

DRAFT

PLAINTIFF'S EXHIBIT

DOW-2122

SUMMARY OF ASBESTOS NESHAPS RULE NOVEMBER 20, 1990 FEDERAL REGISTER

On January 10, 1989 (54 FR 912), the EPA proposed amendments to the current asbestos NESHAPS rule of 1984 (49 FR 13658).¹ The stated goals of the new rule were to promote compliance with the current standards of demolition and renovation activities, and to enhance enforcement of them. The agency decided to postpone addressing risk assessment while it evaluates the asbestos NESHAPS in light of the "vinyl chloride case", NRDC v. EPA, 824 F.2d 1146 (D.C. Cir. 1987).

To reach its stated goals, the EPA proposed:

- 1) permitting the use of percent by area to calculate asbestos content of bulk material;
- 2) adding monitoring and record-keeping provisions for milling, manufacturing, and fabricating;
- 3) revising notification requirements for demolition and renovation²;
- 4) adding record-keeping and reporting requirements for waste disposal; and
- 5) other clarifying revisions.

¹Initial standards controlling milling, manufacturing, demolition, spraying and roadway sources were promulgated on 4/6/73 (38 FR 8820). Demolition standards were revised on 10/24/75 to cover government ordered demolitions, renovation activities, use of asbestos in friable insulation, and waste disposal (40 FR 48299). Work practices regarding demolition and renovation were amended on 6/19/78 (43 FR 26372), and repromulgated on 4/5/84 (49 FR 13658), to incorporate standards of work practice and equipment controls per Adamo Wrecking Company v. United States, 434 U.S. 275 (1978).

²Most noteworthy here is the requirement for notice even if there is believed to be no asbestos, where demolition is concerned. The zero standard does not, however, apply to renovation. Per section 61.141, Definitions, "demolition" refers to the wrecking or removal of a load-bearing structure (e.g., pier, wall) of a facility. "Renovation" means to alter a facility's components, but does not include load-bearing structures.

ST0422547

ER 24-91

ST0422547

DRAFT

Page 2

Part 61 of 40 CFR was amended as follows, in accordance with the stated goals³:

Section 61.141, Definitions.

"Asbestos-containing waste materials" ("ACM") now includes expressly disposable equipment and clothing. There are two categories of ACM: friable and non-friable.

"Commercial asbestos" not only includes ore, but also any asbestos material of value.

"Demolition" now includes intentional burning.

"Emergency renovation operation" means an event which now is tied to a safety or public health hazard,, or an event which may damage equipment or impose an unreasonable financial burden. Criteria for what constitutes an emergency renovation are more explicit.

"Fabricating" includes several specific examples to the definition. For friction products, bonding and debonding are included.

"Facility" is more specific as to the kind of building involved. The definition excludes ships, waste disposal sites, and residential buildings of four or less units. Structures covered previously are grandfathered, however. Single-unit dwellings are not included in the definition. (See preamble at 48412.)

"Facility component" is clarified, defining it as any part of a facility, including equipment.

"Friable asbestos" gives microscope standards. (See preamble at 55 FR 48410; see also 54 FR 922, referencing Appendix A, subpart F, 40 CFR 763.) The current definition used a 1% threshold of asbestos, by weight. One percent by area is added to make the regulation consistent with preferred analytical methodology. (54 FR 922)

³These rules are extremely detailed. The reader of this summary is advised to refer to the actual rule whenever possible, until Dow divisions update their respective handbooks covering asbestos operations. What follows here is only a highlighting of the changes in the rule.

EC 2-4-91.

ST0422548

ST0422548

DRAFT

Page 3

"Inactive waste disposal site" drops the traffic reference and creates specifies that it cannot have been used in the past year.

"Manufacturing" expressly includes chlorine production.

"Outside air" now references bridges and docks.

"Particulate asbestos material" adds "asbestos" to the definition.

"Planned renovation operation" includes a definition now of "regulated asbestos containing material--RACM." These are friability categories. Under the revision, knowledge is required that "some" friable asbestos material will be stripped or removed, rather than knowledge of "the amount of" material to be stripped or removed.

"Remove" includes a reference to RACM, and is clarified by including the taking out of "asbestos-covered facility components."

"Renovation" includes a reference to RACM, and clarifies that stripping and removal are renovation. Wrecking or taking out load-supporting structural members is demolition.

"Roadways" now specifies private roads.

"Strip" references RACM, and adds "or facility components" at the end of the definition.

"Visible emissions" references RACM, and is revised to mean any emissions coming from asbestos-containing material.

"Adequately wetted" was replaced by "adequately wet" and expressly addresses visible particulate emissions.

"Asbestos material" was dropped, but ACM and RACM were added. "ACM", or "asbestos-containing material" was expanded to include both friable and nonfriable material. (54 FR 921)

In addition to the new terms mentioned above, other new terms include:

"Cutting"--to penetrate with a sharp-edged instrument, e.g., sawing; but not slicing, shearing, or punching.

ST0422549

ST0422549

GK-2-4-77

DRAFT

Page 4

"Glove bag"--a device for safe handling where wetting is not feasible because of safety or equipment)

"Grinding" (see preamble at 48412)--reducing to powder or fragments, e.g., mechanical chipping or drilling.

"Fugitive sources" clarifies provisions for mills, manufacturing and fabricating.

"Leak-tight" clarifies demolition, renovation and waste disposal requirements as pertaining to leak-tight containers, wrappings, and chutes for conveyance of waste from aboveground stripping and removal operations. No asbestos or asbestos-containing material should escape. Regarding chutes and intent of EPA, see comments of proposed rule, 54 FR 918.)

"Malfunction" clarifies conditions covered by requirements for air pollution control devices in milling, manufacturing, and fabricating.

"Natural barrier" clarifies waste disposal requirements and specifically, that remoteness of a disposal site alone does not constitute a natural barrier.

"Non-friable asbestos-containing material" is that material which has greater than 1% asbestos per Appendix A, subpart F, 40 CFR Part 763, discussing polarized light microscopy. When dry, it cannot be crumbled, pulverized, or reduced to powder by hand pressure. (See preamble discussion at 55 FR 48408-10.)

"Non-scheduled operation" clarifies the intent of the applicability provisions for renovation.

"Owner or operator of a demolition or a renovation activity", is defined to clarify responsibility. It includes the owner of the facility being demolished or renovated, and the current owner of the property on which the facility is situated, if the owner sells the facility to another party for demolition or renovation. Such a property owner is deemed to own or lease or operate or control or supervise the demolition, even if he does not hold title to the facility, because he has "caused" the demolition or renovation to occur. See, e.g., U.S. v. Geppert Bros. Inc. et al., 638 F.Supp. 996 (E.D. Pa. 1986), as cited by EPA in proposed rule preamble, 54 FR 923.

"Regulated asbestos-containing material (RACM)"--defines friability categories.

KK 2-4-91

ST0422550

ST0422550

DRAFT

Page 5

"Resilient floor covering" is added; normally non-friable, it may require notice if handled in demolition or renovation in a way to generate fibers. This kind of floor covering by definition meets the specifications of nonfriable asbestos-containing material.

"Waste generator"--the owner or operator of a source regulated hereunder. This can include sellers to those who will demolish or renovate; see owner/operator, above.

"Waste shipment record", or WSR--the shipping document signed by the generator and used to track disposal.

"Working day" is defined as Monday through Friday to clarify notice requirements for demolition and renovation..

Section 61.142. Standards for asbestos mills.

This is greatly enlarged to provide detailed monitoring, inspection and record-keeping provisions. Details are similar to Section 61.144, spelled out below. See Figures 1 and 2 for a Model Monitoring Chart, and Model Checklist, respectively (55 FR 48417-8).

Section 61.143. Standards for roadways.

This standard is clarified by substituting "construct or maintain" for "surface", codifying a determination already made by the EPA. (See 54 FR 921.) Unbound tailings are not allowed in a road base, unless the road is a temporary one in an area of asbestos ore deposits. At mill sites, tailings encapsulated by resinous or bituminous binders are allowed in temporary roadways. Tailings for road construction must be encapsulated per Federal Highway Administration specifications, but will still be allowed because of their typically low asbestos content.

Section 61.144. Standards for manufacturing.

This section is greatly expanded and combines old sections 61.145-147.

This section expressly references chlorine utilizing asbestos diaphragm technology.

There should be no discharge of visible emissions from a facility of operations. Section 61.152 is referenced for cleaning of equipment before such discharge becomes possible.

ST01,22551

KK 2-4/91

ST0422551

DRAFT

Page 6

Monitoring must be at least once a day for 15 seconds during daylight, for each source: air cleaning devices, process equipment, and buildings housing material processing and handling equipment. Inspection must be at least once weekly for tears, holes, and abrasions in filter bags and for dust deposits on the clean sides of bags. If such inspection is not possible, one can submit a maintenance plan to the EPA.

Inspections records should follow the formats of Figures 1 and 2 cited above in the summary of 61.142. Include the date and time of inspection, presence of visible emissions, condition of filters, presence or not of dust, descriptions of corrective action, date and time, and hours of operation for air cleaning devices. Records are to be kept for two years and should at all times be made available for inspection. If visible emissions occurred during the report period, quarterly reports are required, to be postmarked by the 30th day following the end of the calendar quarter.

Section 61.145. Standard for demolition and renovation.

This section is greatly expanded.

Most noteworthy, paragraph (a)(2)(ii) requires notice to the agency for demolition even if there is no asbestos. There are 2 pages of notice provisions. Some highlights: Both demolition and renovation require a 10-day notice period, by U.S.P.S. or commercial delivery, or by hand delivery, to the agency (paragraph (b)(3)). If by mail, the 10 days refers to the date of postmark. An operation must commence on the date specified in the written notice. If there is a need for a new start date, one must renote by mail or carrier or hand delivery. The postmark must be five days before commencement of work, and hand delivery must be three days before asbestos stripping or removal work begins.

Notices must be updated if asbestos calculations change by 20% or more.

Notification regarding government-ordered demolitions now must include the date the order was issued and the date on which the demolition was ordered to begin.

Paragraph (a)(4)(i) is modified to require that the additive amount of asbestos to be removed or stripped over a calendar year of January 1 through December 31 be used instead of over the "maximum period of time a prediction can be made not to exceed 1 year." This clarifies the intent of the current

ST0422552

XX 2-4-91

ST0422552

DRAFT

Page 7

regulation to cover individual, nonscheduled asbestos removal operations involving small amounts of asbestos, if the total amount to be removed in 1 year is projected to exceed the quantities of asbestos specified in 61.145(a). When individual renovations exceed the cutoff, a separate notification is required. (54 FR 917)

Paragraph (c) provides details for emission control. Some highlights are:

Safety is a reason to justify exemption from wetting methods, per 61.145(c)(3), but the administrator must approve the removal procedures. Also in 61.145(c)(3), two new work practices in addition to the local exhaust ventilation system are added when wetting is not possible: 1) glove bag systems and 2) covering friable material in leak-tight wrapping prior to removal. (It is recommended that a worker using glove bags be protected by a respirator, at 54 FR 917.)

Under (c)(8), the on-site foreman (or manager or representative) must be present at the site at all times and trained in provisions of this regulation, per specifications in this paragraph. This training will not replace that of OSHA, 29 CFR 1916.58 or general training recommended by EPA (stated opinion of the agency at 54 FR 918).

Per (c)(10), on-site burning is subject to RACM regulations. If freezing suspends wetting operations, the operator must measure air temperature three times daily in the workday and keep daily temperature records for two years. Handling of non-friable asbestos is addressed. The EPA is taking cognizance of the fact that in some circumstances, non-friable asbestos material may release fibers. (See pages 48408 and 48410 of the preamble.)

Figure 3 is a model notification form for demolition and/or renovation.

Section 61.146. Standards for spraying.

The use of materials with greater than 1% asbestos on a dry weight basis is prohibited, unless the fibers are encapsulated with a bituminous or resinous binder during operations and materials are not friable after drying. The new rule will permit one to substitute percent by area for percent by weight to express asbestos concentration. See the discussion

ST0422553

KK 2-4-91

ST0422553

DRAFT

Page 8

of "friable asbestos material" in the definitions section of the preamble.

Section 61.147. Standards for fabricating.

Part (b) is added to include standards for monitoring, inspection and reporting, similar to 61.144 discussed above.

Section 61.148. Standards for insulating materials. (Old section 61.150)

Section 61.149. Standard for waste disposal for asbestos mills. (Old section 61.151).

(Paragraphs (a), (b), and (c) are revised. Paragraph (d) is new.

A major change in (c): Wetting may be suspended when the ambient temperature is less than 15 degrees F, as determined per this regulation, but if so, the temperature must then be recorded at least at hourly intervals and records must be kept for 2 years, subject to inspection.

Some highlights of (d) are:

There are new record-keeping requirements for waste shipments. Figure 4 includes a model Waste Shipment Record. (55 FR 48426-8) Vehicles leaving a generator's site must conform to OSHA specs: 29 CFR 910.145(d)(4) and this paragraph. A model legend of the warning is provided. For off-site disposal, the generator provides a copy of the waste shipment record (WSR) described in paragraph (e)(1) and shown in figure 4 of the regulation, and ascertain that the waste is received in 45 days at the waste disposal site. The generator must report to the EPA if the waste was not received in 45 days, per a signed WSR. The report provisions are in (e)(3) of this regulation. WSRs must be kept two years.

Section 61.150. Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations. (Old section 61.152)

This is greatly enlarged, providing detailed wetting instructions and more detailed (than before) labelling instructions in (a)(1). In (a)(2), instructions are provided for processing asbestos to nonfriable pellets. In (a)(3), unremoved RACM is addressed. Paragraph (b) provides details for site selection, vehicle markings, records, and WSRs, similar to section 61.149 above.

ST0422554

KK 2-4-91

ST0422554

DRAFT

Page 9

**Section 61.151. Standard for inactive waste disposal sites.
(Old Section 61.153)**

This section covers the standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations. Any excavation or disturbance of the sites requires notice to the administrator. The location and quantity of asbestos waste disposed of must be noted on the deed to property when a site becomes inactive, to advise prospective purchasers of the land.

New Section 61.152. Air cleaning. (Old section 61.154).

Collection devices are addressed in detail. Paragraph (a) is amended; paragraph (b) is enlarged.

Section 61.153. Reporting. (Old section 61.155)

This is clarification to instruct new and existing milling, manufacturing, and fabricating operations under what conditions and when they must report certain information on emission control equipment and processes that generate asbestos emissions.

**Section 61.154. Standard for active waste disposal sites.
(Old section 61.156)**

(Any that fails the "inactive" definition.) Paragraphs (c) and (d) are revised. Paragraphs (e) through (f) are added. Some highlights: The requirements apply to each owner or operator of an active site that receives waste material from a source listed in 61.145, 150, 155. Records must now show the location and quantity of asbestos waste, by depth, area, and volume on a map or diagram. Any excavation or disturbance of the site requires notice to the administrator. Details of WSR handling are provided and are similar to sections 61.149 and 61.151 above.

Section 61.155. Standard for operations that convert asbestos-containing waste material into nonasbestos (asbestos-free) material. (New section)

New electron microscope protocol is included. For the first 90 days of operation, there are strict monitoring and record-keeping requirements.

ST0422555

YK 2-4-91

ST0422555

DRAFT

Page 10

Section 61.156. Cross-reference to other asbestos regulations. (New section)

See Table 1 of this regulation. The table includes other agencies than the EPA. This list should be used in conjunction with the EPA's discussion of other relevant asbestos statutes, in the proposed rule, at 54 FR 914.

Section 61.157. Delegation of authority. (New section)

This explains what enforcement is delegated to the states and what is not.

ST0422556

. KKK 2/4/91

ST0422556