

1 Department of Labor and Industry

2 Occupational Safety and Health Division

3

4 Adopted Permanent Rules Relating to Occupational Safety and

5 Health; Hoppers

6

7 Rules as Adopted

8

HOPPERS

9 5205.1400 INSPECTION OF HOPPERS.

10 Subpart 1. Definitions. The terms used in this part have
11 the meanings given them in this subpart.

12 A. "Aggregate" means the natural sands, gravels, and
13 crushed stones used for mixing with cementing material in making
14 mortars and cements.

15 B. "Corrosive agent or substance" means any agent or
16 substance with a pH factor of ten or greater or four or less.

17 C. "Hopper" means a metal structure designed for
18 storing and dispensing materials, with a capacity of one ton or
19 greater, that is shaped to allow stored materials to flow from
20 it.

21 D. "Nondestructive testing" means a testing method
22 that does not damage or destroy the test sample. Nondestructive
23 testing includes, but is not limited to, the use of X-rays,
24 ultrasonics, radiography, and magnetic flux.

25 E. "Visual inspection" means a thorough physical
26 examination of all interior and exterior surface areas, and
27 support members and their component parts.

28 Subp. 2. Inspection. Hoppers used to hold aggregate shall
29 be inspected according to the schedule in subpart 3 if employees
30 have access to the area beneath the hopper or the area
31 surrounding the hopper, equal to the height of the hopper
32 measured from the ground or floor to the hopper's highest
33 point. The inspection shall be conducted by a person qualified
34 to conduct the inspection under subpart 7.

35 Subp. 3. Inspection schedule.

1 A. Hoppers that must be inspected under subpart 2
2 shall be visually inspected every 12 months.

3 B. Hoppers that must be inspected under subpart 2,
4 that have had corrosive agents or substances used within the
5 system, shall be nondestructively tested every five years.

6 C. Hoppers that must be inspected under subpart 2,
7 that have not had any corrosive agents or substances used within
8 the system, shall be nondestructively tested every ten years.

9 D. Hoppers that have been modified, altered, or
10 repaired shall be inspected under subpart 2 before returning the
11 hopper to service when the modifications, alterations, or
12 repairs affect the designed load capacity of the hopper. This
13 includes, but is not limited to, relining of the hopper.

14 Subp. 4. **Documentation.** Inspections required by this part
15 shall be documented and the required documentation shall be
16 retained for the life of the hopper at the facility where the
17 hopper is located. The documentation shall be made available
18 upon request to representatives of the Occupational Safety and
19 Health Division. The documentation of the inspections shall
20 include:

21 A. the dates on which inspections were conducted;

22 B. the names, addresses, and employers of persons
23 conducting the inspections;

24 C. the means used to inspect the hoppers;

25 D. the findings of the inspections;

26 E. the deficiencies noted as a result of the
27 inspections; and

28 F. the dates on which recommended repairs were
29 completed.

30 Subp. 5. **Repairs.** If deficiencies found during an
31 inspection do not compromise the designed load capacity of the
32 hopper, all repairs shall be made within the minimum amount of
33 time necessary to complete repairs. If deficiencies found
34 during an inspection do compromise the designed load capacity,
35 the hopper shall be emptied and removed from service until all
36 repairs are completed.

1 Subp. 6. **Means of inspection.** All inspections conducted
2 under this part shall include visual inspections and
3 nondestructive testing that is capable of determining that
4 erosion, corrosion, stress, fatigue, damage, repairs, or
5 alterations have not compromised the designed load capacity.

6 Subp. 7. **Qualified person.** A person is qualified to
7 conduct inspections under this part if, through education,
8 training, or experience, the person is capable of determining
9 through visual inspections and nondestructive testing that
10 erosion, corrosion, stress, fatigue, damage, repairs, or
11 alterations have not compromised the designed load capacity.