**Section 817.409 Leachate Treatment and Disposal System**

a) Leachate shall be removed from the drainage and collection system when the leachate level in the landfill interferes with landfill operations or exceeds ten feet, or when the unit is subject to assessment monitoring in accordance with Section 817.415(b). The operator is responsible for the operation of a leachate management system designed to handle all leachate removed from the collection system. The leachate management system shall consist of any combination of storage, treatment, pretreatment, and disposal options designed and constructed in compliance with the requirements of this Section.

b) The leachate management system shall consist of any combination of multiple treatment and storage structures, to allow the management and disposal of leachate during routine maintenance and repairs.

c) Standards for on-site treatment and pretreatment:

1) All on-site treatment or pretreatment systems shall be considered part of the facility.

2) The on-site treatment or pretreatment system shall be designed in accordance with the expected characteristics of the leachate. The design may include modifications to the system necessary to accommodate changing leachate characteristics.

3) The on-site treatment or pretreatment system shall be designed to function for the entire design period.

4) All of the facility's unit operations, tanks, ponds, lagoons and basins shall be designed and constructed with liners or containment structures to control seepage to groundwater. The ponds, lagoons, and basins shall be inspected prior to use for cracks and settling and, if leachate is stored in them for more than 60 days, they shall be subject to groundwater monitoring pursuant to this Part.

5) All treated effluent discharged to waters of the State shall meet the requirements of 35 Ill. Adm. Code 309.

6) The treatment system shall be operated by an operator certified under the requirements of 35 Ill. Adm. Code 312.

d) Standards for leachate storage systems:

1) The leachate storage facility must be able to store a minimum of at least five days' worth of accumulated leachate at the maximum generation rate used in designing the leachate drainage system in accordance with Section 817.407. The minimum storage capacity may be built up over time and in stages, so long as the capacity for five consecutive days of accumulated leachate, during extreme precipitation conditions, is available at any time during the design period of the facility.

2) All leachate storage tanks shall be equipped with secondary containment systems equivalent to the protection provided by a clay liner 0.61 meter (2 feet) thick having a permeability no greater than 10-7 centimeters per second.

3) Leachate storage systems shall be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.

4) The leachate storage system shall not cause or contribute to a malodor.

e) Standards for discharge to an off-site treatment works:

1) Leachate may be discharged to an off-site treatment works that meets the following requirements:

A) All discharges of effluent from the treatment works shall meet the requirements of 35 Ill. Adm. Code 309.

B) The treatment system shall be operated by an operator certified under the requirements of 35 Ill. Adm. Code 312.

C) No more than 50 percent of the average daily influent flow can be attributable to leachate from the solid waste disposal facility. Otherwise, the treatment works shall be considered a part of the solid waste disposal facility.

2) The operator is responsible for securing permission from the off-site treatment works for authority to discharge to the treatment works.

3) All discharges to a treatment works shall meet the requirements of 35 Ill. Adm. Code 307 and 310.

4) Pumps, meters, valves and monitoring stations that control and monitor the flow of leachate from the unit and which are under the control of the operator shall be considered part of the facility and shall be accessible to the operator at all times.

5) Leachate shall be allowed to flow into the sewerage system at all times; however, if access to the treatment works is restricted or anticipated to be restricted for longer than five days, an alternative leachate management system shall be constructed in accordance with subsection (c) of this Section.

6) Where leachate is not directly discharged into a sewerage system, the operator shall provide storage capacity sufficient to transfer all leachate to an off-site treatment works. The storage system shall meet the requirements of subsection (d) of this Section.

f) Leachate monitoring:

1) Representative samples of leachate shall be collected from each unit and tested in accordance with subsection (f)(2) of this Section at a frequency of once per quarter. The frequency of testing may be changed to once per year for any monitored constituent, if it is not detected in the leachate for four consecutive quarters. However, if such a constituent is detected in the leachate, testing frequency shall return to a quarterly schedule and the constituent added to the groundwater monitoring program requirements of Section 817.415. In such case, the testing frequency shall remain on a quarterly schedule until such time as the monitored constituent has remained undetected for four additional quarters.

2) Leachate and discharges of leachate from units shall be monitored for constituents determined by the characteristics of the waste to be disposed of in the unit. They shall include, at a minimum:

A) pH;

B) Annually, the MALCs listed in Section 817.106 and the constituents listed in Section 817.Appendix A of this Part;

C) Any other constituents listed in the operator's NPDES discharge permit, pursuant to 35 Ill. Adm. Code 304, or required by a publicly owned treatment works, pursuant to 35 Ill. Adm. Code 307 and 310; and

D) All of the indicator constituents chosen in accordance with Section 817.415(a)(2)(B) and used by the operator for groundwater monitoring.

3) The operator shall also monitor the leachate head within each unit.

g) Time of operation of the leachate management system:

1) The operator shall collect and dispose of leachate for a minimum period of 5 years after closure until treatment is no longer necessary.

2) Treatment is no longer necessary if the leachate constituents do not exceed the wastewater effluent standards in 35 Ill. Adm. Code 304.124, 304.125, and 304.126.

h) If the results of testing of leachate samples in accordance with subsection (f) above show that the leachate exceeds the limits for low risk waste as defined in Section 817.106, the operator shall:

1) notify the Agency in writing of this finding within 10 days following the finding;

2) verify the exceedence by taking additional samples within 45 days after the initial observation;

3) report the results of the verification sampling to the Agency within 60 days after the initial observation;

4) determine the source of the exceedence, which may include, but not be limited to, the waste itself, natural phenomena, sampling or analysis errors, or an offsite source, within 90 days after the initial observation; and

5) notify the Agency in writing of a confirmed exceedence and provide the rationale used in such a determination within ten days after the determination.

i) If, as a result of further testing of the leachate and the background groundwater and analysis using the 35 Ill. Adm. Code 811.320(e) statistical procedure, it is determined that the facility leachate exceeds the Section 817.106 limits for low risk waste, the facility shall:

1) no longer be subject to the low risk waste landfill requirements of Subpart C of this Part; and

2) be subject to the requirements for chemical waste landfills of 35 Ill. Adm. Code 814.302.

j) Leachate sampling and analysis shall be completed in accordance with the standards of 35 Ill. Adm. Code 817.414(e)(1), (e)(3), (e)(4), and (e)(5).