**Section 724.673 Design and Operating Requirements**

a) Drip pads must fulfill the following:

1) Not be constructed of non-earthen materials, wood, or asphalt, unless the asphalt is structurally supported;

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

3) Have a curb or berm around the perimeter;

4) In addition, the drip pad must fulfill the following:

A) Have a hydraulic conductivity of less than or equal to 1x10-7 centimeters per second (cm/sec), e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1x10-7 cm/sec 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 the existing drip pads and those drip pads for which the owner or operator elects to comply with Section 724.672(b) instead of Section 724.672(a).

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 Section, except for in subsection (b).

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.

BOARD NOTE: In judging the structural integrity requirement of this subsection (c), the Agency should generally consider applicable standards established by professional organizations generally recognized by the industry, including ACI 318 (Building Code Requirements for Reinforced Concrete), or ASTM C 94-90 (Standard Specification for Ready-Mixed Concrete), each incorporated by reference in 35 Ill. Adm. Code 720.111(a).

b) If an owner or operator elects to comply with Section 724.672(a) instead of Section 724.672(b), the drip pad must have the following:

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 groundwater 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 to prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner must fulfill the following:

A) It must be 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) It must be 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) It must be 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 fulfill the following:

A) It must be constructed of materials that are as follows:

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) It must be designed and operated to function without clogging through the scheduled closure of the drip pad; and

C) It must be 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 leaking 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.

A) 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 to allow weekly inspections of the entire drip pad surface without interference of 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 cleaning procedure used in the facility's operating log. The owner or operator must determine if the residues are hazardous, as per 35 Ill. Adm. Code 722.111, and, if so, the owner or operator must manage them under 35 Ill. Adm. Code 721 through 728, and section 3010 of RCRA (42 USC 6930).

B) The federal rules do not contain a 40 CFR 264.573(b)(3)(B). This subsection (b) is added to conform to Illinois Administrative Code rules.

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

BOARD NOTE: See subsection (m) 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 the drip pad is protected by a structure, as described in Section 724.670(b), 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 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-on that might enter the system.

f) Unless the drip pad is protected by a structure or cover, as described in Section 724.670(b), 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 24-hour, 25-year storm.

g) The drip pad must be evaluated to determine that it meets the requirements of subsections (a) through (f). The owner or operator must obtain a statement from a qualified Professional Engineer certifying that the drip pad design meets the requirements of this Section.

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 surface must be cleaned thoroughly at least once every seven days such that accumulated residues of hazardous waste or other materials are removed, using an appropriate and effective cleaning technique, including but not limited to, rinsing, washing with detergents or other appropriate solvents, or steam cleaning. The owner or operator must document, in the facility's operating log, the date and time of each cleaning and the cleaning procedure used.

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, in accordance with this Section, following treatment.

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 and as specified in the permit, if the owner or operator detects a condition that could lead to 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 in the leak detection system), the owner or operator must do the following:

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

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

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

D) Within 24 hours after discovery of the condition, notify the Agency of the condition and, within 10 working days, provide written notice to the Agency 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 Agency must do the following: review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and cleanup 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 Agency in writing and provide a certification, signed by an independent, qualified registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (m)(1)(D).

n) If a permit is necessary, the Agency must specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

o) 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.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)