



DCT, NWC

Interoffice Communication

To Distribution

From E. K. Bozarth, Legal, Houston

Date April 29, 1983

Subject LOUISIANA PROPOSED REGULATIONS FOR EMISSION
STANDARDS FOR HAZARDOUS AIR POLLUTANTS (LESHAP)

Attached is a copy of the LESHAP regulations proposed and forwarded to the joint Committee on Natural Resources. If approved, the ECC will consider their adoption at its 5/26/83 meeting. Comments regarding these proposed regulations can be made to the agency.

The attached copy is marked to indicate changes after comparison with the draft I submitted for your review under cover of my 3/16/83 IOC.

You will note that paragraph (c) of Section 76.18, on page 11, reflects our comment regarding the scope of discharge reporting in the previous draft.

Please review the attached material as soon as possible and relate your concerns requiring comment preparation, if any, to Estela Wackerbarth (Ext. 3403) or me (Ext. 1116).

Thank you for your prompt attention to this material.

Enid Kay Bozarth

Senior Legal Assistant

Attachment

Distribution:

Jim DeBernardi, Lake Charles VCM Plant
Paul Despres, Lake Charles VCM Plant
Gary Foshee, Lake Charles Chemical Plant
M. M. Goodreau, Lake Charles Chemical Plant
Jim Hall, Chemicals, Timberway
Mike Hayes, Lake Charles Chemical Plant
George Hopkins, Lake Charles LAB Plant
Joe Ledvina, Chemicals, Timberway
Dave Parks, Lake Charles Chemical Plant
R. W. Seymour, Lake Charles LAB Plant
Mark Sternberg, Lake Charles Refinery
Estela Wackerbarth, Legal, Houston
Phil Youngblood, Environmental Conservation, Houston

CCR 000021765

Note to Reviewers:

The attached proposed regulations for the LESHAP program have a check mark in the righthand column to indicate where material has been added or deleted in comparison with the March draft.

New language is underscored; deleted language has been handwritten where needed.

If you need clarification, please call Enid Bozarth (Ext. 1116 in Houston. --EKB

CCR 000021766

PROPOSED AIR QUALITY DIVISION

REGULATION CHANGES

Revise the Table of Contents to read as follows:

TABLE OF CONTENTS

	<u>PAGE</u>
PART I - General Rules Governing Air Quality Control Regulations	
1.0 General	1
2.0 Scope and Severability	1
3.0 Authority	1
4.0 Definitions	1
5.0 Meetings of the Commission	4
6.0 Development of Facts	4
7.0 Investigations	6
PART II - Ambient Air Quality Standards	
8.0 Air Contaminants	6
9.0 Control of Air Pollution from Particulate Matter (Suspended Particulate Matter)	7
10.0 Control of Air Pollution from Lead	7
11.0 Control of Air Pollution from Outdoor Burning (Open Burning)	8
12.0 Control of Air Pollution from Sulfur Dioxide	9
13.0 Control of Air Pollution from Carbon Monoxide	9
14.0 Control of Air Pollution from Hydrocarbons (Non-Methane)	9
15.0 Control of Air Pollution from Atmospheric Oxidants	10
16.0 Control of Air Pollution from Nitrogen Oxides	10
PART III - Emission Standards	
17.0 Source Emissions	10
18.0 Control of Air Pollution from Smoke	12
19.0 Emission Standards for Particulate Matter	12
19.0A Emission Standards for Leadened Particulate Matter	13
20.0 Refuse Incinerators	13
21.0 Emissions of Particulate Matter from Fuel Burning Equipment	14
22.0 Control of Emissions of Organic Compounds from New	
Sources and Existing Sources	14
23.0 Control of Emissions from the Chemical Woodpulping Industry	22
24.0 Emission Standards for Sulfur Oxides	23
25.0 Control of Carbon Monoxide Emissions (New Source)	24
26.0 Emission Standards for the Nitric Acid Industry	24
27.0 Prevention of Air Pollution Emergency Episodes	25

28.0	Emission Standards for Particulate Matter and/or Suspended Particulate Matter - Horizontal Stud Soderberg Primary Aluminum Plants and Prebake Primary Aluminum Plants	26
29.0	Fluoride Emission Standards for Phosphate Fertilizer Plants	27

PART IV - Emission Standards for Hazardous Air Pollutants

Subpart A		
76.0	General Provisions	1
Subpart B		
77.0	Emission Standard for Vinyl Chloride	11
Subpart C		
78.0	Emission Standard for Mercury	35
Subpart D		
79.0	Emission Standard for Beryllium	41
Subpart E		
80.0	Emission Standard for Beryllium Rocket Motor Firing	44
Subpart F		
81.0	Emission Standard for Asbestos	45

TABLES

Table 1	Primary Ambient Air Quality Standard	27
Table 1a	Secondary Ambient Air Quality Standards	28
Table 2	Ambient Air - Methods of Contaminant Measurement	28
Table 3	Allowable Rate of Emissions Based on Process Weight Rate	29
Table 4	Emissions - Methods of Contaminant Measurement	29
Table 5	Emission Reduction Plans - Alert Level	30
Table 6	Emission Reduction Plans - Warning Label	30
Table 7	Emission Reduction Plans - Emergency Level	31

FIGURE

Figure 1	Allowable Emission Rate Based on Process Weight Rate	31
----------	--	----

~~21050~~

- 21900

21769

**PART I - GENERAL RULES GOVERNING
AIR QUALITY REGULATIONS**

1.2 Matter Incorporated by Reference - There is incorporated by reference in these regulations all matter referred to that is not specifically set forth. These materials are hereby made a part of these regulations. Unless the reference provides otherwise, matter subject to change is incorporated only as it is in effect on the date of promulgation of the regulation referring to that matter.

2.0 Scope and Severability.

2.2 Severability.

If any provision of any of the sections of the regulations of the Commission or the application of that provision to any person, situation or circumstance is for any reason adjudged invalid, the adjudication does not affect any other provision of the sections of the regulations or the application of the adjudicated provision to any other person, situation or circumstance. The Commission declares that it would have adopted the valid portions and applications of the regulations without the invalid part, and to this end the provisions of the regulations are declared to be severable.

4.117 Affected Facility - (with reference to stationary source), any apparatus to which a standard is applicable.

4.118 Reference Method - any method of sampling and analyzing for an air pollutant as described in the Air Quality Division's Test Manual.

4.119 Alternative Method - any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Assistant Secretary's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

4.120 Equivalent Method - any method of sampling and analyzing for an air pollutant which has been demonstrated to the Assistant Secretary's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

4.121 Commenced - an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

4.122 Construction - fabrication, erection, or installation of an affected facility.

4.123 - Continuous Monitoring System - the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

4.124 Isokinetic Sampling - sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the same point.

4.125 Malfunction - any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

4.127 Monitoring Device - the total equipment required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

4.128 One-hour Period - any 60 minute period commencing on the hour.

4.129 Owner or Operator - any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

4.130 Proportional Sampling - sampling at a rate that produces a constant ratio of the sampling rate to that of the stack gas flow rate.

4.131 Run - the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

4.132 Shutdown - the cessations of operation of an affected facility for any purpose.

4.133 Six-minute Period - any one of the 10 equal parts of a one-hour period.

4.134 Startup - the setting in operation of an affected facility for any purpose.

6.1.7 Confidential Information.

A. All information obtained under the Louisiana Environmental Affairs Act (the Act) La. R.S. 30:1051 et seq., or by these regulations; or by any order, license or permit term or condition adopted or issued under the Act or these regulations; or by any investigation authorized thereby, shall be available to the public, unless nondisclosure is requested and granted in accordance with La. R.S. 30:1076; provided, however, that claims of confidentiality for air emission data will be denied.

B. In the event a request for nondisclosure is granted, such nondisclosure shall not apply to the necessary use of the information by duly authorized officers or employees of the state or federal government in carrying out their responsibilities under the Act or applicable federal law.

[air emission data and identification of any buried waste material shall not be construed as confidential information]

[in writing, and such information as determined by the Office of Environmental Affairs to require confidentiality to protect trade secrets, processes, operations, style or word, apparatus, statistical data, income, profits, losses, or in order to protect any plan, process, tool, mechanism, or compound.]

Copy of statute attached.

CCR 000021771

- C. At such time as a written request for nondisclosure is received, the Office of Environmental Affairs shall within seven (7) days of receipt of the request, issue a written determination including specific reasons for the determination. When a written request for nondisclosure is received, no information covered by the request shall be disclosed to the public unless and until a determination is made that confidentiality will not be afforded.
- D. Denial of a request for nondisclosure may be reconsidered on written request of the applicant if such request for reconsideration is submitted to the Office of Environmental Affairs within thirty days of the date of the determination.
- E. Information determined to be confidential shall be clearly labeled as such and shall be segregated from any information determined to be nonconfidential; provided, in these instances where the confidential information cannot be reasonably extracted or separated from the nonconfidential information, the whole document shall be confidential. Confidential information may be maintained in the same file with nonconfidential information when placed in a separate folder labeled "CONFIDENTIAL" within the file.
- F. The Office of Environmental Affairs shall remove confidential information from its files and return it to the provider when such information is no longer necessary or required for the purposes of the Act, these regulations, any order, or under the terms and conditions of any license or permit.

CCR 000021772

PART IV

**LOUISIANA EMISSION STANDARDS
FOR HAZARDOUS AIR POLLUTANTS (LESHAP)**

CCR 000021773

Subpart A - GENERAL PROVISIONS - LOUISIANA EMISSION
STANDARDS FOR HAZARDOUS AIR POLLUTANTS (LESHAP)

76.1 Applicability.

The provisions of this part apply to the owner or operator of any stationary source emitting a hazardous air pollutant for which a standard is prescribed under this part.

76.2 Definitions.

The terms used in this part are defined in Section 4.0 of these regulations with the exception of those terms specifically defined in the subparts or herein as follows:

"Emergency emission" is the discharge into the atmosphere of Louisiana of a hazardous air pollutant the rate of which is in excess of that allowed by regulation, permit, or license and which could not have been avoided by taking measures to prevent the discharge. The emission of a hazardous air pollutant from a stationary source in excess of that allowed by regulation, permit, variance, or compliance schedule and which is caused solely by:

- 1) An act of God; or
- 2) An act of war; or
- 3) An act of sabotage; or
- 4) An unauthorized act or omission of an employee outside the scope of his employment; or
- 5) An unauthorized act or omission of a third party who is not an agent or contractor of the owner or operator of the stationary source; or
- 6) Any one or a combination of the above paragraphs;

shall be presumed to be an emergency emission, unless the Assistant Secretary, in light of all available relevant facts and circumstances, determines otherwise.

"Existing source" means any stationary source which is not a new source.

"Modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any hazardous air pollutant emitted by such source or which results in the emission of any hazardous air pollutant not previously emitted, except that:

- (a) Routine maintenance, repair, and replacement shall not be considered physical changes, and
- (b) The following shall not be considered a change in the method of operation:

CCR 000021774

- (1) An increase in the production rate, if such increase does not exceed the operating design capacity of the stationary source;
- (2) An increase in hours of operation.

"Owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

"Standard" means an emission standard for a hazardous air pollutant promulgated under this part.

"Startup" means the setting in operation of a stationary source for any purpose.

"Stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant which has been designated as hazardous by these regulations.

76.3 Units and Abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere

g = gram

Hz = hertz

J = joule

K = degree Kelvin

kg = kilogram

m = meter

m³ = cubic meter

mg = milligram = 10⁻³ gram

mm = millimeter = 10⁻³ meter

Mg = megagram = 10⁻⁶ gram

mol = mole

N = newton

ng = nanogram = 10⁻⁹ gram

nm = nanometer = 10⁻⁹ meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10⁻⁶ gram

CCR 000021775

76.4 Address.

All requests, reports, applications, submittals, and other communications pursuant to this part shall be submitted in duplicate to the Department of Natural Resources, Office of Environmental Affairs, Air Quality Division, Post Office Box 44066, Baton Rouge, Louisiana 70804, to the attention of the Assistant Secretary.

76.5 Prohibited activities.

- (a) After the effective date of any standard prescribed under this part, no owner or operator shall construct or modify any stationary source subject to such standard without first obtaining a permit from the Assistant Secretary in accordance with this subpart.
- (b) After the effective date of any standard prescribed under this part, no owner or operator shall operate any new source in violation of such standard except during an emergency emission as defined in Section 76.2.
- (c) Ninety days after the effective date of any standard prescribed under this part, no owner or operator shall operate any existing stationary source in violation of such standard, except under either a compliance schedule granted by the Commission or Assistant Secretary in accordance with Section 76.12, or during an emergency emission as defined in Section 76.2.
- (d) No owner or operator subject to the provisions of this part shall fail to report, revise reports, or report source test results as required under these LESHAP regulations.

76.6 Determination of construction or modification.

Upon written application by an owner or operator, the Assistant Secretary will make a determination of whether actions taken or intended to be taken by such owner or operator concerning their stationary source constitute construction or modification or the commencement thereof within the meaning of this part. The Assistant Secretary will, within 30 days of receipt of sufficient information to evaluate an application, notify the owner or operator of his determination.

76.7 Application for permit and approval of construction or modification.

- (a) The owner or operator of any new source to which a standard prescribed under this part is applicable shall, prior to the date on which construction or modification is planned to commence, or within 30 days after the effective date

(b) Other units of measure:

$^{\circ}\text{C}$ = degree Celcius (centigrade)

cfm = cubic feet per minute

cc = cubic centimeter

d = day

$^{\circ}\text{F}$ = degree Fahrenheit

ft^2 = square feet

ft^3 = cubic feet

gal = gallon

in = inch

in Hg = inches of mercury

in H_2O = inches of water

l = liter

lb = pound

lpm = liter per minute

min = minute

ml = milliliter = 10^{-3} liter

oz = ounces

psig = pounds per square inch gauge

$^{\circ}\text{R}$ = degree Rankine

μl = microliter = 10^{-6} liter

v/v = volume per volume

yd^2 = square yards

yr = year

(c) Chemical nonmenclature:

Be = beryllium

Hg = mercury

H_2O = water

M = molar

N = normal

(d) Miscellaneous:

act = actual

avg = average

I.D. = inside diameter

O.D. = outside diameter

% = percent

std = standard

CCR 000021777

of an applicable standard in the case of a new source that already has commenced construction or modification and has not begun operation, submit to the Assistant Secretary an application for a permit and approval of such construction or modification. The owner or operator of an existing stationary source subject to any standard prescribed under this part may be required to submit to the Assistant Secretary an application for a permit. A separate application shall be submitted for each stationary source.

(b) Each application shall include:

- (1) The name and address of the applicant.
- (2) The location or proposed location of the source.
- (3) Technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including a description of any equipment to be used for control and monitoring of emissions. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of such calculations. ✓
- (4) A listing of any violation known to the applicant of an applicable hazardous air pollutant standard which is outstanding at the time of application, except any such violation for which a compliance schedule has been established and satisfactory progress for meeting the conditions of the compliance schedule can be demonstrated by the applicant. ✓
- (5) A listing of any administrative or judicial actions known to the applicant taken against the applicant within the last five years under Louisiana environmental laws or regulations including emergency cease and desist orders, notices of violation, compliance orders, penalty orders, or other administrative orders, and any administrative or judicial proceedings which could result in such actions. ✓

76.8 Existing Source Authorization.

- (a) An owner or operator of an existing source who, as of the effective date of an applicable standard prescribed under this part, has been operating in compliance with applicable Federal NESHAP standards, or has been issued a Federal NESHAP compliance schedule or approval, may, subject to subsection (b), continue to operate without further authorization provided the owner or operator of such source complies with Sections 76.5(c), 76.7(b) (4) and (5), and 76.11.

CCR 000021778

- (b) After a review of the information supplied pursuant to Sections 76.7(b) (4) and (5) and 76.11, the Assistant Secretary may require the owner or operator of an existing source to submit an application for a permit under Section 76.7, or the Commission or Assistant Secretary may issue an order and compliance schedule pursuant to Section 76.12. The owner or operator may continue to operate such source until final action is taken on the permit application or until an order and compliance schedule is issued.

76.9 Approval by Assistant Secretary.

- (a) The Assistant Secretary will, within 60 days of receipt of sufficient information to evaluate an application under Section 76.7, notify the owner or operator of approval or intention to deny approval of construction or modification. If the application lacks information necessary for proper evaluation, the Assistant Secretary shall provide the applicant with a list of additional data and information necessary to make the application complete and shall require resubmission of the completed application by a date as specified by the Assistant Secretary.
- (b) If an applicant fails or refuses to correct deficiencies in the application, or to provide additional information requested hereunder, the permit shall be denied.
- (c) If the Assistant Secretary determines that a stationary source for which an application pursuant to Section 76.7 was submitted will, if properly operated, not cause emissions in violation of a standard, he may approve the construction or modification of such source and issue a permit or may submit the issue to the next regularly scheduled Commission meeting. Prior to granting a permit and approval of construction or modification, a listing of all permits filed for review before the Commission will be published in the public notice of the Commission's meeting in order to allow adequate time for public comments. ✓
- (d) Prior to denying any application for a permit and approval of construction or modification, the Assistant Secretary will notify the owner or operator making such application of the Assistant Secretary's intention to issue such denial, together with:
- (1) Notice of the information and findings on which such intended denial is based, and
 - (2) Notice of opportunity for such owner or operator to present, within such time limit as the Assistant Secretary shall specify, additional information or arguments to the Assistant Secretary prior to final action on such application.

- (e) A final determination to deny any application for a permit and approval will be in writing and will set forth the specific grounds on which such denial is based. Such final determination will be made within 60 days of presentation of additional information or arguments, or 60 days after the final date specified for presentation, if no presentation is made.
- (f) Neither the submission of an application for a permit and approval nor the Assistant Secretary's granting of a permit and approval to construct or modify shall:
 - (1) Relieve an owner or operator of legal responsibility for compliance with any applicable provision of this part or of any other applicable Federal or State requirement; or
 - (2) Prevent the Commission or Assistant Secretary from implementing or enforcing this part or taking any other action under the Act.

76.10 Notification of startup.

- (a) Any owner or operator of a source which has an initial startup after the effective date of an applicable standard prescribed under this part shall furnish the Assistant Secretary written notification as follows:
 - (1) A notification of the anticipated date of initial startup of the source not more than 60 days nor less than 30 days prior to such date.
 - (2) A notification of the actual date of initial startup of the source post-marked within 10 working¹⁵ days after such date.

76.11 Source reporting and deferred compliance request.

- (a) The owner or operator of any existing source, or any new source to which a standard prescribed under this part is applicable which had an initial startup which preceded the effective date of such standard shall, within 90 days after such effective date, provide the following information in writing to the Assistant Secretary:
 - (1) Name and address of the owner or operator.
 - (2) The location of the source.
 - (3) The type of hazardous pollutants emitted by the stationary source.
 - (4) A brief description of the nature, size, design, and method of operation of the stationary source including the operating design capacity of such source. Identify each point of emission for each hazardous pollutant.

- (5) The average weight per month of the hazardous materials being processed by the source, over the last 12 months preceding the date of the report.
 - (6) A description of the existing control equipment for each emission point.
 - (i) Primary control device(s) for each hazardous pollutant.
 - (ii) Secondary control device(s) for each hazardous pollutant.
 - (iii) Estimated control efficiency (percent) for each control device.
 - ~~(7) A description of the existing monitoring equipment for each emission point.~~
 - ⁽⁷⁾(8) A statement by the owner or operator of the source as to whether he can comply with the applicable standard prescribed herein within 90 days of the applicable standard's effective date.
- (b) The owner or operator of an existing source unable to operate in compliance with any applicable standard prescribed under this part may request an order and schedule for complying with such standard for a period not exceeding 2 years from the effective date of such standard. Any request shall be in writing and shall include the following information:
- (1) A description of the controls and monitoring equipment to be installed to comply with the LESHAP standard.
 - (2) A compliance schedule, including the date each step toward compliance will be reached. Such list shall include as a minimum the following dates:
 - (i) Date by which contracts for emission control systems or process modifications will be awarded, or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;
 - (ii) Date of initiation of onsite construction or installation of emission control equipment or process change;
 - (iii) Date by which onsite construction or installation of emission control equipment or process modification is to be completed; and
 - (iv) Date by which final compliance is to be achieved.
 - (3) A description of interim emission control steps which will be taken during the deferral period.
- (c) Changes in the information provided under Paragraph (a) of this section shall be provided to the Assistant Secretary within 30 days after such change, except that if changes will result from modification of the source, as defined in Section 76.2, the provisions of Sections 76.7, 76.8, and 76.9 are applicable.

- (d) Reports will be made on the Department's LESHAP Report Form. Advice on reporting the status of compliance may be obtained from the Assistant Secretary.

76.12 Deferred compliance.

- (a) Based on the information provided in any request under Section 76.11, or other information, the Commission or Assistant Secretary may, through the issuance of an order and compliance schedule, grant a deferral from compliance with a standard for a period not exceeding 2 years from the effective date of such standard.
- (b) (Reserved)
- (c) Prior to denying any request for a deferral pursuant to this section, the Commission or Assistant Secretary will notify the owner or operator making such request of the Commission's or Assistant Secretary's intention to issue such denial, together with:
- (1) Notice of the information and findings on which such intended denial is based, and
 - (2) Notice of opportunity for such owner or operator to present, within such time limit as the Commission or Assistant Secretary specifies, additional information or arguments to the Commission or Assistant Secretary prior to final action on such request.
- (d) A final determination to deny any deferral request will be in writing and will set forth the specific grounds on which such denial is based. Such final determination will be made within 60 days after presentation of additional information or arguments, or 60 days after the final date specified for such presentation, if no presentation is made.
- (e) The issuance of an order and compliance schedule under this section shall not abrogate the Commission's or Assistant Secretary's authority under the Act.

76.13 Emission tests and monitoring.

- (a) Emission tests and monitoring shall be conducted and reported as set forth in this part and the Division's Source Test Manual. A facility emitting a hazardous air pollutant into the atmosphere of Louisiana shall, on an annual basis, conduct emission testing as required in the applicable subparts for the purpose of determination of compliance with ^{verification of} allowable emissions. ✓

(b) The owner or operator of a new source subject to this part, and at the request of the Assistant Secretary, the owner or operator of an existing source subject to this part, shall provide or cause to be provided, emission testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to such source.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.

76.14 (Reserved)

76.15 Source test and analytical methods.

- (a) Methods 101, 101A, 102, 103, 104, 105, 106 and 107 in the Division's Source Test Manual shall be used for all source tests required under this part, unless an equivalent method or an alternative method has been approved by the Assistant Secretary. ✓
- (b) The Assistant Secretary may, after notice to the owner or operator, withdraw approval of an alternative method granted under Paragraph (a). Where the test results using an alternative method do not adequately indicate whether a source is in compliance with a standard, the Assistant Secretary may require the use of the reference method or its equivalent. ✓

76.16 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Assistant Secretary under this part, shall be governed by Section 6.1.7.

76.17 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

76.18 Discharge reporting requirements.

- (a) For any discharge of a hazardous air pollutant into the atmosphere of Louisiana the rate of which is in excess of that allowed by permit, regulation, compliance schedule, or variance, the owner or operator of the source from which such discharge occurs shall notify the Office of Environmental Affairs, Air Quality Division of the discharge by telephone immediately (but no later than 3 hours) after learning of such discharge. ✓
- (b) The owner or operator of the source shall submit to the Office of Environmental Affairs, Air Quality Division a written report by certified mail within seven (7) working days of learning of such discharge. The report shall contain information on the source, nature and cause of the discharge, the date and time of the discharge, the approximate total loss during the discharge, the method used for determining the loss, the action taken to prevent the discharge, and measures adopted to prevent future discharges. ✓
- (c) Leaks detected pursuant to Section 77.6 (b)(8) shall be recorded as required by Section 77.12 and shall not be subject to Sections 76.18 (a) and (b), unless such leaks are due to line or vessel ruptures or other similar sudden equipment failures. ✓

76.19 Office of Environmental Affairs, Air Quality Division reports to the Commission.

The Office of Environmental Affairs, Air Quality Division shall, after the second and all subsequent emergency emissions at a stationary source caused by the same condition, file a report with the Commission at the next regularly scheduled meeting, or within 45 days of the emergency emission, to explain the reasons and circumstances which led to the emergency emission, and to report on the plans to resolve the recurrent problems. ✓

Subpart B - EMISSION STANDARD FOR VINYL CHLORIDE

77.1 Applicability.

- (a) This subpart applies to plants which produce:
 - (1) Ethylene dichloride by reaction of oxygen and hydrogen chloride with ethylene,

- (2) Vinyl chloride by any process, and/or
- (3) One or more polymers containing any fraction of polymerized vinyl chloride.
- (b) This subpart does not apply to equipment used in research and development if the reactor used to polymerize the vinyl chloride processed in the equipment has a capacity of no more than 0.19 m³ (50 gal).
- (c) Sections of this subpart other than Sections 77.2; 77.5 (a) (1), (b), (c), and (d); 77.8; 77.9; 77.10; 77.11; and 77.12 do not apply to equipment used in research and development if the reactor used to polymerize the vinyl chloride processed in the equipment has a capacity of greater than 0.19 m³ (50 gal) and no more than 4.07 m³ (1100 gal).

77.2 Definitions.

Terms used in this subpart are defined in Section 4.0 of these regulations with the exception of those terms specifically defined in Section 76.2 or below, as follows:

- (a) "New Source" - any stationary source, the construction or modification of which commenced after December 24, 1975.
- (b) "Ethylene dichloride plant" - any plant which produces ethylene dichloride by reaction of oxygen and hydrogen chloride with ethylene.
- (c) "Vinyl chloride plant" - any plant which produces vinyl chloride by any process.
- (d) "Polyvinyl chloride plant" - any plant where vinyl chloride alone or in combination with other materials is polymerized.
- (e) "Slip gauge" - a gauge which has a probe that moves through the gas/liquid interface in a storage or transfer vessel and indicates the level of vinyl chloride in the vessel by the physical state of the materials the gauge discharges.
- (f) "Type of resin" - the broad classification of resin referring to the basic manufacturing process for producing that resin, including, but not limited to, the suspension, dispersion, latex, bulk, and solution processes.
- (g) "Grade of resin" - the subdivision of resin classification which describes it as a unique resin, i.e., the most exact description of a resin with no further subdivision.
- (h) "Dispersion resin" - a resin manufactured in such a way as to form fluid dispersions when dispersed in a plasticizer or plasticizer/diluent mixtures.

- (i) "Latex resin" - a resin which is produced by a polymerization process which initiates from free radical catalyst sites and is sold undried.
- (j) "Bulk resin" - a resin which is produced by a polymerization process in which no water is used.
- (k) "Inprocess wastewater" - any water which, during manufacturing or processing, comes into direct contact with vinyl chloride or polyvinyl chloride or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product containing vinyl chloride or polyvinyl chloride but which has not been discharged to a wastewater treatment process or discharged untreated as wastewater.
- (l) "Wastewater treatment process" - any process which modifies characteristics such as BOD, COD, TSS, and pH, usually for the purpose of meeting effluent guidelines and standards; it does not include any process the purpose of which is to remove vinyl chloride from water to meet requirements of this subpart.
- (m) "In vinyl chloride service" - a piece of equipment that contains or contacts either a liquid that is at least 10 percent by weight vinyl chloride or a gas that is at least 10 percent by volume vinyl chloride.
- (n) "Standard operating procedure" - a formal written procedure officially adopted by the plant owner or operator and available on a routine basis to those persons responsible for carrying out the procedure.
- (o) "Run" - the net period of time during which an emission sample is collected.
- (p) "Ethylene dichloride purification" - any part of the process of ethylene dichloride production which follows ethylene dichloride formation and in which finished ethylene dichloride is produced.
- (q) "Vinyl chloride purification" - any part of the process of vinyl chloride production which follows vinyl chloride formation and in which finished vinyl chloride is produced.
- (r) "Reactor" - any vessel in which vinyl chloride is partially or totally polymerized into polyvinyl chloride.
- (s) "Reactor opening loss" - the emissions of vinyl chloride occurring when a reactor is vented to the atmosphere for any purpose other than an emergency relief discharge as defined in 77.6.

- (t) "Stripper" - any vessel in which residual vinyl chloride is removed from polyvinyl chloride resin, except bulk resin, in the slurry form by the use of heat and/or vacuum. In the case of bulk resin, stripper includes any vessel which is used to remove residual vinyl chloride from polyvinyl chloride resin immediately following the polymerization step in the plant process flow.
- (u) "Standard temperature" - a temperature of 20°C (69°F).
- (v) "Standard pressure" - a pressure of 760 mm of Hg (29.92 in. of Hg).

77.3 Emission standard for ethylene dichloride plants.

- (a) Ethylene dichloride purification: The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from any equipment used in ethylene dichloride purification is not to exceed 10 ppm, except as provided in Section 77.6(a). This requirement does not apply to equipment that has been opened, is out of operation, and met the requirement in Section 77.6(b) (6) (i) before being opened.
- (b) Oxychlorination reactor: Except as provided in Section 77.6(a) emissions of vinyl chloride to the atmosphere from each oxychlorination reactor are not to exceed 0.2g/kg (0.0002 lb/lb) of the 100 percent ethylene dichloride product from the oxychlorination process.

77.4 Emission standard for vinyl chloride plants.

An owner of a vinyl chloride plant shall comply with the requirements of this section and Section 77.6.

- (a) Vinyl chloride formation and purification: The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from any equipment used in vinyl chloride formation and/or purification is not to exceed 10 ppm, except as provided in Section 77.6(a). This requirement does not apply to equipment that has been opened, is out of operation, and met the requirement in Section 77.6(b) (6) (i) before being opened.

77.5 Emission standard for polyvinyl chloride plants.

An owner or operator of a polyvinyl chloride plant shall comply with the requirements of this section and 77.6.

CCR 000021787

- (a) Reactor. The following requirements apply to reactors:
- (1) The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from each reactor is not to exceed 10 ppm, except as provided in paragraph (a) (2) of this section and Section 77.6(a).
 - (2) The reactor opening loss from each reactor is not to exceed 0.02 g vinyl chloride/kg (0.00002 lb vinyl chloride/lb) of polyvinyl chloride product, with the product determined on a dry solids basis. This requirement applies to any vessel which is used as a reactor or as both a reactor and a stripper. In the bulk process, the product means the gross product of prepolymerization and postpolymerization.
 - (3) Manual vent valve discharge: Except for an emergency manual vent valve discharge, there is to be no discharge to the atmosphere from any manual vent valve on a polyvinyl chloride reactor in vinyl chloride service. An emergency manual vent valve discharge means a discharge to the atmosphere which could not have been avoided by taking measures to prevent the discharge. The owner or operator of the source from which any manual vent valve discharge occurs shall notify the Office of Environmental Affairs in accordance with Section 76.18.
- (b) Stripper. The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from each stripper is not to exceed 10 ppm, except as provided in Section 77.6(a). This requirement does not apply to equipment that has been opened, is out of operation and met the requirement in Section 77.6(b) (6) (i) before being opened.
- (c) Mixing, weighing, and holding containers. The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from each mixing, weighing, or holding container in vinyl chloride service which precedes the stripper (or the reactor if the plant has no stripper) in the plant process flow is not to exceed 10 ppm, except as provided in Section 77.6(a). This requirement does not apply to equipment that has been opened, is out of operation, and met the requirement in Section 77.6(b) (6) (i) before being opened.
- (d) Monomer recovery system. The concentration of vinyl chloride in all exhaust gases discharged to the atmosphere from each monomer recovery

CCR 000021788

system is not to exceed 10 ppm, except as provided in Section 77.6(a). This requirement does not apply to equipment that has been opened, is out of operation, and met the requirement in Section 77.6(b) (6) (i) before being opened.

- (e) Sources following the stripper(s). The following requirements apply to emissions of vinyl chloride to the atmosphere from the combination of all sources following the stripper(s) [or the reactor(s) if the plant has no stripper(s)] in the plant process flow including but not limited to, centrifuges, concentrators, blend tanks, filters, dryers, conveyor air discharges, baggers, storage containers, and inprocess wastewater:
 - (1) In polyvinyl chloride plants using stripping technology to control vinyl chloride emissions, the weighted average residual vinyl chloride concentration in all grades of polyvinyl chloride resin processed through the stripping operation on each calendar day, measured immediately after the stripping operation is completed, may not exceed:
 - (i) 2000 ppm for polyvinyl chloride dispersion resins, excluding latex resins;
 - (ii) 400 ppm for all other polyvinyl chloride resins, including latex resins, averaged separately for each type of resin; or
 - (2) In polyvinyl chloride plants controlling vinyl chloride emissions with technology other than stripping or in addition to stripping, emissions of vinyl chloride to the atmosphere may not exceed:
 - (i) 2 g/kg (0.002 lb/lb) product from the stripper(s) [or reactor(s) if the plant has no stripper(s)] for dispersion polyvinyl chloride resins, excluding latex resins, with the product determined on a dry solids basis;
 - (ii) 0.4 g/kg (0.0004 lb/lb) product from the strippers [or reactor(s) if the plant has no stripper(s)] for all other polyvinyl chloride resins, including latex resins, with the product determined on a dry solids basis.

CCR 000021789

77.6 Emission standard for ethylene dichloride, vinyl chloride and polyvinyl chloride plants.

An owner or operator of an ethylene dichloride, vinyl chloride, and/or polyvinyl chloride plant shall comply with the requirements of this section.

- (a) **Relief valve discharge.** Except for an emergency relief discharge, there is to be no discharge to the atmosphere from any relief valve on any equipment in vinyl chloride service. An emergency relief discharge means a discharge which could not have been avoided by taking measures to prevent the discharge. The owner or operator of the source from which any relief valve discharge occurs shall notify the Office of Environmental Affairs in accordance with Section 76.18.
- (b) **Fugitive emission sources:**
 - (1) **Loading and unloading lines:** Vinyl chloride emissions from loading and unloading lines in vinyl chloride service which are opened to the atmosphere after each loading or unloading operation are to be minimized as follows:
 - (i) After each loading or unloading operation and before opening a loading or unloading line to the atmosphere, the quantity of vinyl chloride in all parts of each loading or unloading line that are to be opened to the atmosphere is to be reduced so that the parts combined contain no greater than 0.0038 m^3 (0.13 ft^3) of vinyl chloride, at standard temperature and pressure; and
 - (ii) Any vinyl chloride removed from a loading or unloading line in accordance with paragraph (b) (1) (i) of this section is to be ducted through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm, or equivalent as provided in Section 77.7.
 - (2) **Slip gauges.** During loading or unloading operations, the vinyl chloride emissions from each slip gauge in vinyl chloride service are to be minimized by ducting any vinyl chloride discharged from the slip gauge through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm, or equivalent as provided in Section 77.7.
 - (3) **Leakage from pump, compressor, and agitator seals:**

CCR 000021790

- (i) Rotating pumps. Vinyl chloride emissions from seals on all rotating pumps in vinyl chloride service are to be minimized by installing sealless pumps, pumps with double mechanical seals, or equivalent, as provided in Section 77.7. If double mechanical seals are used, vinyl chloride emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the pump; by ducting any vinyl chloride between the two seals through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.
- (ii) Reciprocating pumps. Vinyl chloride emissions from seals on all reciprocating pumps in vinyl chloride service are to be minimized by installing double outboard seals, or equivalent as provided in Section 77.7. If double outboard seals are used, vinyl chloride emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the pump; by ducting any vinyl chloride between the two seals through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.
- (iii) Rotating compressor. Vinyl chloride emissions from seals on all rotating compressors in vinyl chloride service are to be minimized by installing compressors with double mechanical seals, or equivalent as provided in Section 77.7. If double mechanical seals are used, vinyl chloride emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the compressor; by ducting any vinyl chloride between the two seals through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.
- (iv) Reciprocating compressors. Vinyl chloride emissions from seals on all reciprocating compressors in vinyl chloride service are to

be minimized by installing double outboard seals, or equivalent as provided in Section 77.7. If double outboard seals are used, vinyl chloride emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the compressor; by ducting any vinyl chloride between the two seals through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.

- (v) Agitator. Vinyl chloride emissions from seals on all agitators in vinyl chloride service are to be minimized by installing agitators with double mechanical seals, or equivalent as provided in Section 77.7. If double mechanical seals are used, vinyl chloride emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the agitated vessel; by ducting any vinyl chloride between the two seals through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.
- (4) Leakage from relief valves. Vinyl chloride emissions due to leakage from each relief valve on equipment in vinyl chloride service are to be minimized by installing a rupture disk between the equipment and the relief valve, by connecting the relief valve discharge to a process line or recovery system, or equivalent as provided in Section 77.7.
- (5) Manual venting of gases. Except as provided in Section 77.5(a) (3), all gases which are manually vented from equipment in vinyl chloride service are to be ducted through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm; or equivalent as provided in Section 77.7.
- (6) Opening of equipment. Vinyl chloride emissions from opening of equipment (including loading or unloading lines that are not opened to the atmosphere after each loading or unloading operation) are to be minimized as follows:

CCR 000021792

- (i) Before opening any equipment for any reason, the quantity of vinyl chloride is to be reduced so that the equipment contains no more than 2.0 percent by volume vinyl chloride or 0.0950 m^3 (25 gal) of vinyl chloride, whichever is larger, at standard temperature and pressure; and
 - (ii) Any vinyl chloride removed from the equipment in accordance with paragraph (b) (6) (i) of this section is to be ducted through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm, or equivalent as provided in Section 77.7.
- (7) Samples. Unused portions of samples containing at least 10 percent by weight vinyl chloride are to be returned to the process, and sampling techniques are to be such that sample containers in vinyl chloride service are purged into a closed process system.
- (8) Leak detection and elimination. Vinyl chloride emissions due to leaks from equipment in vinyl chloride service are to be minimized by instituting and implementing a formal leak detection and elimination program. The owner or operator shall submit a description of the program to the Assistant Secretary for approval. The program is to be submitted within 45 days of the effective date of these regulations, unless deferred compliance is granted under Section 76.12. If deferred compliance is granted, the program is to be submitted on a date previously scheduled by the Assistant Secretary. Approval of a program will be granted by the Assistant Secretary provided he finds:
 - (i) It includes a reliable and accurate vinyl chloride monitoring system for detection of major leaks and identification of the general area of the plant where a leak is located. A vinyl chloride monitoring system means a device which obtains air samples from one or more points on a continuous sequential basis and analyzes the samples with gas chromatography or, if the owner or operator assumes that all hydrocarbons measured are vinyl chloride, with infrared spectrophotometry, flame ion detection, or an equivalent or alternative method.
 - (ii) It includes a reliable and accurate portable hydrocarbon detector to be used routinely to find small leaks and to pinpoint the

major leaks indicated by the vinyl chloride monitoring system. A portable hydrocarbon detector means a device which measures hydrocarbons with a sensitivity of at least 10 ppm and is of such design and size that it can be used to measure emissions from localized points.

(iii) It provides for an acceptable calibration and maintenance schedule for the vinyl chloride monitoring system and portable hydrocarbon detector. For the vinyl chloride monitoring system, a daily span check is to be conducted with a concentration of vinyl chloride equal to the concentration defined as a leak according to Paragraph (b) (8) (vi) of this section. The calibration is to be done with either:

- (A) A calibration gas mixture prepared from the gases specified in sections 5.2.1 and 5.2.2 of Test Method 106 and in accordance with section 7.1 of Test Method 106 of the Division Source Test Manual, or
- (B) A calibration gas cylinder standard containing the appropriate concentration of vinyl chloride. The gas composition of the calibration gas cylinder standard is to have been certified by the manufacturer. The manufacturer must have recommended a maximum shelf life for each cylinder so that the concentration does not change greater than ± 5 percent from the certified value. The date of gas cylinder preparation, certified vinyl chloride concentration and recommended maximum shelf life must have been affixed to the cylinder before shipment from the manufacturer to the buyer. If a gas chromatograph is used as the vinyl chloride monitoring system, these gas mixtures may be directly used to prepare a chromatograph calibration curve as described in Section 7.3 of Test Method 106 of the Division's Source Test Manual. The requirements in Section 5.2.3.1 and 5.2.3.2 of Test Method 106 for certification of cylinder standards and for establishment and verification of calibration standards are to be followed.

- ?
- (iv) The location and number of points to be monitored and the frequency of monitoring provided for in the program are acceptable when they are compared with the number of pieces of equipment in vinyl chloride service and the size and physical layout of the plant.
 - (v) It contains an acceptable plan of action to be taken when a leak is detected.
 - (vi) It contains a definition of leak which is acceptable when compared with the background concentrations of vinyl chloride in the areas of the plant to be monitored by the vinyl chloride monitoring system. Measurements of background concentrations of vinyl chloride in the areas of the plant to be monitored by the vinyl chloride monitoring system are to be included with the description of the program. The definition of leak for a given plant may vary among the different areas within the plant and is also to change over time as background concentrations in the plant are reduced.
- (9) Inprocess wastewater. Vinyl chloride emissions to the atmosphere from inprocess wastewater are to be reduced as follows:
- (i) The concentration of vinyl chloride in each inprocess wastewater stream containing greater than 10 ppm vinyl chloride measured immediately as it leaves a piece of equipment and before being mixed with any other inprocess wastewater stream is to be reduced to no more than 10 ppm by weight before being mixed with any other inprocess wastewater stream which contains less than 10 ppm vinyl chloride; before being exposed to the atmosphere; before being discharged to a wastewater treatment process; or before being discharged untreated as a wastewater. This paragraph does apply to water which is used to displace vinyl chloride from equipment before it is opened to the atmosphere in accordance with Section 77.5(a) (2) or Paragraph (b) (6) of this section, but does not apply to water which is used to wash out equipment after the equipment has already been opened to the atmosphere in accordance with Section 77.5(a) (2) or Paragraph (b) (6) of this section.
- ✓

- (ii) Any vinyl chloride removed from the inprocess wastewater in accordance with Paragraph (b) (9) (i) of this section is to be ducted through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm, or equivalent as provided in Section 77.7.
- (c) The requirements in Paragraphs (b) (1), (b) (2), (b) (5), (b) (6), (b) (7), and (b) (8) of this section are to be incorporated into a standard operating procedure and made available upon request for inspection by the Assistant Secretary. The standard operating procedure is to include provisions for measuring the vinyl chloride in equipment 4.75 m³ (1,250 gal) in volume for which an emission limit is prescribed in Section 77.6(b) (6) (i) prior to opening the equipment and using Test Method 106, a portable hydrocarbon detector, or an equivalent or alternative method. The method of measurement is to meet the requirements in Sections 77.8(g) (5) (i) (A) or (g) (5) (i) (B).

77.7 Equivalent equipment and procedures.

Upon written application from an owner or operator, the Assistant Secretary may approve use of equipment or procedures which have been demonstrated to his satisfaction to be equivalent in terms of reducing vinyl chloride emissions to the atmosphere to those prescribed for compliance with a specific paragraph of this subpart. For an existing source, any request for using an equivalent method as the initial measure of control is to be submitted to the Assistant Secretary within 30 days of the effective date. For a new source, any request for using an equivalent method is to be submitted to the Assistant Secretary with the application for a permit and approval of construction or modification required by Section 76.7.

77.8 Emission tests.

- (a) The owner or operator of a source to which this subpart applies shall test emissions on an annual basis from the source. Such testing shall commence:
 - (1) Within 90 days of the effective date of this subpart in the case of an existing source or a new source which has an initial startup date preceding such effective date, or
 - (2) Within 90 days of startup in the case of a new source, initial startup of which occurs after the effective date of this subpart.

- (b) The owner or operator shall provide the Assistant Secretary at least 30 days prior notice of an emission test to afford the Assistant Secretary the opportunity to have an observer present during the test.
- (c) Any emission test is to be conducted while the equipment being tested is operating at the maximum production rate at which the equipment will be operated and under other relevant conditions as may be specified by the Assistant Secretary based on representative performance of the source.
- (d) (Reserved)
- (e) When at all possible, each sample is to be analyzed within 24 hours, but in no case in excess of 72 hours of sample collection. Vinyl chloride emissions are to be determined within 30 days after the emission test. The owner or operator shall report the determinations to the Assistant Secretary by certified letter dispatched before the close of the next business day following the determination.
- (f) The owner or operator shall retain at the plant and make available, upon request, for inspection by the Assistant Secretary, for a minimum of 2 years or such longer period as ordered by the Assistant Secretary, records of emission test results and other data needed to determine emissions.
- (g) Unless otherwise specified, the owner or operator shall use test methods in the Division's Source Test Manual for each test as required by Paragraphs (g) (1), (g)(2), (g)(3), (g)(4), and (g)(5) of this section, unless an equivalent method or an alternative method has been approved by the Assistant Secretary. If the Assistant Secretary finds reasonable grounds to dispute the results obtained by an equivalent or alternative method, he may require the use of a reference method. If the results of the reference and equivalent or alternative methods do not agree, the results obtained by the reference method prevail, and the Assistant Secretary may notify the owner or operator that approval of the method previously considered to be equivalent or alternative is withdrawn.
 - (1) Test Method 106 is to be used to determine the vinyl chloride emissions from any source for which an emission limit is prescribed in Sections 77.3(a) or (b), 77.4(a), or 77.5(a)(1), (b), (c), or (d), or from any control system to which reactor emissions are required to be ducted in Section 77.5(a)(2) or to which fugitive emissions are required to be ducted in Sections 77.6(b)(1)(ii), (b)(2), (b)(5), (b)(6)(ii), or (b)(9)(ii).
 - (i) For each run, one sample is to be collected. The sampling site is to be at least two stack or duct diameters downstream and one half

diameter upstream from any flow disturbance such as a bend, expansion, contraction, or visible flame. For a rectangular cross section an equivalent diameter is to be determined from the following equation:

$$\text{equivalent diameter} = \frac{2 (\text{length}) (\text{width})}{\text{length} + \text{width}}$$

format changed
✓

The sampling point in the duct is to be at the centroid of the cross section. The sample is to be extracted at a rate proportional to the gas velocity at the sampling point. The sample is to be taken over a minimum of one hour, and is to contain a minimum volume of 50 liters corrected to standard conditions.

- (ii) Each emission test is to consist of three runs. For the purpose of determining emissions, the average of results of all runs is to apply. The average is to be computed on a time weighted basis.
- (iii) For gas streams containing more than 10 percent oxygen the concentration of vinyl chloride as determined by Test Method 106 is to be corrected to 10 percent oxygen (dry basis) for determination of emissions by using the following equation:

$$C_b (\text{corrected}) = C_b \left(\frac{10.9}{20.9 - \text{percent } O_2} \right)$$

format changed
✓

where:

C_b (corrected) = The concentration of vinyl chloride in the exhaust gases, corrected to 10 percent oxygen.

C_b = The concentration of vinyl chloride as measured by Test Method 106.

20.9 = Percent oxygen in the ambient air at standard conditions.

10.9 = percent oxygen in the ambient air at standard conditions, minus the 10.0 percent oxygen to which the correction is being made.

Percent O_2 = Percent oxygen in the exhaust gas as measured by Reference Method 3 in the Division's Source Test Manual.

- (iv) For those emission sources where the emission limit is prescribed in terms of mass rather than concentration, mass emissions in kg/100 kg product are to be determined by using the following equation:

$$C_{BX} = \frac{[C_b (2.60) Q 10^{-6}] [100]}{Z}$$

*format
changed*

where:

C_{BX} = kg vinyl chloride/100 kg product.

C_b = The concentration of vinyl chloride as measured by Test Method 106.

2.60 = Density of vinyl chloride at one atmosphere and 20° C in kg/m³.

Q - Volumetric flow rate in m³/hr as determined by Reference Method 2 of the Division's Source Test Manual.

10⁻⁶ = Conversion factor for ppm.

Z = Production rate (kg/hr).

- (2) Test Method 107 is to be used to determine the concentration of vinyl chloride in each inprocess wastewater stream for which an emission limit is prescribed in Section 77.6(b) (9) (i).
- (3) Where a stripping operation is used to attain the emission limit in Section 77.5(e), emissions are to be determined using Test Method 107 as follows:
 - (i) The number of strippers and samples and the types and grades of resin to be sampled are to be determined by the Assistant Secretary for each individual plant at the time of the test based on the plant's operation.
 - (ii) Each sample is to be taken immediately following the stripping operation.
 - (iii) The corresponding quantity of material processed by each stripper is to be determined on a dry solids basis and by a method submitted to and approved by the Assistant Secretary.
 - (iv) At the prior request of the Assistant Secretary, the owner or operator shall provide duplicates of the samples required in Paragraph (g) (3) (i) of this section.
- (4) Where control technology other than or in addition to a stripping operation is used to attain the emission limit in Section 77.5(e), emissions are to be determined as follows:

- (i) Test Method 106 is to be used to determine atmospheric emissions from all of the process equipment simultaneously. The requirements of Paragraph (g) (1) of this section are to be met.
- (ii) Test Method 107 is to be used to determine the concentration of vinyl chloride in each inprocess wastewater stream subject to the emission limit prescribed in Section 77.5(e). The mass of vinyl chloride in kg/100 kg product in each inprocess wastewater stream is to be determined by using the following equations:

$$C_{BX} = \frac{[C_d R 10^{-6}] [100]}{Z}$$

where:

C_{BX} = kg vinyl chloride/100 kg product.

C_d = the concentration of vinyl chloride as measured by Test Method 107.

R = water flow rate in l/hr, determined in accordance with a method which has been submitted to and approved by the Assistant Secretary.

10^{-6} = Conversion factor for ppm.

Z = production rate (kg/hr), determined in accordance with a method which has been submitted and approved by the Assistant Secretary.

- (5) The reactor opening loss for which an emission limit is prescribed in Section 77.5(a) (2) is to be determined. The number of reactors for which the determination is to be made is to be specified by the Assistant Secretary for each individual plant at the time of the determination based on the plant's operation. For a reactor that is also used as a stripper, the determination may be made immediately following the stripping operation.
 - (i) Except as provided in Paragraph (g) (5) (ii) of this section, the reactor opening loss is to be determined using the following equation:

$$C = \frac{W (2.60) (10^{-6}) (C_b)}{YZ}$$

*Format
changed*
✓

where:

C = kg vinyl chloride emissions/kg product.

W = Capacity of the reactor in m³.

2.60 = Density of vinyl chloride at one atmosphere and 20°C in kg/m³.

10⁻⁶ = Conversion factor for ppm.

C_b - ppm by volume vinyl chloride as determined by Test Method 106 or a portable hydrocarbon detector which measures hydrocarbons with a sensitivity of at least 10 ppm.

Y = Number of batches since the reactor was last opened to the atmosphere.

Z = Average kg of polyvinyl chloride produced per batch in the number of batches since the reactor was last opened to the atmosphere.

- (A) If Method 106 is used to determine the concentration of vinyl chloride (C_b), the sample is to be withdrawn at a constant rate with a probe of sufficient length to reach the vessel bottom from the manhole. Samples are to be taken for 5 minutes within 6 inches of the vessel bottom, 5 minutes near the vessel center, and 5 minutes near the vessel top.
- (B) If a portable hydrocarbon detector is used to determine the concentration of vinyl chloride (C_b), a probe of sufficient length to reach the vessel bottom from the manhole is to be used to make the measurements. One measurement will be made within 6 inches of the vessel bottom, one near the vessel center and one near the vessel top. Measurements are to be made at each location until the reading is stabilized. All hydrocarbons measured are to be assumed to be vinyl chloride.
- (C) The production rate of polyvinyl chloride (Z) is to be determined by a method submitted to and approved by the Assistant Secretary.

- (ii) A calculation based on the number of evacuations, the vacuum involved, and the volume of gas in the reactor is hereby approved by the Assistant Secretary as an alternative method for determining reactor opening loss for postpolymerization reactors in the manufacture of bulk resins.

77.9 Emission monitoring.

- (a) A vinyl chloride monitoring system is to be used to monitor on a continuous basis the emissions from the sources for which emission limits are prescribed in Sections 77.3(a) and (b), 77.4(a), and 77.5(a) (1), (b), (c), and (d), and for any control system to which reactor emissions are required to be ducted in Section 77.5(a) (2) or to which fugitive emissions are required to be ducted in Section 77.6(b) (1) (ii), and (b) (2), (b) (5), (b) (6) (ii), and (b) (9) (ii). Such monitored emissions shall be reported pursuant to Section 77.11 and need not be reported under Section 76.18, provided that emissions into the atmosphere of Louisiana subject to this subpart which are in violation of an applicable emission standard and which are caused by the by-passing of an emission control device for more than one hour shall be reported pursuant to Section 76.18.
- (b) The vinyl chloride monitoring system(s) used to meet the requirement in Paragraph (a) of this section is to be a device which obtains air samples from one or more points on a continuous sequential basis and analyzes the samples with gas chromatography or, if the owner or operator assumes that all hydrocarbons measured are vinyl chloride, with infrared spectrophotometry, flame ion detection, or an equivalent or alternative method. The vinyl chloride monitoring system used to meet the requirements in Section 77.6(b) (8) (i) may be used to meet the requirements of this section.
- (c) A daily span check is to be conducted for each vinyl chloride monitoring system used. For all of the emission sources listed in Paragraph (a) of this section, except the one for which an emission limit is prescribed in Section 77.3(b), the daily span check is to be conducted with a concentration of vinyl chloride equal to 10 ppm. For the emission source for which an emission limit is prescribed in Section 77.3(b), the daily span check is to be conducted with a concentration of vinyl chloride which is determined to be equivalent to the emission limit for that source based on the emission test required by Section 77.8. The calibration is to be done with either:

CCR 000021802

- (1) A calibration gas mixture prepared from the gases specified in Sections 5.2.1 and 5.2.2 of Test Method 106 and in accordance with Section 7.1 of Test Method 106, or
- (2) A calibration gas cylinder standard containing the appropriate concentration of vinyl chloride. The gas composition of the calibration gas cylinder standard is to have been certified by the manufacturer. The manufacturer must have recommended a maximum shelf life for each cylinder so that the concentration does not change greater than ± 5 percent from the certified value. The date of gas cylinder preparation, certified vinyl chloride concentration and recommended maximum shelf life must have been affixed to the cylinder before shipment from the manufacturer to the buyer. If a gas chromatograph is used as the vinyl chloride monitoring system, these gas mixtures may be directly used to prepare a chromatograph calibration curve as described in Section 7.3 of Test Method 106. The requirements in Sections 5.2.3.1 and 5.2.3.2 of Test Method 106 for certification of cylinder standards and for establishment and verification of calibration standards are to be followed.

77.10 Initial report.

- (a) An owner or operator of any source to which this subpart applies and which has not previously filed an initial report with the United States Environmental Protection Agency shall submit a statement in writing notifying the Assistant Secretary that the equipment and procedural specifications in Sections 77.6(b) (1), (b) (2), (b) (3), (b) (4), (b) (5), (b) (6), (b) (7), and (b) (8) are being implemented. An owner or operator of any source to which this subpart applies who previously filed an initial report with the United States Environmental Protection Agency, shall file an amended report with the Assistant Secretary if the equipment and procedural specifications for implementing Sections 77.6 (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), (b)(6), (b)(7), and (b)(8) have changed since filing the initial report. ✓
- (b) (1) In the case of an existing source which has not previously filed an initial report with the United States Environmental Protection Agency or a new source which has an initial startup date preceding the effective date of this subpart, the statement is to be submitted within 90 days of such effective date, unless a deferred compliance is granted under Section 76.12, along ✓

with the information required under Section 76.11. If deferred compliance is granted, the statement is to be submitted on a date scheduled by the Assistant Secretary.

- (2) In the case of a new source which did not have an initial startup date preceding the effective date of this subpart, the statement is to be submitted within 90 days of the initial startup date.
- (c) The statement is to contain the following information:
 - (1) A list of the equipment installed for compliance,
 - (2) A description of the physical and functional characteristics of each piece of equipment,
 - (3) A description of the methods which have been incorporated into the standard operating procedures for measuring or calculating the emissions for which emission limits are prescribed in Sections 77.6(b) (1) (i) and (b) (6) (i),
 - (4) A statement that each piece of equipment is installed and that each piece of equipment and each procedure is being used.

77.11 ^{Semi-annual} ~~Quarterly~~ report.

- (a) The owner or operator of any source to which this subpart applies shall submit to the Assistant Secretary on March 15th, June 15th, September 15th, and December 15th of each year a report in writing containing the information required by this section. The first quarterly report is to be submitted following the first full 3 month reporting period after the initial report is submitted.
- (b)
 - (1) In the case of an existing source or a new source which has an initial startup date preceding the effective date of this subpart, the first report is to be submitted within ¹⁸⁰90 days of such effective date, unless deferred compliance is granted under Section 76.12. If deferred compliance is granted, the first report is to be submitted on a date scheduled by the Assistant Secretary.
 - (2) In the case of a new source which did not have an initial startup date preceding the effective date of this subpart, the first report is to be submitted within ¹⁸⁰90 days of the initial startup date.
- (c) Unless otherwise specified, the owner or operator shall use the test methods in the Division's Source Test Manual to conduct emission tests as required by

CCR 000021804

Paragraphs (c) (2) and (c) (3) of this section, unless an equivalent or an alternative method has been approved by the Assistant Secretary. If the Assistant Secretary finds reasonable grounds to dispute the results obtained by an equivalent or alternative method, he may require the use of a reference method. If the results of the reference and the equivalent or alternative methods do not agree, the results obtained by the reference method prevail. The Assistant Secretary ^{may} shall notify the owner or operator that approval of the method previously considered to be equivalent or alternative is withdrawn. ✓

- (1) The owner or operator shall include in the report a record of any emissions which, averaged over any hour period, are in excess of the emission limits prescribed in Sections 77.3(a) and (b), 77.4(a), or 77.5(a) (1), (b), (c), or (d), or for any control system to which reactor emissions are required to be ducted in Section 77.5(a) (2) or to which fugitive emissions are required to be ducted in Sections 77.6(b) (1) (ii), (b) (2), (b) (5), (b) (6) (ii), or (b) (9) (ii). The emissions are to be measured in accordance with 77.9.
- (2) In polyvinyl chloride plants for which a stripping operation is used to attain the emission level prescribed in Section 77.5(e), the owner or operator shall include in the report a record of the vinyl chloride content in the polyvinyl chloride resin. Test Method 107 is to be used to determine vinyl chloride content as follows:
 - (i) If batch stripping is used, one representative sample of polyvinyl chloride resin is to be taken from each batch of each grade of resin immediately following the completion of the stripping operation, and identified by resin type and grade and the date and time the batch is completed. The corresponding quantity of material processed in each stripper batch is to be recorded and identified by resin type and grade and the date and time the batch is completed.
 - (ii) If continuous stripping is used, one representative sample of polyvinyl chloride resin is to be taken for each grade of resin processed or at intervals of 8 hours for each grade of resin which is being processed, whichever is more frequent. The sample is to be taken as the resin flows out of the stripper and identified by resin type and grade and the date and time the sample was taken. The corresponding quantity of material processed by each stripper over the time period represented by the sample during the 8-hour period, is to be recorded and identified by resin type and grade and the date and time it represents. ✓

- (iii) The quantity of material processed by the stripper is to be determined on a dry solids basis and by a method submitted to and approved by the Assistant Secretary.
- (iv) At the prior request of the Assistant Secretary, the owner or operator shall provide duplicates of the samples required in Paragraphs (c) (2) (i) and (c) (2) (ii) of this section.
- (v) The report to the Assistant Secretary by the owner or operator is to include the vinyl chloride content found in each sample required by Paragraphs (c) (2) (i) and (c) (2) (ii) of this section, averaged separately for each type of resin, over each calendar day and weighted according to the quantity of each grade of resin processed by the stripper(s) that calendar day, according to the following equation:

$$A_{T_i} = \frac{\sum_{i=1}^n P_{G_i} M_{G_i}}{Q_{T_i}} = \frac{P_{G_1} M_{G_1} + P_{G_2} M_{G_2} + \dots + P_{G_n} M_{G_n}}{Q_{T_i}}$$

Format changed

where:

A = 24-hour average concentration of type, T_i resin in ppm (dry weight basis).

Q = Total production of type T_i resin over the 24-hour period, in kg.

T_i = Type of resin; $i = 1, 2 \dots m$ where m is total number of resin types produced during the 24-hour period.

M = Concentration of vinyl chloride in one sample of grade G_i resin, in ppm.

P = Production of Grade G_i resin represented by the sample, in kg.

CCR 000021806

*Note:
There is no
G₄ in the
formula above.*

G_4 = Grade of resin; e.g., G_1 , G_2 , and G_3 .

n = Total number of grades of resin produced during the 24-hour period.

- (vi) The owner or operator shall retain at the source and make available for inspection by the Assistant Secretary for a minimum of 2 years or such longer period as ordered by the Assistant Secretary, records of all data needed to furnish the information required by Paragraph (c) (2) (v) of this section. The records are to contain the following information:
 - (a) The vinyl chloride content found in all the samples required in Paragraphs (c) (2) (i) and (c) (2) (ii) of this section, identified by the resin type and grade and the time and date of the sample, and
 - (b) The corresponding quantity of polyvinyl chloride resin processed by the stripper(s), identified by the resin type and grade and the time and date it represents.
- (3) The owner or operator shall include in the report a record of the emissions from each reactor opening for which an emission limit is prescribed in Section 77.5 (a) (2). Emissions are to be determined in accordance with Section 77.8 (g) (5), except that emissions for each reactor are to be determined. For a reactor that is also used as a stripper, the determination may be made immediately following the stripping operation.

77.12 Recordkeeping.

- (a) The owner or operator of any source to which this subpart applies shall retain the following information at the source and make it available for inspection by the Assistant Secretary for a minimum of two years or such longer period as ordered by the Assistant Secretary:
 - (1) A record of the leaks detected by the vinyl chloride monitoring system, as required by Section 77.6(b) (8), including the concentrations of vinyl chloride, measured, analyzed, and recorded by the vinyl chloride detector, the location of each measurement and the date and approximate time of each measurement.

CCR 000021807

- (2) A record of the leaks detected during routine monitoring with the portable hydrocarbon detector and the action taken to repair the leaks, as required by Section 77.6(b) (8), including a brief statement explaining the location and cause of each leak detected with the portable hydrocarbon detector, the date and time of the leak, and any action taken to eliminate that leak.
- (3) A record of emissions measured in accordance with Section 77.9, except if such emission is an emergency emission. ✓
- (4) A daily operating record for each polyvinyl chloride reactor, including pressures and temperatures.
- (b) The owner or operator of any source to which this subpart applies shall retain all records relating to emergency emissions, relief valve discharges, manual vent valve discharges, rupture disc discharges, and discharges from line or vessel ruptures or other similar sudden equipment failures for a minimum of five years or such longer period as ordered by the Assistant Secretary. Such records shall be made available for inspection by the Assistant Secretary. ✓

Subpart C - EMISSION STANDARD FOR MERCURY

78.1 Applicability.

The provisions of this subpart are applicable to those stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge.

78.2 Definitions.

Terms used in this subpart are defined Section 4.0 of these regulations with the exception of those terms specifically defined in Section 76.2 or below, as follows:

- (a) "New Source" - any stationary source, the construction or modification of which commenced after December 7, 1971.
- (b) "Mercury" - the element mercury, excluding any associated elements, and includes mercury in particulates, vapors, aerosols, and compounds.
- (c) "Mercury ore" - a mineral mined specifically for its mercury content.
- (d) "Mercury ore processing facility" - a facility processing mercury ore to obtain mercury.

- (b) All samples shall be analyzed and results shall be calculated within 30 days after samples are taken and before any subsequent rocket motor firing or propellant disposal at the given site. All results shall be reported to the Assistant Secretary by a certified letter dispatched before the close of the next business day following determination of such results.
- (c) Records of air sampling test results and other data needed to determine integrated intermittent concentrations shall be retained at the source and made available for inspection by the Assistant Secretary for a minimum of 2 years or such longer period as ordered by the Assistant Secretary.
- (d) The Assistant Secretary shall be notified at least 30 days prior to an air sampling test so that he may at his option observe the test.

80.5 Stack sampling.

- (a) Sources subject to Section 80.3(b) shall be continuously sampled during release of combustion products from the tank in such a manner that compliance with the standards can be determined. The provisions of Section 76.15 shall apply.
- (b) All samples shall be analyzed, and beryllium emissions shall be determined within 30 days after samples are taken and before any subsequent rocket motor firing or propellant disposal at the given site. All determinations shall be reported to the Assistant Secretary by a certified letter dispatched before the close of the next business day following such determinations.
- (c) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Assistant Secretary for a minimum of 2 years or such longer period as ordered by the Assistant Secretary.
- (d) The Assistant Secretary shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.

Subpart F - EMISSION STANDARD FOR ASBESTOS

81.1 Applicability.

The provisions of this subpart are applicable to those sources specified in Section

81.3.

81.2 Definitions.

Terms used in this subpart are defined in Section 4.0 of these regulations with the exception of those terms specifically defined in Section 76.2 or below, as follows:

- (a) "New Source" - any stationary source, the construction or modification of which commenced after December 7, 1971.
- (b) "Asbestos" - actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite.
- (c) "Asbestos material" - asbestos or any material containing asbestos.
- (d) "Particulate asbestos material" - finely divided particles of asbestos material.
- (e) "Asbestos tailings" - any solid waste product of asbestos mining or milling operations which contains asbestos.
- (f) "Outside air" - the air outside buildings and structures.
- (g) "Visible emissions" - any emissions which are visually detectable without the aid of instruments and which contain particulate asbestos material.
- (h) "Asbestos mill" - any facility engaged in the conversion of any intermediate step in the conversion of asbestos or into commercial asbestos. Outside storage of asbestos materials is not considered a part of such facility.
- (i) "Commercial asbestos" - any variety of asbestos which is produced by extracting asbestos from asbestos ore.
- (j) "Manufacturing" - the combining of commercial asbestos, or in the case of woven friction products the combining of textiles containing commercial asbestos, with any other material(s), including commercial asbestos, and the processing of this combination into a product as specified in Section 81.3(c).
- (k) "Demolition" - the wrecking or taking out of any load-supporting structural member and any related removing or stripping of friable asbestos materials.
- (l) "Friable asbestos material" - any material that contains more than 1 percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure.
- (m) "Control device asbestos waste" - any asbestos-containing waste material that is collected in a pollution control device.

- (n) "Renovation" - the removing or stripping of friable asbestos material used on any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member. Operations in which load-supporting structural members are wrecked or taken out are excluded.
- (o) "Planned renovation" - a renovation operation, or a number of such operations, in which the amount of friable asbestos material that will be removed or stripped within a given period of time can be predicted. Operations that are individually non-scheduled are included, provided a number of such operations can be predicted to occur during a given period of time based on operating experience.
- (p) "Emergency renovation" - a renovation operation that results from a sudden, unexpected event, and is not a planned renovation. Operations necessitated by non-routine failures of equipment are included.
- (q) "Adequately wetted" - sufficiently mixed or coated with water or an aqueous solution to prevent dust emissions.
- (r) "Removing" - taking out friable asbestos materials used on any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member from any building, structure, facility, or installation.
- (s) "Stripping" - taking off friable asbestos materials from any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member.
- (t) "Fabricating" - any processing of a manufactured product containing commercial asbestos, with the exception of processing at temporary sites for the construction or restoration of buildings, structures, facilities or installations.
- (u) "Inactive waste disposal site" - any disposal site or portion thereof where additional asbestos-containing waste material will not be deposited and where the surface is not disturbed by vehicular traffic.
- (v) "Active waste disposal site" - any disposal site other than an inactive site.
- (w) "Roadways" - surfaces on which motor vehicles travel including, but not limited to, highways, roads, streets, parking areas, and driveways.
- (x) "Asbestos-containing waste material" - any waste which contains commercial asbestos and is generated by a source subject to the provisions of this subpart, including asbestos mill tailings, control device asbestos waste, friable asbestos waste material, and bags or containers that previously contained commercial asbestos.

- (y) "Structural member" - any load-supporting member, such as beams and load-supporting walls; or any non-load-supporting member, such as ceilings and non-load-supporting walls.

81.3 Emission standard.

- (a) Asbestos mills: There shall be no visible emissions to the outside air from any asbestos mill except as provided in Paragraph (f) of this section.
- (b) Roadways: The surfacing of roadways with asbestos tailings or with asbestos-containing waste that is generated by any source subject to Paragraphs (c), (d), (e), or (h) of this section is prohibited, except for temporary roadways on an area of asbestos ore deposits. The deposition of asbestos tailings or asbestos-containing waste on roadways covered with snow or ice is considered "surfacing."
- (c) Manufacturing: There shall be no visible emissions to the outside air, except as provided in Paragraph (f) of this section, from any of the following operations if they use commercial asbestos or from any building or structure in which such operations are conducted.
- (1) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.
 - (2) The manufacture of cement products.
 - (3) The manufacture of fireproofing and insulating materials.
 - (4) The manufacture of friction products.
 - (5) The manufacture of paper, millboard, and felt.
 - (6) The manufacture of floor tile.
 - (7) The manufacture of paints, coatings, caulks, adhesives, sealants.
 - (8) The manufacture of plastics and rubber materials.
 - (9) The manufacture of chlorine.
 - (10) The manufacture of shotgun shells.
 - (11) The manufacture of asphalt concrete.
- (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 covered or coated with friable asbestos material, except as provided in Paragraph (d) (l) 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 covered or coated with friable asbestos material are stripped or removed, or more than 15 square meters (ca. 160 square feet) of friable asbestos material used to cover or coat any duct, boiler, tank, reactor, turbine, furnace, or structural member are stripped or removed.

- (1) (i) The owner or operator of a demolition operation is exempted from the requirements of this paragraph: Provided, (A) the amount of friable asbestos material in the building or portion thereof to be demolished is less than 80 meters (ca. 260 feet) used to insulate pipes, and less than 15 square meters (ca. 160 square feet) used to insulate or fireproof any duct, boiler, tank, reactor, turbine, furnace, or structural member, and (B) the notification requirements of Paragraph (d) (1) (ii) are met.
- (ii) Written notification shall be postmarked or delivered to the Assistant Secretary at least 20 days prior to commencement of demolition and shall include the information required by Paragraph (d) (2) of this section, with the exception of the information required by Paragraphs (d) (2) (iii), (vi), (vii), (viii), and (ix), and shall state the measured or estimated amount of friable asbestos materials which is present. Techniques of estimation shall be explained.
- (2) Written notice of intention to demolish or renovate shall be provided to the Assistant Secretary by the owner or operator of the demolition or renovation operation. Such notice shall be postmarked or delivered to the Assistant Secretary 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 materials present.

- (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.
- (3) (i) For purposes of determining whether a planned renovating operation constitutes a renovation within the meaning of this paragraph, the amount of friable asbestos material to be removed or stripped shall be:
- (A) For planned renovating operations involving individually non-scheduled operations, the additive amount of friable asbestos material that can be predicted will be removed or stripped at a source over the maximum period of time for which a prediction can be made. The period shall be not less than 30 days and not longer than one year.
 - (B) For each planned renovating operation not covered by Paragraph (d) (3) (i) (A), the total amount of friable asbestos material that can be predicted will be removed or stripped at a source.
- (ii) For purposes of determining whether an emergency renovating operation constitutes a renovation within the meaning of this paragraph, the amount of friable asbestos material to be removed or stripped shall be the total amount of friable asbestos material that will be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.
- (4) The following procedures shall be used to prevent emissions of particulate asbestos material to outside air:

- (i) Friable asbestos materials, used on any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member, shall be removed from any building, structure, facility, or installation subject to this paragraph. Such removal shall occur before wrecking or dismantling of any portion of such building, structure, facility, or installation that would break up the friable asbestos materials and before wrecking or dismantling of any other portion of such building, structure, facility, or installation that would preclude access to such materials for subsequent removal. Removal of friable asbestos materials used on any pipe, duct, or structural member, which are encased in concrete or other similar structural material, is not required prior to demolition, but such material shall be adequately wetted whenever exposed during demolition.
- (ii) Friable asbestos materials used on pipes, ducts, boilers, tanks, reactors, turbines, furnaces, or structural members shall be adequately wetted during stripping, except as provided in Paragraphs (d) (4) (iv), (d) (4) (vi) or (d) (4) (vii) of this section.
- (iii) Pipes, ducts, boilers, tanks, reactors, turbines, furnaces, or structural members that are covered or coated with friable asbestos materials may be taken out of any building, structure, facility, or installation subject to this paragraph, as units or in sections, provided the friable asbestos materials exposed during cutting or disjoining are adequately wetted during the cutting or disjoining operation. Such units shall not be dropped or thrown to the ground, but shall be carefully lowered to ground level.
- (iv) The stripping of friable asbestos materials used on any pipe, duct, boiler, tank, reactor, turbine, furnace, or structural member that has been removed as a unit or in sections as provided in Paragraph (d) (4) (iii) of this section shall be performed in accordance with Paragraph (d) (4) (ii) of this section. Rather than comply with the wetting requirement, a local exhaust ventilation and collection system may be used to prevent emissions to the outside air. Such local exhaust ventilation systems shall be designed and operated to capture the asbestos particulate matter produced by the stripping of friable

asbestos material. There shall be no visible emissions to the outside air from such local exhaust ventilation and collection systems except as provided in Paragraph (f) of this section.

- (v) All friable asbestos materials that have been removed or stripped shall be adequately wetted to ensure that such materials remain wet during all remaining stages of demolition or renovation and related handling operations. Such materials shall not be dropped or thrown to the ground or a lower floor. Such materials that have been removed or stripped more than 50 feet above ground level, except those materials removed as units or in sections, shall be transported to the ground via dust-tight chutes or containers.
 - (vi) Except as specified below, the wetting requirements of this paragraph are suspended when the temperature at the point of wetting is below 0°C (32°F). When friable asbestos materials are not wetted due to freezing temperatures, such materials on pipes, ducts, boilers, tanks, reactors, turbines, furnaces, or structural members shall, to the maximum extent possible, be removed as units or in sections prior to wrecking. In no case shall the requirements of Paragraphs (d) (4) (iv) or (d) (4) (v) be suspended due to freezing temperatures.
 - (vii) For renovation operations, local exhaust ventilation and collection systems may be used, instead of wetting as specified in Paragraph (d) (4) (ii), to prevent emissions of particulate asbestos material to outside air when damage to equipment resulting from the wetting would be unavoidable. Upon request and supply of adequate information, the Assistant Secretary will determine whether damage to equipment resulting from wetting to comply with the provisions of this paragraph would be unavoidable. Such local exhaust ventilation systems shall be designed and operated to capture the asbestos particulate matter produced by the stripping and removal of friable asbestos material. There shall be no visible emissions to the outside air from such local exhaust ventilation and collection systems, except as provided in Paragraph (f) of this section.
- (5) Sources subject to this paragraph are exempt from the requirements of Sections 76.5(a), 76.7, 76.8, and 76.10.

- (6) The demolition of a building, structure, facility, or installation, pursuant to an order of an authorized representative of a State or local governmental agency, issued because that building is structurally unsound and in danger of imminent collapse is exempt from all but the following requirements of Paragraph (d) of this section:
 - (i) The notification requirements specified by Paragraph (d) (2) of this section;
 - (ii) The requirements on stripping of friable asbestos materials from previously removed units or sections as specified in Paragraph (d) (4) (iv) of this section;
 - (iii) The wetting, as specified by Paragraph (d) (4) (v) of this section, of friable asbestos materials that have been removed or stripped;
 - (iv) The portion of the structure being demolished that contains friable asbestos materials shall be adequately wetted during the wrecking operation.
- (e) Spraying: There shall be no visible emissions to the outside air from the spray-on application of materials containing more than 1 percent asbestos, on a dry weight basis, used on equipment and machinery, except as provided in Paragraph (f) of this section. Materials sprayed on buildings, structures, pipes, and conduits shall contain less than 1 percent asbestos on a dry weight basis.
 - (1) Sources subject to this paragraph are exempt from the requirements of Sections 76.5(a), 76.7, 76.8, and 76.10.
 - (2) Any owner or operator who intends to spray asbestos materials which contain more than 1 percent asbestos on a dry weight basis to insulate or fireproof equipment and machinery shall report such intention to the Assistant Secretary at least 20 days prior to the commencement of the spraying operation. Such report shall include the following information:
 - (i) Name of owner or operator.
 - (ii) Address of owner or operator.
 - (iii) Location of spraying operation.
 - (iv) Procedures to be followed to meet the requirements of this paragraph.
 - (3) The spray-on application of materials in which the asbestos fibers are encapsulated with a bituminous or resinous binder during spraying and which are not friable after drying is exempted from the requirements of Paragraphs (e) and (e) (2) of this section.

- (f) Rather than meet the no-visible-emission requirements as specified by Paragraphs (a), (c), (d), (e), (h), (j), and (k) of this section, an owner or operator may elect to use the methods specified by Section 81.4 to clean emissions containing particulate asbestos material before such emissions escape to, or are vented to, the outside air.
- (g) Where the presence of uncombined water is the sole reason for failure to meet the no-visible-emission requirement of Paragraphs (a), (c), (d), (e), (h), (j), or (k) or this section, such failure shall not be a violation of such emission requirements.
- (h) Fabricating: There shall be no visible emissions to the outside air, except as provided in Paragraph (f) of this section, from any of the following operations if they are commercial asbestos or from any building or structure in which such operations are conducted.
- (1) The fabrication of cement building products.
 - (2) The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles.
 - (3) The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture; bulkheads, partitions and ceilings for marine construction; and flow control devices for the molten metal industry.
- (i) Insulating: Molded insulating materials which are friable and wet-applied insulating materials which are friable after drying, installed after the effective date, shall contain no commercial asbestos. The provisions of this paragraph do not apply to insulating materials which are spray applied; such materials are regulated under Section 81.3(e).
- (j) Waste disposal for manufacturing, fabricating, demolition, renovation and spraying operations: The owner or operator of any source covered under the provisions of Paragraphs (c), (d), (e), or (h) of this section shall meet the following standards:
- (1) There shall be no visible emissions to the outside air, except as provided in Paragraph (j) (3) of this section, during the collection; processing, including incineration; packaging; transporting; or deposition of any asbestos-containing waste material which is generated by such source.
 - (2) All asbestos-containing waste material shall be deposited at waste disposal sites which are operated in accordance with the provisions of 81.6.

✓
"Section"
made

(3) Rather than meet the requirement of Paragraph (j) (1) of this section, an owner or operator may elect to use either of the disposal methods specified under (j) (3) (i) and (ii) of this section, or an alternative disposal method which has received prior approval by the Assistant Secretary.

(i) Treatment of asbestos-containing waste materials with water:

- (A) Control device asbestos waste shall be thoroughly mixed with water into a slurry and other asbestos-containing waste material shall be adequately wetted. There shall be no visible emissions to the outside air from the collection, mixing and wetting operations, except as provided in Paragraph (f) of this section.
- (B) After wetting, all asbestos-containing waste material shall be sealed into leak-tight containers while wet, and such containers shall be deposited at waste disposal sites which are operated in accordance with the provisions of Section 81.6.
- (C) The containers specified under Paragraph (j) (3) (i) (B) of this section shall be prominently marked with a warning label that states:

CAUTION
CONTAINS ASBESTOS
AVOID OPENING OR
BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS
TO YOUR HEALTH

(ii) Processing of asbestos-containing waste material into non-friable forms:

- (A) All asbestos-containing waste material shall be formed into non-friable pellets or other shapes and deposited at waste disposal sites which are operated in accordance with the provisions of Section 81.6.
- (B) There shall be no visible emissions to the outside air from the collection and processing of asbestos-containing waste material, except as specified in Paragraph (f) of this section.

- (4) For the purposes of this Paragraph (j), the term all asbestos-containing waste material as applied to demolition and renovation operations covered by Paragraph (d) of this section includes only friable asbestos waste and control device asbestos waste.

(k) Waste disposal for asbestos mills: The owner or operator of any source covered under the provisions of Paragraph (a) of this section shall meet the following standard:

- (1) There shall be no visible emissions to the outside air, except as provided in Paragraph (k) (3) of this section, during the collection, processing, packaging, transporting or deposition of any asbestos-containing waste material which is generated by such source.
- (2) All asbestos-containing waste material shall be deposited at waste disposal sites which are operated in accordance with the provisions of Section 81.6.
- (3) Rather than meet the requirement of Paragraph (k) (1) of this section, an owner or operator may elect to meet the following requirements in Paragraphs (k) (3) (i) and (ii), or use an alternative disposal method which has received prior approval by the Assistant Secretary.
- (i) There shall be no visible emissions to the outside air from the transfer of control device asbestos waste to the tailings conveyor, except as provided in Paragraph (f) of this section. Such waste shall be subsequently processed either as specified in Paragraph (k) (3) (ii) of this section or as specified in Paragraph (j) (3) of this section.
- (ii) All asbestos-containing waste material shall be adequately mixed, with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, prior to deposition at a waste disposal site. Such agent shall be used as recommended for the particular dust by the manufacturer of the agent. There shall be no discharge of visible emissions to the outside air from the wetting operation except as specified in paragraph (f) of this section. Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5°C (ca. 15°F). The ambient air temperature shall be determined by an appropriate measurement method with an accuracy of $\pm 1^{\circ}\text{C}$ ($\pm 2^{\circ}\text{F}$) and recorded at least at hourly intervals during the period that the operation of the wetting

(k)
Again
not
needed
because
not
available

~~system is suspended.~~ Records of such temperature measurements shall be retained at the source for a minimum of 2 years or such longer period as ordered by the Assistant Secretary and made available for inspection by the Assistant Secretary.

- (1) The owner of any inactive waste disposal site, which was operated by sources covered under Sections 81.3(a), (c) or (h) and where asbestos-containing waste material produced by such sources was deposited, shall meet the following standards:

- (1) There shall be no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph, except as provided in Paragraph (1) (5) of this section.
- (2) 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 was deposited, at intervals of ¹⁰⁰50 m (ca. ³³⁰165 ft.) or less, except as specified in Paragraph (1) (4) 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. The signs shall display the following legend with letter sizes and styles of a visibility at least equal to those specified as follows:

LEGEND

ASBESTOS WASTE DISPOSAL SITE

DO NOT CREATE DUST

BREATHING ASBESTOS IS HAZARDOUS TO YOUR

HEALTH

Letter Sizes and Styles

1" Sans Serif, Gothic or Block

3/4" Sans Serif, Gothic or Block

14 Point Gothic

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

CCR 000021821

- (3) The perimeter of the site shall be fenced in a manner adequate to deter access by the general public, except as specified in Paragraph (1) (4) of this section.
- (4) Warning signs and fencing are not required where the requirements of Paragraphs (1) (5) (i) or (ii) of this section are met, or where a natural barrier adequately deters access by the general public. Upon request and supply of appropriate information, the Assistant Secretary will determine whether a fence or a natural barrier adequately deters access to the general public.
- (5) Rather than meet the requirement of Paragraph (1) (1) of this section, an owner may elect to meet the requirements of this paragraph or may use an alternative control method for emissions from inactive waste disposal sites which has received prior approval by the Assistant Secretary.
 - (i) The asbestos-containing waste material shall be covered with at least 15 centimeters (ca. 6 inches) of compacted non-asbestos-containing materials, and a cover of vegetation shall be grown and maintained on the area adequate to prevent exposure of the asbestos-containing waste materials; or
 - (ii) The asbestos-containing waste material shall be covered with at least 60 centimeters (ca. 2 feet) of compacted non-asbestos-containing material and maintained to prevent exposure of the asbestos-containing waste; or
 - (iii) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent which effectively binds dust and controls wind erosion shall be applied. Such agent shall be used as recommended for the particular asbestos tailings by the dust suppression agent manufacturer. Other equally effective dust suppression agents may be used upon prior approval by the Assistant Secretary. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

81.4 Air-cleaning.

If air-cleaning is elected, as permitted by 81.3(f) and 81.3(d) (4) (iv), the requirements of this section must be met.

CCR 000021822

- (a) Fabric filter collection devices must be used, except as noted in Paragraphs (b) and (c) of this section. Such devices must be operated at a pressure drop of no more than 4 inches water gage, as measured across the filter fabric. The airflow permeability, as determined by ASTM method ^{D 727-69} D737, must not exceed $30 \text{ ft}^3/\text{min}/\text{ft}^2$ for woven fabrics or $35 \text{ ft}^3/\text{min}/\text{ft}^2$ for felted fabrics, except that $40 \text{ ft}^3/\text{min}/\text{ft}^2$ for woven and $45 \text{ ft}^3/\text{min}/\text{ft}^2$ for felted fabrics is allowed for filtering air from asbestos ore dryers. Each square yard of felted fabric must weigh at least 14 ounces and be at least one-sixteenth inch thick throughout. Synthetic fabrics must not contain fill yarn other than that which is spun.
- (b) If the use of fabric filters creates a fire or explosion hazard, the Assistant Secretary may authorize the use of wet collectors designed to operate with a unit contacting energy of at least 40 inches water gage pressure.
- (c) The Assistant Secretary may authorize the use of filtering equipment other than that described in Paragraphs (a) and (b) of this section if the owner or operator demonstrates to the satisfaction of the Assistant Secretary that the filtering of particulate asbestos materials is equivalent to that of the described equipment.
- (d) All air-cleaning equipment authorized by this section must be properly installed, used, operated, and maintained. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.

81.5 Reporting.

The owner or operator of any existing source to which this subpart is applicable shall, within 90 days after the effective date, provide the following information to the Assistant Secretary:

- (a) A description of the emission control equipment used for each process;
- (b) If a fabric filter device is used to control emissions, the pressure drop across the fabric filter in inches water gage.
 - (1) If the fabric filter device utilizes a woven fabric, the airflow permeability in $\text{ft}^3/\text{min}/\text{ft}^2$ and, if the fabric is synthetic, indicate whether the fill yarn is spun or not spun.
 - (2) If the fabric filter device utilizes a felted fabric, the density in oz/yd^2 , the minimum thickness in inches, and the airflow permeability in $\text{ft}^3/\text{min}/\text{ft}^2$.

- (c) For sources subject to Sections 81.3(j) and 81.3(k):
 - (1) A brief description of each process that generates asbestos-containing waste material.
 - (2) The average weight of asbestos-containing waste material disposed of, measured in kg/day.
 - (3) The emission control methods used in all stages of waste disposal.
 - (4) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.
- (d) For sources subject to Section 81.3(l):
 - (1) A brief description of the site.
 - (2) The method or methods used to comply with the standard, or alternative procedures to be used.
- (e) Such information shall accompany the information required by Section 76.11. The information described in this section shall be reported using the Department's LESHAP Reporting form. ✓

81.6 Waste disposal sites.

In order to be an acceptable site for disposal of asbestos-containing waste material under Sections 81.3(j) and (k), an active waste disposal site shall meet the requirements of this section.

- (a) There shall be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, except as provided in Paragraph (e) of this section.
- (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 ¹⁰⁰50 m (ca. ³²165 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. The signs shall display the following legend with letter sizes and styles of a visibility at least equal to those specified as follows: ✓
✓

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

Letter Sizes and Styles

1" Sans Serif, Gothic or Block
3/4" Sans Serif, Gothic or Block
14 Point Gothic

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

- (c) The perimeter of the disposal site shall be fenced in order to adequately deter access to the general public except as specified in Paragraph (d) of this section.
- (d) Warning signs and fencing are not required where the requirements of Paragraph (e) (1) of this section are met, or where a natural barrier adequately deters access to the general public. Upon request and supply of appropriate information, the Assistant Secretary will determine whether a fence or a natural barrier adequately deters access to the general public.
- (e) Rather than meet the requirement of Paragraph (a) of this section, an owner or operator may elect to meet the requirements of Paragraph (e) (1) or (e) (2) of this section, or may use an alternative control method for emissions from active waste disposal sites which has received prior approval by the Assistant Secretary.
 - (1) At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material which was deposited at the site during the operating day or previous 24-hour period shall be covered with at least 15 centimeters (ca. 6 inches) of compacted non-asbestos-containing material.
 - (2) At the end of each operating day, or at least once every 24-hour period while the disposal site is in continuous operation, the asbestos-

CCR 000021825

containing waste material which was deposited at the site during the operating day or previous 24-hour period shall be covered with a resinous or petroleum-based dust suppression agent which effectively binds dust and controls wind erosion. Such agent shall be used as recommended for the particular dust by the dust suppression agent manufacturer. Other equally effective dust suppression agents may be used upon prior approval by the Assistant Secretary. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

CCR 000021826

1. B. **PROCESS INFORMATION**. Part B should be completed separately for each point of emission for each hazardous pollutant. [Sources subject to 61.22 (1) may omit number 4, below.]

DUP 1-12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
										REGD. REF. USE										

1. **POLLUTANT EMITTED** - Indicate the type of hazardous pollutant emitted by the process. Indicate "AB" for asbestos, "BE" for beryllium, or "HG" for mercury.

32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
POLLUTANT										REGULATION									

2. **PROCESS DESCRIPTION** - Provide a brief description of each process (e.g., "hydrogen and box" in a mercury chlor-alkali plant, "grinding machine" in a beryllium machine shop). Use additional sheets if necessary.

50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
PROCESS DESCRIPTION																								

DUP 1-12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
										REGD. REF. USE										

3. **AMOUNT OF POLLUTANT** - Indicate the average weight of the hazardous material named in Item 1 which enters the process in pounds per month (based on the previous 12 months of operation).

DUP 1-12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
										REGD. REF. USE										

4. CONTROL DEVICES

- a. Indicate the type of pollution control devices, if any, used to reduce the emissions from the process (e.g., venturi scrubber, baghouse, wet cyclone) and the estimated percent of the pollutant which the device removes from the process gas stream.

DUP 1-12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
										PRIMARY CONTROL DEVICE										

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PRIMARY DEVICE NAME																PERCENT REMOVAL EFFICIENCY																			

DUP 1-12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
										SECONDARY CONTROL DEVICE										

47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
SECONDARY DEVICE NAME																PERCENT REMOVAL EFFICIENCY																	

b. Asbestos Emission Control Devices Only

- i. If a baghouse is specified in Item 4a, give the following information:

- The air flow permeability in cubic feet per minute per square foot of fabric area.

Air flow permeability = _____ cfm/ft²

- The pressure drop in inches water gauge across the filter at which the baghouse is operated.

Operating pressure drop = _____ inches w.g.

- If the baghouse material contains synthetic fill yarn, check whether this material is ☐ spun ☐ or not spun.

Ncu

Thickness = _____ inches

Density = _____ oz/yd²

ii. If a wet collection device is specified in Item 4a, give the designed unit contacting energy in inches water gauge.

• Unit contacting energy = _____ inches w.g.

C. **DISPOSAL OF ASBESTOS-CONTAINING WASTES.** Part C should be completed separately for each asbestos-containing waste generation operation arising from sources subject to § 61.22 (a), (c), (e), and (h).

DUP 1-13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50												
[A:1] [B:1] [C:1] [D:1] [E:1] [F:1] [G:1] [H:1] [I:1] [J:1] [K:1] [L:1] [M:1] [N:1] [O:1] [P:1] [Q:1] [R:1] [S:1] [T:1] [U:1] [V:1] [W:1] [X:1] [Y:1] [Z:1]																																																	
[A:2] [B:2] [C:2] [D:2] [E:2] [F:2] [G:2] [H:2] [I:2] [J:2] [K:2] [L:2] [M:2] [N:2] [O:2] [P:2] [Q:2] [R:2] [S:2] [T:2] [U:2] [V:2] [W:2] [X:2] [Y:2] [Z:2]																																																	
REGULATION																																																	

1. **WASTE GENERATION** - Provide a brief description of each process that generates asbestos-containing waste (e.g., disposal of control device wastes).

50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
PROCESS DESCRIPTION																													

2. **ASBESTOS CONCENTRATION** - Indicate the average percentage asbestos content of waste materials.

DUP 1-13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50												
[A:1] [B:1] [C:1] [D:1] [E:1] [F:1] [G:1] [H:1] [I:1] [J:1] [K:1] [L:1] [M:1] [N:1] [O:1] [P:1] [Q:1] [R:1] [S:1] [T:1] [U:1] [V:1] [W:1] [X:1] [Y:1] [Z:1]																																																	
[A:2] [B:2] [C:2] [D:2] [E:2] [F:2] [G:2] [H:2] [I:2] [J:2] [K:2] [L:2] [M:2] [N:2] [O:2] [P:2] [Q:2] [R:2] [S:2] [T:2] [U:2] [V:2] [W:2] [X:2] [Y:2] [Z:2]																																																	
ASBESTOS CONCENTRATION																																																	

3. **AMOUNT OF WASTES** - Indicate the average weight of asbestos-containing wastes disposed of, measured in kg/day.

DUP 1-13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50												
[A:1] [B:1] [C:1] [D:1] [E:1] [F:1] [G:1] [H:1] [I:1] [J:1] [K:1] [L:1] [M:1] [N:1] [O:1] [P:1] [Q:1] [R:1] [S:1] [T:1] [U:1] [V:1] [W:1] [X:1] [Y:1] [Z:1]																																																	
[A:2] [B:2] [C:2] [D:2] [E:2] [F:2] [G:2] [H:2] [I:2] [J:2] [K:2] [L:2] [M:2] [N:2] [O:2] [P:2] [Q:2] [R:2] [S:2] [T:2] [U:2] [V:2] [W:2] [X:2] [Y:2] [Z:2]																																																	
AMOUNT OF WASTES																																																	

4. **CONTROL METHODS** - Indicate the emission control methods used in all stages of waste disposal, from collection, processing, and packaging to transporting and disposition.

DUP 1-13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50												
[A:1] [B:1] [C:1] [D:1] [E:1] [F:1] [G:1] [H:1] [I:1] [J:1] [K:1] [L:1] [M:1] [N:1] [O:1] [P:1] [Q:1] [R:1] [S:1] [T:1] [U:1] [V:1] [W:1] [X:1] [Y:1] [Z:1]																																																	
[A:2] [B:2] [C:2] [D:2] [E:2] [F:2] [G:2] [H:2] [I:2] [J:2] [K:2] [L:2] [M:2] [N:2] [O:2] [P:2] [Q:2] [R:2] [S:2] [T:2] [U:2] [V:2] [W:2] [X:2] [Y:2] [Z:2]																																																	
CONTROL METHODS																																																	

5. **WASTE DISPOSAL** - Indicate the type of disposal site (sanitary landfill, open, covered) or incineration site (municipal, private) where the waste is disposed of and who operates the site (company, private, municipal). State the name and location of the site (closest city or town, county, state).

DUP 1-13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50												
[A:1] [B:1] [C:1] [D:1] [E:1] [F:1] [G:1] [H:1] [I:1] [J:1] [K:1] [L:1] [M:1] [N:1] [O:1] [P:1] [Q:1] [R:1] [S:1] [T:1] [U:1] [V:1] [W:1] [X:1] [Y:1] [Z:1]																																																	
[A:2] [B:2] [C:2] [D:2] [E:2] [F:2] [G:2] [H:2] [I:2] [J:2] [K:2] [L:2] [M:2] [N:2] [O:2] [P:2] [Q:2] [R:2] [S:2] [T:2] [U:2] [V:2] [W:2] [X:2] [Y:2] [Z:2]																																																	
WASTE DISPOSAL																																																	

NEW

DUP 1-18	(6.7)	LOCATION
19	20	21

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

71	72	73	74	75	76	77	78	79
----	----	----	----	----	----	----	----	----

D. WASTE DISPOSAL SITES. Part D should be completed separately for each asbestos waste disposal site subject to section 61.22 (I).

DUP 1-15	(6.8)	(6.9)	(6.10)	(6.11)	(6.12)	(6.13)	(6.14)	(6.15)	(6.16)	(6.17)	(6.18)	(6.19)	(6.20)	(6.21)	(6.22)	(6.23)	(6.24)	(6.25)	(6.26)	(6.27)	(6.28)	(6.29)	(6.30)	(6.31)	(6.32)	(6.33)	(6.34)	(6.35)	(6.36)	(6.37)	(6.38)	(6.39)	(6.40)	(6.41)	(6.42)	(6.43)	(6.44)	(6.45)	(6.46)	(6.47)	(6.48)	(6.49)	(6.50)	(6.51)	(6.52)	(6.53)	(6.54)	(6.55)	(6.56)	(6.57)	(6.58)	(6.59)	(6.60)	(6.61)	(6.62)	(6.63)	(6.64)	(6.65)	(6.66)	(6.67)	(6.68)	(6.69)	(6.70)	(6.71)	(6.72)	(6.73)	(6.74)	(6.75)	(6.76)	(6.77)	(6.78)	(6.79)	(6.80)	(6.81)	(6.82)	(6.83)	(6.84)	(6.85)	(6.86)	(6.87)	(6.88)	(6.89)	(6.90)	(6.91)	(6.92)	(6.93)	(6.94)	(6.95)	(6.96)	(6.97)	(6.98)	(6.99)	(6.100)
A.B		REGULATION		WASTE DISPOSAL SITE																																																																																									
POLLUTANT		REGULATION		WASTE DISPOSAL SITE																																																																																									

1. DESCRIPTION - Provide a brief description of the site, including its size and configuration, and the distance to the closest city or town, closest residence, and closest primary road.

DUP 1-14	(6.1)	SPITE DESCRIPTION
15	16	17

39	40	41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----	----	----

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

DUP 1-16	(6.2)	DISITAIN CIE	(TOWN)
18	19	20	21

36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

(KM)	42	43
------	----	----

R.E.S.I.D.E.N.C.E.					
45	46	47	48	49	50

56	57	58	59	60
----	----	----	----	----

(KM)	ROAD			
62	63	64	65	66

71	72	73	74	75
----	----	----	----	----

(KM)	77	78	79	80
------	----	----	----	----

2. INACTIVATION - After the site is inactivated, indicate the method or methods used to comply with the standard and send a list of the actions that will be undertaken to maintain the inactivated site.

DUP 1-18	(6.3)	COMPLIANCE METHOD/INACTIVE SITE
18	19	20

54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Nex

PART 11 - DEFERRAL OF REQUESTS

- A. DEFERRAL OF COMPLIANCE. Owners or operators of sources unable to operate in compliance with the National Emission Standards for Hazardous Air Pollutants prior to 90 days after the effective date of any standards or amendments which require the submission of such information may request a deferral of compliance from the Assistant Secretary, OEA, for the time period necessary to install appropriate control devices or make modifications to achieve compliance. The Assistant Secretary may grant a deferral of compliance with the standard for a period not exceeding two years from the effective date of the hazardous pollutant standard if he finds that such period is necessary for the installation of controls and that steps will be taken during the period of the waiver to assure that the health of persons will be protected from imminent endangerment.

The reporting information provided in Section I must accompany this application. Applications should be sent to DNR, OEA, Air Quality Division, Baton Rouge, Louisiana.

1. PROCESSES INVOLVED - Indicate the process or processes emitting hazardous pollutants to which emission controls are to be applied.

2. CONTROLS

- a. Describe the proposed type of control device to be added or modification to be made to the process to reduce the emissions of hazardous pollutants to an acceptable level. (Use additional sheets if necessary.)

- b. Describe the measures that will be taken during the waiver period to assure that the health of persons will be protected from imminent endangerment. (Use additional sheets if necessary.)

3. INCREMENTS OF PROGRESS - Specify the dates by which the following increments of progress will be met.

- a. Date by which contracts for emission control systems or process modifications will be awarded; or date by which orders will be issued for the purchase of the component parts to accomplish emission control or process modification.

DUP 1-15 (0117) 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

61 MO/DY/YR 66

60

- a. Date of initiation of on-site construction or installation of emission control equipment or process change.

DUP 1-16 (01217) 17 18 19 20 21 22 23 24 25 26 27 28 29 30

61 MO/DY/YR 66

60

- a. Date by which on-site construction or installation of emission control equipment or process modification is to be completed.

DUP 1-16 (0137) 17 18 19 20 21 22 23 24 25 26 27 28 29 30

61 MO/DY/YR 66

60

- a. Date by which final compliance is to be achieved.

DUP 1-16 (0147) 17 18 19 20 21 22 23 24 25 26 27 28 29 30

61 MO/DY/YR 66

60

SIGNATURE OF OWNER OR OPERATOR

DATE

PAGE 3 OF 8

CCR 000021831