THE DOW CHEMICAL COMPANY

MIDLAND, MICHIGAN 48640

PLAINTIFF'S EXHIBIT

DOW-1321

ST0215932

September 9, 1976

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EPA ASBESTOS REGULATIONS 40 CFR 61

F. A. Blanchard of Environmental Science Research has prepared an interpretative summary of these regulations. They have been reviewed by Bob Moolenaar, the legal people (Maynard L. Timm and Donna Roberts) and Irv Snyder.

I also consulted with some of the other Dvisions about this regulation and attached is a summary of how we ought to comply with 40 CFR 61.

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LIFE IS FRAGILE HANDLE WITH CARE

EPA ASBESTOS REGULATIONS

40 CFR 61

It is Dow's intent to comply with these regulations. If we have not complied with the reporting or other requirements in the past, we should begin to do so now. Each location should have completed the Compliance Status Information report and sent it to the regional EPA office within 90 days of 10-14-75.

It is Dow's responsibility to comply with both waste control and handling requirements, whenever contractors perform work on Dow-owned equipment, buildings, or property that have friable asbestos in or on them.

Purchasers of Dow materials or equipment that have friable asbestos in or on them will be advised of the requirements for handling and waste control before such materials or equipment are released to them. Then, the responsibility to comply with the regulations is transferred to the purchaser.

The EPA asbestos regulations impact Dow in three main areas:

1) Chlor-Alkali plants

2) Renovation of equipment with asbestos insulation

3) Asbestos land fill sites

We ought to take the position for Chlor-Alkali plants that the only source of visible emissions is in the cathode drawing operation. Then we do not have to worry about cell changes, cathode washing, pulping, etc., because these are never a source of visible emissions. Usually by working with your regional EPA contact on questions about details, you will find they don't want as much information as you at first think. The secret is to give the EPA enough information to satisfy them without giving away excessive "Trade Secret" information and without it becoming a reporting burden.

In the case of renovation, the best approach would be to estimate the amount of friable asbestos material from numerous small renovation jobs and report it for the next year's period of time (See page 7 of Interpretative Summary). In the case of buildings or a major plant demolition, individual reports would be required.

The case of waste disposal sites, the regulation is fairly simple. Basicly it requires fences and signs.

An interpretative summary by Frank Blanchard, reviewed by Maynard Timm, is attached.

ST0215933

AN INTERPRETATIVE SUMMARY OF THE EPA ASBESTOS REGULATIONS

I. Overview

The provisions of 40 CFR 61 require prevention of the release to the air of asbestos containing dust. The basic limit is "no visible emissions to the outside air". A "visible emission" can be seen without the aid of instruments and contains particulate asbestos material. 61.22 61.21(

Where "no visible emission" is impractical, there are alternate methods and standards of operation for handling, demolition, renovation and waste disposal.

Manufacturing operations which use asbestos and applications of asbestos as insulation or fireproofing are dealt with separately. Different reporting is required.

All communications shall be sent to the appropriate Regional EPA office to the attention of the Director, Enforcement Division and to the appropriate State Agency when it has been so delegated by the EPA. 61.04

II. Manufacturing Operations

A. Applicability (When Commercial Asbestos Is Used) 61.22

1. Asbestos Mills 61.22(
2. Roadways (tailings or wastes) 61.22(

ST0215934

3. Manufacturing 61.22(

(a) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.

(b) The manufacture of cement products.

(c) The manufacture of fireproofing and insulating materials.

(d) The manufacture of friction products.

(e) The manufacture of paper, millboard, and felt.

(f) The manufacture of floor tile.

(g) The manufacture of paints, coatings, caulks, adhesives, and sealants.

(i) The manufacture of chlorine.

(j) The manufacture of shotgun shells.

(k) The manufacture of asphalt concrete.

4. Fabricating cement or friction products 61.22(

ST0215935

ST0215936

B. Prohibited Activities

1. Construct or modify a stationary source without written approval. 61.05

(a) "Stationary Source" means any building, structure, facility, or installation which emits or may emit asbestos to the air. 61.02

(b) "Construction" means fabrication, erection, or installation of a stationary source. 61.02(

(c) "Modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of asbestos emitted. 61.02(

2. Operate new source in violation of the standard. 61.05(

(a) "Standard" for these activities is "there shall be no visible emissions to the outside air" except by use of specified air cleaning methods. 61.22(61.22(

3. Operate existing source in violation of the standard, except under waiver by the Administrator. 61.05(

4. Failure to report as required. 61.05(

C. Reporting

1. Existing Source Reporting and Waiver Request 61.10

(a) For existing sources, a specific form (Appendix A, 40 FR 48292, Oct. 14, 1975) must be filed with the EPA Administrator within 90 days of 10/14/75. This will give a description of the source, its emissions and their controls and waste disposal.

(b) A waiver of compliance may be requested when any source cannot operate in compliance with any standard. This shall be for a period not exceeding 2 years from the effective data of the standard (October 14, 1975). 61.11

(c) A detailed reporting format is given as Appendix A of 40 CFR 61.

(d) Subsequent changes will be reported within 30 days of such change.

2. Application for approval of "Construction" or "Modification" of a "Source" 61.07 61.08

(a) Each stationary source must have prior approval of the Administrator.

ST0215937

(b) The application includes: 61.07(b)

(a) Name and address of applicant.

(b) Location or proposed location of the source.

(c) Technical information describing the proposed nature, size, design, operating design capacity, method of operation, emission control equipment, and emission estimate calculations.

ST0215938

C. Notification must be provided, in writing, of the start-up of new sources. 61.09

1) 30 to 60 days prior to start-up and

2) Within 15 days after actual start-up.

III. Demolition and Renovation 61.22(

A. Demolition or renovation of a building, structure, facility, or installation which contains any asbestos insulated or fireproofed pipe, duct, boiler, tank, reactor, turbine, furnace or structural member requires the use of specific operating procedures and giving advance notification to the EPA Administrator. Renovation of very small sources is exempted from the notification requirement.

(a) "Demolition" means the wrecking or taking out of any load-supporting structural member and any related moving or stripping of friable asbestos material. 61.21(j

(b) "Renovation" means the removing or stripping of friable asbestos material used to insulate or fireproof any pipe, duct, boiler, tank, reactor, turbine, furnace or structural member. 61.21(n

ST0215939

B. Notification

1. An exempting amount of asbestos is: 61.22 (d)(1)

(a) <80 meters (ca 260 ft) of insulated pipe, or

(b) <15 sq meters (ca 160 sq ft) of insulation or fireproofing of ducts, etc.

2. Short notice

(a) Where there is less than the exempting amount of asbestos to be removed or stripped from a given source such as a building, use the short notice 20 days prior to demolition.

(b) The notice will include: 61.22 (d)(1) (i,ii)

Name of owner or operator

Address of owner or operator

Address of building, structure, facility or installation

Scheduled starting and completion dates

Amount of asbestos

(c) No notice is required for a renovation of less than the exempt amount. However, in figuring the amount for a planned renovation operation which involves a number of 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 will be used. The period shall be not less than 30 days and not longer than one year.

ST0215940

3. Long form of notice

(a) Where there is more than the limiting amount, a full notice is required prior to commencement of the operation:

Demolition - 10 days prior

Emergency demolition by condemnation - Early as possible prior

Renovation - Early as possible prior

(b) The notice will include: 61.22 (d) (2)

Name of owner or operator

Address of owner or operator

Description

Address of building, structure, facility or installation

Schedule

Methods

Waste handling

Disposal site

Authority for condemned demolition

ST0215941

C. Operating Standards 61.22 (d) (4)

1. Where pipes, reactors, etc. are insulated with friable asbestos, the asbestos or the units will be removed from buildings and structures before demolition. 61.22 (d) (i, ii

2. Adequate wetting down to prevent visible emissions will be used at all times in disassembly, transport and disposal. 61.22 (d) (ii iv, v)

3. If wetting down is not practicable, stripping may be done under control of local exhaust systems which capture the asbestos particles. Specific requirements on the control equipment are given as 61.23. 61.22 (d) (iv

4. During off-site stripping of asbestos from materials removed from buildings, etc., the asbestos must be controlled by wetting or by local exhaust ventilating systems which capture the asbestos. Removed material must remain wet during subsequent handling. There shall be no visible emissions to the outside air from the local exhaust systems or specified air cleaning devices may be used. 61.22 (d)(4 61.22 (d)(4 (ii,i 61.22 (d)(4 (v) 61.22 (d)(4 (iv)

IV. Insulating

A. There shall be no commercial asbestos used for molded insulating materials which are friable. 61.22

B. Spray applications to buildings, structures, pipes, and conduits will use only material with <1% asbestos. No reporting is needed. 61.22

C. In spray applications to equipment and machinery, there will be no visible emissions from the spray-on application of materials containing more than 1% asbestos on a dry weight basis.

D. A notice of intention to spray asbestos material which contains over 1% asbestos to insulate or fireproof equipment and machinery will be sent to the Administator 61.22 (e)(2

ST0215942

20 days prior to use. This will include:

Name of owner or operator

Address of owner or operator

Location of spraying operation

Procedures to be followed to meet requirements

ST0215943

V. Waste Disposal Methods.

A. Handling

1. No visible emissions during — 61.22 (j)(1)

Collection

Processing
Including Incineration

Packaging

Transporting

Deposition

OR 2. Material wetted down, then packed in specially marked container labeled as indicated below or by OSHA 29 CFR 1910.93a (g) (2)ii. — 61.22 (j)(3) (i)

CAUTION

Contains Asbestos

Avoid Opening or Breaking Container

Breathing Asbestos is Hazardous to Your Health

OR 3.	Processed into nonfriable form such as pellets. No visible emissions during collecting and processing.	61.22 (j)(3)(ii)
OR 4.	An alternative method with prior approval of the Administrator.	61.22 (j)(3)
5.	Wastes must be deposited at special waste disposal sites (see 61.25).	61.22 (j)(2)
B.	Requirements for an active waste disposal site for asbestos-containing waste material	61.25
1.	No "visible emissions"	61.25(
	Use warning signs at 100 meter intervals lettered as specified in 61.25(b)	61.25(
	ASBESTOS WASTE DISPOSAL SITE DO NOT CREATE DUST Breathing Asbestos is Hazardous to Your Health	
	Use fencing or natural barrier	61.25 (c, d)
OR 2.	At least each day cover new deposits with at least 15 cm (ca 6 inches) of compacted non-asbestos-containing material.	61.25 (e)(1)

ST0215944

OR 3. At least each day cover new deposits with a resinous or petroleum-based dust suppression agent which effectively binds dust and controls wind erosion (waste crankcase oil not acceptable). 61.25 (e)(2)

OR 4. Use an alternative control method with prior approval of the Administrator. 61.25(

C. Requirements for an inactive waste disposal site with previously deposited asbestos-containing wastes. 61.22(

1. No "visible emissions" are allowed, 61.22 (ℓ)(1)
Warning signs[c] placed at 100 meter intervals, 61.22 (ℓ)(2)
Fencing or natural barriers used to deter public assess 61.22 (ℓ)(3,

OR 2. Site kept covered with at least 15 cm (ca 6 inches) of compacted non-asbestos-containing material and a vegetation cover. 61.22 (ℓ)(5)(i)

OR 3. Site kept covered with at least 60 cm (ca 2 feet) of non-asbestos-containing material. 61.22 (ℓ)(5)(ii)

OR 4. Use an alternative control procedure with prior approval of the Administrator.

[c]See 61.22(1)(2) for detailed specifications: "ASBESTOS WASTE DISPOSAL SITE, Do Not Create Dust, Breathing Asbestos is Hazardous to Your Health".

ST0215945