

\*\*\* DRAFT – NOT FOR FILING \*\*\*

3745-511-750

Gas collection and conveyance system.

(A) The gas collection and conveyance system shall be designed to meet the following criteria:

(1) Consist of one or more of the following:

(a) A gas collection layer that conforms to paragraph (B) of this rule. Gas collected in the gas collection layer shall be directed to a gas vent or gas well or other gas collection device.

(b) Gas vents.

(c) Gas wells, which can be vertical or horizontal and conform to paragraph (C) of this rule.

(d) Gas collection devices other than a collection layer, vent, or well, including elements of the leachate collection system.

(e) A gas mover system. The gas mover system shall have the capacity to manage the maximum gas generation flow rate expected over the intended use period of the gas mover system.

(f) A gas conveyance system.

(2) Either vent collected gas to the atmosphere or convey collected gas to one or more gas control devices.

(3) Not compromise the integrity of the cap system, the leachate management system, the liner system, or the separatory leachate barrier and collection system. At a minimum, the design of the gas collection and conveyance system shall meet the following criteria:

(a) Gas vents and gas wells that are installed through waste or C&DD shall not be installed within ten feet of the top of the liner system or separatory leachate barrier and collection system.

(b) Any penetrations through the cap system shall account for settlement of the waste or C&DD relative to the respective gas vent, gas well, or gas conveyance system component.

(4) Not cause fires within the disposal limits. At a minimum, perforations in any gas wells shall not occur within twenty feet of the surface.

(5) Prevent restricted gas flow due to accumulation of leachate or condensate.

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(6) Be capable of isolating any individual gas vents and any individual gas wells and any portions of the gas conveyance system for maintenance and repair.

[Comment: Certain municipal solid waste landfills are required to control air emissions. Permits for gas collection and control systems are obtained through Ohio EPA, division of air pollution control.]

(B) The gas collection layer shall be designed to meet the following criteria:

(1) As a component of a cap system, be as close as possible to the surface of C&DD or waste.

(2) Either remain dry or be oversized to accommodate leachate and condensate. If oversized to accommodate leachate and condensate, the gas collection system shall direct the leachate and condensate to the waste or C&DD mass or to the leachate collection system.

(3) If below a flexible membrane liner or geosynthetic clay liner, also meet the following criteria:

(a) Provide sufficient flow capacity to reduce the gas pressure sufficiently to conform to the requirements to meet the stability standards in rules 3745-511-40 and 3745-511-50 of the Administrative Code.

(b) Have a surface without abrupt changes in grade that may result in damage to the flexible membrane liner or geosynthetic clay liner.

(C) Gas wells shall be designed to obtain gas samples, control flow, accommodate the withdrawal of leachate and condensate, and measure the following:

(1) Temperatures at different locations down the well.

(2) Water level in the well.

(3) Gas pressure.

(4) Gas composition.

(5) Gas flow.

(D) Condensate collected in the gas collection and conveyance system shall be directed to one or more of the following:

(1) The leachate management system.

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(2) A condensate storage tank that conforms to rule 3745-511-755 of the Administrative Code.

(3) A public sewerage system.

(4) A wastewater treatment works permitted in accordance with Chapter 6111. of the Revised Code.

(5) The waste or C&DD mass provided the following are true:

(a) The condensate is collected from within or above the disposal limits.

(b) The waste or C&DD mass is above a leachate collection system.

(E) Any conveyance pipes used to convey condensate shall conform to rule 3745-511-450 of the Administrative Code.