

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Removal of Lead Paint from
4 Steel Structures

5

6 Rules as Adopted

7 REMOVAL OF LEAD PAINT FROM STEEL STRUCTURES

8 7025.0200 APPLICABILITY.

9 Parts 7025.0200 to 7025.0380 establish the procedures that
10 an owner or a contractor shall follow to remove lead paint from
11 the exterior surface of a steel structure that is permanently
12 fixed in an outside location, from a mobile or portable steel
13 structure that is located outside at the time that lead paint is
14 removed from its surface, and from exterior metal components of
15 buildings.

16 7025.0210 DEFINITIONS.

17 Subpart 1. **Scope.** For the purposes of parts 7025.0200 to
18 7025.0380, the terms in this part have the meanings given them.

19 Subp. 2. **Abrasive blasting.** "Abrasive blasting" means the
20 use of either air pressure or a centrifugal wheel and abrasive
21 particles to remove surface coatings or to prepare a surface for
22 paint application.

23 Subp. 3. **Acid digestion.** "Acid digestion" means
24 laboratory analysis of lead concentration according to digestion
25 method 3050 or 3051 and analytical method 6010 or 7420 as
26 described in "Test Methods for Evaluating Solid Waste,
27 Physical/Chemical Methods SW-846," volume 1A, United States
28 Environmental Protection Agency (EPA), Third Edition, November
29 1986; or laboratory analysis according to method 3335 of the
30 American Society for Testing and Materials as described in
31 "Annual Book of ASTM Standards," volume 06.01, June 1984. These
32 documents are incorporated by reference and are available at the
33 state law library through the Minitex interlibrary loan system.
34 They are not subject to frequent change.

35 Subp. 4. **Bridge.** "Bridge" means a roadway, railway, or

1 pedestrian bridge with steel trusses or girders that is part of
2 a roadway or that traverses a roadway, railway, walkway, or
3 waterway.

4 Subp. 5. **Child care property.** "Child care property" means
5 property that incorporates a child care building where children
6 are cared for or supervised at any time of the day or year.

7 Subp. 6. **Commissioner.** "Commissioner" means the
8 commissioner of the Minnesota Pollution Control Agency.

9 Subp. 7. **Contractor.** "Contractor" means a person, an
10 organization, or a corporation who, for financial gain, directly
11 performs paint removal from the exterior of a steel structure
12 or, through subcontracting or similar delegation, causes such
13 paint removal to be performed.

14 Subp. 8. **Ground storage tank.** "Ground storage tank" means
15 a water, fuel, chemical, fertilizer, or other storage tank that
16 has a height above the ground less than 20 feet; a diameter
17 greater than or equal to its height; or a length greater than
18 its height; or a portable storage tank.

19 Subp. 9. **High-efficiency particulate air filter.**
20 "High-efficiency particulate air (HEPA) filter" means a filter
21 that removes from the air at least 99.97 percent of all
22 particles greater than 0.3 microns in diameter.

23 Subp. 10. **Lead paint.** "Lead paint" means a coating that
24 contains more-than:

25 A. one-half of one percent (0.5 percent), or 5,000
26 parts per million (5,000 ppm), or more of total lead by weight
27 in the dried film as determined by acid digestion and analysis;
28 or

29 B. one-half milligram per square centimeter (0.5
30 mg/cm²) or more of lead, as determined by X-ray fluorescence
31 analyzer.

32 Subp. 11. **Low-dust nonsilica abrasive.** "Low-dust
33 nonsilica abrasive" means an abrasive particle product that is
34 rated by the manufacturer as a low-dust abrasive and that
35 contains less than one percent (1.0 percent) free silica by
36 weight.

1 Subp. 12. Owner. "Owner" means a person, organization,
2 corporation, or governmental or political entity, and its
3 employees, to whom a steel structure belongs and who performs
4 paint removal from the structure or who contracts for its
5 removal, or the representative of the owner who performs
6 identification of lead in paint or notification.

7 Subp. 13. Playground. "Playground" means an area
8 designated for children's play including a school playground, a
9 child care building playground, a play area of a public park, or
10 an area that contains permanent play equipment.

11 Subp. ~~13~~ 14. Power tool. "Power tool" means an electric
12 or pneumatic rotary peening tool, needle gun, or other tool that
13 breaks and removes a coating but does not abrade the coating, or
14 an electric or pneumatic tool that does abrade the coating and
15 is equipped with a high-efficiency particulate air (HEPA) filter
16 vacuum.

17 Subp. ~~14~~ 15. Protected natural area. "Protected natural
18 area" means a designated national park, national wildlife
19 refuge, national wild and scenic river, nature center, or
20 environmental learning center; an area designated by the
21 Minnesota Department of Natural Resources (MnDNR) as a wildlife
22 management area, scientific and natural area, state park,
23 research natural area, waterfowl production area, area of
24 special interest; a site officially registered with any unit of
25 government through the scientific and natural area program of
26 the ~~Minnesota-Department-of-Natural-Resources~~ MnDNR; or a site
27 of occurrence of unique plant or animal life identified by the
28 natural heritage program of the ~~Minnesota-Department-of-Natural~~
29 ~~Resources~~ MnDNR.

30 Subp. ~~15~~ 16. Public use property. "Public use property"
31 means property that includes a ~~publicly-owned~~ building used by
32 the public, a recreational area, or a public parking lot, but
33 does not mean property that includes only a playground or only a
34 roadway.

35 Subp. ~~16~~ 17. Residential property. "Residential property"
36 means property that incorporates a single-family or multiunit

1 building that is intended for use for human habitation.

2 Subp. ~~17~~ 18. **School property.** "School property" means
3 property that contains a public school building as defined in
4 Minnesota Statutes, section 120.05, or a nonpublic school,
5 church, or religious organization building in which a child is
6 provided instruction in compliance with Minnesota Statutes,
7 sections 120.101 and 120.102.

8 Subp. ~~18~~ 19. **Steel structure.** "Steel structure" means a
9 structure that has a steel surface from which lead paint might
10 be removed in the ambient air and includes, but is not limited
11 to:

- 12 A. steel girders or trusses of a bridge;
- 13 B. water storage tanks;
- 14 C. fuel and chemical storage tanks;
- 15 D. fertilizer tanks;
- 16 E. grain storage bins;
- 17 F. railcars;
- 18 G. buildings;
- 19 H. pipelines;
- 20 I. boats and barges;
- 21 J. transmission towers;
- 22 K. transformers;
- 23 L. light poles;
- 24 M. locks and dams;
- 25 N. parking ramps;
- 26 ~~N~~ O. handrails, walkways, and stairways;
- 27 ~~O~~ P. vehicles that are used for commerce, industry,
28 or construction;
- 29 ~~P~~ Q. steel structures of utilities, power plants,
30 water and waste treatment facilities, pulp and paper mills,
31 chemical and food processing plants, petroleum refining plants,
32 and shipyards; and
- 33 ~~Q~~ R. other industrial and commercial equipment.

34 Subp. ~~19~~ 20. **Vacuum blasting.** "Vacuum blasting"
35 means ~~dry~~ abrasive blasting with either a blast module or a
36 blast nozzle that-is surrounded by a chamber ~~under~~ that is

1 evacuated with negative air pressure and that is held against
2 the coated surface.

3 Subp. ~~20~~ 21. **Water tank.** "Water tank" means a ground
4 storage tank, standpipe, or water tower that is used as a
5 reservoir of water.

6 Subp. ~~21~~ 22. **Water tower.** "Water tower" means an
7 elevated multileg tank, a pedestal column spherical tank, or a
8 fluted column tank or hydropillar used as a reservoir of water.

9 Subp. ~~22~~ 23. **Wet abrasive blasting.** "Wet abrasive
10 blasting" means abrasive blasting with the addition of water to
11 the air abrasive stream.

12 Subp. 24. **X-ray fluorescence analyzer or XRF**
13 **analyzer.** "X-ray fluorescence analyzer" or "XRF analyzer" means
14 a field instrument that measures lead concentration by
15 inluorescence of lead atoms, expressed in milligrams per
16 centimeter square (mg/cm²).

17 7025.0220 COMPLIANCE.

18 Subpart 1. **Lead paint removal requirements.**

19 A. An owner or contractor who removes lead paint from
20 a steel bridge shall comply with parts 7025.0230 to 7025.0300
21 and 7025.0380.

22 B. An owner or contractor who removes lead paint from
23 a steel water tank, ground storage tank, grain storage bin, or
24 other storage structure shall comply with parts 7025.0230,
25 7025.0240, 7025.0310 to 7025.0350, and 7025.0380.

26 C. An owner or contractor who removes lead paint from
27 a steel structure not cited in item A or B, shall comply with
28 parts 7025.0230, 7025.0240, and 7025.0360 to 7025.0380.

29 Subp. 2. **Use of alternative methods.** The owner or
30 contractor may use methods of paint analysis, paint removal, and
31 containment other than those specified in this part if the
32 commissioner approves the alternative method in writing prior to
33 its use. The commissioner shall give conditional approval of
34 the alternative method if the owner or contractor submits a
35 request in writing that:

1 A. provides product specifications and either
2 original documentation or manufacturer data that demonstrate
3 that the method provides analysis of equivalent accuracy or
4 pollution control of equivalent or greater efficiency than the
5 methods specified in this part, and

6 B. identifies the specific provisions of the rule for
7 substitution with the alternative method.

8 Subp. 3. **Compliance with other regulations.** Nothing in
9 parts 7025.0200 to 7025.0380 shall be construed to allow
10 testing, removal, containment, recovery, or disposal of lead
11 paint or lead paint particles from steel structures in violation
12 of local regulations or federal or state rules and statutes,
13 including those relating to occupational safety and health,
14 which include Code of Federal Regulations, title 29, section
15 1926.62, as adopted by reference in part 5205.0010.

16 7025.0230 IDENTIFICATION OF LEAD IN PAINT.

17 Subpart 1. **Testing required.** An owner shall test a
18 coating for total lead concentration, using the methods required
19 by this part, before the owner or contractor removes the coating
20 from the exterior of a steel structure, except as provided in
21 subpart 2, items A and C, unless removal is to be conducted
22 inside a building.

23 Subp. 2. **Sampling procedure and analysis.** The samples
24 collected or measured as required by this subpart shall be
25 representative of the coatings to be removed. Each collected
26 sample shall include equal surface areas and the entire
27 thickness of each coating. The lead concentration of a surface
28 sample measured by an XRF analyzer shall be the mean value of a
29 minimum of three different measurements of that surface. If
30 parts of the steel structure have been painted at different
31 times or with different paints, a sample of each coating from
32 each of these parts must also be collected or measured.

33 A. **Bridges.** Prior to paint removal, the owner of a
34 bridge shall determine the concentration of lead in paint on the
35 bridge either by review of painting records or by XRF analysis

1 or acid digestion analysis of a minimum of one paint sample from
2 a girder bridge or one paint sample from the trusses and one
3 from the girders of a truss bridge.

4 B. Storage structures. Prior to paint removal, the
5 owner of a water tank, fuel tank, grain storage bin, or other
6 storage structure shall determine the concentration of lead in
7 paint on the structure by either XRF analysis or acid digestion
8 analysis of each sample of paint.

9 (1) Multileg water tank. The owner shall
10 collect or measure, at a minimum, one paint sample from the
11 legs, one sample from the center column, and one sample from the
12 reservoir, for a total of three samples.

13 (2) Other water tower. The owner shall
14 collect or measure, at a minimum, one paint sample from the base
15 of the column and one sample from the top of the column or the
16 reservoir, for a total of two samples.

17 (3) Ground storage tank, standpipe, or grain
18 storage bin. The owner shall collect or measure, at a minimum,
19 one paint sample from the wall and one sample from the roof of a
20 ground storage tank where the same paint will be removed from
21 one or more identical structures and, for standpipes and grain
22 storage bins, one sample from the bottom half and one from the
23 top half of the wall, for a total of two samples.

24 (4) Small storage tank. The owner shall collect
25 or measure, at a minimum, one paint sample from a fixed storage
26 tank with less than 1,000 square feet surface area and one paint
27 sample from a portable storage tank where the same paint will be
28 removed from one or more identical tanks.

29 C. Other steel structures. Prior to paint removal,
30 the owner of a steel structure, other than a bridge or a storage
31 structure, or the owner of a painting facility shall determine
32 the concentration of lead in paint on the structure either by
33 review of painting records or by XRF analysis or acid digestion
34 analysis of a minimum of one sample of paint.

35 Subp. 3. Calculation of lead concentration. Where samples
36 are analyzed from different parts of one structure, the

1 calculation of lead concentration for the structure is the sum
2 of the following product for each of the samples:

3 surface area of part represented Pb concentration of
4 by sample as a percent of total x sample (% or mg/cm²)
5 surface area of structure

6
7 such that:

8 $(\text{area}_A \times \text{Pb}_A) + (\text{area}_B \times \text{Pb}_B) + \dots +$
9 $+ (\text{area}_N \times \text{Pb}_N) = \text{lead concentration } (\% \text{ or } \underline{\text{mg/cm}^2})$

10 where "A," "B," "N" are sample areas; "area" is the surface area
11 of the part of the structure expressed in whole percent of total
12 surface area, so that the sum of all surface areas is equal to
13 100 percent; and "Pb" is the concentration of total lead
14 expressed in percent ~~as-a-decimal~~ or the weight of lead per
15 surface area expressed in mg/cm².

16 7025.0240 NOTIFICATION.

17 Subpart 1. **Notice required.** The owner of a steel
18 structure or the owner of a painting facility shall provide
19 notice as described in items A and B at least ten working days
20 before the start of removal of lead paint from a total exterior
21 surface area greater than 500 square feet on one steel structure
22 or on more than one steel structure at one location during one
23 calendar year. Facilities that have applied for an MPCA air
24 quality permit as required by chapter 7007, permits and offsets
25 rules, because of emissions only due to paint removal and
26 repainting operations, are exempt from notification.

27 A. The owner must give written notice as required in
28 subpart 2 to the adult residents of buildings, and to the owner
29 or administrator of any child care or school buildings, within a
30 distance to a single steel structure of 50 feet or twice the
31 height of the structure, whichever is greater, but within 200
32 feet of a bridge portion. For multiple storage structures at
33 one location, this distance is equal to the sum of the heights
34 of individual structures from which lead paint is removed during
35 one year, not to exceed 200 feet. The owner must mail or
36 deliver the notice to the owner or administrator of a child care
37 or school building. The owner must mail, deliver, or put on or

1 under the door of each residence one notice for each
2 single-family building and one notice for each unit of a
3 multiunit building.

4 B. The owner must mail, facsimile, or deliver written
5 notice to the commissioner as required in subpart 3.

6 If the owner or contractor postpones the beginning of paint
7 removal more than five working days from the date stated in the
8 written notices required by this subpart, the owner shall,
9 within those five days, redistribute each of the notices with
10 the revised schedule for paint removal. The commissioner must
11 be renotified before the original starting date of paint removal
12 by a supplemental notice.

13 Subp. 2. Contents of notice to residents, administrator,
14 and owner. The notice required in subpart 1, item A, shall
15 state that lead paint is present on the structure, shall specify
16 the days and the hours during which paint removal is
17 anticipated, and shall advise the owner or administrator and the
18 adult residents of buildings to prevent children under the age
19 of ten years from entering the outdoor area within 100 feet of
20 the structure or structures or bridge portion from the start of
21 paint removal each day until the completion of cleanup after
22 paint removal.

23 If dry abrasive blasting or wet abrasive blasting is the
24 method of paint removal, the notice shall further advise the
25 owner or administrator and the adult residents of buildings
26 within 100 feet of the structure or structures or bridge
27 portion, or within a distance equal to the height of the
28 structure, whichever is greater, to take the following actions
29 each day before paint removal begins:

30 A. close all doors, windows, and storm windows on the
31 walls that face the structure to be abrasive blasted and their
32 adjoining walls;

33 B. turn off all air conditioning units that use
34 outdoor air exchange on the walls that face the structure and
35 their adjoining walls, and tightly cover these units with
36 impermeable material; and

1 C. take inside or remove from the exterior property
2 all pets, pet houses, pet food and water bowls, and all
3 children's toys and play equipment, or cover the equipment that
4 cannot be moved.

5 Subp. 3. Contents of notice to commissioner. The notice
6 required in subpart 1, item B, shall include:

7 A. the type of steel structure from which paint is to
8 be removed and the address or location of the structure or
9 structures;

10 B. the scheduled starting and completion days and
11 times;

12 C. a copy of the painting records or paint test
13 results required by part 7025.0230;

14 D. the name, business address, and telephone number
15 of the contractor, the consultant, and the owner, and the name
16 of one contact person for each company and owner;

17 E. if the structure from which lead paint is to be
18 removed is either a bridge or a steel structure in part
19 7025.0370, item C, a description of the bridge or structure that
20 includes:

21 (1) the number of total square feet of surface
22 area from which paint will be removed;

23 (2) the distance to the property nearest the
24 bridge or structure for each kind of property designated in part
25 7025.0250 up to 500 feet; and

26 (3) the class of pollution control to be applied
27 to each bridge portion or structure as required in parts
28 7025.0250 and 7025.0260 to 7025.0300; or

29 F. if the structure from which lead paint is to be
30 removed is either a storage structure or a steel structure in
31 part 7025.0370, item A, a description of the structure that
32 includes:

33 (1) the number of total square feet of surface
34 area from which paint will be removed;

35 (2) the calculation of potential risk factor (RF)
36 from part 7025.0310;

1 (3) the distance to the property nearest the
2 structure for each kind of property designated in the table in
3 part 7025.0310 up to 500 feet; and

4 (4) the class of pollution control to be applied
5 to the structure from the table in part 7025.0310;

6 G. a copy of the notice given to the adult residents
7 and to the owner or administrator in subparts 1 and 2, with a
8 list of addresses that received notification;

9 H. the paint removal methods and the containment
10 methods the owner or contractor intends to use to comply with
11 parts 7025.0260 to 7025.0300, 7025.0320 to 7025.0350, and
12 7025.0360 to 7025.0370;

13 I. the name and location of the waste disposal site
14 where the waste collected as required by parts 7025.0260 to
15 7025.0300, 7025.0320 to 7025.0350, and 7025.0360 to 7025.0370,
16 and disposed of as required by part 7025.0380, will be
17 deposited; or a description of the proposed disposition of
18 waste materials that are not put in a waste disposal site; or,
19 if the waste generator is a hazardous waste facility permitted
20 by the MPCA, the EPA identification number of the facility; and

21 J. any other information that the commissioner may
22 request to determine compliance with parts 7025.0200 to
23 7025.0380.

24 Any corrections to the information provided in the notice
25 shall be made in writing by a supplemental notice that the owner
26 shall mail, facsimile, or deliver to the commissioner.

27 CONDITIONS FOR LEAD PAINT REMOVAL FROM BRIDGES

28 7025.0250 CLASSIFICATION OF BRIDGES.

29 Subpart 1. **Application.** The classifications in this part
30 shall be used to determine the requirements in parts 7025.0260
31 to 7025.0300 that apply to a bridge or bridge portion from which
32 lead paint will be removed. The owner or contractor shall
33 determine the class of each bridge or bridge portion.

34 Subp. 2. **Class I.** A bridge or bridge portion is class I
35 if it is not within 100 feet of, or is not above, a water body

1 and is not within:

2 A. 300 feet of residential, child care, or school
3 property or a playground;

4 B. 200 feet of public use, commercial, or protected
5 natural area property; or

6 C. 100 feet of industrial or agricultural property.

7 Subp. 3. Class II. A bridge or bridge portion is class II
8 if it is within 100 feet of, or is above, a water body, but
9 otherwise meets the qualifications in subpart 2, items A to C,
10 for a class I bridge.

11 Subp. 4. Class III. A bridge or bridge portion is class
12 III if it is not within 100 feet of, and is not above, a water
13 body, but is within:

14 A. 300 feet of residential, child care, or school
15 property or a playground;

16 B. 200 feet of public use, commercial, or protected
17 natural area property; or

18 C. 100 feet of industrial or agricultural property.

19 Subp. 5. Class IV. A bridge or bridge portion is class IV
20 if it is within 100 feet of, or is above, a water body, but
21 otherwise meets the qualifications in subpart 4, items A to C,
22 for a class III bridge.

23 7025.0260 POLLUTION CONTROL REQUIRED.

24 An owner or contractor who removes lead paint from a steel
25 bridge shall use the paint removal and containment methods
26 required in parts 7025.0260 to 7025.0300, except that paint
27 removal conducted only for the purpose of coatings analysis is
28 exempt. Pollution control must be used on a bridge or other
29 structure that traverses a state boundary, as if the bridge or
30 structure were entirely in Minnesota, unless the owner or
31 contractor complies with requirements of the neighboring state
32 or province that are more restrictive in preventing lead
33 contamination than those in parts 7025.0260 to 7025.0300.

34 The owner or contractor who uses dry abrasive blasting for
35 surface preparation after removing all lead paint with any other

1 method shall use the containment methods required in part
2 7025.0270, subparts 2 and 3, except that the use of curtains is
3 not required if:

4 A. a low-dust nonsilica abrasive is used;

5 B. the total area of surface preparation is less than
6 1,000 square feet;

7 C. the bridge or bridge portion is class I or class
8 II, or it is class III or class IV due to proximity of
9 industrial or agricultural property only; and

10 D. particulate matter does not cross the owner's
11 property line.

12 7025.0270 CLASS I BRIDGE.

13 Subpart 1. **Application.** An owner or contractor who
14 removes lead paint from a class I bridge or bridge portion by
15 dry abrasive blasting shall use the methods required in this
16 part as minimum pollution control, or the owner or contractor
17 shall use a method of removal from part 7025.0290. For those
18 portions of the bridge where curtains and ground cover cannot be
19 used, the owner or contractor shall use the containment methods
20 of part 7025.0280, subpart 2, item A or B.

21 Subp. 2. **Ground cover.** The owner or contractor shall use
22 100 percent impermeable tarpaulins to prevent deposition on the
23 soil and on vegetation. The owner or contractor shall overlap
24 the tarpaulins at least 1-1/2 feet and weight them to prevent
25 separation except on woody vegetation. The tarpaulins must
26 cover the surface of all bare soil and vegetated areas inside
27 the curtains required by subpart 3 and shall extend a minimum of
28 30 feet in all directions beyond the vertical extension of the
29 curtains. Hard paved surfaces such as asphalt and concrete
30 roadway, sidewalk, and slope paving may be left uncovered if
31 they have an unbroken surface and if the owner or contractor
32 thoroughly cleans these surfaces as described in subpart 5.

33 Subp. 3. **Curtains or barriers.** The owner or contractor
34 shall use curtains rated by the manufacturer at not less than
35 100 percent impermeable to contain lead paint particles

1 generated from both trusses and girders. The curtains must
2 overlap at least three feet unless the edges are completely
3 joined.

4 A. Girders and undertrusses. When lead paint is
5 removed from girders and undertrusses, the owner or contractor
6 shall suspend curtains from the bridge deck so that the work
7 area is contained on four sides. The owner or contractor shall
8 seal the spaces between the beams above the transverse curtain.
9 The curtains must extend to the ground cover and they must be
10 anchored.

11 B. Overtrusses. When lead paint is removed from
12 overtrusses, whether the roadway is closed to traffic or not
13 closed to traffic, the owner or contractor shall:

14 (1) suspend curtains both inside and outside of
15 each truss from a height greater than the point of paint
16 removal, with a width less than the length of ground cover, and
17 with the bottom edges within curtains suspended from the bridge
18 deck in the manner required for girders; or
19 if the roadway is closed to traffic, the owner or contractor
20 shall:

21 (2) suspend curtains outside of the opposite
22 trusses from a height greater than the point of paint removal,
23 with a width less than the length of ground cover, and with the
24 bottom edges resting on the roadway or within curtains suspended
25 from the bridge deck in the manner required for girders; or

26 (3) suspend a rigid barrier outside the truss
27 with the bottom edge resting on or directly above the roadway
28 and inclined at an angle of 45 to 55 degrees with the truss,
29 with a width less than the length of ground cover, a length not
30 less than the height of the truss, and with the space between
31 the end of the barrier and the truss closed with impermeable
32 material; and

33 (4) suspend curtains across the bridge deck
34 between the opposite trusses at both ends of the area of paint
35 removal from a height greater than the point of paint removal.

36 Subp. 4. Windspeed limitation. The owner or contractor

1 shall not conduct paint removal whenever windspeeds render the
2 curtains and ground cover ineffective in containing particulate
3 matter from both trusses and girders. If visible emissions of
4 particulate matter occur in the air, or visible deposits occur
5 on the ground, at a distance from the bridge greater than the
6 distance of the ground cover, then the owner or contractor shall:

7 A. add additional ground cover, in the manner
8 required in subpart 2, to a distance greater than the distance
9 of visible particle transport or deposition; or

10 B. if paint is removed from overtrusses, enclose the
11 top of the area of paint removal; or

12 C. if dry abrasive blasting is being used, use
13 another method of paint removal from part 7025.0290.

14 **Subp. 5. Cleanup of waste material.** The owner or
15 contractor shall clean up all visible deposits of waste material
16 containing paint or paint particles at the end of each workday
17 from all areas on the ground and the ground covers outside the
18 curtains and remove this material from the site or store it in
19 containers or on top of ground cover and covered with
20 impermeable tarpaulins. The owner or contractor shall recover
21 this material by manual means or by vacuum ~~with-high-efficiency~~
22 ~~particulate-air-(HEPA)-filtration~~, but may not use an air
23 pressure or water stream which redistributes the waste
24 material. Methods of handling and movement of waste material
25 shall prevent fugitive dust and other loss of any material until
26 final disposition of the material.

27 7025.0280 CLASS II BRIDGE.

28 **Subpart 1. Application.** An owner or contractor who
29 removes lead paint from a class II bridge or bridge portion by
30 dry abrasive blasting shall use the methods required in part
31 7025.0270, subparts 2 to 5, and in this part as minimum
32 pollution control, or the owner or contractor shall use a method
33 of removal from part 7025.0290. If the bridge traverses a
34 narrow water body as stated in subpart 3, the owner or
35 contractor shall comply with the standards specified under

1 either subpart 2 or 3.

2 The owner or contractor shall use a boom on the downstream
3 or the downwind side of the bridge with skimming or vacuuming of
4 the water surface to remove paint particles before they sink,
5 except on those parts of the water surface where frequent boat
6 navigation or water turbulence prevents effective recovery.

7 Subp. 2. Protection of any body of water. To prevent lead
8 paint particles from entering any water body, the owner or
9 contractor shall:

10 A. suspend impermeable tarpaulins horizontally
11 beneath the bridge deck or suspend nets lined with impermeable
12 tarpaulins horizontally beneath the bridge deck to contain waste
13 materials;

14 B. suspend scaffolding that supports a platform
15 beneath the bridge deck lined with impervious materials to
16 contain waste deposits;

17 C. secure a barge or a raft covered with impervious
18 materials beneath the bridge and use impervious materials to
19 direct waste material to the raft or to within the barge; or

20 D. collect and remove waste material from a frozen
21 water surface with ground cover as required in part 7025.0270,
22 except that the ground cover must extend in a downwind direction
23 on the ice to a distance greater than the highest point of paint
24 removal.

25 The curtains used to contain the girders and trusses in
26 part 7025.0270 shall extend from outside the painted surfaces to
27 inside the tarpaulins, or to the platform or the raft, or inside
28 impervious material that extends to inside the barge, or to the
29 ice.

30 Subp. 3. Protection of narrow bodies of water. The
31 methods in this subpart may be applied as an alternative to
32 subpart 2 by the owner or contractor who shall:

33 A. suspend an impermeable tarpaulin across the
34 underside of the bridge deck at a point more than halfway across
35 the water body with the bottom edge anchored at the farther bank
36 so that it overlaps the ground covers, seal the spaces between

1 the beams above the tarpaulin, and then repeat the procedure in
2 the opposite direction; or

3 B. cover a platform above the water surface with
4 impermeable tarpaulins that overlap the ground covers.

5 The curtains used to contain the girders and trusses in
6 part 7025.0270 shall extend from outside the painted surfaces to
7 inside the tarpaulin or inside impervious material that extends
8 to the platform.

9 7025.0290 CLASS III BRIDGE.

10 Subpart 1. **Application.** An owner or contractor who
11 removes lead paint from a class III bridge or bridge portion
12 shall use the methods required in part 7025.0270, subparts 2 to
13 5, as minimum pollution control, except as provided in subparts
14 2, 3, and 5 of this part, and a method of paint removal from
15 this part.

16 Subp. 2. **Wet abrasive blasting.** The owner or contractor
17 who uses wet abrasive blasting shall use curtains rated by the
18 manufacturer at not less than 85 percent impermeable and if dry
19 abrasive blasting is used for surface preparation. The owner or
20 contractor shall use an amount of water such that dispersal of
21 particulate matter is suppressed without loss of waste material
22 from the ground cover or impervious materials by runoff.

23 Subp. 3. **Power tools and hand tools.** The owner or
24 contractor who uses power tools or hand tools shall use ground
25 cover and curtains unless the power tools are
26 ~~vacuum-equipped~~ equipped with HEPA filter vacuums and all parts
27 of the vacuum equipment are in a condition that prevents
28 emissions of particulate matter, then the use of curtains is not
29 required.

30 Subp. 4. **Dry abrasive blasting in total enclosure with**
31 **negative air pressure.** The owner or contractor who conducts dry
32 abrasive blasting inside a totally enclosed work space shall:

33 A. maintain the enclosure at less-than-atmospheric
34 air pressure during abrasive blasting by use of a dust collector
35 with ~~high-efficiency-particulate-air-(HEPA)~~ filtration of

1 exhaust air to eliminate dust emissions; and

2 B. use either a recyclable or nonrecyclable abrasive,
3 but a recyclable abrasive must be cleaned to remove nonabrasive
4 material before it is reused.

5 ~~The volume of air evacuated per minute must be greater than~~
6 ~~the volume of the enclosure and the combined volume of output~~
7 ~~per minute of all blast nozzles inside the enclosure.~~

8 Subp. 5. Vacuum blasting. The owner or contractor who
9 uses vacuum blasting shall use ground cover and curtains unless
10 the owner or contractor:

11 A. removes all paint by holding the workhead of the
12 vacuum blasting unit at all times against the substrate; and

13 B. maintains all parts of the vacuum blasting
14 equipment in a condition that prevents emissions of particulate
15 matter, then the use of curtains is not required.

16 If the owner or contractor cannot maintain complete contact
17 between the workhead and the coated surface at all times, then
18 curtains shall be used with ground cover.

19 7025.0300 CLASS IV BRIDGE.

20 The owner or contractor who removes lead paint from a class
21 IV bridge or bridge portion shall use the methods required in
22 parts 7025.0270, subparts 2 to 5, and 7025.0280, subparts 1 and
23 2 or 3, as minimum pollution control, and a method of paint
24 removal required in part 7025.0290.

25 CONDITIONS FOR LEAD PAINT REMOVAL FROM STORAGE STRUCTURES

26 7025.0310 CLASSIFICATION OF STORAGE STRUCTURES.

27 Subpart 1. Application. The classifications in this part
28 shall be used to determine the requirements in parts 7025.0320
29 to 7025.0350 that apply to a storage structure from which lead
30 paint will be removed. The owner or contractor shall determine
31 the class of each storage structure or structures from which
32 more than 200 square feet of lead paint will be removed at one
33 location during one calendar year.

34 Subp. 2. Class of pollution control. The class of
35 pollution control necessary for lead paint removal from the

1 storage structure is provided by the table in subpart 3. The
2 class of pollution control is determined by the designated use
3 of receptor properties, the distance to receptor properties, and
4 a factor of potential risk for paint removal from the structure,
5 where:

6 A. "Receptor properties" are properties designated by
7 use and ranked by sensitivity to lead contamination in groups
8 "A," "B," and "C." These groups include residential, child
9 care, playground, and school property (A); protected natural
10 area, public use area, and commercial property (B); and
11 industrial and agricultural property (C). Receptor properties
12 for structures on group A and B properties include the property
13 on which the structure is located and also neighboring
14 properties. Receptor properties for structures on group C
15 property include only neighboring properties.

16 B. "Distance (ft)" is the measure of distance in feet
17 from the base of the steel structure to the receptor property
18 line. The values in the table in subpart 3 are the standards of
19 distance for the designated properties. If the structure is
20 located on a property listed in item A, that property is
21 considered a receptor property and the distance for that
22 property is zero feet, except for group C properties.

23 C. "Risk factor (RF)" is the calculation of potential
24 risk for the steel structure and the values in the table in
25 subpart 3 are the standards of risk factor for the designated
26 properties.

27 Risk factor (RF) is the product of three variables:

28 (1) concentration of total lead in the exterior
29 coatings of the steel structure, expressed in percent (%) as a
30 decimal or the weight of lead per surface area expressed in
31 mg/cm² divided by 100;

32 (2) height of steel structure divided by ten and
33 raised to the 1.4 power, expressed in feet (ft);

34 (3) total exterior surface area from which paint
35 will be removed, expressed in thousands of square feet (ft²)
36 such that:

1
 2 RF = conc. Pb (% or mg/cm²) x (height/10)^{1.4} (ft)
 3
 4 x surface area/1000 (ft²)
 5

6 D. "Class" is the class of pollution control required
 7 for the steel structure as determined by the standards of risk
 8 factor and distance and by the property use designation.

9 Each structure will have one distance to each of the
 10 nearest receptor properties and one risk factor and one class of
 11 pollution control. The class of pollution control for the
 12 structure is the highest class determined by the risk factor and
 13 the distance to receptor property, with class III being the
 14 highest class.

15 Subp. 3. Table of required class of pollution control.

Receptor Property			
Residential, Child Care, Playground, or School Property (A)			
Risk Factor (RF)	< ≤ 100	> ≥ 100	> ≥ 100
	and	or	and
Distance (ft)	> ≥ 300	< ≤ 300	< ≤ 300
Class	I	II	III
Protected Natural Area, or Public Use Area, or Commercial Property (B)			
Risk Factor (RF)	< ≤ 200	> ≥ 200	> ≥ 200
	and	or	and
Distance (ft)	> ≥ 200	< ≤ 200	< ≤ 200
Class	I	II	III
Industrial or Agricultural Property (C)			
Risk Factor (RF)	< ≤ 300	> ≥ 300	> ≥ 300
	and	or	and
Distance (ft)	> ≥ 100	< ≤ 100	< ≤ 100
Class	I	II	III

58 7025.0320 POLLUTION CONTROL REQUIRED.

59 An owner or contractor who removes lead paint from the

1 exterior surface of a steel water tank, fuel tank, grain storage
 2 bin, or other steel storage structure shall use the paint
 3 removal and containment methods required in parts 7025.0320 to
 4 7025.0350, except that paint removal conducted only for the
 5 purpose of coatings analysis is exempt. If lead paint is
 6 removed from a total surface area less than 200 square feet on
 7 one or more structures at one location in one calendar year, the
 8 owner or contractor may apply any method of class I, II, or III
 9 in parts 7025.0330 to 7025.0350.

10 The owner or contractor who uses dry abrasive blasting for
 11 surface preparation after removing all lead paint with any other
 12 method shall use the containment methods required in part
 13 7025.0330, subparts 2 and 4, except that the use of curtains is
 14 not required if:

- 15 A. a low-dust nonsilica abrasive is used;
- 16 B. the structure is in proximity only to receptor
 17 properties B and C in the table in part 7025.0310, subpart 3,
 18 and

	height of structure (ft)	x	area of surface preparation (ft ²)	
				< 10
	5,000			

25 or the structure is in proximity only to receptor properties C;
 26 and

- 27 C. particulate matter does not cross the owner's
 28 property line.

29 7025.0330 CLASS I STORAGE STRUCTURE.

30 Subpart 1. **Application.** An owner or contractor who
 31 removes lead paint from a storage structure that requires class
 32 I pollution control shall use the methods in this part as
 33 minimum pollution control for dry abrasive blasting, or the
 34 owner or contractor shall use a method of removal and
 35 containment in part 7025.0340 or 7025.0350.

36 Subp. 2. **Curtains.** The owner or contractor shall suspend
 37 a curtain throughout paint removal on the upwind side and the
 38 downwind side of the structure, except as provided in item B, in

1 a manner that effectively prevents the dispersal of paint
2 particles. The curtains shall be rated by the manufacturer at
3 not less than 100 percent impermeable.

4 A. If the structure is a water tower, standpipe, or a
5 grain storage bin, the length of each curtain must be greater
6 than two-thirds the height of the structure and the width of
7 each curtain must be greater than the largest diameter of the
8 structure.

9 The curtains shall be moved so that the point of paint
10 removal shall always be at least ten feet inside a vertical edge
11 of a curtain and ten feet below the upper edge of a curtain,
12 except where paint removal is conducted beneath curtains
13 attached along their upper edge to the wall of the structure.

14 B. If the structure is a ground storage tank, the
15 length of each curtain must be greater than the height of the
16 tank and the width of each curtain must be greater than the
17 diameter or the length of the tank. The owner or contractor may
18 suspend a curtain only on the downwind side of the tank, but the
19 width of this curtain must be greater than the length of the
20 tank or than half the circumference of the tank.

21 Subp. 3. **Removal above curtains.** The owner or contractor
22 shall remove all paint from any surface above the curtains with
23 wet abrasive blasting, power tools or hand tools, vacuum
24 blasting, or chemical stripping, except that dry abrasive
25 blasting may be used if the surface is enclosed. If dry
26 abrasive blasting is used for surface preparation following
27 paint removal, the use of enclosure is not required with the
28 conditions in part 7025.0320, items A to C.

29 Subp. 4. **Ground cover.** The owner or contractor shall
30 completely cover the ground beneath the base of the structure
31 and on the downwind side of the structure with 100 percent
32 impermeable tarpaulins to prevent deposition on soil and
33 vegetation. The owner or contractor shall overlap the
34 tarpaulins at least 1-1/2 feet and weight them to prevent
35 separation.

36 A. Ground cover for a water tower shall extend from

1 the center column a minimum distance equal to two-thirds the
2 height of the tower.

3 B. Ground cover for a standpipe or grain storage bin
4 shall extend from the base a minimum distance equal to one-half
5 the height of the structure.

6 C. Ground cover for a ground storage tank shall
7 extend from the base a minimum distance equal to 20 feet, or to
8 the height of the tank, whichever is greater.

9 The owner or contractor shall increase the width of
10 the ground cover with distance from the base of the structure so
11 that it is equal to an area within an angle of 120 degrees from
12 the center of the structure, except that the width of the ground
13 cover shall always be greater than the width of the downwind
14 curtain.

15 Subp. 5. **Windspeed limitation.** The owner or contractor
16 shall not conduct paint removal whenever windspeeds render the
17 curtains and ground cover ineffective in containing particulate
18 matter. If visible emissions of particulate matter occur in the
19 air, or visible deposits occur on the ground, at a distance from
20 the structure greater than the distance of the ground cover,
21 then the owner or contractor shall:

22 A. add additional ground cover, in the manner
23 required in subpart 4, to a distance greater than the distance
24 of visible particle transport or deposition;

25 B. use additional curtains to prevent the dispersal
26 of visible particles to a distance beyond the ground cover; or

27 C. use a method of removal from part 7025.0340 or
28 7025.0350, instead of dry abrasive blasting to remove the lead
29 paint.

30 Subp. 6. **Cleanup of waste material.** The owner or
31 contractor shall clean up all visible deposits of waste material
32 containing paint or paint particles at the end of each workday
33 and remove this material from the site or store it in containers
34 or on top of ground cover and covered with impermeable
35 tarpaulins. The owner or contractor shall recover this material
36 by manual means or by vacuum, but may not use an air pressure or

1 water stream which redistributes the waste material. Methods of
2 handling and movement of waste material shall prevent fugitive
3 dust and other loss of any material until final disposition of
4 the material.

5 7025.0340 CLASS II STORAGE STRUCTURE.

6 Subpart 1. **Application.** An owner or contractor who
7 removes lead paint from a storage structure that requires class
8 II pollution control shall use a method of removal and
9 containment in this part or in part 7025.0350 as minimum
10 pollution control.

11 Subp. 2. **Wet abrasive blasting.** If wet abrasive blasting
12 is used to remove lead paint, the owner or contractor shall use
13 the methods required in part 7025.0330, subparts 2 to 6. The
14 owner or contractor shall use an amount of water such that
15 dispersal of particulate matter is suppressed without loss of
16 waste material from the ground cover by runoff.

17 Subp. 3. **Power tools and hand tools.** If power tools or
18 hand tools are used to remove lead paint, the owner or
19 contractor shall:

20 A. use the methods required in part 7025.0330,
21 subparts 2 to 6, except that if power tools or hand tools are
22 used on ground storage tanks only, then the use of curtains is
23 not required; and

24 B. remove all lead paint with power tools or hand
25 tools.

26 Subp. 4. **Dry abrasive blasting within total enclosure.** If
27 dry abrasive blasting within a total enclosure is used to remove
28 lead paint, the owner or contractor shall use the methods
29 required in part 7025.0330, subparts 2 to 6, except that the
30 owner or contractor shall totally enclose the structure with
31 material rated by the manufacturer at not less than 100 percent
32 impermeable during lead paint removal from all parts of the
33 steel structure, including the top surfaces.

34 7025.0350 CLASS III STORAGE STRUCTURE.

35 Subpart 1. **Application.** An owner or contractor who

1 removes lead paint from a storage structure that requires class
2 III pollution control shall use a method of removal and
3 containment in this part as minimum pollution control.

4 Subp. 2. **Vacuum blasting.** If vacuum blasting is used to
5 remove lead paint, the owner or contractor shall use the ground
6 cover and cleanup methods required in part 7025.0330, subparts 4
7 and 6. The owner or contractor may use vacuum blasting without
8 the use of curtains if:

9 A. the owner or contractor holds the workhead of the
10 vacuum blasting unit at all times against the substrate during
11 paint removal; and

12 B. all parts of the vacuum blasting equipment are in
13 a condition that prevents emissions of particulate matter.

14 If the owner or contractor cannot maintain complete contact
15 between the workhead and the coated surface at all times, then
16 the curtains and the windspeed limitation required in part
17 7025.0330, subparts 2 and 5, shall be used.

18 Subp. 3. **Dry abrasive blasting within modular enclosure**
19 **with negative air pressure.** If dry abrasive blasting inside a
20 modular enclosure is used to remove lead paint, the owner or
21 contractor shall use the cleanup method required in part
22 7025.0330, subpart 6, and shall:

23 A. construct an enclosure of impermeable material to
24 totally contain the area of paint removal and to transport waste
25 material to the ground;

26 B. maintain the enclosure at less-than-atmospheric
27 air pressure during abrasive blasting by use of a dust collector
28 with ~~high-efficiency-particulate-air-(HEPA)~~ filtration of
29 exhaust air to eliminate dust emissions;

30 C. use impermeable ground cover beneath the area of
31 paint removal to a minimum distance from the base equal to
32 one-half the height of the structure; and

33 D. use either a recyclable or nonrecyclable abrasive,
34 but a recyclable abrasive must be cleaned to remove nonabrasive
35 material before it is reused.

36 ~~The-volume-of-air-evacuated-per-minute-must-be-greater-than~~

1 ~~the-volume-of-the-enclosure-and-the-combined-volume-of-output~~
2 ~~per-minute-of-all-blast-nozzles-inside-the-enclosure.~~

3 Subp. 4. Wet abrasive blasting in total enclosure. If wet
4 abrasive blasting in total enclosure is used to remove lead
5 paint, the owner or contractor shall use the ground cover,
6 windspeed limitation, and cleanup methods required in part
7 7025.0330, subparts 4 to 6, and shall:

8 A. totally enclose the structure with material rated
9 by the manufacturer at not less than 85 percent impermeable
10 during paint removal from all parts of the structure, including
11 the top surfaces and if dry abrasive blasting is used for
12 surface preparation; and

13 B. use an amount of water such that dispersal of
14 particulate matter is suppressed without loss of waste material
15 from the ground cover by runoff.

16 Subp. 5. Chemical stripping. If chemical stripping is
17 used to remove lead paint, the owner or contractor shall use the
18 ground cover, windspeed limitation, and cleanup methods required
19 in part 7025.0330, subparts 4 to 6, and shall:

20 A. extend the ground cover beneath the area of paint
21 removal and raise the outside edges to prevent runoff;

22 B. use wide-blade scrapers and low-volume
23 high-pressure water spray applied within a distance of one foot
24 to remove all coatings; and

25 C. remove all lead paint with chemical stripping.

26 Subp. 6. Power tools with vacuum recovery. If power tools
27 that are ~~vacuum-equipped~~ equipped with HEPA filter vacuums are
28 used to remove lead paint, the owner or contractor shall:

29 A. use the methods required in part 7025.0330,
30 subparts 2 and 4 to 6, except that if all parts of the vacuum
31 equipment are in a condition that prevents emissions of
32 particulate matter, then the use of curtains is not required;
33 and

34 B. remove all lead paint with power tools with vacuum
35 recovery.

36 CONDITIONS FOR LEAD PAINT REMOVAL FROM OTHER STEEL

1 STRUCTURES

2 7025.0360 POLLUTION CONTROL REQUIRED.

3 An owner or contractor who removes lead paint from the
4 exterior surface of a steel structure that is not included in
5 parts 7025.0260 to 7025.0300 and 7025.0320 to 7025.0350 shall
6 use the methods required in part 7025.0370, except that paint
7 removal conducted only for the purpose of coatings analysis is
8 exempt. These structures include, but are not limited to,
9 railcars, pipelines, boats and barges, transmission towers,
10 transformers, light poles, exterior metal components of
11 buildings, parking ramps, handrails, and vehicles that are used
12 for commerce, industry, or construction. Paint removal from any
13 other vehicle by the vehicle owner who does not act as a
14 contractor, and who is not a licensed vehicle dealer, is exempt.

15 The owner or contractor may apply a method of paint removal
16 and containment of any class of bridge in parts 7025.0260 to
17 7025.0300, or any class of storage structure in parts 7025.0320
18 to 7025.0350 if:

19 A. lead paint is removed from a total surface area
20 less than 200 square feet on one or more structures at one
21 location in one calendar year; or

22 B. the risk factor (RF) calculation for the steel
23 structure or structures is less than 1.0 and the structure is
24 not within 300 feet of group A properties or 200 feet of group B
25 properties in part 7025.0310, subparts 2 and 3.

26 7025.0370 LEAD PAINT REMOVAL REQUIREMENTS.

27 If lead paint is removed from a steel structure ~~not~~
28 ~~included in parts 7025.0260 to 7025.0300 and 7025.0320 to~~
29 ~~7025.0350~~ that is neither a bridge nor a storage structure, the
30 owner or contractor shall:

31 A. apply a method of removal and containment
32 according to parts 7025.0310 to 7025.0350, as if the structure
33 were a storage structure;

34 B. if the steel structure is mobile, portable, or
35 disassembled, conduct paint removal inside a building or an

1 enclosed structure; or

2 C. if the steel structure traverses a water body or
3 is in or above a water body, apply a method of removal and
4 containment according to parts 7025.0250, 7025.0260, and either
5 7025.0280 or 7025.0300, as if the structure were a bridge or a
6 bridge portion.

7 7025.0380 RESTRICTIONS.

8 Subpart 1. Testing and disposal of waste materials. The
9 owner or contractor shall evaluate and dispose of waste
10 materials that contain lead paint or lead paint particles
11 generated by the removal of lead paint from steel structures as
12 required by either chapter 7035, solid waste rules, or 7045,
13 hazardous waste rules, whichever applies.

14 Subp. 2. Use of lead paint. An owner or contractor shall
15 not apply paint that contains more than one-half of one percent
16 (0.5 percent) total lead by weight in the dried film to the
17 exterior surface of any new steel structure or of any steel
18 structure that is repainted, except by written permission of the
19 commissioner.

20 Subp. 3. Water blasting. An owner or contractor shall not
21 use high pressure water with or without abrasives to remove lead
22 paint from a steel structure unless the water and paint
23 particles are contained and recovered.

24 Subp. 4. Identification of contractor. The contractor
25 shall post its name and telephone number in letters and numbers
26 at least four inches high on a vehicle or on a sign at the
27 property from the beginning of lead paint removal until
28 completion of the contractor's work on the structure or
29 structures.