, BROWNSVILLE, TEXAS 77820

September 7, 1979

Re: Demolition - Asbestos

Mr. Cecil Bradford
Texas Air Control Board
~~8520 Shoal Creek Blvd.~~ 6330 Highway 290 East
Austin, TX 78758 78723

Dear Mr. Bradford:

The attached notification relative to the demolition of facilities containing friable insulation is provided per requirement of 40 CFR 61, Subpart B, Section 61.22 (d).

Please contact the writer if there are any questions concerning information contained in the notification.

Very truly yours,

K. Gran Townsend

KGT:mfw
Attachment

CC: Mr. Robert J. Guzman
Texas Air Control Board
Matz Bldg., ~~511-172~~ 513 E. Jackson
Harlingen, TX 78550

BCC: A.L. Barefoot
R.C. Block
F. Olvera
J.L. Wyatt

DE 004925

Form of Notification

NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner _____
- (3) Description of Facility _____

- (4) Address of Site _____
- (5) Scheduled Start and Completion Dates _____

- (6) Nature of planned demolition or renovation and methods employed

- (7) Procedures employed _____

- (8) Name and address of disposal site _____

- (9) Agency ordering demolition _____

DE 004926

NOTICE OF INTENT TO DEMOLISH OR RENOVATE STRUCTURES, EQUIPMENT OR
PIPING INVOLVING FRIABLE ASBESTOS INSULATION

- (1) Name of Owner Union Carbide Corporation
- (2) Address of Owner (Location Street Address)
- (3) Description of Facility Various buildings, equipment
and piping used in manufacture and distribution of chemicals
and plastics. An estimated xx square feet and yy lineal feet
of insulation to be removed.
- (4) Address of Site (Same as item 2 above)
- (5) Scheduled Start and Completion Dates (Either calendar
year or other specified dates)
- (6) Nature of planned demolition or renovation and methods employed
Demolition of obsolete facilities and renovation of existing
facilities.
- (7) Procedures employed Insulation wetted before removal, lowered
to ground, disposed in a site which is (fenced or protected by
natural barrier or covered daily).
- (8) Name and address of disposal site (Either same as 1 and 2 above
or information for contractor site)
- (9) Agency ordering demolition Not applicable

GENERAL NOTES

- (1) The regulation applies to friable asbestos which would mean insulation containing more than one percent asbestos by weight which can be reduced to powder, when dry, by hand pressure. Any insulation purchased prior to 1975, containing asbestos as reinforcement, would meet the definition of friable asbestos and be subject to the regulation. New insulation does not contain asbestos.
- (2) A standard text for a notification letter and a format for the notice (filled in with standard responses or indication of the type of response) are included.
- (3) For locations with a reasonable amount of continuing activity involving insulation removal, paperwork would be minimized and made more routine if notification were made annually (in December for the coming year) using a best estimate of insulation quantities involved. Other locations may find that annual notification is unnecessary.
- (4) Recognize that an Occupational Safety and Health Standard, 29 CFR, Chapter XVII, Section 1910.1001, "Toxic and Hazardous Substances" impose certain requirements for personnel equipment, clothing, monitoring, and medical examinations in work areas involving exposure to asbestos dust. There is a certain amount, but not total overlap with the EPA regulation.
- (5) The EPA regulation applies to any work done at a facility whether by company or contract personnel. Company personnel involved with contractors should assure that notification responsibility is assigned to the contractor in the work specification, or performed by the company.
- (6) It is suggested that disposal sites for asbestos be fenced (but not posted) even where another approved alternative requirement is being met to avoid future problems from uncovering the material inadvertently.

DE 004928

Excerpts from EPA Hazardous Air Pollutant Regulation

ENVIRONMENTAL PROTECTION AGENCY REGULATIONS
ON NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

(40 CFR 61; 38 FR 8820, April 6, 1973. Amended by Code of Federal Regulations, Volume 40, Revised as of July 1, 1976; 41 FR 27967, July 8, 1976; 41 FR 33264, August 9, 1976; 41 FR 34629, August 16, 1976; 41 FR 36918, September 1, 1976; 41 FR 40108, September 17, 1976; 41 FR 40467, September 20, 1976; 41 FR 43148, September 30, 1976; 41 FR 44860, October 13, 1976; 41 FR 46559, October 20, 1976; 41 FR 53017, December 3, 1976; 41 FR 54758, December 15, 1976; 41 FR 56805, December 30, 1976)

Subpart A—General Provisions

§ 61.04 Address.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate and addressed to the appropriate Regional Office of the Environmental Protection Agency, to the attention of the Director, Enforcement Division. The regional offices are as follows:

Region I (Connecticut, Maine, New Hampshire, Massachusetts, Rhode Island, Vermont), John F. Kennedy Federal Building, Boston, Massachusetts 02203.

Region II (New York, New Jersey, Puerto Rico, Virgin Islands), Federal Office Building, 36 Federal Plaza (Foley Square), New York, N.Y. 10007.

Region III (Delaware, District of Columbia, Pennsylvania, Maryland, Virginia, West Virginia), Curtis Building, Sixth and Walnut Streets, Philadelphia, Pennsylvania 19106.

Region IV (Alabama, Florida, Georgia, Mississippi, Kentucky, North Carolina, South Carolina, Tennessee), Suite 300, 1421 Peachtree Street, Atlanta, Georgia 30309.

Region V (Illinois, Indiana, Minnesota, Michigan, Ohio, Wisconsin), 1 North Wacker Drive, Chicago, Illinois 60604.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), 1600 Patterson Street, Dallas, Texas 75201.

Region VII (Iowa, Kansas, Missouri, Nebraska), 1735 Baltimore Street, Kansas City, Missouri 64108.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), 199 Lincoln Towers, 1860 Lincoln Street, Denver, Colorado 80203.

Region IX (Arizona, California, Hawaii, Nevada, Guam, American Samoa), 100 California Street, San Francisco, California 94111.

Region X (Washington, Oregon, Idaho, Alaska), 1200 Sixth Avenue, Seattle, Washington 98101.

(b) Section 112(d) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce the national emission standards for hazardous air pollutants for stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided that each specific delegation may exempt sources from a certain federal or State reporting requirement). The appropriate mailing address for those

States whose delegation request has been approved is as follows:

7-California:

Bay Area Air Pollution Control District, 889 Ellis Street, San Francisco, CA 94109.

Sacramento County Air Pollution Control District, 3701 Branch Center Road, Sacramento, CA 95827.

(L) State of Georgia, Environmental Protection Division, Department of Natural Resources, 270 Washington Street, S.W., Atlanta, Georgia 30334.

(NY)—New York: New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233, attention: Division of Air Resources.

[40 FR 48347, October 15, 1975]

(II) North Carolina Environmental Management Commission, Department of Natural and Economic Resources, Division of Environmental Management, P.O. Box 27697, Raleigh, North Carolina 27611. Attention: Air Quality Section.

Subpart B—National Emission Standard for Asbestos

§ 61.22 Emission standard.

(d) Demolition and renovation: The requirements of this paragraph shall apply to any owner or operator of a demolition or renovation operation who intends to demolish any institutional, commercial, or industrial building (including apartment buildings having more than four dwelling units), structure, facility, installation, or portion thereof which contains any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member that is insulated or fireproofed with friable asbestos material, except as provided in paragraph (d) (1) of this section; or who intends to renovate any institutional, commercial, or industrial building, structure, facility, installation, or portion thereof where more than 80 meters (ca. 260 feet) of pipe insulated or fireproofed with friable asbestos material are stripped or removed, or more than 15 square meters (ca. 160 square feet) of friable asbestos material used to insulate or fireproof any duct, boiler, tank, reactor, turbine, furnace, or structural member are stripped or re-

(2) Written notice of intention to demolish or renovate shall be provided to the Administrator by the owner or operator of the demolition or renovation operation. Such notice shall be postmarked or delivered to the Administrator at least 10 days prior to commencement of demolition, or as early as possible prior to commencement of emergency demolition subject to paragraph (d) (6) of this section, and as early as possible prior to commencement of renovation. Such notice shall include the following information:

(i) Name of owner or operator.

(ii) Address of owner or operator.

(iii) Description of the building, structure, facility, or installation to be demolished or renovated, including the size, age, and prior use of the structure, and the approximate amount of friable asbestos material used for insulation and fireproofing.

(iv) Address or location of the building, structure, facility, or installation.

(v) Scheduled starting and completion dates of demolition or renovation.

(vi) Nature of planned demolition or renovation and method(s) to be employed.

(vii) Procedures to be employed to meet the requirements of this paragraph and paragraph (j) of this section.

(viii) The name and address or location of the waste disposal site where the friable asbestos waste will be deposited.

(ix) Name, title, and authority of the State or local governmental representative who has ordered a demolition which is subject to paragraph (d) (6) of this section.

§ 61.25 Waste disposal sites.

(b) Warning signs shall be displayed at all entrances, and along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited, at intervals of 100 m (ca. 330 ft) or less except as specified in paragraph (d) of this section. Signs shall be posted in such a manner and location that a person may easily read the legend. The warning signs required by this paragraph shall conform to the requirements of 20" x 14" upright format signs specified in 29 CFR 1910.145(d) (4) and this paragraph. The signs shall display the following legend in the lower panel, with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

LEGEND

ASBESTOS WASTE DISPOSAL SITE

Do Not Create Dust

Breathing Asbestos

Is Hazardous to Your Health

Notation

1" Sans Serif, Gothic or Block

¾" Sans Serif, Gothic or Block

14 Point Gothic

Spacing between lines shall be at least equal to the height of the lower of the

Table 2.2

Material	8-hour time weighted average	Acceptable ceiling concentration	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift.	
			Concentration	Maximum duration
Benzene (Z37.6-1969).....	10 p.p.m.	25 p.p.m.	50 p.p.m.	10 minutes.
Beryllium and beryllium compounds (Z37.29-1970).....	2 µg./M ³	5 µg./M ³	75 µg./M ³	30 minutes.
Cadmium fume (Z37.8-1970).....	0.1 mg./M ³	3 mg./M ³	.....	.....
Cadmium dust (Z37.8-1970).....	0.2 mg./M ³	0.8 mg./M ³	.....	.....
Carbon disulfide (Z37.3-1968).....	20 p.p.m.	30 p.p.m.	100 p.p.m.	Do.
Carbon tetrachloride (Z37.17-1967).....	10 p.p.m.	25 p.p.m.	200 p.p.m.	5 minutes to any 4 hours.
Ethylene dibromide (Z37.31-1970).....	20 p.p.m.	30 p.p.m.	40 p.p.m.	5 minutes.
Ethylene dichloride (Z37.21-1969).....	40 p.p.m.	100 p.p.m.	200 p.p.m.	5 minutes in any 3 hours.
Formaldehyde (Z37.16-1967).....	3 p.p.m.	5 p.p.m.	10 p.p.m.	30 minutes.
Hydrogen fluoride (Z37.29-1970).....	do.	do.	do.	do.
Fluoride as dust (Z37.29-1970).....	2.5 mg./M ³	.....	.....	.....
Lead and its inorganic compounds (Z37.11-1969).....	0.2 mg./M ³	.....	.....	.....
Methyl chloride (Z37.18-1966).....	100 p.p.m.	200 p.p.m.	300 p.p.m.	5 minutes in any 3 hours.
Methylene Chloride (Z37.3-1968).....	600 p.p.m.	1,000 p.p.m.	2,000 p.p.m.	5 minutes in any 2 hours.
Organic (alkyl) mercury (Z37.30-1968).....	0.01 mg./M ³	0.04 mg./M ³	.....	.....
Styrene (Z37.13-1968).....	100 p.p.m.	200 p.p.m.	500 p.p.m.	5 minutes in any 3 hours.
Trichloroethylene (Z37.19-1967).....	do.	do.	300 p.p.m.	5 minutes in any 2 hours.
Tetrachloroethylene (Z37.22-1967).....	do.	do.	do.	5 minutes in any 3 hours.
Toluene (Z37.12-1967).....	200 p.p.m.	300 p.p.m.	500 p.p.m.	10 minutes.
Hydrogen sulfide (Z37.2-1966).....	20 p.p.m.	25 p.p.m.	40 p.p.m.	10 minutes once only if no other measurable exposure occurs.
Mercury (Z37.8-1971).....	1 mg./10M ³	.....	.....	.....
Chromic acid and chromates (Z37.7-1971).....	do.	do.	.....	.....

Table 2.3—Mineral Dusts

Substance	Mppcf ¹	Mg/M ³	Aerodynamic diameter (unit density sphere)	Percent passing selector
Silica:			2	90
Crystalline:			2.5	75
Quartz (respirable).....	250 ²	10mg/M ³	3	50
			4	25
			10	0
Quartz (total dust).....		%SiO ₂ +3 30mg/M ³		
		%SiO ₂ +2		
Cristobalite: Use 1/2 the value calculated from the count or mass formulae for quartz.				
Tridymite: Use 1/2 the value calculated from the formulae for quartz.				
Amorphous, including natural diatomaceous earth.....	20	80mg/M ³		
		%SiO ₂		
Silicates (less than 1% crystalline silica):				
Mica.....	20			
Serpentine.....	20			
Talc (non-asbestos-form).....	20 ³			
Talc (fibrous). Use asbestos limit.....				
Tremolite (see talc, fibrous).....				
Portland cement.....	10			
Oraschite (natural).....	10			
Coal dust (respirable fraction less than 8% SiO ₂).....		2.4mg/M ³ or 10mg/M ³		
For more than 8% SiO ₂		%SiO ₂ +2		
Inert or Nuisance Dust:				
Respirable fraction.....	10	8mg/M ³		
Total dust.....	20	16mg/M ³		

NOTE: Conversion factors—
mppcf(X34.3) = million particles per cubic meter
= particles per c.c.

¹ Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

² The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

³ As determined by the membrane filter method at 430X phase contrast magnification.

⁴ Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-sieve with the following characteristics:

⁵ Containing < 1% quartz; if > 1% quartz, use quartz limit.

The measurements under this note refer to the use of an AEC instrument. If the respirable fraction of coal dust is determined by AEC the figure corresponding to that of 2.5 µg/M³ in the table for coal dust is 4.5 µg/M³.

§ 1910.1001 Asbestos.

(a) **Definitions.** For the purpose of this section, (1) "Asbestos" includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

(2) "Asbestos fibers" means asbestos fibers longer than 5 micrometers.

(b) **Permissible exposure to airborne concentrations of asbestos fibers—(1) Standard effective July 7, 1972.** The 8-hour time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed five fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (c) of this section.

(2) **Standard effective July 1, 1976.** The 8-hour time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed two fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (c) of this section.

(3) **Ceiling concentration.** No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (c) of this section.

(c) **Methods of compliance—(1) Engineering methods.** (i) **Engineering controls.** Engineering controls, such as, but not limited to, isolation, enclosure, exhaust ventilation, and dust collection, shall be used to meet the exposure limits prescribed in paragraph (b) of this section.

(ii) **Local exhaust ventilation.** (c) Local exhaust ventilation and dust collection systems shall be designed, constructed, installed, and maintained in accordance with the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1971, which is incorporated by reference herein.

(b) See § 1910.6 concerning the availability of ANSI Z9.2-1971, and the maintenance of a historic file in connection therewith. The address of the American National Standards Institute is given in § 1910.100.

(iii) **Particular tools.** All hand-operated and power-operated tools which may produce or release asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section, such as, but not limited to, saws, scorers, abrasive wheels, and drills, shall be provided with local exhaust ventilation systems in accordance with subdivision (ii) of this subparagraph.

(2) **Work practices—(1) Wet methods.** Insofar as practicable, asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the exposure limits prescribed in paragraph (b) of this section, unless the usefulness of the product would be diminished thereby.

(ii) **Particular products and operations.** No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to prevent effectively the release of airborne asbestos fibers in excess of the limits prescribed in paragraph (b) of this section.

(iii) **Spraying, demolition, or removal.** Employees engaged in the spraying of asbestos, the removal, or demolition of pipes, structures, or equipment covered or insulated with asbestos, and in the removal or demolition of asbestos insulation or coverings shall be provided with respiratory equipment in accordance with paragraph (d) (2) (iii) of this section and with special clothing in accordance with paragraph (d) (3) of this section.

(d) **Personal protective equipment—(1) Compliance with the exposure limits.** prescribed by paragraph (b) of this section may not be achieved by the use of respirators or shift rotation of employees, except:

(i) During the time period necessary to install the engineering controls and to institute the work practices required by paragraph (c) of this section;

(ii) In work situations in which the methods prescribed in paragraph (c) of this section are not feasible.

OSHA Procedure

this section are either technically not feasible or feasible to an extent insufficient to reduce the airborne concentrations of asbestos fibers below the limits prescribed by paragraph (b) of this section; or

(iii) In emergencies.

(iv) Where both respirators and personnel rotation are allowed by subdivisions (i), (ii), or (iii) of this subparagraph, and both are practicable, personnel rotation shall be preferred and used.

(2) Where a respirator is permitted by subparagraph (1) of this paragraph, it shall be selected from among those approved by the Bureau of Mines, Department of the Interior, or the National Institute for Occupational Safety and Health, Department of Health, Education, and Welfare, under the provisions of 30 CFR Part 11 (37 P.R. 6244, Mar. 25, 1972), and shall be used in accordance with subdivisions (i), (ii), (iii), and (iv) of this subparagraph.

(i) *Air purifying respirators.* A reusable or single use air purifying respirator, or a respirator described in subdivision (ii) or (iii) of this subparagraph, shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in paragraph (b) of this section, when the ceiling or the 8-hour time-weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed no more than 10 times those limits.

(ii) *Powered air purifying respirators.* A full facepiece powered air purifying respirator, or a powered air purifying respirator, or a respirator described in subdivision (iii) of this subparagraph, shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in paragraph (b) of this section, when the ceiling or the 8-hour time-weighted average concentrations of asbestos fibers are reasonably expected to exceed 10 times, but not 100 times, those limits.

(iii) *Type "C" supplied-air respirators, continuous flow or pressure-demand class.* A type "C" continuous flow or pressure-demand, supplied-air respirator shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in paragraph (b) of this section, when the ceiling or the 8-hour time-weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed 100 times those limits.

(iv) *Establishment of a respirator program.* (a) The employer shall establish a respirator program in accordance with the requirements of the American National Standards Practices for Respiratory Protection, ANSI Z88.2-1969, which is incorporated by reference herein.

b. See § 1910.6 concerning the availability of an historic file in connection therewith. The address of the American National Standards Institute is given in § 1910.100.

(c) No employee shall be assigned to tasks requiring the use of respirators if, based upon his most recent examination, an examining physician determines that the employee will be unable to function normally wearing a respirator, or that

the safety or health of the employee or other employees will be impaired by his use of a respirator. Such employee shall be rotated to another job or given the opportunity to transfer to a different position whose duties he is able to perform with the same employer, in the same geographical area and with the same seniority, status, and rate of pay he had just prior to such transfer, if such a different position is available.

(3) *Special clothing:* The employer shall provide, and require the use of, special clothing, such as coveralls or similar whole body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos fibers, which exceed the ceiling level prescribed in paragraph (b) of this section.

(4) *Change rooms:* (i) At any fixed place of employment exposed to airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section, the employer shall provide change rooms for employees working regularly at the place.

(ii) *Clothes lockers:* The employer shall provide two separate lockers or containers for each employee, so separated or isolated as to prevent contamination of the employee's street clothes from his work clothes.

(iii) *Laundrying:* (a) Laundrying of asbestos contaminated clothing shall be done so as to prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section.

(b) Any employer who gives asbestos-contaminated clothing to another person for laundrying shall inform such person of the requirement in (a) of this subdivision to effectively prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section.

(c) Contaminated clothing shall be transported in sealed impermeable bags, or other closed, impermeable containers, and labeled in accordance with paragraph (g) of this section.

(e) *Method of measurement.* All determinations of airborne concentrations of asbestos fibers shall be made by the membrane filter method at 400-450 X (magnification) (4 millimeter objective) with phase contrast illumination.

(f) *Monitoring—(1) Initial determinations.* Within 6 months of the publication of this section, every employer shall cause every place of employment where asbestos fibers are released to be monitored in such a way as to determine whether every employee's exposure to asbestos fibers is below the limits prescribed in paragraph (b) of this section. If the limits are exceeded, the employer shall immediately undertake a compliance program in accordance with paragraph (c) of this section.

(2) *Personal monitoring—(1) Samples* shall be collected from within the breathing zone of the employees, on membrane filters of 0.8 micrometer porosity mounted in an open-face filter holder. Samples shall be taken for the determination of the 8-hour time-weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(ii) *Sampling frequency and patterns.* After the initial determinations required by subparagraph (1) of this paragraph, samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of employees. In no case shall the sampling be done at intervals greater than 6 months for employees whose exposure to asbestos may reasonably be foreseen to exceed the limits prescribed by paragraph (b) of this section.

(3) *Environmental monitoring—(1)* samples shall be collected from areas of a work environment which are representative of the airborne concentrations of asbestos fibers which may reach the breathing zone of employees. Samples shall be collected on a membrane filter of 0.8 micrometer porosity mounted in an open-face filter holder. Samples shall be taken for the determination of the 8-hour time-weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(ii) *Sampling frequency and patterns.* After the initial determinations required by subparagraph (1) of this paragraph, samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees. In no case shall sampling be at intervals greater than 6 months for employees whose exposures to asbestos may reasonably be foreseen to exceed the exposure limits prescribed in paragraph (b) of this section.

(4) *Employee observation of monitoring.* Affected employees, or their representatives, shall be given a reasonable opportunity to observe any monitoring required by this paragraph and shall have access to the records thereof.

(g) *Caution signs and labels.* (1) *Caution signs.* (i) *Posting.* Caution signs shall be provided and displayed at each location where airborne concentrations of asbestos fibers may be in excess of the exposure limits prescribed in paragraph (b) of this section. Signs shall be posted at such a distance from such a location so that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Signs shall be posted at all approaches to areas containing excessive concentrations of airborne asbestos fibers.

(ii) *Sign specifications.* The warning signs required by subdivision (i) of this subparagraph shall conform to the requirements of 20" x 14" vertical format signs specified in § 1910.145(d)(4), and to this subdivision. The signs shall display the following legend in the lower panel, with letter sizes and styles of a visibility at least equal to that specified in this subdivision.

Legend	Notation
Asbestos.....	1" Sans Serif, Gothic or Block.
Dust Hazard.....	¾" Sans Serif, Gothic or Block
Avoid Breathing Dust....	¾" Gothic.
Wear Assigned Protective Equipment.	¾" Gothic.
Do Not Remain In Area Unless Your Work Requires It.	¾" Gothic

Legend
Breathing Asbestos Dust
May Be Hazardous To
Your Health.

Notation
14 point Gothic.

Spacing between lines shall be at least equal to the height of the upper of any two lines.

(2) **Caution labels.**—(i) **Labeling.** Caution labels shall be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers, except that no label is required where asbestos fibers have been modified by a bonding agent, coating, binder, or other material so that during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section will be released.

(ii) **Label specifications.** The caution labels required by subdivision (i) of this subparagraph shall be printed in letters of sufficient size and contrast as to be readily visible and legible. The label shall state:

CAUTION

Contains Asbestos Fibers
Avoid Creating Dust

Breathing Asbestos Dust May Cause
Serious Bodily Harm

(b) **Housekeeping.**—(i) **Cleaning.** All external surfaces in any place of employment shall be maintained free of accumulations of asbestos fibers if, with their dispersion, there would be an excessive concentration.

(2) **Waste disposal.** Asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing, consigned for disposal, which may produce in any reasonably foreseeable use, handling, storage, processing, disposal, or transportation airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section shall be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.

(i) **Recordkeeping.**—(1) **Exposure records.** Every employer shall maintain records of any personal or environmental monitoring required by this section. Records shall be maintained for a period of at least 20 years and shall be made available upon request to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of the National Institute for Occupational Safety and Health, and to authorized representatives of either.

[1910.1001(i)(1) amended at 41 FR 11505, March 19, 1976]

(2) **Employee access.** Every employee and former employee shall have reasonable access to any record required to be maintained by subparagraph (1) of this paragraph, which indicates the employee's own exposure to asbestos fibers.

(3) **Employee notification.** Any employee found to have been exposed at any time to airborne concentrations of asbestos fibers in excess of the limits prescribed in paragraph (b) of this section shall be notified in writing of the exposure as soon as practicable but not later than 5 days of the finding. The employee shall also be timely notified of the corrective action being taken.

(j) **Medical examinations.**—(1) **General.** The employer shall provide or make available at his cost, medical examinations relative to exposure to asbestos required by this paragraph.

(2) **Preplacement.** The employer shall provide or make available to each of his employees, within 30 calendar days following his first employment in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination, which shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(3) **Annual examinations.** On or before January 31, 1973, and at least annually thereafter, every employer shall provide, or make available, comprehensive medical examinations to each of his employees engaged in occupations exposed to airborne concentrations of asbestos fibers. Such annual examination shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(4) **Termination of employment.** The employer shall provide, or make available, within 30 calendar days before or after the termination of employment of any employee engaged in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination which shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(5) **Recent examinations.** No medical examination is required of any employee, if adequate records show that the employee has been examined in accordance with this paragraph within the past 1-year period.

(6) **Medical records.**—(i) **Maintenance.** Employers of employees examined pursuant to this paragraph shall cause to be maintained complete and accurate records of all such medical examinations. Records shall be retained by employers for at least 20 years.

(ii) **Access.** The contents of the records of the medical examinations required by this paragraph shall be made available, for inspection and copying, to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physicians and medical consultants of either of them, and, upon the request of an employee or former employee, to his physician. Any physician who conducts a medical examination required by this paragraph shall furnish to the employer of the examined employee all the information specifically required by this paragraph, and any other medical in-

formation related to occupational exposure to asbestos fibers.

[Sec. 1910.93a added at 36 FR 23207, December 7, 1971, as emergency temporary standard, issued as permanent standard at 37 FR 11318, June 7, 1972, effective July 7, 1972, redesignated Sec. 1910.1001 at 40 FR 23072, May 28, 1975]

§ 1910.1002 Coal tar pitch volatiles; interpretation of term.

As used in Sec. 1910.1000 (Table Z-1), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum, wood, and other organic matter.

[37 FR 24749 Effective November 21, 1972]

§ 1910.1003 4-Nitrobiphenyl.

(a) **Scope and application.** (1) This section applies to any area in which 4-Nitrobiphenyl, Chemical Abstracts Service Registry Number 92933 is manufactured, processed, repackaged, released, handled, or stored, but shall not apply to transshipment in sealed containers, except for the labeling requirements under paragraphs (e) (2), (3), and (4) of this section.

(2) This section shall not apply to solid or liquid mixtures containing less than 0.1 percent by weight or volume of 4-Nitrobiphenyl.

(b) **Definitions.** For the purposes of this section: (1) "Absolute filter" is one capable of retaining 99.97 percent of a mono disperse aerosol of 0.3 µm particles.

(2) "Authorized employee" means an employee whose duties require him to be in the regulated area and who has been specifically assigned by the employer.

(3) "Clean change room" means a room where employees put on clean clothing and/or protective equipment in an environment free of 4-Nitrobiphenyl. The clean change room shall be contiguous to and have an entry from a shower room, when the shower room facilities are otherwise required in this section.

(4) "Closed system" means an operation involving 4-Nitrobiphenyl where containment prevents the release of 4-Nitrobiphenyl into regulated areas, non-regulated areas, or the external environment.

(5) "Decontamination" means the inactivation of 4-Nitrobiphenyl or its safe disposal.

(6) "Director" means the Director, National Institute for Occupational Safety and Health, or any person directed by him or the Secretary of Health, Education, and Welfare to act for the Director.

(7) "Disposal" means the safe removal of 4-Nitrobiphenyl from the work environment.

(8) "Emergency" means an unforeseen circumstance or set of circumstances resulting in the release of 4-Nitrobiphenyl which may result in exposure to or contact with 4-Nitrobiphenyl.

(9) "External environment" means any environment external to regulated and nonregulated areas.

(10) "Isolated system" means a fully enclosed structure other than the vessel of containment of 4-Nitrobiphenyl.

1 - 2 - 3
BFB
MG

INTERNAL CORRESPONDENCE

BROWN & ROOT, INC.
P.O. Box 3370, Brownsville, Texas 78520

To (Name)	All Brown & Root Foremen	Date	September 16, 1976
Company		Originating Dept.	
Location	Brownsville Plant	Answering Letter Date	
Copy	B. Glock G. Townsend/	Subject	<u>DISPOSAL OF ASBESTOS</u> <u>MATERIAL</u>

*obsolete - 2-8-80
KBT*

1. All asbestos scrap and cleanings will be placed in Plastic Bags or other approved sealed containers. (Wet Material)
2. All containers of asbestos will be labeled in accordance with OSHA 1910 93 A

(We will use our "Stick on" label)
3. Stock pile all containers until we get one or two dumpster loads to carry to the Port Dump.
4. Contact the Port the day before we plan to dispose of material.

Contact at Port: Capt. Gay
Phone: 831-4068

I would like for you or one of your Area Supt's be the person to contact Capt. Gay at the Port.

Thanks,

(A. L. Barcroft)
A. L. Barcroft

ALB/og

DE 004933

AGREEMENT WITH BROWNSVILLE CITY LANDFILL

TO RECEIVE ASBESTOS INSULATION

DE 004934



TELEPHONE
(512) 542-4391

P. O. BOX 911

BROWNSVILLE, TEXAS 78520

DEPARTMENT OF PUBLIC HEALTH

December 5, 1979

K. Gran Townsend
Environmental Protection
Box 3370
Brownsville, Texas 78520

Dear Mr. Townsend:

Attached is the letter from Texas Department of Health in regard to asbestos waste. As you see they approve of the disposal of asbestos in a landfill. There are several requirements however, they can be easily met.

Before you bring asbestos for disposal please call so I may coordinate and instruct the landfill employees in the proper procedure. The site to be used for the asbestos is at the new landfill site. This site is currently inaccessible. We expect to be in the new site this month if the weather permits.

Please call if I can be of further service.

Yours truly,

Tom LaMotte
Tom LaMotte
Health Director

TLM/ams
Encl. 1

DE 004935



Texas Department of Health

Raymond T. Moore, M.D.
Commissioner

A. M. Donnell, Jr., M.D., M.P.H.
Deputy Commissioner

NOV 29 1979

1100 West 49th Street
Austin, Texas 78756
(512) 458-7111

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William J. Foran, Vice-Chairman
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Laurance N. Nickey
Joe N. Pyle
Richard W. Ragsdale
Isadore Roosth

Mr. Thomas Lamotte
Health Director
P. O. Box 911
Brownsville, Texas 78520

Subject: Solid Waste - Cameron County
City of Brownsville (Ebony) - Permit No. 1273
Acceptance of Asbestos

Dear Mr. Lamotte:

We have received your October 11, 1979 letter requesting approval to accept asbestos waste. Your request is approved, subject to the following conditions:

1. The generator shall provide personnel acquainted with the danger of asbestos to place the waste in the trench, unless the waste is in well-sealed barrels.
2. The site operator shall supervise the placement of the waste at the disposal site and give approval before covering.
3. In accordance with the National Emission Standards for Hazardous Air Pollutants, the asbestos is to be buried upon receipt with at least six inches of compacted earth. The only exception to immediate cover is in the event a drum is accidentally punctured, then a 24-hour delay is permissible to allow dust to settle.
4. The waste generator is responsible for the cleanup of any accidental spills within 24 hours of occurrence.
5. The site operator is to construct any berms or dikes necessary to divert runoff away from the trench.
6. The site operator shall keep records in accordance with the Texas Department of Water Resources order 75-1125-1 for all shipments of industrial (Class I) asbestos wastes.

DE 004936

7. The site operator shall file a monthly Special Waste Receipt Summary with the Texas Department of Health. If no special wastes are received, return the summary marked "NO SHIPMENTS RECEIVED". Copies of the Special Waste Receipt Summary are enclosed and additional copies may be obtained upon request.
8. In order to avoid excavation into the asbestos waste, the operator shall prepare an Affidavit to the Public at the time the asbestos disposal pit is closed. The affidavit shall show the exact metes and bounds of the area under which the asbestos is buried; and the site operator shall file this affidavit with the deed records in the County Clerk's office. A certified copy of the recorded deed supplement must be provided to this office within 30 days of recordation.

Mr. Jay Snow of the Texas Department of Water Resources stated in the enclosed copy of a May 4, 1979, letter to Mr. Bob Love that municipal landfills are suitable for the disposal of asbestos wastes and the Department of Water Resources would generally have no objection to a request filed with the Texas Department of Health for the disposal of asbestos wastes in municipal solid waste facilities.

We are enclosing a supply of Special Waste Receipt Summary forms. If you have any further questions concerning this matter, please feel free to contact Ms. Caroline Reynolds here in Austin or Mr. Hector Herrera, P.E., Regional Director of Environmental and Consumer Health Protection, P. O. Box 592, Harlingen, Texas 78550; telephone number (512)423-0130.

Sincerely yours,



Jack C. Carmichael, P.E.
Director
Division of Solid Waste Management

CR:lac
Enclosures

cc: Region 8, TDH
Cameron County Health Department
Brownsville City Health Officer
Texas Department of Water Resources, Solid Waste Unit
Texas Department of Water Resources, Enforcement and
- Field Support

DE 004937

ASBESTOS DISPOSAL

Asbestos disposal is now regulated by the Texas Air Control Board in accordance with the National Emission Standards for Hazardous Air Pollutants. The Board should be notified prior to any asbestos disposal. Attached is an excerpt from these Standards which describes the requirements for asbestos waste disposal sites. Asbestos from industries must be sent to an industrial waste disposal site under the jurisdiction of the Texas Department of Water Resources, unless prior written approval is received from the Texas Department of Health to dispose of the waste in a municipal solid waste site. The attached copy of a May 4, 1979, letter from Mr. Jay Snow states that the Department of Water Resources believes that municipal landfills are suitable for the disposal of asbestos. Requests for approval to accept either municipal or industrial asbestos in a municipal solid waste site must be submitted by the site operator in accordance with Section F-2.5 of the Department's regulations.

The waste generator must contact the operator of a municipal solid waste site which is willing to accept waste that will require special handling. Then the Site Operator must request approval of this Department before accepting this special waste.

The Department makes the following recommendations for the guidance of site operators preparing operational plans:

1. Recommended hauling procedure -

- a. The generator should provide personnel, who are acquainted with the danger of asbestos, to transport the waste and place it in the trench, unless barrels are well-sealed. Polyethylene sheet tied over barrels and easily removable lids are not considered suitable, because they can become dislodged during transport or handling and allow unauthorized air emissions.
- b. The site operator should supervise placement and give approval before covering.
- c. In accordance with the National Emission Standards for Hazardous Air Pollutants, the asbestos waste is to be buried upon receipt with at least six inches of compacted earth.
- d. The only exception to immediate cover would be in the event a drum is accidentally punctured, then up to a 24-hour delay is permissible to allow dust to settle, before covering begins.
- e. The generator is responsible for clean-up of any accidental spills within 24 hours of occurrence.
- f. The site operator is to construct any dikes necessary to divert runoff away from the trench.

2. Site requirements -

The area in which asbestos-containing waste is to be placed should meet this Department's requirements in Subsection E-3.3e(4) for the protection of groundwater, including permeability, and shall be at least three feet above the water table. A slit trench is recommended.

3. Record-keeping -

Asbestos has been classified Class I by the Texas Department of Water Resources. The site operator is to keep records in accordance with the Texas Department of Water Resources order 75-1125-1.

4. Site Closure -

The operator shall prepare an Affidavit to the Public showing the exact metes and bounds of the area under which the asbestos is buried and record this instrument with the deed records in the County Clerk's office. A certified copy of the recorded deed supplement must be provided to this office within 30 days of recordation.

5. Further recommendation -

If the disposal is on a continuing basis, warning signs should be displayed at intervals of 300 feet or less along the perimeter of the areas of land where asbestos-containing waste is being or has been deposited. The signs should be posted in such a manner and location that a person may easily read the legend:

ASBESTOS WASTE DISPOSAL SITE
DO NOT CREATE DUST
BREATHING ASBESTOS IS HAZARDOUS TO
YOUR HEALTH

The warning signs should be 20" x 14" in an up-right format, with letter sizes and styles of a visibility at least equal to those described in paragraph 61.25(h) of the National Emission Standards for Hazardous Air Pollutants.

JF
JF
JF

VERNON
A. B. B.
W. O. B.
M. O. B.
J. O. B.
G. W. B.
C. B.

May 4, 1979

Mr. Bob Love, E.H.S.
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, Texas 78758

Dear Mr. Love:

RE: Telephone Conversation 04-02-79

As a follow-up to our recent telephone conversation, this is to acquaint you with the Department's practices regarding the disposal of asbestos wastes.

The Department's waste classification (indicating degree of hazard) and corresponding handling and disposal requirements vary in relation to the form of the waste material. Asbestos, a naturally occurring mineral, is inert and insoluble, but has been shown to present health hazards when in particulate form. Asbestos fibers immersed in an artificial or natural binder material are inert and pose no threat to human health or the environment. This form normally receives a Class III industrial solid waste designation.

The fibrous form, however, is hazardous and thus is routinely designated Class I. This form requires special precautions in its management. The asbestos fibers should be containerized in barrels, fiber drums, or suitable plastic bags and covered with soil immediately upon arrival at a landfill. Municipal landfills are suitable for this purpose and the Department of Water Resources would generally have no objection to a request filed with the Texas Department of Health for the disposal of asbestos wastes in municipal solid waste facilities.

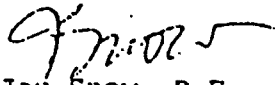
For your information I am enclosing the Department of Transportation rules regulating the transportation of friable asbestos and a list of commercial sites permitted by the Department of Water Resources for the disposal of Class I, II, or III wastes.

DE 004940

Mr. Bob Love, E.H.S.
May 4, 1979
Page 2

If you have any questions or comments, please feel free to call
Mr. Moody Pickard of the Solid Waste Unit at AC 512/475-2041.

Sincerely,



Jay Snow, P.E., Head
Solid Waste Unit

EMP/mlk

cc: Jack Carmichael, P.H. ✓
Texas Department of Health

DE 004941

