Ohio Administrative Code

Rule 3745-69-43 Design and operating requirements for drip pads.

Effective: September 5, 2010

(A) Drip pads must:

(1) Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) Have a curb or berm around the perimeter;

(a) Have a hydraulic conductivity of less than or equal to 1 10^{-7} centimeters per second, e.g., existing concrete pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1 10^{-7} centimeters per second such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with paragraph (B) of rule 3745-69-42 of the Administrative Code instead of paragraph (A) of rule 3745-69-42 of the Administrative Code.

(b) The owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and recertified annually. The evaluation must document the extent to which the drip pad meets the design and operating standards of this rule, except for paragraph (B) of this rule.

(5) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations, e.g., variable and

moving loads such as vehicle traffic, movement of wood, etc.

[Comment: Ohio EPA will generally consider applicable standards established by professional organizations generally recognized by industry such as the American concrete institute (ACI) and the American society of testing materials (ASTM) in judging the structural integrity requirement of paragraph (A)(5) of this rule.]

(B) If an owner/operator elects to comply with paragraph (A) of rule 3745-69-42 of the Administrative Code instead of paragraph (B) of rule 3745-69-42 of the Administrative Code, the drip pad must have:

(1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the drip pad. the liner must be constructed of materials that will prevent waste from being absorbed into the liner and prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner must be:

(a) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(b) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(c) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

(2) A leakage detection system immediately above the liner that is designed, constructed, maintained, and operated to detect leakage from the drip pad. The leakage detection system must be:

(a) Constructed of materials that are:

(i) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

(b) Designed and operated to function without clogging through the scheduled closure of the drip pad.

(c) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(3) A leakage collection system immediately above the liner that is designed, constructed, maintained, and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed must be documented in the operating log.

(C) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could hazardous waste to be released from the drip pad.

[Comment: See paragraph (M) of this rule for remedial action required if deterioration or leakage is detected.]

(D) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(E) Unless protected by a structure, as described in paragraph (B) of rule 3745-69-40 of the Administrative Code, the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a twenty-four-hour, twenty-five-year storm unless the system has sufficient excess capacity to contain any run-on that might enter the system, or the drip pad is protected by a structure or cover, as

described in paragraph (B) of rule 3745-69-40 of the Administrative Code.

(F) Unless protected by a structure or cover, as described in paragraph (B) of rule 3745-69-40 of the Administrative Code, the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(G) The drip pad must be evaluated to determine that it meets the requirements of paragraphs (A) to (F) of this rule and the owner or operator must obtain a written statement from a qualified professional engineer certifying that the drip pad design meets the requirements of this rule.

(H) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(I) The drip pad surface must be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(J) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(K) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(L) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(M) Throughout the active life of the drip pad, if the owner or operator detects a condition that may

have caused or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that may have caused or has caused a release of hazardous waste (e.g., upon detection of leakage by the leak detection system), the owner or operator must:

(a) Enter a record of the discovery in the facility operating log;

(b) Immediately remove the portion of the drip pad affected by the condition from service;

(c) Determine what steps must be taken to repair the drip pad, remove any leakage from below the drip pad, and establish a schedule for accomplishing the clean up and repairs;

(d) Within twenty-four hours after discovery of the condition, notify the director of the condition and, within ten working days, provide a written notice to the director with a description of the steps that will be taken to repair the drip pad, and clean up any leakage, and the schedule for accomplishing this work.

(2) The director will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and clean up are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(3) Upon completing all repairs and clean up, the owner or operator must notify the director in writing and provide a certification, signed by an independent qualified professional engineer, that the repairs and clean up have been completed according to the written plan submitted in accordance with paragraph (M)(1)(d) of this rule.

(N) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.