21—44.7(206) Secondary containment for nonmobile bulk pesticide storage and mixing. Base and walls of secondary containment facilities must be constructed of concrete, steel or other impervious materials which are compatible with the pesticides being stored and will maintain their integrity under fire conditions. Storage containers must be anchored, as necessary, to prevent flotation or instability in the event of discharge into the secondary containment facility. Routine inspection is required to ensure against cracks or other conditions that may reduce the effectiveness of the containment facility. Cracks that occur in a secondary containment structure must be repaired with an acceptable sealant, and other repairs shall be made as needed to maintain the effectiveness of the containment facility.

The diked area shall not have a relief outlet and valve. The base shall slope to a collecting spot where precipitation water may be pumped out, provided the liquid is not contaminated with pesticides. If contaminated with a pesticide, the liquid shall be disposed of in accordance with applicable hazardous or solid waste requirements or field applied according to the pesticide label instructions.

44.7(1) Storage in other than an enclosed structure.

a. Secondary containment for nonmobile bulk liquid pesticide storage located in other than an enclosed structure shall be constructed with a volume sufficient to contain a minimum of 110 percent of the capacity of the largest single container, plus the space occupied by other tanks located within the secondary containment structure.

b. Secondary containment for nonmobile bulk dry pesticide storage located in other than an enclosed structure shall be constructed to contain any releases of dry pesticide. The secondary containment will have a minimum a six-inch high curb separated horizontally from the storage vessel a minimum of three feet. Provisions shall be made for the collection of rainwater, and rainwater shall not be allowed to accumulate in the containment structure.

44.7(2) Storage in an enclosed structure.

a. Secondary containment for nonmobile bulk liquid pesticide storage located in an enclosed structure shall be constructed with a volume sufficient to contain a minimum of 100 percent of the capacity of the largest single container, plus the space occupied by other tanks located within the secondary containment structure.

b. Secondary containment for nonmobile bulk dry pesticide storage located in an enclosed structure shall be constructed to contain any releases of dry pesticide. The secondary containment will have a minimum a six-inch high curb separated horizontally from the storage vessel a minimum of three feet on an open side. Nonmobile bulk dry pesticide storage tanks may be constructed within three feet of a permanent wall provided the wall is lined with an impervious surface which contains and directs any spilled material into a containment structure, according to the engineer’s design plans.

44.7(3) Precipitation must not be allowed to accumulate in the secondary containment facility. Failure to properly maintain secondary containment facilities may subject the firm to state and federal regulations related to hazardous waste generators.

44.7(4) Discharges into a secondary containment facility must be promptly recovered to the maximum extent possible. Failure to properly manage discharge may subject the firm to pesticide misuse regulations and possibly to regulations related to hazardous waste generators.

44.7(5) Pesticides shall be handled in a manner that minimizes the movement of pesticide dusts, aerosols and vapors from the pesticide storage and mixing site. The following dust control measures shall apply to bulk dry pesticide storage tanks:

a. Primary vents on all tanks must be equipped with a dust filter. Filters shall be capable of handling 500 cubic feet per minute air flow. Primary filtration systems may be mounted on the tank or on the delivery truck.

b. Filters shall retain all particles greater than ten microns in size and retain greater than 90 percent of particles between three and ten microns in size.

c. Pressure relief valves shall be enclosed in a filter arrangement capable of retaining 100 percent of ten micron particles. Filters shall be maintained on a regular basis and replaced when necessary to maintain the proper filtering capacity.

d. Tanks and loading areas and all plant site transfer systems shall be equipped with fittings which facilitate closed system handling.
44.7(6) Discharge of pesticides from a secondary containment facility shall be recovered to the maximum extent possible. The Iowa department of natural resources, the county sheriff or local police shall be contacted as soon as possible, but not later than six hours of onset or discovery of spill.