

DEPARTMENT OF AGRICULTURE

PESTICIDE AND PLANT PEST MANAGEMENT DIVISION

REGULATION NO. 640. COMMERCIAL PESTICIDE BULK STORAGE

(By authority conferred on the director of the department of agriculture by section 19 of Act No. 171 of the Public Acts of 1976, as amended, being S286.569 of the Michigan Compiled Laws)

R 285.640.1 Definitions.

Rule 1. As used in these rules:

(a) "Approved" means approval by the director of the department or his or her representative.

(b) "Appurtenances" means any of the following which are connected to a bulk pesticide container or which are used for transferring bulk pesticide between containers:

- (i) Valves.
- (ii) Gauges.
- (iii) Portable manufacturing units.
- (iv) Pumps.
- (v) Fittings.
- (vi) Hoses.
- (vii) Plumbing.
- (viii) Metering devices.

(c) "Bulk pesticide" means any registered liquid pesticide or combination of liquid pesticides in an individual quantity that is more than 55 United States gallons or any registered dry pesticide in an individual quantity that is more than 100 pounds. For purposes of this regulation, use solutions and rinsates are bulk pesticides if they exceed the stated quantities. Minibulks are included in this definition.

(d) "CERCLA" means the comprehensive environmental responsibility, compensation and liability act of 1980, 42 U.S.C. S9601 et seq.

(e) "Department" means the Michigan department of agriculture.

(f) "Discharge" means an uncontained release to the environment of bulk pesticide in a reportable quantity as defined by SARA title III and CERCLA or, for products that are not listed in SARA title III or CERCLA, any quantity that is more than 5 United States gallons or 100 pounds of pesticide. "Discharge" does not include a fully contained transfer of bulk pesticide that is made pursuant to sale, storage, distribution, or intended use.

(g) "Dry pesticide" means pesticide that is in solid form before application or mixing for application. The term includes formulations such as dusts, wettable powders, dry flowable powders, and granules.

(h) "Elephant ring" means a storage container which has an open top and which serves as a secondary containment vessel into which a primary storage container with a smaller volume is placed.

(i) "Existing bulk storage facility" means a facility that on the effective date of this rule, is being used to store or hold bulk pesticides where the location of bulk containers remains the same whether bulk containers are replaced, added to, or reorganized.

(j) "Floodplain" means any land area that is subject to a 1% or greater chance of flooding. This is equivalent to a 100-year flood.

(k) "Liquid pesticide" means pesticide that is in a liquid form, including solutions, emulsions, suspensions, and slurries contained in an

undivided quantity of more than 55 United States gallons. The term includes minibulk pesticides.

(l) "Minibulk pesticide" means an amount of liquid pesticide which is held in a single container with a volume more than 55, but less than 400, United States gallons that is designed for ready handling and transport and has been filled by the original pesticide manufacturer or repackager.

(m) "Mobile container" means a container that is designed or used for transporting pesticides.

(n) "Modification" means changes in structures, processes, or activities at a bulk pesticide storage facility that alter the efficiency or capacity of containment structures or systems.

(o) "New bulk storage facility" means a storage facility as designated by the director or a storage facility that locates new, used, or refurbished bulk containers where, before the effective date of this rule, bulk storage was not conducted.

(p) "Operational area" means an area or areas at a bulk pesticide storage facility where pesticides are transferred, loaded, unloaded, repackaged, or refilled.

(q) "Operational area containment" means any structure or system that is designed and constructed to effectively intercept and contain spills, container or equipment washwater, and precipitation to prevent the runoff or leaching of pesticide from a storage facility.

(r) "Primary containment" means the storage of bulk pesticide in storage containers at a storage facility.

(s) "Rinsate" means the liquid which is generated from the rinsing of the interior surface of any pesticide application equipment or pesticide container that has come in direct contact with any pesticide. This liquid is a mixture of water and a concentration of pesticide that is below the labeled application rate. "Rinsate" includes the liquid that is generated by cleaning a containment area in accordance with the provisions of R 285.640.11(3).

(t) "SARA title III" means the emergency planning and community right-to-know act (title III) of the superfund amendments and reauthorization act of 1986, 42 U.S.C. S11001 et seq.

(u) "Secondary containment" means any structure, including dikes, that is effectively designed and constructed to contain spills or leaks and to prevent escapes, runoff, and leaching of pesticides from bulk storage containers.

(v) "Spill" means a contained release, within a containment area or operational pad, of bulk pesticide in a reportable quantity as defined by SARA title III and CERCLA or, for products that are not listed in SARA title III or CERCLA, any quantity that is more than 5 United States gallons or 100 pounds. "Spill" does not include a fully contained transfer of bulk pesticide that is made pursuant to sale, storage, distribution, or intended use.

(w) "Storage" means the storage of bulk pesticides by a person who manufactures, repackages, or distributes bulk pesticides. "Storage" does not include the storage of pesticides by an agricultural producer for use on land that is owned or leased by the producer.

(x) "Storage container" means a container, rail car, nurse tank, or other mobile container that is used for the storage of bulk pesticide. "Storage container" does not include any of the following:

(i) A mobile container that stores pesticide at a storage facility for less than 15 consecutive days if this storage is incidental to the loading or unloading of a storage container at the storage facility.

(ii) A mobile container that is located other than on property which is owned, operated, or controlled by an owner or operator of a storage

facility for less than 15 consecutive days.

(iii) A container which is 55 gallons or smaller and which is used solely as emergency storage for leaking pesticide containers.

(iv) Pesticide application equipment in which pesticides are stored for less than 5 consecutive days.

(y) "Storage facility" means a facility which is used to store or hold bulk pesticides and which is owned, operated, controlled, or leased by a person who manufactures or distributes bulk pesticides.

(z) "Sump" means any catch basin, pit, or reservoir, and those trenches and troughs connected to them, that serve to collect liquid.

(aa) "Surface water" means a body of water that has its top surface exposed to the atmosphere and includes lakes, ponds, or water holes that cover an area greater than 0.25 acres and streams, rivers, or waterways that maintain a flow year-round. "Surface water" does not include waterways with intermittent flow.

(bb) "Washwater" means the liquid that is generated from rinsing the exterior surfaces of application, handling, storage, or transportation equipment. "Washwater" does not include the liquid that is generated by cleaning a containment area in accordance with the provisions of R 285.640.11(3).

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.2 Storage facility registration.

Rule 2. (1) A person shall not operate a storage facility in Michigan until it is registered with the department. A registration application shall be submitted for each facility on forms provided by the department. The registration application shall disclose the physical location of the facility and its mailing address if different from that on the application. Together with the registration application, a person shall submit a discharge response plan in accordance with the provisions of R 285.640.15 and a site plan of the facility. The site plan shall include all of the following:

(a) A plot plan or map of the property that shows all structures and the location of all wells on the site.

(b) A plot plan or map that shows all of the following:

(i) Precipitation runoff routes from the storage facility.

(ii) Approximate distance to, and identity of, lakes, streams, drainage ditches, or storm drains within 0.5 mile of the storage facility location.

(iii) Distance and direction to nearest public and private wells.

(iv) Site soil characteristics.

(v) Depth to groundwater.

(c) A plot plan or map that shows the location of bulk storage tanks and their horizontal, raised, or vertical situation at the site, and a tank schedule that provides for each tank, all of the following information:

(i) The construction material.

(ii) The capacity.

(iii) The diameter.

(iv) The height.

(v) The product stored.

(d) Secondary and operational area containment construction plans and the capacity of such containment areas in gallons.

(e) If synthetic liners or synthetic materials are used, containment structure manufacturer installation instructions and confirmation of compatibility with pesticides. If prefabricated basins are used, containment structure manufacturer confirmation of compatibility with

pesticides and an estimate of the life expectancy of the structure.

(f) An operational plan for containment areas that shows the handling and utilization of recovered pesticide materials, rinsewater, and precipitation accumulation.

(2) For facilities which are in operation on the effective date of this rule and which do not meet the containment requirements of this rule, both of the following shall be submitted with the registration application:

(a) Items that are required pursuant to the provisions of subrule (1) of this rule.

(b) Designs for required containment structures, including the amount of construction that has been completed and a timetable for complete compliance with this rule.

(3) All registrations expire on December 31 of each year. The facility site plan need not be submitted with the registration application after the first registration is approved unless modifications to the facility occur affecting subrules (1) and (2) of this rule.

(4) For facilities with containments under construction or with plans for construction, the items specified in subrule (2) of this rule shall be submitted annually with the registration application until the construction has been completed.

(5) After an initial storage facility registration has been completed, if changes or modifications have not occurred since the latest registration, the items specified in subrules (1) and (2) of this rule are not required to be submitted with the storage facility registration application or renewal.

(6) The department shall have the authority to approve with conditions a registration application if the applicant facility has met the requirements of subrules (2) to (5) of this rule. All approvals with conditions shall meet timetables for project completion as approved by the department and may have a maximum of 5 years to fully complete a project.

(7) The department shall have the authority to deny a registration application if the applicant facility does not meet the requirements of this rule. The applicant facility may appeal a registration denial to the department director for reevaluation.

(8) The department shall inform an applicant of approval, approval with conditions, or denial of registration and shall indicate the conditions of approval or the reasons for denial of registration, if applicable.

(9) The department may exempt any person from a requirement under this rule if compliance is not technically feasible and the department finds that alternative measures provide substantially similar protection against a discharge to the environment. All information which is required to prove that substantially similar protection is possible shall be provided to the department by the person who requests the exemption.

(10) For the year in which this rule takes effect, registration applications shall be submitted to the department within 180 days of the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.3 Siting of storage facilities.

Rule 3. (1) The siting of a bulk pesticide storage facility shall comply with applicable local, state, and federal regulations.

(2) New bulk storage facilities and their respective containment areas shall be located as follows:

(a) Above a floodplain as defined in R 285.640.1(1).

(b) A minimum of 200 feet from surface water.

(c) A minimum of 2,000 feet from type I and type IIa public water supply wells, as defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 et seq. of the Michigan Compiled Laws.

(d) A minimum of 800 feet from type IIb and type III public water supply wells, as defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 et seq. of the Michigan Compiled Laws.

(e) A minimum of 150 feet from all other drinking water supplies that are not defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 et seq. of the Michigan Compiled Laws.

(3) Existing bulk storage facilities that have approved containment shall have the outside base of the containment areas located as follows:

(a) A minimum of 200 feet from type I and type IIa public water supply wells, as defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 et seq. of the Michigan Compiled Laws.

(b) A minimum of 75 feet from type IIb and type III public water supply wells, as defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 et seq. of the Michigan Compiled Laws.

(c) A minimum of 50 feet from all other drinking water supplies that are not defined by the provisions of Act No. 399 of the Public Acts of 1976, as amended, being S325.1001 of the Michigan Compiled Laws.

(4) All bulk storage facilities shall utilize appropriate engineering safeguards to prevent water supply contamination if the floodplain, surface water, or water supply setback requirements in subrules (2) and (3) of this rule cannot be met. These engineering safeguards shall be implemented before initial approval of a facility registration by the department.

(5) Bulk storage construction standards for primary, secondary, and operational containment facilities that are constructed after the effective date of this rule shall be of a type recommended by any of the following entities:

(a) Michigan state university.

(b) Midwest plan service.

(c) Tennessee valley authority.

(d) A licensed engineer.

(e) Other sources approved by the department.

(6) The department is not liable for the structural integrity of a department-approved storage facility.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.4 Primary containment of bulk liquid pesticides.

Rule 4. (1) A storage container shall not be made of ferrous metals unless the container is made of stainless steel, the container has a protective lining which prevents corrosion and which does not react chemically with the stored pesticide, or the manufacturer of the stored pesticide has confirmed, in writing, to the department that corrosion tests have been conducted and storage in such unlined containers has been found to be satisfactory.

(2) Storage containers and appurtenances shall be constructed of materials that are resistant to corrosion, puncture, and cracking.

(3) Metals that are used for valves, fittings, and repairs on metal containers shall be compatible with the metals that are used in the construction of the storage container so that the combination of metals does not cause or increase corrosion which may weaken the storage container or its appurtenances or create a risk of discharge.

(4) Storage containers and appurtenances shall be designed to handle all

operating stresses, taking into account static head, pressure buildup from pumps and compressors, and any other mechanical stresses to which the storage containers and appurtenances may be subject in the course of operations.

(5) Storage containers and appurtenances, including pipes, shall be protected against reasonably foreseeable risks of damage by trucks and other moving vehicles that are engaged in the handling of a bulk pesticide.

(6) All wetted parts inside shutoff valves and connections from the storage container to the shutoff valve shall be made of stainless steel or other material that is approved by the department. Minibulk pesticide containers that are in compliance with DOT-57 or MACA-75 specifications are exempt from the provisions of this subrule.

(7) Provision shall be made to prevent cross-contamination due to the use of common metering or plumbing devices.

(8) Storage containers shall not be filled to more than 95% of capacity unless any of the following provisions apply:

(a) The storage container construction or location provides constant temperature control.

(b) The storage container is a minibulk pesticide container.

(c) The storage container is otherwise designed to be filled to a capacity of more than 95% of its total volume according to the manufacturer's recommendations.

(9) Flexible connections and properly supported appurtenances shall be utilized as dictated by engineering practices to reduce vibrational and stress-related deterioration.

(10) Backflow protection or a fixed air gap shall be utilized to protect water lines as required by standard engineering and plumbing practices.

(11) Primary containment piping shall be located above the ground and within secondary containment.

(12) Storage containers shall be anchored, elevated, or secured by some other means to prevent flotation or instability.

(13) Mobile storage containers that contain liquid pesticide shall be stored not less than 100 feet from a water well or surface water or as required by the pesticide label, whichever distance is greater.

(14) A person shall not store liquid pesticide in an underground storage container. This prohibition does not apply to a watertight catch basin or sump that is used for the temporary collection of runoff or rinsate from transfer and loading areas.

(15) Storage containers which are located outdoors and which are more than 10 feet in height shall be placed a minimum of 5 feet from the secondary containment wall or, as an alternative, shall be designed to prevent liquid pesticide discharges from the storage container over the side of the dike wall. The distance between containers shall be adequate to allow for inspection and maintenance.

(16) Facilities that have existing secondary containment areas on the effective date of this rule are exempt from the wall setback and design requirements specified in subrule (15) of this rule. The distance between containers shall be adequate to allow for inspection and maintenance.

(17) Storage containers which are located within a walled structure and which are lower than the surrounding walls are exempt from the wall setback and design requirements specified in subrule (15) of this rule. The distance between containers shall be adequate to allow for inspection and maintenance.

(18) All bulk pesticide containers shall be labeled in accordance with the provisions of Act No. 171 of the Public Acts of 1976, as amended, being S286.551 et seq. of the Michigan Compiled Laws, and the federal

insecticide, fungicide, and rodenticide act of 1988, as amended, 7 U.S.C. S136 et seq. The registered product label shall be affixed in a prominent location on the bulk pesticide storage container and shall be designed to remain intact and legible throughout the active use of the container.

(19) Facilities that are placed in service after the effective date of this rule shall immediately comply with this rule. Facilities that are in service before the effective date of this rule shall have 1 year to comply with this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.5 Liquid level gauging devices.

Rule 5. (1) Every storage container shall be equipped with a liquid level gauging device that can readily and safely determine the level of liquid in the storage container. A liquid level gauging device is not required if the level of liquid in a storage container can be readily and reliably measured by other means.

(2) Liquid level gauging devices shall be secured to protect against breakage or vandalism.

(3) External sight gauges are prohibited.

(4) Facilities that are placed in service after the effective date of this rule shall immediately comply with this rule. Facilities that are in service before the effective date of this rule shall have 1 year to comply with this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.6 Venting requirements.

Rule 6. (1) Each storage container that is used for bulk liquid pesticide shall be equipped with a vent that has a hood or an inverted opening.

(2) Conservation vents shall be used on containers that store products where loss of vapor affects product quality or where the vapor is harmful to plants, animals, or humans.

(3) Conservation vents shall open and close within the designed pressure limits of the storage container.

(4) Full compliance with the provisions of this rule is required 90 days after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.7 Security requirements.

Rule 7. (1) Storage containers and appurtenances shall be secured to provide reasonable protection from wildlife, vandalism, and unauthorized access. Security shall be provided by fencing, lighting, locks, or other approved means.

(2) Appurtenances on storage containers shall be locked or otherwise secured, except when persons who are responsible for facility security are present at the facility.

(3) Valves on mobile containers which contain liquid pesticide and which are parked unattended at a storage facility shall be locked or secured, except when persons who are responsible for facility security are present at the facility.

(4) Every storage container connection, except a safety relief

connection, shall be equipped with a shutoff valve that is located on the storage container or at a distance from the storage container dictated by standard engineering practice.

(5) For bulk storage containers that have pumps located at the top of the tank, a shutoff valve between the pump and the tank is not required only if a shutoff valve is located between the pump and the outlet.

(6) For multiple valves that are located on a single line, the valve closest to its container shall be locked or secured, except when persons who are responsible for facility security are present at the facility. For elephant rings, the last valve that is located within the containment area shall be locked or secured as stated in this rule.

(7) Valves on empty containers shall be closed.

(8) Minibulk pesticide containers that are in compliance with DOT-57 or MACA-75 specifications are exempt from the valve requirements specified in subrules (4) and (5) of this rule.

(9) Full compliance with the provisions of this rule is required 180 days after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.8 Secondary containment of bulk liquid pesticides.

Rule 8. (1) Primary storage containers of bulk pesticide shall be located within a diked containment area that is constructed with a base, perimeter wall, sloped floor, and watertight catch basin or sump. A containment area shall not have a relief outlet or discharge valve unless the requirements of subrule (8)(d) of this rule are met.

(2) Minibulk pesticide containers that are in compliance with DOT-57 or MACA-75 specifications are exempt from secondary containment requirements. These minibulk containers shall be placed upon a paved impermeable surface.

(3) A container which is used solely for the premixing of use solutions, which has a maximum volume of 2,500 gallons, and which is in compliance with all of the following requirements shall be exempt from secondary containment requirements:

(a) The container shall be attended by facility personnel at all times when being used for mixing.

(b) The contents of the container shall be completely removed at least once every 24 hours.

(c) The container shall be placed upon a paved impermeable surface.

(d) The container shall be in compliance with the requirements specified in R 285.640.4.

(4) Capacity requirements for secondary containment areas are as follows:

(a) The diked area for containment at a bulk storage facility that is not protected from rainfall shall contain a minimum of 110% of the volume of the largest storage container within the diked area, plus the volume that is occupied by all other tanks within and below the height of the dike, plus the volume of a 6-inch rainfall.

(b) The diked area for containment at a bulk storage facility that is protected from rainfall shall contain a minimum of 110% of the volume of the largest storage container within the diked area, plus the volume that is occupied by all other tanks within and below the height of the dike.

(c) Secondary containment areas which were constructed before the effective date of this rule and which have a minimum capacity of 110% of the volume of the largest storage container within the diked area, plus the volume that is occupied by all other tanks within and below the height

of the dike, shall be deemed to be in compliance with this rule. Any such storage facility shall, upon alteration of the secondary containment area or increases in storage container volume, be brought into full compliance within 1 year of the alteration or increase.

(d) Secondary containment that is not located within a roofed building shall provide for separation between bulk pesticides and bulk fertilizers to the extent that a common wall or curb between the pesticide and fertilizer areas will accomplish either of the following:

(i) Prevent pesticide from entering the fertilizer area, but allow fertilizer to enter and utilize the pesticide area while maintaining the capacity requirements specified in subdivisions (a) to (c) of this subrule.

(ii) Maintain a complete separation of fertilizer and pesticide, with or without a common wall, if each separate area maintains the capacity requirements specified in subdivisions (a) to (c) of this subrule.

(5) Wall requirements for secondary containment areas are as follows:

(a) The walls of a secondary containment area shall be constructed of any of the following materials and shall be designed to withstand a full hydrostatic head of any discharged liquid and weight load of material:

(i) Steel.

(ii) Poured reinforced concrete.

(iii) Precast concrete modules.

(iv) Solid masonry.

(v) Other materials approved by the department.

(b) Cracks and seams shall be sealed to prevent leakage.

(c) Walls shall not be more than 6 feet in height above interior grade unless provision is made for normal access and necessary emergency access to tanks, valves, and other equipment and for the safe exiting from the secondary containment facility.

(d) Walls that are constructed of concrete or solid masonry shall rest upon a floating base of concrete that is prepared as specified in subrule (7)(a) of this rule or upon suitable concrete footings that extend below the average frost depth to provide structural integrity. Joints between walls and base shall be made watertight.

(e) Piping shall not be installed through the secondary containment wall, except for interconnections between multiple secondary containment structures.

(6) Base requirements for secondary containment areas are as follows:

(a) The base of a secondary containment area shall slope to a watertight catch basin or sump where accumulated liquids can be removed.

(b) The base and any earthen walls of the secondary containment area shall be lined with concrete, steel, or approved synthetic liners.

(7) Liner requirements for secondary containment areas are as follows:

(a) Concrete liners shall be designed according to good engineering practices to withstand any foreseeable loading conditions, including a full hydrostatic head of discharged fluid and static loads of storage containers, including appurtenances, equipment, and contents. Cracks and seams shall be sealed to prevent leakage.

(b) Steel plates may be used for wall and base liners. Installation plans shall be approved by the department. The plates shall be protected against corrosion and joined in a manner to provide watertight joints.

(c) Synthetic liners and installation plans shall be approved by the department. A synthetic liner will not be approved by the department until the manufacturer of the liner provides the department with a written confirmation of compatibility and a written estimate of the life expectancy of the liner.

(d) Synthetic liners shall have a minimum thickness of 30 mils (0.8

millimeters) and be compatible with the materials being stored within the facility.

(e) Synthetic liners shall be installed under the supervision of a qualified representative of the manufacturer and all field-constructed seams shall be tested and repaired, if necessary, in accordance with the manufacturer's recommendations.

(f) Prefabricated diked areas shall not have a relief outlet or discharge valve. The base shall slope to a collecting spot where storm water can be discharged by a manually activated pump for use in the blending process or for proper disposal in accordance with the provisions of R 285.640.11.

(g) The department may approve the use of experimental materials upon written confirmation from the manufacturer regarding the pertinent specifications of the material for use in pesticide containment.

(8) Catch basin or sump requirements for secondary containment areas are as follows:

(a) The sump construction shall conform to the thickness specifications, on all sides including the base of the sump, for the remainder of the containment area base and shall be watertight.

(b) Discharge valves or drains shall not be plumbed into the sump unless the requirements of subdivision (d) of this subrule are met.

(c) Design and construction specifications for the sump shall address sediment accumulation, sediment removal, and freeze-thaw cycles.

(d) An exception for allowing discharge valves or drains to be plumbed into the sump may be granted if a catchment system that includes a catch drain, discharge valve, and concrete sump tank, as described in this subdivision, is operational and if all of the following conditions are met:

(i) The containment area and discharge valve or drain shall be in existence before the effective date of this rule. Construction of containment areas with discharge valves or drains will not be permitted after the effective date of this rule.

(ii) Concrete-lined areas shall have a recessed catch drain that runs through the center of the base. The catch drain shall be a minimum of 6 inches deep and 12 inches wide with an open grate cover.

(iii) The concrete slab that is located beneath the catch drain shall be at least the same thickness below and to the sides of the drain as the base is throughout the containment area and shall be in compliance with the provisions of R 285.640.8(6)(a).

(iv) The concrete base shall slope to the drain, and the drain shall slope to a discharge valve at the edge of the dike.

(v) The discharge valve shall be closed and secured at all times, except when in use as specified in paragraph (vi) of this subdivision, at which times it shall be attended by responsible personnel.

(vi) The discharge valve shall drain to an underground concrete sump tank that has a maximum capacity of 1,200 gallons. A self-priming recovery pump shall be used to move all materials from the tank to alternate contained storage. The sump tank shall be used as a temporary catchment only. The sump tank shall be pumped at least weekly during non-winter months to remove any water or pesticide material that it collects.

(vii) Liquids that accumulate in this type of catchment system shall be managed in accordance with the provisions of R 285.640.11(2)(a) only.

(9) Facilities that are placed in service after the effective date of this rule shall immediately comply with this rule. Facilities that are in service before the effective date of this rule shall have 2 years to comply with this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.9 Alternative to diking for storage containers.

Rule 9. (1) An individual storage container that does not have a capacity of more than 3,000 gallons may be contained within a secondary storage container, that is, an elephant ring, instead of a diked containment area.

(2) Both the primary storage container and the elephant ring shall be fabricated of material that is compatible with each other and with the pesticide that is being stored.

(3) The height of the elephant ring wall shall not be more than 4 feet.

(4) The volume that is contained within the secondary storage walls up to the working height of the elephant ring shall be sufficient to contain 110% of the volume that is contained in the primary storage container plus the volume that is displaced by the footings of any equipment which is placed within the secondary containment vessel.

(5) The elephant ring shall be free of leaks and structural defects. The base shall be protected from corrosion, both from inside and outside, and shall be underlaid with a concrete pad or with 8 inches of compacted gravel beneath 4 inches of compacted sand or clay, or shall be protected as recommended by the manufacturer of the elephant ring and approved by the department.

(6) All piping connections to the primary storage container shall be made over the wall of the elephant ring and shall be adequately supported and braced. Pumps and other fixtures, if located within the elephant ring containment structure, shall be placed on an elevated platform or otherwise protected from water accumulation.

(7) Accumulations of storm water and other material shall be pumped over the wall of the elephant ring by means of a pump within the secondary container or by means of an exterior portable pump and shall be disposed of in accordance with the provisions of R 285.640.11(2).

(8) A maximum of 3 elephant rings per bulk storage facility will be permitted.

(9) Full compliance with the provisions of this rule is required 1 year after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.10 Operational area containment of liquid pesticides.

Rule 10. (1) Operational areas shall be curbed or sloped to allow the containment of accumulated liquids. The area shall be constructed of reinforced concrete or other suitable material approved by the department, to provide an impermeable surface. Operational area activities at the pesticide storage facility shall be carried out within this area.

(2) The operational area containment shall form or drain into a watertight catch basin or sump. The sump shall meet the requirements of R 285.640.8(8).

(3) The operational area containment shall be constructed and reinforced to handle at least the foreseeable maximum gross load, including all of the following:

(a) Product.

(b) Equipment that utilizes the operational area.

(c) Mobile containers.

(d) Motor vehicles.

(4) Size and capacity requirements for operational area containments are

as follows:

(a) The operational area containment shall have a minimum width of 10 feet and a minimum length of 20 feet.

(b) Except as provided in subdivision (c) of this subrule, curbed surfaces and catch basins shall be of adequate size and design to contain a minimum of 1,500 gallons of discharged liquid.

(c) If there are no storage containers that are used at the storage facility which have a capacity of more than 1,000 gallons, and if there are no mobile containers that are used to transfer liquid pesticide to and from storage containers which have a capacity of more than 1,000 gallons, the curbed surface and catch basin shall be of adequate size and design to contain 110% of the volume of whichever is greater, the largest storage container or the largest mobile container that is used.

(d) The operational area containment capacity may include an aboveground container for temporary storage if a pump is installed which automatically transfers the contents of the sump into the container and the container is located within secondary containment.

(5) Any filling or unloading point of a mobile container shall be positioned over the paved area during loading or unloading to assure retention of any discharge.

(6) The secondary containment area that is described in R 285.640.8 can, under the following conditions, be jointly utilized as an operational containment area instead of a separate operational containment area:

(a) Secondary containment areas are not lined with synthetic liners.

(b) Sufficient capacity requirements and the provisions of R 285.640.8 and this rule are complied with.

(7) Storage containers and appurtenances, including pipes, shall be protected against reasonably foreseeable risks of damage by trucks and other moving vehicles that are engaged in the loading or unloading of bulk pesticide.

(8) Loading and unloading operations shall be supervised at all times by an attendant who is familiar with the operation of the mechanical appurtenances in use at the facility and who is familiar with the procedures that are used for the control and recovery of discharges.

(9) This rule does not apply to mobile containers that are used to nurse field operations when at a field unloading site.

(10) Facilities that are placed in service after the effective date of these rules shall immediately comply with this rule. Facilities that are in service before the effective date of this rule shall have 2 years to comply with this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.11 Containment area management and operation.

Rule 11. (1) Accumulated precipitation, spills, or leaks within diked or sloped containment areas shall be managed as follows:

(a) Accumulated liquids shall be removed by a manually activated pump.

(b) Accumulated liquids in the sump and containment area shall be removed within 72 hours of accumulation.

(c) Recovered pesticide, washwater, rinsate, or accumulated liquids shall be utilized in accordance with the provisions of subrule (2) of this rule.

(2) Precipitation accumulation in secondary, operational, or elephant ring containment areas shall be utilized or disposed of in accordance with 1 of the following provisions:

(a) Contain, temporarily store, and reuse all liquid materials that

accumulate. The disposal of liquids from the containment area as surface runoff is not permitted.

(b) Contain, temporarily store, and reuse all liquid materials that accumulate during the agrichemical application season. Clean and rinse the containment area at the end of the season in accordance with the provisions of subrule (3) of this rule. Only after cleaning and without the occurrence of any spills or leaks within the containment area, dispose of liquids from the containment area as surface runoff in accordance with state and local requirements until the agrichemical application season recommences.

(c) Contain all liquid materials that accumulate, test liquids using department-approved methods for the presence of contaminants, and dispose of liquid as surface runoff only when state and local requirements are met.

(d) Utilize small containers beneath all connections, pumps, and potential spill areas. Contain, temporarily store, and reuse or dispose of all liquid materials that accumulate within these small containers. Dispose of precipitation that accumulates within the remainder of the containment area as surface runoff in accordance with state and local requirements, only if no spills or leaks have occurred outside of the small containers.

(3) Containment areas shall be cleaned as follows:

(a) Power wash the area using a biodegradable cleaner.

(b) Triple rinse the area using water under high pressure.

(c) Remove all rinsate that is generated by the containment area cleaning process.

(4) Accumulated liquids shall not be released into any watercourse, storm sewer, field tile, or sanitary sewer.

(5) Discharges or spills that are incidental to loading or unloading shall be promptly recovered from the containment area and catch basin such that the capacities required pursuant to the provisions of R 285.640.8(4) and R 285.640.10(4) are available at all times.

(6) Facilities that are placed in service after the effective date of this rule shall immediately comply with this rule. Facilities that are in service before the effective date of this rule and have completed secondary or operational containment areas, shall immediately comply with this rule. Facilities that are in service before the effective date of this rule shall immediately comply with this rule upon completion of secondary or operational containment areas in compliance with R 285.640.8, R 285.640.9, or R 285.640.10.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.12 Abandoned containers.

Rule 12. (1) Storage containers and other containers that are used at a storage facility to hold bulk pesticide or pesticide rinsates are considered abandoned if they have been out of service for more than 6 months because of a weakness or leak or have been out of service for any reason for more than 2 years.

(2) Abandoned underground containers, including abandoned underground catch basins, shall be thoroughly cleaned by triple rinsing, or the equivalent, and removed from the ground or thoroughly cleaned and filled with an inert solid. All connections and vents shall be disconnected and sealed. A record of the catch basin size, location, and method of closing shall be maintained at the storage facility or as otherwise provided for in this rule.

(3) Abandoned aboveground containers shall be thoroughly cleaned by triple rinsing or the equivalent. All valves and connections on the containers shall be removed and the openings shall be sealed.

(4) A secondary containment facility is not considered abandoned merely because there have been no spills in the secondary containment area.

(5) Full compliance with the provisions of this rule is required 90 days after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.13 Site closure and discontinuation of operation.

Rule 13. (1) When a bulk pesticide storage facility is closed or operations are discontinued, all of the following provisions shall be complied with:

(a) All pesticides, rinsates, washwaters, and other materials that contain pesticides shall be removed from the facility site and utilized for the original intended purpose of the product or disposed of in a manner approved by the department.

(b) The storage containers at the facility shall be thoroughly cleaned by triple rinsing or the equivalent. All valves and connections on containers shall be removed and the openings shall be sealed.

(2) Full compliance with the provisions of this rule is required 90 days after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.14 Storage of bulk dry pesticides.

Rule 14. (1) Dry pesticide materials shall be stored in storage containers that are effectively designed and constructed to hold bulk dry pesticide and shall be compatible with the stored pesticide. Storage containers shall be constructed of materials that are resistant to corrosion, puncture, and cracking and shall be maintained in a good state of repair.

(2) Bulk dry pesticide storage containers that are held outdoors shall be placed on pallets or on a raised concrete platform that is drained to prevent the accumulation of water in or under the pesticide.

(3) Except during loading or unloading, stored bulk dry pesticide shall be covered by a roof or tarpaulin to keep precipitation off the pesticide.

(4) All loading, unloading, mixing, and handling of dry pesticide at the storage facility shall be conducted on a paved impermeable surface of a size and design that will contain the pesticide and allow for the collection of spilled material to be recycled, applied at labeled rates, or disposed of in a manner approved by the department.

(5) Storage facilities shall be secured against the entry of unauthorized persons or wildlife.

(6) Full compliance with the provisions of this rule is required 90 days after the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.15 Discharge response plan.

Rule 15. (1) An operator of a storage facility shall prepare a written discharge response plan for the storage facility. The plan shall include all of the following information:

(a) The identities and telephone numbers of the persons or agencies that shall be contacted in the event of a discharge, including the persons who are responsible for the stored pesticide.

(b) For each bulk pesticide that is stored at the facility, a complete copy of the storage container labeling that is required by this rule and the labeling required by the provisions of Act No. 171 of the Public Acts of 1976, as amended, being S286.551 et seq. of the Michigan Compiled Laws, to accompany the sale of the pesticide.

(c) An identification, by location, of every bulk storage container that is located at the bulk storage facility, together with the type of pesticide it contains. The plan need not include the specific location of each storage container of minibulk pesticide if the plan includes the general location within the facility where storage containers of minibulk pesticide are held.

(d) For each type of pesticide that is stored at the facility, the procedures to be used in controlling and recovering, or otherwise responding to, a discharge or spill.

(e) The procedures to be followed in using or disposing of a recovered discharge or spill.

(2) An operator shall keep the plan current at all times.

(3) A copy of the plan shall be kept readily available at the storage facility and at the nearest local office from which the storage facility is administered and shall be available for inspection by the department.

(4) The operator of the storage facility shall inform the local fire and police departments of the existence of the plan and shall provide a current copy of the plan to the local fire and police departments.

(5) The owner or manager of a bulk pesticide storage facility shall conduct emergency and discharge response training for all new and existing employees of the facility annually before the beginning of the pesticide use season. New employees shall receive training within 30 days of employment. A firm's owner, manager, and employees are responsible for following the firm's emergency and discharge response plan procedures.

(6) All of the following provisions apply to emergency equipment and supplies:

(a) Every storage facility shall have access to pumps and recovery containers that can be used to control and recover discharges. Pumps, recovery containers, and persons who are capable of deploying and operating pumps and recovery containers shall be readily available in an emergency. Pumps and recovery containers may include pumps and recovery containers that are operated by a local fire department or other persons if the use and availability of the pumps and recovery containers is arranged in advance as part of a discharge response plan.

(b) Absorbent materials that are suitable for the control and cleanup of smaller discharges shall be readily available to every storage facility. Used absorbent materials shall be disposed of properly.

(c) Reportable agrichemical spills, as defined in the provisions of SARA title III and CERCLA, shall be immediately reported by telephone to both of the following entities:

(i) Michigan department of natural resources, 1-800-292-4706, available 24 hours a day.

(ii) National response center, 1-800-424-8802.

(d) Any discharge that is not covered by the provisions of SARA title III or CERCLA pertaining to reportable agrichemical spills shall be immediately reported to the department of natural resources.

(7) Full compliance with the provisions of this rule is required on the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.16 Inspection and maintenance requirements.

Rule 16. (1) An operator of a storage facility shall maintain all of the following so as to minimize the risk of a discharge:

- (a) Storage facilities.
- (b) Secondary containment areas.
- (c) Operational areas.
- (d) Storage containers.
- (e) Appurtenances.

(2) An operator of a storage facility shall inspect all of the following at least once every month when the facility is being utilized for the storage of bulk pesticides:

- (a) The facility.
- (b) Secondary containment areas.
- (c) Operational areas.
- (d) Storage containers.
- (e) Appurtenances.

The inspection shall include a visual observation for any evidence of leaks, spills, cracks, solar decay, or wear.

(3) All secondary containment and operational areas shall be maintained free of debris and foreign matter.

(4) Elephant rings shall be inspected by the operator at least once every month and shall be maintained as necessary to assure compliance with this rule.

(5) A written record of all inspections and maintenance shall be made on the day of the inspection or maintenance and shall be kept at the storage site or at the nearest local office from which the storage site is administered.

(6) Full compliance with the provisions of this rule is required on the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.17 Recordkeeping requirements.

Rule 17. (1) All of the following records shall be prepared and maintained on file at every storage facility or at the nearest local office from which the storage facility is administered:

(a) A record of all discharges to the environment or spills within containment areas at the storage facility, including all of the following information:

- (i) The date and time of the discharge or spill.
- (ii) The type and volume of the liquid bulk pesticide or dry bulk pesticide involved.
- (iii) The cause and any action taken to control or recover the discharge or spill.
- (iv) The method of use or disposal of any recovered materials. This record shall be completed on the day the discharge or spill is discovered and shall be promptly updated to show measures taken to control, recover, use, or dispose of the recovered materials.

(b) An inventory reconciliation for each storage container. When facilities are in use for storage, an inventory reconciliation shall be conducted at least once each year to compare the measured level in a storage container against shipments in and out of the container.

(c) Inspection and maintenance records that pertain to any of the

following as required by the provisions of this rule:

- (i) Storage containers.
- (ii) Appurtenances.
- (iii) Operational area containment.
- (iv) Secondary containment facilities.
- (d) Copies of department inspection reports.
- (e) A permanent record of abandoned underground containers in accordance with the provisions of R 285.640.12.
- (f) Facility site plan information required pursuant to the provisions of R 285.640.2(1) and (2).
 - (2) Records shall be maintained for the following periods:
 - (a) Records that are required pursuant to the provisions of subrule (1)(e) of this rule shall be maintained as permanent records.
 - (b) Records that are required pursuant to the provisions of subrule 1(a) to (d) and (f) of this rule shall be maintained for not less than 3 years.
 - (c) Records shall be available for inspection and copying by the department.
 - (3) Full compliance with the provisions of this rule is required on the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.18 Remediation actions.

Rule 18. (1) If a discharge to the environment is reported or, if as a result of observation or laboratory analysis by a state or federal agency, it is determined that a discharge to the environment has occurred, an operator shall comply with all of the following provisions:

(a) Remove contaminated materials from the site, determine the concentration of pesticide, and field-apply at or below labeled rates or properly dispose of the contaminated materials according to the department of natural resources directives.

(b) Submit a revised facility site plan to the department within 90 days after being notified of a discharge to the environment. This revised site plan shall indicate the changes proposed to prevent further discharges to the environment and be reviewed and approved by any state or federal agency deemed necessary by the department. Following approval by the department, the facility operator shall implement the changes that are designated in the revised site plan in a time period as specified by the department.

(c) If the facility operator decides to close the facility as a result of a contamination notification, the facility shall be closed in accordance with the provisions of R 285.640.13.

(2) Full compliance with the provisions of this rule is required on the effective date of this rule.

History: 1992 MR 10, Eff. Oct. 30, 1992.

R 285.640.19 Advisory information.

Rule 19. (1) The information specified in this rule is offered by the department with respect to other state agencies and their policies and regulations that may have an impact on bulk storage facilities.

(2) All the following provisions apply to flammable and combustible liquids:

(a) A person who stores, or who is considering the storage of, bulk pesticides is advised that a number of commonly used pesticides are

classified as combustible liquids. Act No. 207 of the Public Acts of 1941, as amended, being S29.1 et seq. of the Michigan Compiled Laws, defines "combustible liquids" as liquids that have a flash point at or above 100 degrees Fahrenheit and below 200 degrees Fahrenheit. Regulations covering the transportation and storage of these liquids have been promulgated by the state fire safety board. The degree of regulation regarding bulk storage of these hazardous liquids depends primarily upon the volume of the storage container and its location with respect to other sources of combustion.

These regulations apply to all of the following areas:

- (i) Tank construction.
- (ii) Supports.
- (iii) Location.
- (iv) Spacing.
- (v) Diking.
- (vi) Venting.
- (vii) Valves.
- (viii) Piping.
- (ix) Back flow protection.
- (x) Pumps.
- (xi) Loading and unloading facilities.
- (xii) Labeling.
- (xiii) Equipment maintenance.

(b) Copies of the rules that apply to the storage of flammable and combustible liquids, as well as additional information, are available from the State Fire Safety Board, Fire Marshal Division, 3705 West Jolly Road, Lansing, Michigan 48911.

(c) A list of pesticides that are classified as combustible liquids is available from the Michigan Department of Agriculture, Pesticide and Plant Pest Management Division, P.O. Box 30017, Lansing, Michigan 48909.

(3) All the following provisions apply to discharge, spill, or release reporting and remediation:

(a) A person who operates a bulk storage facility is advised that discharges, spills, or releases of bulk pesticide to the environment in a manner inconsistent with the label directions may have reporting or remedial action obligations to the department of natural resources.

(b) Act No. 245 of the Public Acts of 1929, as amended, being S323.1 et seq. of the Michigan Compiled Laws, and known as the water resources commission act, regulates discharges or potential discharges into waters of the state, including groundwater. Copies of this act and other pertinent rules are available from the Michigan Department of Natural Resources, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909.

(c) Act No. 307 of the Public Acts of 1982, as amended, being S299.601 et seq. of the Michigan Compiled Laws, and known as the environmental response act, identifies, prioritizes, provides response activities for, and sets cleanup standards for, environmental contamination sites. Copies of this act and other pertinent rules are available from the Michigan Department of Natural Resources, Environmental Response Division, P.O. Box 30028, Lansing, Michigan 48909.

(4) Both of the following provisions apply to the disposal of certain pesticides:

(a) A person who operates a bulk storage facility is advised that the disposal of pesticides may be regulated by the department of natural resources.

(b) Act No. 64 of the Public Acts of 1979, as amended, being S299.501 et seq. of the Michigan Compiled Laws, and known as the hazardous waste

management act, regulates the generation, transportation, storage, and disposal of hazardous wastes. Copies of this act and other pertinent rules are available from the Michigan Department of Natural Resources, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909.

(5) All the following provisions apply to the pollution incident prevention plan (PIPP) requirements:

(a) A person who operates a bulk storage facility is advised that the department of natural resources may require the submittal of a plan of loss prevention and recovery depending upon the type of material being processed or stored.

(b) The registration application, discharge response plan, and facility site plans required by the provisions of R 285.640.2 may be submitted as a PIPP plan to the department of natural resources. The department of natural resources may determine that this information meets all, or only a portion of, the requirements for the PIPP plans.

(c) The provisions of R 323.1151 to R 323.1169 of the water resources commission promulgated pursuant to Act No. 245 of the Public Acts of 1929, as amended, being S323.1 et seq. of the Michigan Compiled Laws, require that a pollution incident prevention plan be submitted for approval to the district office of the department of natural resources, waste management division. Copies of this act, other pertinent rules, district office locations, and requirements for the PIPP plans are available from the Michigan Department of Natural Resources, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909.

(6) Both of the following provisions apply to bulk storage facility designs:

(a) A person who operates a bulk storage facility is advised that the department, upon issuing a facility registration, is not liable for the structural integrity of the storage facility.

(b) A licensed professional engineer should be consulted with for designs and construction specifications for the modification or construction of a bulk storage facility to meet the provisions and requirements of these rules.

History: 1992 MR 10, Eff. Oct. 30, 1992.