

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

1) Heading of the Part: Standards for New Solid Waste Landfills

2) Code Citation: 35 Ill. Adm. Code 811

| <u>Section Numbers:</u> | <u>Proposed Actions:</u> |
|--------------------------------|--------------------------|
| 811.103 | Amendment |
| 811.106 | Amendment |
| 811.107 | Amendment |
| 811.110 | Amendment |
| 811.302 | Amendment |
| 811.309 | Amendment |
| 811.310 | Amendment |
| 811.314 | Amendment |
| 811.319 | Amendment |
| 811.320 | Amendment |
| 811.321 | Amendment |
| 811.323 | Amendment |
| 811.326 | Amendment |
| 811.404 | Amendment |
| 811.704 | Amendment |
| 811.715 | Amendment |
| 811.716 | Amendment |
| 811.719 | Amendment |
| 811.Appendix A, Illustration A | Amendment |
| 811.Appendix A, Illustration B | Amendment |
| 811.Appendix A, Illustration C | Amendment |
| 811.Appendix A, Illustration E | Amendment |
| 811.Appendix B | Amendment |
| 811.Appendix C | Amendment |

4) Statutory Authority: 415 ILCS 5/7.2, 21, 21.1, 22, 22.17, 22.40, and 27

5) A Complete Description of the Subjects and Issues Involved: The amendments to Part 811 are a single segment of the consolidated docket R17-14/R17-15/R18-11/R18-31 rulemaking that also affects 35 Ill. Adm. Code 702, 704, 705, 720 through 728, 730, 733, 738, 739, 810 and 812. Due to the extreme volume of the consolidated docket, each Part is covered by a notice in four separate issues of the *Illinois Register*. Included in this issue are 35 Ill. Adm. Code 730, 733, 738, 739, and 810 through 812. To save space, a more detailed description of the subjects and issues involved in the consolidated docket R17-14/R17-15/R18-11/R18-31 rulemaking in this issue of the *Illinois Register* only in

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the answer to question 5 in the Notice of Adopted Amendments for 35 Ill. Adm. Code 730. A comprehensive description is contained in the Board's opinion and order of March 3, 2016, proposing amendments in docket R16-7, which opinion and order is available from the address below.

Specifically, the amendments to Part 811 incorporate elements of the Generator Improvements Rule. The Board makes several needed corrections in the text of the rules.

Tables appear in a document entitled "Identical-in-Substance Rulemaking Addendum (Proposed)" that the Board added to consolidated docket R17-14/R17-15/R18-11/R18-31. The tables list the deviations from the literal text of the federal amendments and the several necessary corrections and stylistic revisions not directly derived from USEPA actions. Persons interested in the details of those deviations from the literal text should refer to the Identical-in-Substance Rulemaking Addendum (Proposed) in consolidated docket R17-14/R17-15/R18-11/R18-31.

Section 22.40 of the Environmental Protection Act [415 ILCS 5/22.40] provides that Section 5-35 of the Administrative Procedure Act [5 ILCS 100/5-35] does not apply to this rulemaking. Because this rulemaking is not subject to Section 5-35 of the APA, it is not subject to First Notice or to Second Notice review by the Joint Committee on Administrative Rules (JCAR).

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Does this rulemaking replace an emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) Time, Place and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comment on this proposal for a period

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of 45 days after the date of this publication. Comments should reference consolidated docket R17-14/R17-15/R18-11/R18-31 and be addressed to:

Don A. Brown, Clerk
Illinois Pollution Control Board
State of Illinois Center, Suite 11-500
100 W. Randolph St.
Chicago IL 60601

Please direct inquiries to the following person and reference consolidated docket R17-14/R17-15/R18-11/R18-31:

Michael J. McCambridge
Staff Attorney
Illinois Pollution Control Board
100 W. Randolph, 11-500
Chicago IL 60601

312/814-6924
email: michael.mccambridge@illinois.gov

Request copies of the Board's opinion and order at 312/814-3620, or download a copy from the Board's Website at <http://www.ipcb.state.il.us>.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities, and not-for-profit corporations affected: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations disposing of industrial wastewaters into the sewage collection system of a publicly owned treatment works. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- B) Reporting, bookkeeping or other procedures required for compliance: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of manifests and annual reports, waste analyses and maintenance of operating records. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].

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- C) Types of professional skills necessary for compliance: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist and registered professional engineer. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 14) Regulatory Agenda on which this rulemaking was summarized: January 2017 and January 2018

The full text of the Proposed Amendments begins on the next page:

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE G: WASTE DISPOSAL
3 CHAPTER I: POLLUTION CONTROL BOARD
4 SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

5
6 PART 811
7 STANDARDS FOR NEW SOLID WASTE LANDFILLS

8
9 SUBPART A: GENERAL STANDARDS FOR ALL LANDFILLS

- 10
11 Section
12 811.101 Scope and Applicability
13 811.102 Location Standards
14 811.103 Surface Water Drainage
15 811.104 Survey Controls
16 811.105 Compaction
17 811.106 Daily Cover
18 811.107 Operating Standards
19 811.108 Salvaging
20 811.109 Boundary Control
21 811.110 Closure and Written Closure Plan
22 811.111 Postclosure Maintenance
23 811.112 Recordkeeping Requirements for MSWLF Units
24 811.113 Electronic Reporting

25
26 SUBPART B: INERT WASTE LANDFILLS

- 27
28 Section
29 811.201 Scope and Applicability
30 811.202 Determination of Contaminated Leachate
31 811.203 Design Period
32 811.204 Final Cover
33 811.205 Final Slope and Stabilization
34 811.206 Leachate Sampling
35 811.207 Load Checking

36
37 SUBPART C: PUTRESCIBLE AND CHEMICAL WASTE LANDFILLS

- 38
39 Section
40 811.301 Scope and Applicability
41 811.302 Facility Location
42 811.303 Design Period
43 811.304 Foundation and Mass Stability Analysis

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- 44 811.305 Foundation Construction
- 45 811.306 Liner Systems
- 46 811.307 Leachate Drainage System
- 47 811.308 Leachate Collection System
- 48 811.309 Leachate Treatment and Disposal System
- 49 811.310 Landfill Gas Monitoring
- 50 811.311 Landfill Gas Management System
- 51 811.312 Landfill Gas Processing and Disposal System
- 52 811.313 Intermediate Cover
- 53 811.314 Final Cover System
- 54 811.315 Hydrogeologic Site Investigations
- 55 811.316 Plugging and Sealing of Drill Holes
- 56 811.317 Groundwater Impact Assessment
- 57 811.318 Design, Construction, and Operation of Groundwater Monitoring Systems
- 58 811.319 Groundwater Monitoring Programs
- 59 811.320 Groundwater Quality Standards
- 60 811.321 Waste Placement
- 61 811.322 Final Slope and Stabilization
- 62 811.323 Load Checking Program
- 63 811.324 Corrective Action Measures for MSWLF Units
- 64 811.325 Selection of remedy for MSWLF Units
- 65 811.326 Implementation of the corrective action program at MSWLF Units

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67 SUBPART D: MANAGEMENT OF SPECIAL WASTES AT LANDFILLS

68

- 69 Section
- 70 811.401 Scope and Applicability
 - 71 811.402 Notice to Generators and Transporters
 - 72 811.403 Special Waste Manifests
 - 73 811.404 Identification Record
 - 74 811.405 Recordkeeping Requirements
 - 75 811.406 Procedures for Excluding Regulated Hazardous Wastes

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77 SUBPART E: CONSTRUCTION QUALITY ASSURANCE PROGRAMS

78

- 79 Section
- 80 811.501 Scope and Applicability
 - 81 811.502 Duties and Qualifications of Key Personnel
 - 82 811.503 Inspection Activities
 - 83 811.504 Sampling Requirements
 - 84 811.505 Documentation
 - 85 811.506 Foundations and Subbases
 - 86 811.507 Compacted Earth Liners

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|-----|--------------------|--|
| 87 | 811.508 | Geomembranes |
| 88 | 811.509 | Leachate Collection Systems |
| 89 | | |
| 90 | | SUBPART G: FINANCIAL ASSURANCE |
| 91 | | |
| 92 | Section | |
| 93 | 811.700 | Scope, Applicability and Definitions |
| 94 | 811.701 | Upgrading Financial Assurance |
| 95 | 811.702 | Release of Financial Institution |
| 96 | 811.703 | Application of Proceeds and Appeals |
| 97 | 811.704 | Closure and Post-Closure Care Cost Estimates |
| 98 | 811.705 | Revision of Cost Estimate |
| 99 | 811.706 | Mechanisms for Financial Assurance |
| 100 | 811.707 | Use of Multiple Financial Mechanisms |
| 101 | 811.708 | Use of a Financial Mechanism for Multiple Sites |
| 102 | 811.709 | Trust Fund for Unrelated Sites |
| 103 | 811.710 | Trust Fund |
| 104 | 811.711 | Surety Bond Guaranteeing Payment |
| 105 | 811.712 | Surety Bond Guaranteeing Performance |
| 106 | 811.713 | Letter of Credit |
| 107 | 811.714 | Closure Insurance |
| 108 | 811.715 | Self-Insurance for Non-Commercial Sites |
| 109 | 811.716 | Local Government Financial Test |
| 110 | 811.717 | Local Government Guarantee |
| 111 | 811.718 | Discounting |
| 112 | 811.719 | Corporate Financial Test |
| 113 | 811.720 | Corporate Guarantee |
| 114 | | |
| 115 | 811.APPENDIX A | Financial Assurance Forms |
| 116 | 811.ILLUSTRATION A | Trust Agreement |
| 117 | 811.ILLUSTRATION B | Certificate of Acknowledgment |
| 118 | 811.ILLUSTRATION C | Forfeiture Bond |
| 119 | 811.ILLUSTRATION D | Performance Bond |
| 120 | 811.ILLUSTRATION E | Irrevocable Standby Letter of Credit |
| 121 | 811.ILLUSTRATION F | Certificate of Insurance for Closure and/or Post-Closure Care or Corrective Action |
| 122 | | |
| 123 | 811.ILLUSTRATION G | Owner's or Operator's Bond Without Surety |
| 124 | 811.ILLUSTRATION H | Owner's or Operator's Bond With Parent Surety |
| 125 | 811.ILLUSTRATION I | Letter from Chief Financial Officer |
| 126 | 811.APPENDIX B | Section-by-Section correlation between the Standards of the RCRA Subtitle D MSWLF regulations and the Board's nonhazardous waste landfill regulations. |
| 127 | | |
| 128 | | |
| 129 | 811.APPENDIX C | List of Leachate Monitoring Parameters |

130
131 AUTHORITY: Implementing Sections 7.2, 21, 21.1, 22, 22.17, and 22.40 and authorized by
132 Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 21, 21.1, 22, 22.17, 22.40, and
133 27].
134

135 SOURCE: Adopted in R88-7 at 14 Ill. Reg. 15861, effective September 18, 1990; amended in
136 R92-19 at 17 Ill. Reg. 12413, effective July 19, 1993; amended in R93-10 at 18 Ill. Reg. 1308,
137 effective January 13, 1994; expedited correction at 18 Ill. Reg. 7504, effective July 19, 1993;
138 amended in R90-26 at 18 Ill. Reg. 12481, effective August 1, 1994; amended in R95-13 at 19 Ill.
139 Reg. 12257, effective August 15, 1995; amended in R96-1 at 20 Ill. Reg. 12000, effective
140 August 15, 1996; amended in R97-20 at 21 Ill. Reg. 15831, effective November 25, 1997;
141 amended in R98-9 at 22 Ill. Reg. 11491, effective June 23, 1998; amended in R99-1 at 23 Ill.
142 Reg. 2794, effective February 17, 1999; amended in R98-29 at 23 Ill. Reg. 6880, effective July
143 1, 1999; amended in R04-5/R04-15 at 28 Ill. Reg. 9107, effective June 18, 2004; amended in
144 R05-1 at 29 Ill. Reg. 5044, effective March 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill.
145 Reg. 4136, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1435,
146 effective December 20, 2006; amended in R07-8 at 31 Ill. Reg. 16172, effective November 27,
147 2007; amended in R10-9 at 35 Ill. Reg. 10842, effective June 22, 2011; amended in R10-09(A) at
148 35 Ill. Reg. 18882, effective October 24, 2011; amended in R14-1/R14-2/R14-3 at 38 Ill. Reg.
149 7259, effective March 13, 2014; amended in R17-14/R17-15/R18-12 at 42 Ill. Reg. _____,
150 effective _____.
151

152 SUBPART A: GENERAL STANDARDS FOR ALL LANDFILLS

153
154 **Section 811.103 Surface Water Drainage**

- 155
156 a) Runoff ~~from~~ From Disturbed Areas.
157
158 1) Runoff from disturbed areas resulting from precipitation events less than
159 or equal to the 25-year, 24-hour precipitation event that is discharged to
160 waters of the State must meet the requirements of 35 Ill. Adm. Code 304.
161
162 2) All discharges of runoff from disturbed areas to waters of the State must
163 be permitted by the Agency in accordance with 35 Ill. Adm. Code 309.
164
165 3) All treatment facilities must be equipped with bypass outlets designed to
166 pass the peak flow of runoff from the 100-year, 24-hour precipitation
167 event without damage to the treatment facilities or surrounding structures.
168
169 4) All surface water control structures must be operated until the final cover
170 is placed and erosional stability is provided by the vegetative or other
171 cover meeting the requirements of Section 811.205 or 811.322.
172

- 173 5) All discharge structures must be designed to have flow velocities that will
174 not cause erosion and scouring of the natural or constructed lining, i.e.,
175 bottom and sides, of the receiving stream channel.
176
- 177 b) Diversion of Runoff ~~from~~ From Undisturbed Areas.
178
- 179 1) Runoff from undisturbed areas must be diverted around disturbed areas,
180 unless the operator shows that it is impractical based on site-specific
181 conditions or unless the Agency has issued a research, development, and
182 demonstration (RD&D) permit that provides otherwise pursuant to 35 Ill.
183 Adm. Code 813.112(a)(1), relating to run-on control systems, and that
184 permit is in effect.
185
- 186 2) Diversion facilities must be designed to prevent runoff from the 25-year,
187 24-hour precipitation event from entering disturbed areas, unless the
188 Agency has issued an RD&D permit that provides otherwise pursuant to
189 35 Ill. Adm. Code 813.112(a)(1), relating to run-on control systems, and
190 that permit is in effect.
191
- 192 3) Runoff from undisturbed areas that becomes commingled with runoff
193 from disturbed areas must be handled as runoff from disturbed areas and
194 treated in accordance with subsection (a) ~~of this Section~~.
195
- 196 4) All diversion structures must be designed to have flow velocities that will
197 not cause erosion and scouring of the natural or constructed lining, i.e., the
198 bottom and sides, of the diversion channel and downstream channels.
199
- 200 5) All diversion structures must be operated until the final cover is placed
201 and erosional stability is provided by the vegetative or other cover that
202 meets the requirements of Section 811.205 or 811.322.
203

204 BOARD NOTE: Those segments of subsections (b)(1) and (b)(2) ~~of this Section~~ that
205 relate to RD&D permits are derived from 40 CFR 258.4(a)(1) (20172004).
206

207 (Source: Amended at 42 Ill. Reg. _____, effective _____)
208

209 **Section 811.106 Daily Cover**
210

- 211 a) A uniform layer of at least 0.15 meter (six inches) of clean soil material must be
212 placed on all exposed waste by the end of each day of operation.
213
- 214 b) Alternative materials or procedures, including the removal of daily cover prior to
215 additional waste placement, may be used, provided that the alternative materials

216 or procedures achieve equivalent or superior performance to the requirements of
217 subsection (a) ~~of this Section~~ in the following areas:

- 218
219 1) Prevention of blowing debris;
220
221 2) Minimization of access to the waste by vectors;
222
223 3) Minimization of the threat of fires at the open face; and
224
225 4) Minimization of odors.
226

227 c) Any alternative frequencies for cover requirements to those set forth in
228 subsections (a) and (b) ~~of this Section~~ for any owner or operator of an MSWLF
229 that disposes of 20 tons (18 megagrams) of municipal solid waste per day or less,
230 based on an annual average, must be established by an adjusted standard pursuant
231 to Section 28.1 of the Act ~~[415 ILCS 5/28.1]~~ and Subpart D of 35 Ill. Adm. Code
232 104. Any alternative requirements established under this subsection (c) must
233 fulfill the following requirements:
234

- 235 1) They must consider the unique characteristics of small communities;
236
237 2) They must take into account climatic and hydrogeologic conditions; and
238
239 3) They must be protective of human health and the environment.
240

241 BOARD NOTE: This subsection (c) is derived from 40 CFR 258.21(d)
242 (20172004).

243
244 (Source: Amended at 42 Ill. Reg. _____, effective _____)
245

246 **Section 811.107 Operating Standards**
247

248 a) Phasing of Operations.
249

- 250 1) Waste must be placed in a manner and at such a rate that mass stability is
251 provided during all phases of operation. Mass stability means that the
252 mass of waste deposited will not undergo settling or slope failure that
253 interrupts operations at the facility or causes damage to any of the various
254 landfill operations or structures, such as the liner, leachate or drainage
255 collection system, gas collection system, or monitoring system.
256
257 2) The phasing of operations at the facility must be designed in such a way as
258 to allow the sequential construction, filling, and closure of discrete units or

- 259 parts of units.
260
261 3) The operator must design and sequence the waste placement operation in
262 each discrete unit or parts of units, in conjunction with the overall
263 operations of the facility, so as to shorten the operational phase and allow
264 wastes to be built up to the planned final grade.
265
266 b) Size and Slope of Working Face.
267
268 1) The working face of the unit must be no larger than is necessary, based on
269 the terrain and equipment used in waste placement, to conduct operations
270 in a safe and efficient manner.
271
272 2) The slopes of the working face area must be no steeper than two to one
273 (horizontal to vertical) unless the waste is stable at steeper slopes.
274
275 c) Equipment. Equipment must be maintained and available for use at the facility
276 during all hours of operation, so as to achieve and maintain compliance with the
277 requirements of this Part.
278
279 d) Utilities. All utilities, including but not limited to heat, lights, power and
280 communications equipment, necessary for safe operation in compliance with the
281 requirements of this Part must be available at the facility at all times.
282
283 e) Maintenance. The operator must maintain and operate all systems and related
284 appurtenances and structures in a manner that facilitates proper operations in
285 compliance with this Part.
286
287 f) Open Burning. Open burning is prohibited, except in accordance with 35 Ill.
288 Adm. Code 200 through 245.
289
290 g) Dust Control. The operator must implement methods for controlling dust, so as to
291 prevent wind dispersal of particulate matter.
292
293 h) Noise Control. The facility must be designed, constructed, and maintained to
294 minimize the level of equipment noise audible outside the facility. The facility
295 must not cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905
296 or of Section 24 of the Act-[415-ILCS-5/24].
297
298 i) Vector Control. The operator must implement measures to control the population
299 of disease and nuisance vectors.
300
301 j) Fire Protection. The operator must institute fire protection measures including,

302 but not limited to, maintaining a supply of water onsite and radio or telephone
303 access to the nearest fire department.

304
305 k) Litter Control.

306
307 1) The operator must patrol the facility daily to check for litter accumulation.
308 All litter must be collected and placed in the fill or in a secure, covered
309 container for later disposal.

310
311 2) The facility must not accept solid waste from vehicles that do not utilize
312 devices such as covers or tarpaulins to control litter, unless the nature of
313 the solid waste load is such that it cannot cause any litter during its
314 transportation to the facility.

315
316 l) Mud Tracking. The facility must implement methods, such as use of wheel
317 washing units, to prevent tracking of mud by hauling vehicles onto public
318 roadways.

319
320 m) Liquids Restrictions for MSWLF Units.

321
322 1) Bulk or noncontainerized liquid waste may not be placed in MSWLF
323 units, unless one of the following conditions is true:

324
325 A) The waste is household waste other than septic waste;

326
327 B) The waste is leachate or gas condensate derived from the MSWLF
328 unit and the MSWLF unit, whether it is a new or existing MSWLF
329 unit or lateral expansion, is designed with a composite liner and
330 leachate collection system that complies with the requirements of
331 Sections 811.306 through 811.309; or

332
333 C) The Agency has issued an RD&D permit pursuant to 35 Ill. Adm.
334 Code 813.112(a)(2) that allows the placement of noncontainerized
335 liquids in the landfill, and that permit is in effect.

336
337 2) Containers holding liquid waste may not be placed in an MSWLF unit,
338 unless one of the following conditions is true:

339
340 A) The container is a small container similar in size to that normally
341 found in household waste;

342
343 B) The container is designed to hold liquids for use other than storage;
344 or

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- C) The waste is household waste.
- 3) For purposes of this Section, the following definitions apply:
 - A) "Liquid waste" means any waste material that is determined to contain "free liquids," as defined by Method 9095B (Paint Filter Liquids Test) (Revision 2, November 2004), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," incorporated by reference in 35 Ill. Adm. Code 810.104.
 - B) "Gas condensate" means the liquid generated as a result of gas recovery processes at the MSWLF unit.

BOARD NOTE: Subsections (m)(1) through (m)(3) of this Section are derived from 40 CFR 258.28(20172013). Subsection (m)(1)(C) of this Section relating to RD&D permits is derived from 40 CFR 258.4(a)(2) (20172013).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.110 Closure and Written Closure Plan

- a) The final slopes and contours ~~must~~ shall be designed to complement and blend with the surrounding topography of the proposed final land use of the area.
- b) All drainage ways and swales ~~must~~ shall be designed to safely pass the runoff from the 100-year, 24-hour precipitation event without scouring or erosion.
- c) The final configuration of the facility ~~must~~ shall be designed in a manner that minimizes the need for further maintenance.
- d) Written closure plan
 - 1) The operator ~~must~~ shall maintain a written plan describing all actions that the operator will undertake to close the unit or facility in a manner that fulfills the provisions of the Act, of this Part and of other applicable Parts of 35 Ill. Adm. Code: Chapter I. The written closure plan ~~must~~ shall fulfill the minimum information requirements of 35 Ill. Adm. Code 812.114.
 - 2) A modification of the written closure plan ~~must~~ shall constitute a significant modification of the permit for the purposes of 35 Ill. Adm. Code 813.Subpart B.

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- 3) In addition to the informational requirements of subsection 811.100(d)(1), an owner or operator of a MSWLF unit ~~must~~shall include the following information in the written closure plan:
 - A) An estimate of the largest area of the MSWLF unit ever requiring a final cover, as required by Section 811.314, at any time during the active life; and
 - B) An estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility.

BOARD NOTE: Subsection 811.110(d)(3) is derived from 40 CFR 258.60(c)(1) and (c)(2) (2017-1992).

- e) The owner or operator of a MSWLF unit ~~must~~shall begin closure activities for each MSWLF unit no later than the date determined as follows:
 - 1) 30 days after the date on which the MSWLF unit receives the final receipt of wastes; or
 - 2) If the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, no later than one year after the most recent receipt of wastes.
 - 3) The Agency ~~must~~shall grant extensions beyond this one year deadline for beginning closure if the owner or operator demonstrates that:
 - A) The MSWLF unit has the capacity to receive additional wastes; and
 - B) The owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE: Subsection (e) is derived from 40 CFR 258.60(f) (2017-1992).

- f) The owner or operator of a MSWLF unit ~~must~~shall complete closure activities for each unit in accordance with closure plan no later than the dates determined as follows:
 - 1) Within 180 days of beginning closure, as specified in subsection (e) ~~of this Section~~.

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- 2) The Agency ~~must~~shall grant extension of the closure period if the owner or operator demonstrates that:
 - A) The closure will, of necessity, take longer than 180 days; and
 - B) The owner or operator has taken and will continue to take all necessary steps to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE: Subsection (fe) is derived from 40 CFR 258.60(g) (20171992).

g) Deed notation.

- 1) Following closure of all MSWLF units at a site, the owner or operator ~~must~~shall record a notation on the deed to the landfill facility property or some other instrument that is normally examined during title search. The owner or operator ~~must~~shall place a copy of the instrument in the operating record, and ~~must~~shall notify the Agency that the notation has been recorded and a copy has been placed in the operating record.
- 2) The notation on the deed or other instrument must be made in such a way that in perpetuity notify any potential purchaser of the property that:
 - A) The land has been used as a landfill facility; and
 - B) Its use is restricted pursuant to Section 811.111(d).

BOARD NOTE: Subsection (g) is derived from 40 CFR 258.60(i) (20171992).

h) The Agency ~~must~~shall allow the owner or operator of a MSWLF unit to remove the notation from the deed only if the owner or operator demonstrates to the Agency that all wastes are removed from the facility.

BOARD NOTE: Subsection (h) is derived from 40 CFR 258.60(j) (20171992).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

SUBPART C: PUTRESCIBLE AND CHEMICAL WASTE LANDFILLS

Section 811.302 Facility Location

- a) No part of a unit may be located within a setback zone established pursuant to

- 474 Section 14.2 or 14.3 of the Act;
 475
 476 b) No part of a unit may be located within the recharge zone or within 366 meters
 477 (1200 feet), vertically or horizontally, of a sole-source aquifer designated by the
 478 United States Environmental Protection Agency pursuant to Section 1424(e) of
 479 the Safe Drinking Water Act (42 USC 300f et seq.), unless there is a stratum
 480 between the bottom of the waste disposal unit and the top of the aquifer that meets
 481 the following minimum requirements:
 482
 483 1) The stratum has a minimum thickness of 15.2 meters (50 feet);
 484
 485 2) The maximum hydraulic conductivity in both the horizontal and vertical
 486 directions is no greater than 1×10^{-7} centimeters per second, as determined
 487 by in situ borehole or equivalent tests;
 488
 489 3) There is no indication of continuous sand or silt seams, faults, fractures, or
 490 cracks within the stratum that may provide paths for migration; and
 491
 492 4) Age dating of extracted water samples from both the aquifer and the
 493 stratum indicates that the time of travel for water percolating downward
 494 through the relatively impermeable stratum is no faster than 15.2 meters
 495 (50 feet) in 100 years.
 496
 497 c) A facility located within 152 meters (500 feet) of the right of way of a township
 498 or county road or state or interstate highway must have its operations screened
 499 from view by a barrier of natural objects, fences, barricades, or plants no less than
 500 2.44 meters (eight feet) in height.
 501
 502 d) No part of a unit may be located closer than 152 meters (500 feet) from an
 503 occupied dwelling, school, or hospital that was occupied on the date when the
 504 operator first applied for a permit to develop the unit or the facility containing the
 505 unit, unless the owner of such dwelling, school, or hospital provides permission to
 506 the operator, in writing, for a closer distance.
 507
 508 e) The facility may not be located closer than 1525 meters (5000 feet) of any runway
 509 used by piston type aircraft or within 3050 meters (10,000 feet) of any runway
 510 used by turbojet aircraft unless the Federal Aviation Administration (FAA)
 511 provides the operator with written permission, including technical justification,
 512 for a closer distance.
 513
 514 f) An owner or operator proposing to locate a new MSWLF unit within a five-mile
 515 radius of any airport runway used by turbojet or piston-type aircraft must notify
 516 the affected airport and the FAA within seven days after filing a permit

517 application with Agency in accordance with 35 Ill. Adm. Code 813 for developing
 518 a new landfill.
 519

520 BOARD NOTE: Subsections (e) and Subsection (f) are of this Section is derived
 521 from 40 CFR 258.10 (20172003), as amended at 68 Fed. Reg. 59333 (October 15,
 522 2003). USEPA added the following information in a note appended to 40 CFR
 523 258.10: A prohibition on locating a new MSWLF near certain airports was
 524 enacted in Section 503 of the federal Wendell H. Ford Aviation Investment and
 525 Reform Act for the 21st Century (Ford Act) (49 USC 44718(d)). Section 503
 526 prohibits the "construction or establishment" of a new MSWLF after April 5,
 527 2000 within six miles of certain smaller public airports unless the FAA allows an
 528 exemption. The FAA administers the Ford Act and has issued guidance in FAA
 529 Advisory Circular 150/5200-34, dated August 26, 2000. For further information,
 530 please contact the FAA.
 531

532 (Source: Amended at 42 Ill. Reg. _____, effective _____)
 533

534 **Section 811.309 Leachate Treatment and Disposal Systems**
 535

- 536 a) Leachate ~~must~~ shall be allowed to flow freely from the drainage and collection
 537 system. The operator is responsible for the operation of a leachate management
 538 system designed to handle all leachate as it drains from the collection system.
 539 The leachate management system ~~must~~ shall consist of any combination of
 540 storage, treatment, pretreatment, and disposal options designed and constructed in
 541 compliance with the requirements of this Section.
 542
- 543 b) The leachate management system ~~must~~ shall consist of any combination of
 544 multiple treatment and storage structures, to allow the management and disposal
 545 of leachate during routine maintenance and repairs.
 546
- 547 c) Standards for Onsite Treatment and Pretreatment
 548
- 549 1) All onsite treatment or pretreatment systems ~~must~~ shall be considered part
 550 of the facility.
 551
- 552 2) The onsite treatment or pretreatment system ~~must~~ shall be designed in
 553 accordance with the expected characteristics of the leachate. The design
 554 may include modifications to the system necessary to accommodate
 555 changing leachate characteristics.
 556
- 557 3) The onsite treatment or pretreatment system ~~must~~ shall be designed to
 558 function for the entire design period.
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- 4) All of the facility's unit operations, tanks, ponds, lagoons and basins mustshall be designed and constructed with liners or containment structures to control seepage to groundwater.
 - 5) All treated effluent discharged to waters of the State mustshall meet the requirements of 35 Ill. Adm. Code 309.
 - 6) The treatment system mustshall be operated by an operator certified under the requirements of 35 Ill. Adm. Code 312.
- d) Standards for Leachate Storage Systems
- 1) Except as otherwise provided in subsection (d)(6) ~~of this Section~~, 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 811.307. 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 is available at any time during the design period of the facility.
 - 2) All leachate storage tanks mustshall 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 mustshall be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.
 - 4) The leachate storage system mustshall not cause or contribute to a malodor.
 - 5) The leachate drainage and collection system mustshall not be used for the purpose of storing leachate.
 - 6) A facility may have less than five days' worth of storage capacity for accumulated leachate as required by subsection (d)(1) ~~of this Section~~, if the owner or operator of the facility demonstrates that multiple treatment, storage and disposal options in the facility's approved leachate management system developed in accordance with subsection (b) ~~of this Section~~ will achieve equivalent performance. Such options mustshall consist of not less than one day's worth of storage capacity for accumulated leachate plus at least two alternative means of managing

603 accumulated leachate through treatment or disposal, or both treatment and
 604 disposal, each of which means is capable of treating or disposing of all
 605 leachate generated at the maximum generation rate on a daily basis.
 606

607 e) Standards for Discharge to an Offsite Treatment Works

- 608
- 609 1) Leachate may be discharged to an offsite treatment works that meets the
 610 following requirements:
- 611
- 612 A) All discharges of effluent from the treatment works mustshall meet
 613 the requirements of 35 Ill. Adm. Code 309.
- 614
- 615 B) The treatment systems mustshall be operated by an operator
 616 certified under the requirements of 35 Ill. Adm. Code 312.
- 617
- 618 C) No more than 50 percent of the average daily influent flow can be
 619 attributable to leachate from the solid waste disposal facility.
 620 Otherwise, the treatment works mustshall be considered a part of
 621 the solid waste disposal facility.
 622
- 623 2) The operator is responsible for securing permission from the offsite
 624 treatment works for authority to discharge to the treatment works.
 625
- 626 3) All discharges to a treatment works mustshall meet the requirements of 35
 627 Ill. Adm. Code 310.
 628
- 629 4) Pumps, meters, valves and monitoring stations that control and monitor
 630 the flow of leachate from the unit and which are under the control of the
 631 operator mustshall be considered part of the facility and mustshall be
 632 accessible to the operator at all times.
 633
- 634 5) Leachate mustshall be allowed to flow into the sewage system at all times;
 635 however, if access to the treatment works is restricted or anticipated to be
 636 restricted for longer than five days, then an alternative leachate
 637 management system mustshall be constructed in accordance with
 638 subsection (c).
 639
- 640 6) Where leachate is not directly discharged into a sewage system, the
 641 operator mustshall provide storage capacity sufficient to transfer all
 642 leachate to an offsite treatment works. The storage system mustshall meet
 643 the requirements of subsection (d).
 644

645 f) Standards for Leachate Recycling Systems.

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- 1) Leachate recycling systems may be utilized only at permitted waste disposal units that meet the following requirements:
 - A) The unit must have a liner designed, constructed and maintained to meet the minimum standards of Section 811.306.
 - B) The unit must have a leachate collection system in place and operating in accordance with Section 811.307.
 - C) A gas management system, equipped with a mechanical device such as a compressor to withdraw gas, must be implemented to control odors and prevent migration of methane in accordance with Section 811.311.
 - D) The topography must be such that any accidental leachate runoff can be controlled by ditches, berms or other equivalent control means.
 - 2) Leachate ~~must~~ shall not be recycled during precipitation events or in volumes large enough to cause runoff or surface seeps.
 - 3) The amount of leachate added to the unit ~~must~~ shall not exceed the ability of the waste and cover soils to transmit leachate flow downward. All other leachate ~~must~~ shall be considered excess leachate, and a leachate management system capable of disposing of all excess leachate must be available.
 - 4) The leachate storage and distribution system ~~must~~ shall be designed to avoid exposure of leachate to air unless aeration or functionally equivalent devices are utilized.
 - 5) The distribution system ~~must~~ shall be designed to allow leachate to be evenly distributed beneath the surface over the recycle area.
 - 6) Daily and intermediate cover ~~must~~ shall be permeable to the extent necessary to prevent the accumulation of water and formation of perched watertables and gas buildup; alternatively cover ~~must~~ shall be removed prior to additional waste placement.
 - 7) Daily and intermediate cover ~~must~~ shall slope away from the perimeter of the site to minimize surface discharges.

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g) Leachate Monitoring

- 1) Representative samples of leachate ~~must~~shall be collected from each established leachate monitoring location in accordance with subsection (g)(5) and tested for the parameters referenced in subsections (g)(2)(G) and (g)(3)(D). The Agency may, by permit condition, require additional, or allow less, leachate sampling and testing as necessary to ensure compliance with this Section and Sections 811.312, 811.317, and 811.319.

- 2) Discharges of leachate from units that dispose of putrescible wastes ~~must~~shall be tested for the following constituents prior to treatment or pretreatment:
 - A) Five day biochemical oxygen demand (BOD₅);
 - B) Chemical oxygen demand;
 - C) Total Suspended Solids;
 - D) Total Iron;
 - E) pH;
 - F) Any other constituents listed in the operator's National Pollution Discharge Elimination System (NPDES) discharge permit, pursuant to 35 Ill. Adm. Code 304, or required by a publicly owned treatment works, pursuant to 35 Ill. Adm. Code 310; and
 - G) All the monitoring parameters listed in Section 811.Appendix C, unless an alternate monitoring list has been approved by the Agency.

- 3) Discharges of leachate from units which dispose only chemical wastes ~~must~~shall be monitored for constituents determined by the characteristics of the chemical waste to be disposed of in the unit. They ~~must~~shall include, as a minimum:
 - A) pH;
 - B) Total Dissolved Solids;
 - C) Any other constituents listed in the operator's NPDES discharge

- 732 permit, pursuant to 35 Ill. Adm. Code 304, or required by a
 733 publicly owned treatment works, pursuant to 35 Ill. Adm. Code
 734 310; and
 735
 736 D) All the monitoring parameters listed in Section 811. Appendix C,
 737 unless an alternate monitoring list has been approved by the
 738 Agency.
 739
 740 4) A network of leachate monitoring locations mustshall be established,
 741 capable of characterizing the leachate produced by the unit. Unless an
 742 alternate network has been approved by the Agency, the network of
 743 leachate monitoring locations mustshall include:
 744
 745 A) At least four leachate monitoring locations; and
 746
 747 B) At least one leachate monitoring location for every 25 acres within
 748 the unit's waste boundaries.
 749
 750 5) Leachate monitoring mustshall be performed at least once every six
 751 months and each established leachate monitoring location mustshall be
 752 monitored at least once every two years.
 753
 754 h) Time of Operation of the Leachate Management System
 755
 756 1) The operator mustshall collect and dispose of leachate for a minimum of
 757 five years after closure and thereafter until treatment is no longer
 758 necessary.
 759
 760 2) Treatment is no longer necessary if the leachate constituents do not exceed
 761 the wastewater effluent standards in 35 Ill. Adm. Code 304.124, 304.125,
 762 304.126 and do not contain a BOD₅ concentration greater than 30 mg/L
 763 for six consecutive months.
 764
 765 3) Leachate collection at a MSWLF unit mustshall be continued for a
 766 minimum period of 30 years after closure, except as otherwise provided by
 767 subsections (h)(4) and (h)(5).
 768
 769 4) The Agency may reduce the leachate collection period at a MSWLF unit
 770 upon a demonstration by the owner or operator that the reduced period is
 771 sufficient to protect human health and environment.
 772
 773 5) The owner or operator of a MSWLF unit mustshall petition the Board for
 774 an adjusted standard in accordance with Section 811.303, if the owner or

775 operator seeks a reduction of the postclosure care monitoring period for all
776 of the following requirements:

- 777
- 778 i) Inspection and maintenance (Section 811.111);
- 779
- 780 ii) Leachate collection (Section 811.309);
- 781
- 782 iii) Gas monitoring (Section 811.310); and
- 783
- 784 iv) Groundwater monitoring (Section 811.319).
- 785

786 BOARD NOTE: Subsection (h) is derived from 40 CFR 258.61 (20171992).

787
788 (Source: Amended at 42 Ill. Reg. _____, effective _____)

789
790 **Section 811.310 Landfill Gas Monitoring**

- 791
- 792 a) This Section applies to all units that dispose putrescible wastes.
- 793
- 794 b) Location and Design of Monitoring Wells.
- 795
- 796 1) Gas monitoring devices must be placed at intervals and elevations within
- 797 the waste to provide a representative sampling of the composition and
- 798 buildup of gases within the unit.
- 799
- 800 2) Gas monitoring devices must be placed around the unit at locations and
- 801 elevations capable of detecting migrating gas from the ground surface to
- 802 the lowest elevation of the liner system or the top elevation of the
- 803 groundwater, whichever is higher.
- 804
- 805 3) A predictive gas flow model may be utilized to determine the optimum
- 806 placement of monitoring points required for making observations and
- 807 tracing the movement of gas.
- 808
- 809 4) Gas monitoring devices must be constructed from materials that will not
- 810 react with or be corroded by the landfill gas.
- 811
- 812 5) Gas monitoring devices must be designed and constructed to measure
- 813 pressure and allow collection of a representative sample of gas.
- 814
- 815 6) Gas monitoring devices must be constructed and maintained to minimize
- 816 gas leakage.
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- 7) The gas monitoring system must not interfere with the operation of the liner, leachate collection system, or delay the construction of the final cover system.
 - 8) At least three ambient air monitoring locations must be chosen and samples must be taken no higher than 0.025 meter (1 inch) above the ground and 30.49m (100 feet) downwind from the edge of the unit or at the property boundary, whichever is closer to the unit.
- c) Monitoring Frequency.
- 1) All gas monitoring devices, including the ambient air monitors must be operated to obtain samples on a monthly basis for the entire operating period and for a minimum of five years after closure.
 - 2) After a minimum of five years after closure, monitoring frequency may be reduced to quarterly sampling intervals.
 - 3) The sampling frequency may be reduced to yearly sampling intervals upon the installation and operation of a gas collection system equipped with a mechanical device such as a compressor to withdraw gas.
 - 4) Monitoring must be continued for a minimum period of: thirty years after closure at MSWLF units, except as otherwise provided by subsections (c)(5) and (c)(6) of this Section; five years after closure at landfills, other than MSWLF units, which are used exclusively for disposing of wastes generated at the site; or fifteen years after closure at all other landfills regulated under this Part. Monitoring, beyond the minimum period, may be discontinued if the following conditions have been met for at least one year:
 - A) The concentration of methane is less than five percent of the lower explosive limit in air for four consecutive quarters at all monitoring points outside the unit; and
 - B) Monitoring points within the unit indicate that methane is no longer being produced in quantities that would result in migration from the unit and exceed the standards of subsection (a)(1) of this Section.
 - 5) The Agency may reduce the gas monitoring period at an MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

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- 6) The owner or operator of an MSWLF unit must petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:
 - A) Inspection and maintenance (Section 811.111);
 - B) Leachate collection (Section 811.309);
 - C) Gas monitoring (Section 811.310); and
 - D) Groundwater monitoring (Section 811.319).

875 BOARD NOTE: Those segments of this subsection (c) that relate to MSWLF
876 units are derived from 40 CFR 258.61 (20172002).

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- d) Parameters to be Monitored.
 - 1) All below ground monitoring devices must be monitored for the following parameters at each sampling interval:
 - A) Methane;
 - B) Pressure;
 - C) Oxygen; and
 - D) Carbon dioxide.
 - 2) Ambient air monitors must be sampled for methane only when the average wind velocity is less than eight kilometers (five miles) per hour at a minimum of three downwind locations 30.49 meters (100 feet) from the edge of the unit or the property boundary, whichever is closer to the unit.
 - 3) All buildings within a facility must be monitored for methane by utilizing continuous detection devices located at likely points where methane might enter the building.
 - e) Any alternative frequencies for the monitoring requirement of subsection (c) ~~of this Section~~ for any owner or operator of an MSWLF that disposes of 20 tons (18 megagrams) of municipal solid waste per day or less, based on an annual average, must be established by an adjusted standard pursuant to Section 28.1 of the Act

904 ~~[415 ILCS 5/28.1]~~ and Subpart D of 35 Ill. Adm. Code 104. Any alternative
905 monitoring frequencies established under this subsection (e) must fulfill the
906 following requirements:

- 907
- 908 1) They must consider the unique characteristics of small communities;
 - 909
 - 910 2) They must take into account climatic and hydrogeologic conditions; and
 - 911
 - 912 3) They must be protective of human health and the environment.
 - 913

914 BOARD NOTE: This subsection (e) is derived from 40 CFR 258.23(e)
915 (20172004).

916
917 (Source: Amended at 42 Ill. Reg. _____, effective _____)

918
919 **Section 811.314 Final Cover System**

- 920
- 921 a) The unit must be covered by a final cover consisting of a low permeability layer
922 overlain by a final protective layer constructed in accordance with the
923 requirements of this Section, unless the Agency has issued an RD&D permit that
924 allows the use of an innovative final cover technology pursuant to an adjusted
925 standard issued under 35 Ill. Adm. Code 813.112(b), and that permit is in effect.
926
 - 927 b) Standards for the Low Permeability Layer.
928
 - 929 1) Not later than 60 days after placement of the final lift of solid waste, a low
930 permeability layer must be constructed.
931
 - 932 2) The low permeability layer must cover the entire unit and connect with the
933 liner system.
934
 - 935 3) The low permeability layer must consist of any one of the following:
936
 - 937 A) A compacted earth layer constructed in accordance with the
938 following standards:
939
 - 940 i) The minimum allowable thickness must be 0.91 meter (3
941 feet); and
942
 - 943 ii) The layer must be compacted to achieve a permeability of
944 1×10^{-7} centimeters per second and minimize void spaces.
945
 - 946 iii) Alternative specifications may be utilized provided that the

947 performance of the low permeability layer is equal to or
948 superior to the performance of a layer meeting the
949 requirements of subsections (b)(3)(A)(i) and (b)(3)(A)(ii)
950 of this Section.
951

- 952 B) A geomembrane constructed in accordance with the following
953 standards:
954
- 955 i) The geomembrane must provide performance equal or
956 superior to the compacted earth layer described in
957 subsection (b)(3)(A) of this Section.
958
 - 959 ii) The geomembrane must have strength to withstand the
960 normal stresses imposed by the waste stabilization process.
961
 - 962 iii) The geomembrane must be placed over a prepared base
963 free from sharp objects and other materials that may cause
964 damage.
965

- 966 C) Any other low permeability layer construction techniques or
967 materials, provided that they provide equivalent or superior
968 performance to the requirements of this subsection (b).
969

- 970 4) For an MSWLF unit, subsection (b)(3) of this Section notwithstanding, if
971 the bottom liner system permeability is lower than 1×10^{-7} cm/sec, the
972 permeability of the low permeability layer of the final cover system must
973 be less than or equal to the permeability of the bottom liner system.
974

975 c) Standards for the Final Protective Layer.
976

- 977 1) The final protective layer must cover the entire low permeability layer.
978
- 979 2) The thickness of the final protective layer must be sufficient to protect the
980 low permeability layer from freezing and minimize root penetration of the
981 low permeability layer, but must not be less than 0.91 meter (3 feet).
982
- 983 3) The final protective layer must consist of soil material capable of
984 supporting vegetation.
985
- 986 4) The final protective layer must be placed as soon as possible after
987 placement of the low permeability layer to prevent desiccation, cracking,
988 freezing, or other damage to the low permeability layer.
989

990 d) Any alternative requirements for the infiltration barrier in subsection (b) ~~of this~~
 991 ~~Section~~ for any owner or operator of an MSWLF that disposes of 20 tons (18
 992 megagrams) of municipal solid waste per day or less, based on an annual average,
 993 must be established by an adjusted standard pursuant to Section 28.1 of the Act
 994 ~~[415 ILCS 5/28.1]~~ and Subpart D of 35 Ill. Adm. Code 104. Any alternative
 995 requirements established under this subsection must fulfill the following
 996 requirements:

- 997
- 998 1) They must consider the unique characteristics of small communities;
- 999
- 1000 2) They must take into account climatic and hydrogeologic conditions; and
- 1001
- 1002 3) They must be protective of human health and the environment.
- 1003

1004 BOARD NOTE: Subsection (b)(4) ~~of this Section~~ is derived from 40 CFR 258.60(a)
 1005 (20172004). Subsection (d) ~~of this Section~~ is derived from 40 CFR 258.60(b)(3)
 1006 (20172004). Those segments of subsection (a) ~~of this Section~~ that relate to RD&D
 1007 permits are derived from 40 CFR 258.4(b) (20172004).
 1008

1009 (Source: Amended at 42 Ill. Reg. _____, effective _____)
 1010

1011 **Section 811.319 Groundwater Monitoring Programs**

- 1012
- 1013 a) Detection Monitoring Program. Any use of the term maximum allowable
 1014 predicted concentration in this Section is a reference to Section 811.318(c). The
 1015 operator must implement a detection monitoring program in accordance with the
 1016 following requirements:
- 1017
- 1018 1) Monitoring Schedule and Frequency.
- 1019
- 1020 A) The monitoring period must begin as soon as waste is placed into
 1021 the unit of a new landfill or within one year of the effective date of
 1022 this Part for an existing landfill. Monitoring must continue for a
 1023 minimum period of 15 years after closure, or in the case of
 1024 MSWLF units, a minimum period of 30 years after closure, except
 1025 as otherwise provided by subsection (a)(1)(C) ~~of this Section~~. The
 1026 operator must sample all monitoring points for all potential sources
 1027 of contamination on a quarterly basis except as specified in
 1028 subsection (a)(3), for a period of five years from the date of
 1029 issuance of the initial permit for significant modification under 35
 1030 Ill. Adm. Code 814.104 or a permit for a new unit pursuant to 35
 1031 Ill. Adm. Code 813.104. After the initial five-year period, the
 1032 sampling frequency for each monitoring point must be reduced to a

1033 semi-annual basis, provided the operator has submitted the
 1034 certification described in 35 Ill. Adm. Code 813.304(b).
 1035 Alternatively, after the initial five-year period, the Agency must
 1036 allow sampling on a semi-annual basis where the operator
 1037 demonstrates that monitoring effectiveness has not been
 1038 compromised, that sufficient quarterly data has been collected to
 1039 characterize groundwater, and that leachate from the monitored
 1040 unit does not constitute a threat to groundwater. For the purposes
 1041 of this Section, the source must be considered a threat to
 1042 groundwater if the results of the monitoring indicate either that the
 1043 concentrations of any of the constituents monitored within the zone
 1044 of attenuation is above the maximum allowable predicted
 1045 concentration for that constituent or, for existing landfills, subject
 1046 to Subpart D of 35 Ill. Adm. Code 814, that the concentration of
 1047 any constituent has exceeded the applicable standard at the
 1048 compliance boundary as defined in 35 Ill. Adm. Code
 1049 814.402(b)(3).
 1050

1051 B) Beginning fifteen years after closure of the unit, or five years after
 1052 all other potential sources of discharge no longer constitute a threat
 1053 to groundwater, as defined in subsection (a)(1)(A) ~~of this Section~~,
 1054 the monitoring frequency may change on a well by well basis to an
 1055 annual schedule if either of the following conditions exist.
 1056 However, monitoring must return to a quarterly schedule at any
 1057 well where a statistically significant increase is determined to have
 1058 occurred in accordance with Section 811.320(e), in the
 1059 concentration of any constituent with respect to the previous
 1060 sample.
 1061

- 1062 i) All constituents monitored within the zone of attenuation
- 1063 have returned to a concentration less than or equal to ten
- 1064 percent of the maximum allowable predicted concentration;
- 1065 or
- 1066
- 1067 ii) All constituents monitored within the zone of attenuation
- 1068 are less than or equal to their maximum allowable predicted
- 1069 concentration for eight consecutive quarters.
 1070

1071 C) Monitoring must be continued for a minimum period of: 30 years
 1072 after closure at MSWLF units, except as otherwise provided by
 1073 subsections (a)(1)(D) and (a)(1)(E) ~~of this Section~~; five years after
 1074 closure at landfills, other than MSWLF units, which are used
 1075 exclusively for disposing waste generated at the site; or 15 years

1076 after closure at all other landfills regulated under this Part.
1077 Monitoring, beyond the minimum period, may be discontinued
1078 under the following conditions:
1079

- 1080 i) No statistically significant increase is detected in the
1081 concentration of any constituent above that measured and
1082 recorded during the immediately preceding scheduled
1083 sampling for three consecutive years, after changing to an
1084 annual monitoring frequency; or
1085
- 1086 ii) Immediately after contaminated leachate is no longer
1087 generated by the unit.
1088

1089 D) The Agency may reduce the groundwater monitoring period at a
1090 MSWLF unit upon a demonstration by the owner or operator that
1091 the reduced period is sufficient to protect human health and
1092 environment.
1093

1094 E) An owner or operator of a MSWLF unit must petition the Board
1095 for an adjusted standard in accordance with Section 811.303, if the
1096 owner or operator seeks a reduction of the post-closure care
1097 monitoring period for all of the following requirements:
1098

- 1099 i) Inspection and maintenance (Section 811.111);
1100
- 1101 ii) Leachate collection (Section 811.309);
1102
- 1103 iii) Gas monitoring (Section 811.310); and
1104
- 1105 iv) Groundwater monitoring (Section 811.319).
1106

1107 BOARD NOTE: Changes to subsections (a)(1)(A), (a)(1)(C), (a)(1)(D),
1108 and (a)(1)(E) of this Section are derived from 40 CFR 258.61 (20172013).
1109

1110 2) Criteria for Choosing Constituents to be Monitored.
1111

1112 A) The operator must monitor each well for constituents that will
1113 provide a means for detecting groundwater contamination.
1114 Constituents must be chosen for monitoring if they meet the
1115 following requirements:
1116

- 1117 i) The constituent appears in, or is expected to be in, the
1118 leachate; and

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ii) Is contained within the following list of constituents:

- Ammonia – Nitrogen (dissolved)
- Arsenic (dissolved)
- Boron (dissolved)
- Cadmium (dissolved)
- Chloride (dissolved)
- Chromium (dissolved)
- Cyanide (total)
- Lead (dissolved)
- Magnesium (dissolved)
- Mercury (dissolved)
- Nitrate (dissolved)
- Sulfate (dissolved)
- Total Dissolved Solids (TDS)
- Zinc (dissolved)

iii) This is the minimum list for MSWLFs.

iv) Any facility accepting more than 50% by volume non-municipal waste must determine additional indicator parameters based upon leachate characteristic and waste content.

B) One or more indicator constituents, representative of the transport processes of constituents in the leachate, may be chosen for monitoring in place of the constituents it represents. The use of such indicator constituents must be included in an Agency approved permit.

3) Organic Chemicals Monitoring. The operator must monitor each existing well that is being used as a part of the monitoring well network at the facility within one year after the effective date of this Part, and monitor each new well within the three months after its establishment. The monitoring required by this subsection (a)(3) must be for a broad range of organic chemical contaminants in accordance with the following procedures:

A) The analysis must be at least as comprehensive and sensitive as the tests for the 51 organic chemicals in drinking water described at 40 CFR 141.40 and appendix I to 40 CFR 258 (20172006), each incorporated by reference at 35 Ill. Adm. Code 810.104 and:

Acetone
Acrylonitrile
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform; Tribromomethane
n-Butylbenzene
sec-Butylbenzene
tert-Butylbenzene
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform; Trichloromethane
o-Chlorotoluene
p-Chlorotoluene
Dibromochloromethane
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
trans-1,4-Dichloro-2-butene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropane
2,2-Dichloropropane
1,1-Dichloropropene

1,3-Dichloropropene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Ethylbenzene
Hexachlorobutadiene
2-Hexanone; Methyl butyl ketone
Isopropylbenzene
p-Isopropyltoluene
Methyl bromide; Bromomethane
Methyl chloride; Chloromethane
Methylene bromide; Dibromomethane
Dichloromethane
Methyl ethyl ketone
Methyl iodide; Iodomethane
4-Methyl-2-pentanone
Naphthalene
Oil and Grease (hexane soluble)
n-Propylbenzene
Styrene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Tetrahydrofuran
Toluene
Total Phenolics
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Trichlorofluoromethane
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Vinyl acetate

Vinyl chloride

Xylenes

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B) At least once every two years, the operator must monitor each well in accordance with subsection (a)(3)(A) ~~of this Section~~.

C) The operator of a MSWLF unit must monitor each well in accordance with subsection (a)(3)(A) ~~of this Section~~ on a semi-annual basis.

BOARD NOTE: Subsection (a)(3)(C) ~~of this Section~~ is derived from 40 CFR 258.54(b) (2017~~2013~~).

4) Confirmation of Monitored Increase.

A) The confirmation procedures of this subsection must be used only if the concentrations of the constituents monitored can be measured at or above the practical quantitation limit (PQL). The PQL is defined as the lowest concentration that can be reliably measured within specified limits of precision and accuracy, under routine laboratory operating conditions. The operator must institute the confirmation procedures of subsection (a)(4)(B) ~~of this Section~~ after notifying the Agency in writing, within ten days, of observed increases:

i) The concentration of any inorganic constituent monitored in accordance with subsections (a)(1) and (a)(2) ~~of this Section~~ shows a progressive increase over eight consecutive monitoring events;

ii) The concentration of any constituent exceeds the maximum allowable predicted concentration at an established monitoring point within the zone of attenuation;

iii) The concentration of any constituent monitored in accordance with subsection (a)(3) ~~of this Section~~ exceeds the preceding measured concentration at any established monitoring point; and

iv) The concentration of any constituent monitored at or beyond the zone of attenuation exceeds the applicable groundwater quality standards of Section 811.320.

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- B) The confirmation procedures must include the following:
- i) The operator must verify any observed increase by taking additional samples within 90 days after the initial sampling event and ensure that the samples and sampling protocol used will detect any statistically significant increase in the concentration of the suspect constituent in accordance with Section 811.320(e), so as to confirm the observed increase. The operator must notify the Agency of any confirmed increase before the end of the next business day following the confirmation.
 - ii) The operator must determine the source of any confirmed increase, which may include, but must not be limited to, natural phenomena, sampling or analysis errors, or an offsite source.
 - iii) The operator must notify the Agency in writing of any confirmed increase. The notification must demonstrate a source other than the facility and provide the rationale used in such a determination. The notification must be submitted to the Agency no later than 180 days after the original sampling event. If the facility is permitted by the Agency, the notification must be filed for review as a significant permit modification pursuant to Subpart B of 35 Ill. Adm. Code 813.
 - iv) If an alternative source demonstration described in subsections (a)(4)(B)(ii) and (a)(4)(B)(iii) ~~of this Section~~ cannot be made, assessment monitoring is required in accordance with subsection (b) ~~of this Section~~.
 - v) If an alternative source demonstration, submitted to the Agency as an application, is denied pursuant to 35 Ill. Adm. Code 813.105, the operator must commence sampling for the constituents listed in subsection (b)(5) ~~of this Section~~, and submit an assessment monitoring plan as a significant permit modification, both within 30 days after the dated notification of Agency denial. The operator must sample the well or wells that exhibited the confirmed increase.

b) Assessment Monitoring. The operator must begin an assessment monitoring

1247 program in order to confirm that the solid waste disposal facility is the source of
 1248 the contamination and to provide information needed to carry out a groundwater
 1249 impact assessment in accordance with subsection (c) ~~of this Section~~. The
 1250 assessment monitoring program must be conducted in accordance with the
 1251 following requirements:

- 1252
- 1253 1) The assessment monitoring must be conducted in accordance with this
 1254 subsection to collect information to assess the nature and extent of
 1255 groundwater contamination. The owner or operator of a MSWLF unit
 1256 must comply with the additional requirements prescribed in subsection
 1257 (b)(5) ~~of this Section~~. The assessment monitoring must consist of
 1258 monitoring of additional constituents that might indicate the source and
 1259 extent of contamination. In addition, assessment monitoring may include
 1260 any other investigative techniques that will assist in determining the
 1261 source, nature and extent of the contamination, which may consist of, but
 1262 need not be limited to the following:
- 1263
- 1264 A) More frequent sampling of the wells in which the observation
 1265 occurred;
- 1266
- 1267 B) More frequent sampling of any surrounding wells; and
- 1268
- 1269 C) The placement of additional monitoring wells to determine the
 1270 source and extent of the contamination.
- 1271
- 1272 2) Except as provided for in subsections (a)(4)(B)(iii) and (a)(4)(B)(v) ~~of this~~
 1273 ~~Section~~, the operator of the facility for which assessment monitoring is
 1274 required must file the plans for an assessment monitoring program with
 1275 the Agency. If the facility is permitted by the Agency, then the plans must
 1276 be filed for review as a significant permit modification pursuant to Subpart
 1277 B of 35 Ill. Adm. Code 813 within 180 days after the original sampling
 1278 event. The assessment monitoring program must be implemented within
 1279 180 days after the original sampling event in accordance with subsection
 1280 (a)(4) ~~of this Section~~ or, in the case of permitted facilities, within 45 days
 1281 after Agency approval.
- 1282
- 1283 3) If the analysis of the assessment monitoring data shows that the
 1284 concentration of one or more constituents, monitored at or beyond the
 1285 zone of attenuation is above the applicable groundwater quality standards
 1286 of Section 811.320 and is attributable to the solid waste disposal facility,
 1287 then the operator must determine the nature and extent of the groundwater
 1288 contamination including an assessment of the potential impact on the
 1289 groundwater should waste continue to be accepted at the facility and must

- 1290 implement the remedial action in accordance with subsection (d) ~~of this~~
1291 ~~Section~~.
1292
1293 4) If the analysis of the assessment monitoring data shows that the
1294 concentration of one or more constituents is attributable to the solid waste
1295 disposal facility and exceeds the maximum allowable predicted
1296 concentration within the zone of attenuation, then the operator must
1297 conduct a groundwater impact assessment in accordance with the
1298 requirements of subsection (c) ~~of this Section~~.
1299
1300 5) In addition to the requirements of subsection (b)(1) ~~of this Section~~, to
1301 collect information to assess the nature and extent of groundwater
1302 contamination, the following requirements are applicable to MSWLF
1303 units:
1304
1305 A) The monitoring of additional constituents pursuant to subsection
1306 (b)(1) ~~of this Section~~ must include, at a minimum (except as
1307 otherwise provided in subsection (b)(5)(E) ~~of this Section~~), the
1308 constituents listed in 40 appendix II to CFR 258, incorporated by
1309 reference at 35 Ill. Adm. Code 810.104, and constituents from 35
1310 Ill. Adm. Code 620.410.
1311
1312 BOARD NOTE: Subsection (b)(5)(A) ~~of this Section~~ is derived
1313 from 40 CFR 258.55(b) (20172013).
1314
1315 B) Within 14 days after obtaining the results of sampling required
1316 under subsection (b)(5)(A) ~~of this Section~~, the owner or operator
1317 must do as follows:
1318
1319 i) The owner or operator must place a notice in the operating
1320 record identifying the constituents that have been detected;
1321 and
1322
1323 ii) The owner or operator must notify the Agency that such a
1324 notice has been placed in the operating record.
1325
1326 BOARD NOTE: Subsection (b)(5)(B) ~~of this Section~~ is derived
1327 from 40 CFR 258.55(d)(1) (20172013).
1328
1329 C) The owner or operator must establish background concentrations
1330 for any constituents detected pursuant to subsection (b)(5)(A) ~~of~~
1331 ~~this Section~~ in accordance with Section 811.320(e).
1332

1333 BOARD NOTE: Subsection (b)(5)(C) ~~of this Section~~ is derived
1334 from 40 CFR 258.55(d)(3) (20172013).
1335

1336 D) Within 90 days after the initial monitoring in accordance with
1337 subsection (b)(5)(A) ~~of this Section~~, the owner or operator must
1338 monitor for the detected constituents listed in appendix II to 40
1339 CFR 258, incorporated by reference in 35 Ill. Adm. Code 810.104,
1340 and 35 Ill. Adm. Code 620.410 on a semiannual basis during the
1341 assessment monitoring. The operator must monitor all the
1342 constituents listed in appendix II to 40 CFR 258 and 35 Ill. Adm.
1343 Code 620.410 on an annual basis during assessment monitoring.
1344

1345 BOARD NOTE: Subsection (b)(5)(D) ~~of this Section~~ is derived
1346 from 40 CFR 258.55(d)(2) (20172012).
1347

1348 E) The owner or operator may request the Agency to delete any of the
1349 40 CFR 258 and 35 Ill. Adm. Code 620.410 constituents by
1350 demonstrating to the Agency that the deleted constituents are not
1351 reasonably expected to be in or derived from the waste contained
1352 in the leachate.
1353

1354 BOARD NOTE: Subsection (b)(5)(E) ~~of this Section~~ is derived
1355 from 40 CFR 258.55(b) (20172012).
1356

1357 F) Within 14 days after finding an exceedance above the applicable
1358 groundwater quality standards in accordance with subsection (b)(3)
1359 ~~of this Section~~, the owner or operator must do as follows:
1360

1361 i) The owner or operator must place a notice in the operating
1362 record that identifies the constituents monitored under
1363 subsection (b)(1)(D) ~~of this Section~~ that have exceeded the
1364 groundwater quality standard;

1365 ii) The owner or operator must notify the Agency and the
1366 appropriate officials of the local municipality or county
1367 within whose boundaries the site is located that such a
1368 notice has been placed in the operating record; and
1369

1370 iii) The owner or operator must notify all persons who own
1371 land or reside on land that directly overlies any part of the
1372 plume of contamination if contaminants have migrated off-
1373 site.
1374
1375

1376 BOARD NOTE: Subsection (b)(5)(F) ~~of this Section~~ is derived
1377 from 40 CFR 258.55(g)(1)(i) through (g)(1)(iii) (20172012).
1378

1379 G) If the concentrations of all constituents in appendix II to 40 CFR
1380 258, incorporated by reference in 35 Ill. Adm. Code 810.104, and
1381 35 Ill. Adm. Code 620.410 are shown to be at or below
1382 background values, using the statistical procedures in Section
1383 811.320(e), for two consecutive sampling events, the owner or
1384 operator must notify the Agency of this finding and may stop
1385 monitoring the appendix II to 40 CFR 258 and 35 Ill. Adm. Code
1386 620.410 constituents.
1387

1388 BOARD NOTE: Subsection (b)(5)(G) ~~of this Section~~ is derived
1389 from 40 CFR 258.55(e) (20172013).
1390

1391 c) Assessment of Potential Groundwater Impact. An operator required to conduct a
1392 groundwater impact assessment in accordance with subsection (b)(4) ~~of this~~
1393 ~~Section~~ must assess the potential impacts outside the zone of attenuation that may
1394 result from confirmed increases above the maximum allowable predicted
1395 concentration within the zone of attenuation, attributable to the facility, in order to
1396 determine if there is need for remedial action. In addition to the requirements of
1397 Section 811.317, the following requirements apply:
1398

- 1399 1) The operator must utilize any new information developed since the initial
1400 assessment and information from the detection and assessment monitoring
1401 programs and such information may be used for the recalibration of the
1402 GCT model; and
1403
1404 2) The operator must submit the groundwater impact assessment and any
1405 proposed remedial action plans determined necessary pursuant to
1406 subsection (d) ~~of this Section~~ to the Agency within 180 days after the start
1407 of the assessment monitoring program.
1408

1409 d) Remedial Action. The owner or operator of a MSWLF unit must conduct
1410 corrective action in accordance with Sections 811.324, 811.325, and 811.326.
1411 The owner or operator of a landfill facility, other than a MSWLF unit, must
1412 conduct remedial action in accordance with this subsection (d).
1413

- 1414 1) The operator must submit plans for the remedial action to the Agency.
1415 Such plans and all supporting information including data collected during
1416 the assessment monitoring must be submitted within 90 days after
1417 determination of either of the following:
1418

- 1419 A) The groundwater impact assessment, performed in accordance with
1420 subsection (c) ~~of this Section~~, indicates that remedial action is
1421 needed; or
1422
- 1423 B) Any confirmed increase above the applicable groundwater quality
1424 standards of Section 811.320 is determined to be attributable to the
1425 solid waste disposal facility in accordance with subsection (b) ~~of~~
1426 ~~this Section~~.
1427
- 1428 2) If the facility has been issued a permit by the Agency, then the operator
1429 must submit this information as an application for significant modification
1430 to the permit;
1431
- 1432 3) The operator must implement the plan for remedial action program within
1433 90 days after the following:
1434
- 1435 A) Completion of the groundwater impact assessment that requires
1436 remedial action;
1437
- 1438 B) Establishing that a violation of an applicable groundwater quality
1439 standard of Section 811.320 is attributable to the solid waste
1440 disposal facility in accordance with subsection (b)(3) ~~of this~~
1441 ~~Section~~; or
1442
- 1443 C) Agency approval of the remedial action plan, where the facility has
1444 been permitted by the Agency.
1445
- 1446 4) The remedial action program must consist of one or a combination of one
1447 of more of the following solutions:
1448
- 1449 A) Retrofit additional groundwater protective measures within the
1450 unit;
1451
- 1452 B) Construct an additional hydraulic barrier, such as a cutoff wall or
1453 slurry wall system;
1454
- 1455 C) Pump and treat the contaminated groundwater; or
1456
- 1457 D) Any other equivalent technique which will prevent further
1458 contamination of groundwater.
1459
- 1460 5) Termination of the Remedial Action Program.
1461

- 1462 A) The remedial action program must continue in accordance with the
1463 plan until monitoring shows that the concentrations of all
1464 monitored constituents are below the maximum allowable
1465 predicted concentration within the zone of attenuation, below the
1466 applicable groundwater quality standards of Section 811.320 at or
1467 beyond the zone of attenuation, over a period of four consecutive
1468 quarters no longer exist.
1469
- 1470 B) The operator must submit to the Agency all information collected
1471 under subsection (d)(5)(A) ~~of this Section~~. If the facility is
1472 permitted then the operator must submit this information as a
1473 significant modification of the permit.
1474

1475 (Source: Amended at 42 Ill. Reg. _____, effective _____)
1476

1477 **Section 811.320 Groundwater Quality Standards**
1478

1479 a) Applicable Groundwater Quality Standards
1480

- 1481 1) Groundwater quality ~~must~~ shall be maintained at each constituent's
1482 background concentration, at or beyond the zone of attenuation. The
1483 applicable groundwater quality standard established for any constituent
1484 ~~must~~ shall be:
1485

1486 A) The background concentration; or
1487

1488 B) The Board established standard adjusted by the Board in
1489 accordance with the justification procedure of subsection (b).
1490

- 1491 2) Any statistically significant increase above an applicable groundwater
1492 quality standard established pursuant to subsection (a)(1) that is
1493 attributable to the facility and which occurs at or beyond the zone of
1494 attenuation within 100 years after closure of the last unit accepting waste
1495 within such a facility ~~must~~ shall constitute a violation.
1496

- 1497 3) For the purposes of this Part:
1498

1499 A) "Background concentration" means that concentration of a
1500 constituent that is established as the background in accordance
1501 with subsection (d); and
1502

1503 B) "Board established standard" is the concentration of a constituent
1504 adopted by the Board as a groundwater quality standard adopted by

1505 the Board pursuant to Section 14.4 of the Act or Section 8 of the
 1506 Illinois Groundwater Protection Act.

1507
 1508 b) Justification for Adjusted Groundwater Quality Standards
 1509

1510 1) An operator may petition the Board for an adjusted groundwater quality
 1511 standard in accordance with the procedures specified in Section 28.1 of the
 1512 Act and 35 Ill. Adm. Code 104.400.Subpart D.
 1513

1514 2) For groundwater which contains naturally occurring constituents which
 1515 meet the applicable requirements of 35 Ill. Adm. Code 620.410, 620.420,
 1516 620.430, or 620.440 the Board will specify adjusted groundwater quality
 1517 standards no greater than those of 35 Ill. Adm. Code 620.410, 620.420,
 1518 620.430, or 620.440, respectively, upon a demonstration by the operator
 1519 that:
 1520

1521 A) The change in standards will not interfere with, or become
 1522 injurious to, any present or potential beneficial uses for such water;
 1523

1524 B) The change in standards is necessary for economic or social
 1525 development, by providing information including, but not limited to,
 1526 the impacts of the standards on the regional economy, social
 1527 disbenefits such as loss of jobs or closing of landfills, and
 1528 economic analysis contrasting the health and environmental
 1529 benefits with costs likely to be incurred in meeting the standards;
 1530 and
 1531

1532 C) All technically feasible and economically reasonable methods are
 1533 being used to prevent the degradation of the groundwater quality.
 1534

1535 3) Notwithstanding subsection (b)(2), in no case ~~must~~ shall the Board specify
 1536 adjusted groundwater quality standards for a MSWLF unit greater than the
 1537 following levels:
 1538

| <u>Chemical</u> | <u>Concentration (mg/l)</u> |
|---------------------------------|-----------------------------|
| Arsenic | 0.05 |
| Barium | 1.0 |
| Benzene | 0.005 |
| Cadmium | 0.01 |
| Carbon tetrachloride | 0.005 |
| Chromium (hexavalent) | 0.05 |
| 2,4-Dichlorophenoxy acetic acid | 0.1 |

| | |
|------------------------------------|--------|
| 1,4-Dichlorobenzene | 0.075 |
| 1,2-Dichloroethane | 0.005 |
| 1,1-Dichloroethylene | 0.007 |
| Endrin | 0.0002 |
| Fluoride | 4 |
| Lindane | 0.004 |
| Lead | 0.05 |
| Mercury | 0.002 |
| Methoxychlor | 0.1 |
| Nitrate | 10 |
| Selenium | 0.01 |
| Silver | 0.05 |
| Toxaphene | 0.005 |
| 1,1,1-Trichloromethane | 0.2 |
| Trichloroethylene | 0.005 |
| 2,4,5-Trichlorophenoxy acetic acid | 0.01 |
| Vinyl Chloride | 0.002 |

- 1539
- 1540 4) For groundwater which contains naturally occurring constituents which do
- 1541 not meet the standards of 35 Ill. Adm. Code 620.410, 620.420, 620.430 or
- 1542 620.440, the Board will specify adjusted groundwater quality standards,
- 1543 upon a demonstration by the operator that:
- 1544
- 1545 A) The groundwater does not presently serve as a source of drinking
- 1546 water;
- 1547
- 1548 B) The change in standards will not interfere with, or become
- 1549 injurious to, any present or potential beneficial uses for such
- 1550 waters;
- 1551
- 1552 C) The change in standards is necessary for economic or social
- 1553 development, by providing information including, but not limited
- 1554 to, the impacts of the standards on the regional economy, social
- 1555 disbenefits such as loss of jobs or closing of landfills, and
- 1556 economic analysis contrasting the health and environmental
- 1557 benefits with costs likely to be incurred in meeting the standards;
- 1558 and
- 1559
- 1560 D) The groundwater cannot presently, and will not in the future, serve
- 1561 as a source of drinking water because:
- 1562
- 1563 i) It is impossible to remove water in usable quantities;
- 1564

- 1565 ii) The groundwater is situated at a depth or location such that
1566 recovery of water for drinking purposes is not
1567 technologically feasible or economically reasonable;
1568
- 1569 iii) The groundwater is so contaminated that it would be
1570 economically or technologically impractical to render that
1571 water fit for human consumption;
1572
- 1573 iv) The total dissolved solids content of the groundwater is
1574 more than 3,000 mg/ℓ and that water will not be used to
1575 serve a public water supply system; or
1576
- 1577 v) The total dissolved solids content of the groundwater
1578 exceeds 10,000 mg/ℓ.
1579

1580 c) Determination of the Zone of Attenuation
1581

- 1582 1) The zone of attenuation, within which concentrations of constituents in
1583 leachate discharged from the unit may exceed the applicable groundwater
1584 quality standard of this Section, is a volume bounded by a vertical plane at
1585 the property boundary or 100 feet from the edge of the unit, whichever is
1586 less, extending from the ground surface to the bottom of the uppermost
1587 aquifer and excluding the volume occupied by the waste.
1588
- 1589 2) Zones of attenuation ~~must~~ shall not extend to the annual high water mark
1590 of navigable surface waters.
1591
- 1592 3) Overlapping zones of attenuation from units within a single facility may
1593 be combined into a single zone for the purposes of establishing a
1594 monitoring network.
1595

1596 d) Establishment of Background Concentrations
1597

- 1598 1) The initial monitoring to determine background concentrations ~~must~~ shall
1599 commence during the hydrogeological assessment required by Section
1600 811.315. The background concentrations for those parameters identified in
1601 Sections 811.315(e)(1)(G) and 811.319(a)(2) and (a)(3) ~~must~~ shall be
1602 established based on consecutive quarterly sampling of wells for a
1603 minimum of one year, monitored in accordance with the requirements of
1604 subsections (d)(2), (d)(3) and (d)(4). Non-consecutive data may be
1605 considered by the Agency, if only one data point from a quarterly event is
1606 missing, and it can be demonstrated that the remaining data set is
1607 representative of consecutive data in terms of any seasonal or temporal

- 1608 variation. Statistical tests and procedures mustshall be employed, in
 1609 accordance with subsection (e), depending on the number, type and
 1610 frequency of samples collected from the wells, to establish the background
 1611 concentrations.
 1612
- 1613 2) Adjustments to the background concentrations mustshall be made if
 1614 changes in the concentrations of constituents observed in background
 1615 wells over time are determined, in accordance with subsection (e), to be
 1616 statistically significant, and due to natural temporal or spatial variability or
 1617 due to an off-site source not associated with the landfill or the landfill
 1618 activities. Such adjustments may be conducted no more frequently than
 1619 once every two years during the operation of a facility and modified
 1620 subject to approval by the Agency. Non-consecutive data may be used for
 1621 an adjustment upon Agency approval. Adjustments to the background
 1622 concentration mustshall not be initiated prior to November 27, 2009 unless
 1623 required by the Agency.
 1624
- 1625 3) Background concentrations determined in accordance with this subsection
 1626 mustshall be used for the purposes of establishing groundwater quality
 1627 standards, in accordance with subsection (a). The operator mustshall
 1628 prepare a list of the background concentrations established in accordance
 1629 with this subsection. The operator mustshall maintain such a list at the
 1630 facility, mustshall submit a copy of the list to the Agency for establishing
 1631 standards in accordance with subsection (a), and mustshall provide
 1632 updates to the list within ten days of any change to the list.
 1633
- 1634 4) A network of monitoring wells mustshall be established upgradient from
 1635 the unit, with respect to groundwater flow, in accordance with the
 1636 following standards, in order to determine the background concentrations
 1637 of constituents in the groundwater:
 1638
- 1639 A) The wells mustshall be located at such a distance that discharges of
 1640 contaminants from the unit will not be detectable;
 1641
- 1642 B) The wells mustshall be sampled at the same frequency as other
 1643 monitoring points to provide continuous background concentration
 1644 data, throughout the monitoring period; and
 1645
- 1646 C) The wells mustshall be located at several depths to provide data on
 1647 the spatial variability.
 1648
- 1649 5) A determination of background concentrations may include the sampling
 1650 of wells that are not hydraulically upgradient of the waste unit where:

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- A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient of the waste; and
 - B) Sampling at other wells will provide an indication of background concentrations that is representative of that which would have been provided by upgradient wells.
- 6) If background concentrations cannot be determined on site, then alternative background concentrations may be determined from actual monitoring data from the aquifer of concern, which includes, but is not limited to, data from another landfill site that overlies the same aquifer.
- e) Statistical Analysis of Groundwater Monitoring Data
- 1) Statistical tests ~~must~~shall be used to analyze groundwater monitoring data. One or more of the normal theory statistical tests ~~must~~shall be chosen first for analyzing the data set or transformations of the data set. Where such normal theory tests are demonstrated to be inappropriate, tests listed in subsection (e)(4) ~~must~~shall be used. The level of significance (Type I error level) ~~must~~shall be no less than 0.01, for individual well comparisons, and no less than 0.05, for multiple well comparisons. The statistical analysis ~~must~~shall include, but not be limited to, the accounting of data below the detection limit of the analytical method used, the establishment of background concentrations and the determination of whether statistically significant changes have occurred in:
 - A) The concentration of any chemical constituent with respect to the background concentration or maximum allowable predicted concentration; and
 - B) The established background concentration of any chemical constituents over time.
 - 2) The statistical test or tests used ~~must~~shall be based upon the sampling and collection protocol of Sections 811.318 and 811.319.
 - 3) Monitored data that are below the level of detection ~~must~~shall be reported as not detected (ND). The level of detection for each constituent ~~must~~shall be the practical quantitation limit (PQL), and ~~must~~shall be the lowest concentration that is protective of human health and the environment, and can be achieved within specified limits of precision and

accuracy during routine laboratory operating conditions. In no case, ~~must~~ the PQL be established above the level that the Board has established for a groundwater quality standard under the Illinois Groundwater Protection Act [415 ILCS 55]. The following procedures ~~must~~ be used to analyze such data, unless an alternative procedure in accordance with subsection (e)(4), is shown to be applicable:

- A) Where the percentage of nondetects in the data base used is less than 15 percent, the operator ~~must~~ replace NDs with the PQL divided by two, then proceed with the use of one or more of the Normal Theory statistical tests;
- B) Where the percentage of nondetects in the data base used is between 15 and 50 percent, and the data are normally distributed, the operator ~~must~~ use Cohen's or Aitchison's adjustment to the sample mean and standard deviation, followed by an applicable statistical procedure;
- C) Where the percentage of nondetects in the database used is above 50 percent, then the owner or operator ~~must~~ use an alternative procedure in accordance with subsection (e)(4).

- 4) Nonparametric statistical tests or any other statistical test if it is demonstrated to meet the requirements of 35 Ill. Adm. Code 724.197(i).

BOARD NOTE: Subsection (b)(3) is derived from 40 CFR 258.40 Table 1: (20171992).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.321 Waste Placement

a) Phasing of Operations

- 1) Waste disposal operations ~~must~~ move from the lowest portions of the unit to the highest portions. Except as provided in subsection (a)(2), the placement of waste ~~must~~ begin in the lowest part of the active face of the unit, located in the part of the facility most downgradient, with respect to groundwater flow.
- 2) The operator may dispose of wastes in areas other than those specified in subsection (a)(1) only under any of the following conditions:

- 1737 A) Climatic conditions, such as wind and precipitation, are such that
- 1738 the placement of waste in the bottom of the unit would cause water
- 1739 pollution, litter or damage to any part of the liner;
- 1740
- 1741 B) The topography of the land surrounding the unit makes the
- 1742 procedure of subsection (a)(1) environmentally unsound, for
- 1743 example, because steep slopes surround the unit; or
- 1744
- 1745 C) When groundwater monitoring wells, constructed in accordance
- 1746 with the requirements of Section 811.319, are placed 50 feet, or
- 1747 less, downgradient from the filled portions of the unit.
- 1748

1749 b) Initial Waste Placement

- 1750
- 1751 1) Construction, compaction and earth moving equipment mustshall be
- 1752 prohibited from operating directly on the leachate collection piping system
- 1753 until a minimum of five feet of waste has been mounded over the system.
- 1754
- 1755 2) Construction, compaction and earth moving equipment mustshall be
- 1756 prohibited from operating directly on the leachate drainage blanket.
- 1757 Waste disposal operations mustshall begin at the edge of the drainage
- 1758 layer by carefully pushing waste out over the drainage layer.
- 1759
- 1760 3) An initial layer of waste, a minimum of five feet thick, or, alternatively, a
- 1761 temporary protective layer of other material suitable to prevent the
- 1762 compacted earth liner from freezing, mustshall be placed over the entire
- 1763 drainage blanket prior to the onset of weather conditions that may cause
- 1764 the compacted earth liner to freeze, except as provided in subsection (b)(4)
- 1765 of this Section.
- 1766
- 1767 4) Waste mustshall not be placed over areas that are subject to freezing
- 1768 conditions until the liner has been certified or recertified by the CQA
- 1769 officer designated pursuant to Section 811.502 and reconstructed (if
- 1770 necessary) to meet the requirements of Section 811.306.
- 1771

1772 (Source: Amended at 42 Ill. Reg. _____, effective _____)

1773

1774 **Section 811.323 Load Checking Program**

1775

- 1776 a) The operator mustshall implement a load checking program that meets the
- 1777 requirements of this Section, for detecting and discouraging attempts to dispose
- 1778 regulated hazardous wastes at the facility. For purposes of this Section and
- 1779 Section 811.406, "regulated hazardous wastewastes" means a solid waste that is a

1780 hazardous waste, as defined in 35 Ill. Adm. Code 721.103, that is not excluded
1781 from regulation as hazardous waste under 35 Ill. Adm. Code 721.104(b) or which
1782 was not generated by a VSQG, as defined in 35 Ill. Adm. Code 720.110 are
1783 wastes defined as such under RCRA, at 35 Ill. Adm. Code 721, and subject to
1784 regulations under 35 Ill. Adm. Code: Subtitle G.
1785

- 1786 b) In addition to checking for hazardous waste in accordance with subsection (a), the
1787 load checking program at a MSWLF unit ~~must~~shall include waste load inspection
1788 for detecting and discouraging attempts to dispose "polychlorinated biphenyl
1789 wastes" as defined in 40 CFR 761.3 (~~2017~~1992).
1790

1791 ~~BOARD NOTE: Subsection (b) is derived from 40 CFR 258.20(a) (1992).~~
1792

- 1793 c) The load checking program ~~must~~shall consist of, at a minimum, the following
1794 components:
1795

1796 1) ~~Random Inspections.~~inspections
1797

- 1798 A) An inspector designated by the facility ~~must~~shall examine at least
1799 three random loads of solid waste delivered to the landfill on a
1800 random day each week. The drivers randomly selected by the
1801 inspector ~~must~~shall be directed to discharge their loads at a
1802 separate, designated location within the facility. The facility
1803 ~~must~~shall conduct a detailed inspection of the discharged material
1804 for any regulated hazardous or other unacceptable wastes that may
1805 be present. Cameras or other devices may be used to record the
1806 visible contents of solid waste shipments. Where such devices are
1807 employed, their use should be designated on a sign posted near the
1808 entrance to the facility.
1809

- 1810 B) If regulated hazardous wastes or other unacceptable wastes are
1811 suspected, the facility ~~must~~shall communicate with the generator,
1812 hauler or other party responsible for shipping the waste to the
1813 facility to determine the identity of the waste.
1814

1815 2) ~~Recording Inspection Results.~~inspection results
1816

- 1817 Information and observations derived from each random inspection
1818 ~~must~~shall be recorded in writing and retained at the facility for at least
1819 three years. The recorded information ~~must~~shall include, at a minimum,
1820 the date and time of the inspection; the names of the hauling firm and the
1821 driver of the vehicle, the vehicle license plate number; the source of the
1822 waste, as stated by the driver; and observations made by the inspector
during the detailed inspection. The written record ~~must~~shall be signed by

1823 both the inspector and the driver.

- 1824
- 1825 3) Training.
- 1826 The solid waste management facility mustshall train designated inspectors,
- 1827 equipment operators, weigh station attendants, spotters at large facilities,
- 1828 and all other appropriate facility personnel in the identification of potential
- 1829 sources of regulated hazardous wastes and other unacceptable wastes,
- 1830 including but not limited to PCBs. The training program mustshall
- 1831 emphasize familiarity with containers typically used for regulated
- 1832 hazardous wastes and with labels for regulated hazardous wastes, under
- 1833 RCRA, and for hazardous materials under the Hazardous Materials
- 1834 Transportation Act (49 U.S.C. 1801 et seq.).
- 1835

1836 BOARD NOTE: Subsections (a) through (c) are derived from 40 CFR 258.20 (2017).

1837

1838 d) Handling Regulated Hazardous Wastes.

1839

- 1840 1) If any regulated hazardous wastes are identified by random load checking,
- 1841 or are otherwise discovered to be improperly deposited at the facility, the
- 1842 facility mustshall promptly notify the Agency, the person responsible for
- 1843 shipping the wastes to the landfill, and the generator of the wastes, if
- 1844 known. Waste loads identical to the regulated hazardous waste identified
- 1845 through the random load checking which have not yet been deposited in
- 1846 the landfill mustshall not be accepted. The area where the wastes are
- 1847 deposited mustshall immediately be cordoned off from public access. The
- 1848 solid waste management facility mustshall assure the cleanup,
- 1849 transportation and disposal of the waste at a permitted hazardous waste
- 1850 management facility.
- 1851
- 1852 2) The party responsible for transporting the waste to the solid waste
- 1853 management facility mustshall be responsible for the costs of such proper
- 1854 cleanup, transportation and disposal.
- 1855
- 1856 3) Subsequent shipments by persons or sources found or suspected to be
- 1857 previously responsible for shipping regulated hazardous waste mustshall
- 1858 be subject to the following special precautionary measures prior to the
- 1859 solid waste management facility accepting wastes. The operator mustshall
- 1860 use precautionary measures such as questioning the driver concerning the
- 1861 waste contents prior to discharge and visual inspection during the
- 1862 discharge of the load at the working face or elsewhere.
- 1863

1864 (Source: Amended at 42 Ill. Reg. _____, effective _____)

1865

Section 811.326 Implementation of the corrective action program at MSWLF Units

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- a) Based on the schedule established pursuant to Section 811.325(d) for initiation and completion of corrective action, the owner or operator must fulfill the following requirements:
 - 1) It must establish and implement a corrective action groundwater monitoring program that fulfills the following requirements:
 - A) At a minimum, the program must meet the requirements of an assessment monitoring program pursuant to Section 811.319(b);
 - B) The program must indicate the effectiveness of the remedy; and
 - C) The program must demonstrate compliance with groundwater protection standards pursuant to subsection (e) ~~of this Section~~.
 - 2) It must implement the remedy selected pursuant to Section 811.325.
 - 3) It must take any interim measures necessary to ensure the adequate protection of human health and the environment. The interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to Section 811.325. The owner or operator must consider the following factors in determining whether interim measures are necessary:
 - A) The time required to develop and implement a final remedy;
 - B) Any actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
 - C) Any actual or potential contamination of drinking water supplies or sensitive ecosystems;
 - D) Any further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
 - E) The weather conditions that may cause hazardous constituents to migrate or be released;
 - F) Any risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

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G) Any other situations that may pose threats to human health and the environment.

b) If an owner or operator determines, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of Section 811.325(b) are not being achieved through the remedy selected, the owner or operator must fulfill the following requirements:

- 1) It must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination pursuant to subsection (c) of this Section.
- 2) It must submit to the Agency, prior to implementing any alternative methods pursuant to subsection (b)(1) of this Section, an application for a significant modification to the permit describing the alternative methods or techniques and how they meet the standards of Section 811.325(b).

c) If the owner or operator determines that compliance with the requirements of Section 811.325(b) cannot be practically achieved with any currently available methods, the owner or operator must fulfill the following requirements:

- 1) It must obtain the certification of a qualified groundwater scientist or a determination by the Agency that compliance with requirements pursuant to Section 811.325(b) cannot be practically achieved with any currently available methods.
- 2) It must implement alternative measures to control exposure of humans or the environment to residual contamination, as necessary to adequately protect human health and the environment.
- 3) It must implement alternative measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that fulfill the following requirements:
 - A) The measures are technically practicable; and
 - B) The measures are consistent with the overall objective of the remedy.
- 4) It must submit to the Agency, prior to implementing the alternative measures in accordance with subsection (c) of this Section, an application for a significant modification to the permit justifying the alternative

- 1952 measures.
- 1953
- 1954 5) For purposes of this Section, a "qualified groundwater scientist" is a
- 1955 scientist or an engineer who has received a baccalaureate or postgraduate
- 1956 degree in the natural sciences or engineering and has sufficient training
- 1957 and experience in groundwater hydrology and related fields as may be
- 1958 demonstrated by state registration, professional certifications, or
- 1959 completion of accredited university programs that enable that individual to
- 1960 make sound professional judgments regarding groundwater monitoring,
- 1961 contaminant fate and transport, and corrective action.
- 1962
- 1963 d) All solid wastes that are managed pursuant to Section 811.325 or
- 1964 subsection (a)(3) of this Section must be managed by the owner or operator in a
- 1965 manner that fulfills the following requirements:
- 1966
- 1967 1) It adequately protects human health and the environment; and
- 1968
- 1969 2) It complies with applicable requirements of this Part 811.
- 1970
- 1971 e) Remedies selected pursuant to Section 811.325 must be considered complete
- 1972 when the following requirements are fulfilled:
- 1973
- 1974 1) The owner or operator complies with the groundwater quality standards
- 1975 established pursuant to Section 811.320 at all points within the plume of
- 1976 contamination that lie beyond the zone of attenuation established pursuant
- 1977 to Section 811.320;
- 1978
- 1979 2) Compliance with the groundwater quality standards established pursuant
- 1980 to Section 811.320 has been achieved by demonstrating that
- 1981 concentrations of the constituents monitored under the assessment
- 1982 monitoring program pursuant to Section 811.319(b) have not exceeded the
- 1983 groundwater quality standards for a period of three consecutive years
- 1984 using the statistical procedures and performance standards in Section
- 1985 811.320(e). The Agency may specify an alternative time period during
- 1986 which the owner or operator must demonstrate compliance with the
- 1987 groundwater quality standard(s). The Agency must specify such an
- 1988 alternative time period by considering the following factors:
- 1989
- 1990 A) The extent and concentration of the releases;
- 1991
- 1992 B) The behavior characteristics of the hazardous constituents in the
- 1993 groundwater;
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- C) The accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and
 - D) The characteristics of the groundwater; and
- 3) All actions required to complete the remedy have been satisfied.
- f) Within 14 days after the completion of the remedy, the owner or operator must submit to the Agency an application for a significant modification of the permit including a certification that the remedy has been completed in compliance with the requirements of subsection (e) ~~of this Section~~. The certification must be signed by the owner or operator and by a qualified groundwater scientist.
 - g) Upon Agency review and approval of the certification that the corrective action has been completed, in accordance with subsection (e) ~~of this Section~~, the Agency must release the owner or operator from the financial assurance requirements for corrective action pursuant to Subpart G ~~of this Part~~.

BOARD NOTE: Requirements of this Section are derived from 40 CFR 258.58 (20172005).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

SUBPART D: MANAGEMENT OF SPECIAL WASTES AT LANDFILLS

Section 811.404 Identification Record

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- a) Each special waste disposed of at a facility (including special wastes generated at the facility) ~~must~~ shall be accompanied by a special waste profile identification sheet, from the waste generator, that certifies the following:
 - 1) The generator's name and address;
 - 2) The transporter's name and telephone number;
 - 3) The name of waste;
 - 4) The process generating the waste;
 - 5) Physical characteristics of waste (e.g., color, odor, solid or liquid, flash point);

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- 6) The chemical composition of the waste;
 - 7) The metals content of the waste;
 - 8) Hazardous characteristics (including identification of wastes deemed hazardous by the United States Environmental Protection Agency or the state);
 - 9) Presence of polychlorinated biphenyls (PCB)s or 2,3,7,8-tetrachlorodibenzodioxin (2,3,7,8-TCDD); and
 - 10) Any other information, such as the result of any test carried out in accordance with Section 811.202, that can be used to determine:
 - A) Whether the special waste is regulated as a hazardous waste, as defined at 35 Ill. Adm. Code 721;
 - B) Whether the special waste is of a type that is permitted for or has been classified, in accordance with 35 Ill. Adm. Code 809, for storage, treatment, or disposal at the facility; and
 - C) Whether the method of storage, treatment, or disposal, using the methods available at the facility, is appropriate for the waste.
- b) Special waste recertification
- Each subsequent shipment of a special waste from the same generator must be accompanied by a transportation record in accordance with 35 Ill. Adm. Code 811.403(b), a copy of the original special waste profile identification sheet, and either:
- 1) A special waste recertification by the generator describing whether there have been changes in the following:
 - A) Laboratory analysis (copies to be attached);
 - B) Raw material in the waste-generating process;
 - C) The waste-generating process itself;
 - D) The physical or hazardous characteristics of the waste; and
 - E) New information on the human health effects of exposure to the waste; or

- 2081
2082 2) Certification indicating that any change in the physical or hazardous
2083 characteristic of the waste is not sufficient to require a new special waste
2084 profile.
2085

2086 (Source: Amended at 42 Ill. Reg. _____, effective _____)
2087

2088 SUBPART G: FINANCIAL ASSURANCE
2089

2090 **Section 811.704 Closure and Post-Closure Care and Corrective Action Cost Estimates**
2091

- 2092 a) Written cost estimate. The owner or operator ~~must~~shall have a written estimate of
2093 the cost of closure of all parts of the facility where wastes have been deposited in
2094 accordance with the requirements of this Part; the written closure plan, required
2095 by Section 811.110 and 35 Ill. Adm. Code 812.114; and the cost of post-closure
2096 care and plans, required by this Part and the written post-closure care plans
2097 required by 35 Ill. Adm. Code 812.115. The cost estimate is the total cost for
2098 closure and post-closure care.
2099
- 2100 b) The owner or operator ~~must~~shall revise the cost estimate whenever a change in
2101 the closure plan or post-closure care plan increases the cost estimate.
2102
- 2103 c) The cost estimate must be based on the steps necessary for the premature final
2104 closure of the facility on the assumed closure date.
2105
- 2106 d) The cost estimate must be based on the assumption that the Agency will contract
2107 with a third party to implement the closure plan.
2108
- 2109 e) The cost estimate may not be reduced by allowance for the salvage value of
2110 equipment or waste, for the resale value of land, or for the sale of landfill gas.
2111
- 2112 f) The cost estimate must, at a minimum, include all costs for all activities necessary
2113 to close the facility in accordance with all requirements of this Part.
2114
- 2115 g) (Blank)
2116
- 2117 h) The post-closure care cost estimate must, at a minimum, be based on the
2118 following elements in the post-closure care plan:
2119
- 2120 1) Groundwater monitoring, based on the number of monitoring points and
2121 parameters and the frequency of sampling specified in the permit.
2122
- 2123 2) The annual Cost of Cover Placement and Stabilization, including an

- 2124 estimate of the annual residual settlement and erosion control and the cost
 2125 of mowing.
 2126
- 2127 3) Alternative Landfill Gas Disposal. If landfill gas is transported to an off-
 2128 site processing system, then the owner or operator ~~must~~shall include in the
 2129 cost estimate the costs necessary to operate an onsite gas disposal system,
 2130 should access to the off-site facility become unavailable. The cost
 2131 estimate must include the following information: installation, operation,
 2132 maintenance and monitoring of an on-site gas disposal system.
 2133
- 2134 4) Cost Estimates Beyond the Design Period. When a facility must extend
 2135 the post-closure care period beyond the applicable design period, the cost
 2136 estimate must be based upon such additional time and the care activities
 2137 occurring during that time.
 2138
- 2139 i) This Section does not authorize the Agency to require the owner or operator to
 2140 perform any of the indicated activities upon which cost estimates are to be based;
 2141 however, if the site permit requires a closure activity, the owner or operator
 2142 ~~must~~shall include the cost of that activity in the cost estimate.
 2143
- 2144 j) Once the owner or operator has completed an activity, the owner or operator may
 2145 file an application for significant permit modification pursuant to 35 Ill. Adm.
 2146 Code 813.201 indicating that the activity has been completed, and zeroing that
 2147 element of the cost estimate.
 2148
- 2149 k) Cost estimate for corrective action at MSWLF units.
 2150
- 2151 1) An owner or operator of a MSWLF unit required to undertake a corrective
 2152 action program pursuant to Section 811.326 ~~must~~shall have a detailed
 2153 written estimate, in current dollars, of the cost of hiring a third party to
 2154 perform the corrective action in accordance with the Section 811.326. The
 2155 corrective action cost estimate must account for the total costs of
 2156 corrective action activities as described in the corrective action plan for
 2157 the entire corrective action period. The owner or operator ~~must~~shall notify
 2158 the Agency that the estimate has been placed in the operating record.
 2159
- 2160 2) The owner or operator must annually adjust the estimate for inflation until
 2161 the corrective action program is completed in accordance with Section
 2162 811.326(f).
 2163
- 2164 3) The owner or operator must increase the corrective action cost estimate
 2165 and the amount of financial assurance provided pursuant to subsections
 2166 (k)(5) and (k)(6) ~~of this Section~~ if changes in the corrective action

- 2167 program or MSWLF unit conditions increase the maximum costs of
2168 corrective action.
2169
2170 4) The owner or operator may reduce the amount of the corrective action cost
2171 estimate and the amount of financial assurance provided pursuant to
2172 subsections (k)(5) and (k)(6) ~~of this Section~~ if the cost estimate exceeds
2173 the maximum remaining costs of corrective action. The owner or operator
2174 must shall notify the Agency that the justification for the reduction of the
2175 corrective action cost estimate and the amount of financial assurance has
2176 been placed in the operating record.
2177
2178 5) The owner or operator of each MSWLF unit required to undertake a
2179 corrective action program under Section 811.326 must shall establish, in
2180 accordance with Section 811.706, financial assurance for the most recent
2181 corrective action program.
2182
2183 6) The owner or operator must shall provide continuous coverage for
2184 corrective action until released from the financial assurance requirements
2185 for corrective action by demonstrating compliance with Section 811.326
2186 (f) and (g).
2187

2188 BOARD NOTE: Subsection (k) is derived from 40 CFR 258.73 (2017~~1992~~).

2189
2190 (Source: Amended at 42 Ill. Reg. _____, effective _____)
2191

2192 **Section 811.715 Self-Insurance for Non-Commercial Sites**
2193

- 2194 a) Definitions. The following definitions are intended to assist in the understanding
2195 of this Part and are not intended to limit the meanings of terms in any way that
2196 conflicts with generally accepted accounting principles:
2197
2198 "Assets" means all existing and all probable future economic benefits obtained or
2199 controlled by a particular entity.
2200
2201 "Current assets" means cash or other assets or resources commonly identified as
2202 those that are reasonably expected to be realized in cash or sold or consumed
2203 during the normal operating cycle of the business.
2204
2205 "Current liabilities" means obligations whose liquidation is reasonably expected to
2206 require the use of existing resources properly classifiable as current assets or the
2207 creation of other current liabilities.
2208
2209 "Generally accepted accounting principles" means the accounting and auditing

standards of the American Institute of Certified Public Accountants and the Governmental Accounting Standards Board that are incorporated by reference in 35 Ill. Adm. Code 810.104.

"Gross Revenue" means total receipts less returns and allowances.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means tangible assets less liabilities; tangible assets to not include intangibles such as goodwill and rights to patents or royalties.

b) Information to be Filed. An owner or operator may satisfy the financial assurance requirements of this Part by providing the following:

- 1) Bond without surety promising to pay the cost estimate (subsection (c) of this Section).
- 2) Proof that the owner or operator meets the gross revenue test (subsection (d) of this Section).
- 3) Proof that the owner or operator meets the financial test (subsection (e) of this Section).

c) Bond Without Surety. An owner or operator utilizing self-insurance must provide a bond without surety on the forms specified in Appendix A, Illustration G of this Part. The owner or operator must promise to pay the current cost estimate to the Agency unless the owner or operator provides closure and post-closure care in accordance with the closure and post-closure care plans.

d) Gross Revenue Test. The owner or operator must demonstrate that less than one-half of its gross revenues are derived from waste disposal operations. Revenue is "from waste disposal operations" if it would stop upon cessation of the owner or operator's waste disposal operations.

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e) Financial Test.

1) To pass the financial test, the owner or operator must meet the criteria of either subsection (e)(1)(A) or (e)(1)(B) ~~of this Section:~~

A) The owner or operator must have:

- i) Two of the following three ratios: a ratio of total liabilities to net worth of less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities of greater than 0.1; or a ratio of current assets to current liabilities of greater than 1.5; ~~and~~
- ii) Net working capital and tangible net worth each at least six times the current cost estimate; ~~and~~
- iii) Tangible net worth of at least \$10 million; and
- iv) Assets in the United States amounting to at least 90 percent of the owner's or operator's total assets and at least six times the current cost estimate.

B) The owner or operator must have:

- i) A current rating of AAA, AA, A, or BBB for its most recent bond issuance as issued by Standard and Poor, or a rating of Aaa, Aa, A, or Baa, as issued by Moody;
- ii) Tangible net worth at least six times the current cost estimate;
- iii) Tangible net worth of at least \$10 million; and
- iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the current cost estimate.

2) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:

A) A letter signed by the owner or operator's chief financial officer and worded as specified in Appendix A, Illustration I;

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- B) A copy of the independent certified public accountant's report on examination of the owner or operator's financial statements for the latest completed fiscal year; and
- C) A special report from the owner or operator's independent certified public accountant to the owner or operator stating the following:
 - i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and
 - ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.
- f) Updated Information.
 - 1) After the initial submission of items specified in subsections (d) and (e) of ~~this Section~~, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year.
 - 2) If the owner or operator no longer meets the requirements of subsections (d) and (e) of ~~this Section~~, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the operator no longer meets the requirements.
- g) Qualified Opinions. If the opinion required by subsections (e)(2)(B) and (e)(2)(C) of ~~this Section~~ includes an adverse opinion or a disclaimer of opinion, the Agency must disallow the use of self-insurance. If the opinion includes other qualifications, the Agency must disallow the use of self-insurance if:
 - 1) The qualifications relate to the numbers that are used in the gross revenue test or the financial test; and
 - 2) In light of the qualifications, the owner or operator has failed to demonstrate that it meets the gross revenue test or financial test.
- h) Parent Corporation. An owner or operator may satisfy the financial assurance

2339 requirements of this Part by either of the following means:
 2340

- 2341 1) Demonstrating that a corporation that owns an interest in the owner or
 2342 operator meets the requirements of this Section; and
 2343
- 2344 2) Providing a bond to the Agency with the parent corporation as surety on a
 2345 form specified in Appendix A, Illustration H in accordance with Section
 2346 811.711(d), (e), (f), and (g) ~~of this Part~~.

2347
 2348 (Source: Amended at 42 Ill. Reg. _____, effective _____)
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2350 **Section 811.716 Local Government Financial Test**
 2351

2352 A unit of local government owner or operator that satisfies the requirements of subsections (a)
 2353 through (c) ~~of this Section~~ may demonstrate financial assurance up to the amount specified in
 2354 subsection (d) ~~of this Section~~.
 2355

2356 a) Financial Component.

- 2357 1) The unit of local government owner or operator must satisfy subsection
 2358 (a)(1)(A) or (a)(1)(B) ~~of this Section~~, as applicable:
 2359
- 2360 A) If the owner or operator has outstanding, rated, general obligation
 2361 bonds that are not secured by insurance, a letter of credit, or other
 2362 collateral or guarantee, it must have a current rating of Aaa, Aa, A,
 2363 or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued
 2364 by Standard and Poor's, on all such general obligation bonds; or
 2365
- 2366 B) The owner or operator must satisfy each of the following financial
 2367 ratios based on the owner or operator's most recent audited annual
 2368 financial statement:
 2369
- 2370 i) A ratio of cash plus marketable securities to total
 2371 expenditures greater than or equal to 0.05; and
 2372
- 2373 ii) A ratio of annual debt service to total expenditures less than
 2374 or equal to 0.20.
 2375

- 2376 2) The unit of local government owner or operator must prepare its financial
 2377 statements in conformity with Generally Accepted Accounting Principles
 2378 for governments and have its financial statements audited by an
 2379 independent certified public accountant or the Comptroller of the State of
 2380 Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310].
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- 3) A unit of local government is not eligible to assure its obligations pursuant to this Section if any of the following is true:
- A) It is currently in default on any outstanding general obligation bonds;
 - B) It has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's;
 - C) It operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years; or
 - D) It receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310] auditing its financial statement as required pursuant to subsection (a)(2) ~~of this Section~~. However, the Agency must evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Agency deems the qualification insufficient to warrant disallowance of use of the test.
- 4) Terms used in this Section are defined as follows:
- "Cash plus marketable securities" is all the cash plus marketable securities held by the unit of local government on the last day of a fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions.
- "Debt service" is the amount of principal and interest due on a loan in a given time period, typically the current year.
- "Deficit" equals total annual revenues minus total annual expenditures.
- "Total revenues" include revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by a unit of local government on behalf of a specific third party.
- "Total expenditures" include all expenditures excluding capital outlays and debt repayment.

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- b) Public Notice Component.
 - 1) The unit of local government owner or operator must place a reference to the closure and post-closure care costs assured through the financial test into its next comprehensive annual financial report (CAFR), or prior to the initial receipt of waste at the facility, whichever is later.
 - 2) Disclosure must include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care cost remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years.
 - 3) A reference to corrective action costs must be placed in the CAFR not later than 120 days after the corrective action remedy has been selected in accordance with the requirements of Sections 811.319(d) and 811.325.
 - 4) For the first year the financial test is used to assure costs at a particular facility, the reference may instead be placed in the operating record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget.
 - 5) For closure and post-closure costs, conformance with Government Accounting Standards Board Statement 18, incorporated by reference in 35 Ill. Adm. Code 810.104, assures compliance with this public notice component.
 - c) Recordkeeping and Reporting Requirements.
 - 1) The unit of local government owner or operator must place the following items in the facility's operating record:
 - A) A letter signed by the unit of local government's chief financial officer that provides the following information:
 - i) It lists all the current cost estimates covered by a financial test, as described in subsection (d) ~~of this Section~~;
 - ii) It provides evidence and certifies that the unit of local government meets the conditions of subsections (a)(1), (a)(2), and (a)(3) ~~of this Section~~; and

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- iii) It certifies that the unit of local government meets the conditions of subsections (b) and (d) ~~of this Section~~.

 - B) The unit of local government's independently audited year-end financial statements for the latest fiscal year (except for a unit of local government where audits are required every two years, where unaudited statements may be used in years when audits are not required), including the unqualified opinion of the auditor who must be an independent certified public accountant (CPA) or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310].

 - C) A report to the unit of local government from the unit of local government's independent CPA or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310] based on performing an agreed upon procedures engagement relative to the financial ratios required by subsection (a)(1)(B) ~~of this Section~~, if applicable, and the requirements of subsections (a)(2), (a)(3)(C), and (a)(3)(D) ~~of this Section~~. The CPA or Comptroller's report should state the procedures performed and the CPA or Comptroller's findings.

 - D) A copy of the comprehensive annual financial report (CAFR) used to comply with subsection (b) ~~of this Section~~ or certification that the requirements of Government Accounting Standards Board Statement 18, incorporated by reference in Section 810.104, have been met.
- 2) The items required in subsection (c)(1) ~~of this Section~~ must be placed in the facility operating record as follows:
- A) In the case of closure and post-closure care, ~~before November 27, 1997 or~~ prior to the initial receipt of waste at the facility; ~~whichever is later;~~ or

 - B) In the case of corrective action, not later than 120 days after the corrective action remedy is selected in accordance with the requirements of Sections 811.319(d) and 811.325.
- 3) After the initial placement of the items in the facility operating record, the unit of local government owner or operator must update the information and place the updated information in the operating record within 180 days

- 2511 following the close of the owner or operator's fiscal year.
2512
- 2513 4) The unit of local government owner or operator is no longer required to
2514 meet the requirements of subsection (c) ~~of this Section~~ when either of the
2515 following occurs:
2516
- 2517 A) The owner or operator substitutes alternative financial assurance as
2518 specified in this Section; or
2519
- 2520 B) The owner or operator is released from the requirements of this
2521 Section in accordance with Section 811.326(g), 811.702(b), or
2522 811.704(j) or (k)(6).
2523
- 2524 5) A unit of local government must satisfy the requirements of the financial
2525 test at the close of each fiscal year. If the unit of local government owner
2526 or operator no longer meets the requirements of the local government
2527 financial test it must, within 120 days following the close of the owner or
2528 operator's fiscal year, obtain alternative financial assurance that meets the
2529 requirements of this Subpart, place the required submissions for that
2530 assurance in the operating record, notify the Agency that the owner or
2531 operator no longer meets the criteria of the financial test and that
2532 alternative assurance has been obtained, and submit evidence of the
2533 alternative financial assurance to the Agency.
2534
- 2535 6) The Agency, based on a reasonable belief that the unit of local
2536 government owner or operator may no longer meet the requirements of the
2537 local government financial test, may require additional reports of financial
2538 condition from the unit of local government at any time. If the Agency
2539 determines, on the basis of such reports or other information, that the
2540 owner or operator no longer meets the requirements of the local
2541 government financial test, the unit of local government must provide
2542 alternative financial assurance in accordance with this Subpart.
2543
- 2544 d) Calculation of Costs to Be Assured. The portion of the closure, post-closure, and
2545 corrective action costs that an owner or operator may assure pursuant to this
2546 Section is determined as follows:
2547
- 2548 1) If the unit of local government owner or operator does not assure other
2549 environmental obligations through a financial test, it may assure closure,
2550 post-closure, and corrective action costs that equal up to 43 percent of the
2551 unit of local government's total annual revenue.
2552
- 2553 2) If the unit of local government assures other environmental obligations

2554 through a financial test, including those associated with UIC facilities
2555 pursuant to 35 Ill. Adm. Code 704.213; petroleum underground storage
2556 tank facilities pursuant to 40 CFR 280; PCB storage facilities pursuant to
2557 40 CFR 761; and hazardous waste treatment, storage, and disposal
2558 facilities pursuant to 35 Ill. Adm. Code 724 and 725, it must add those
2559 costs to the closure, post-closure, and corrective action costs it seeks to
2560 assure pursuant to this Section. The total that may be assured must not
2561 exceed 43 percent of the unit of local government's total annual revenue.
2562

- 2563 3) The owner or operator must obtain an alternative financial assurance
2564 instrument for those costs that exceed the limits set in subsections (d)(1)
2565 and (d)(2)-of this Section.
2566

2567 BOARD NOTE: Derived from 40 CFR 258.74(f) (20172013).

2568 (Source: Amended at 42 Ill. Reg. _____, effective _____)
2569
2570

2571 **Section 811.719 Corporate Financial Test**
2572

2573 An MSWLF owner or operator that satisfies the requirements of this Section may demonstrate
2574 financial assurance up to the amount specified in this Section as follows:
2575

- 2576 a) Financial component.
2577

- 2578 1) The owner or operator must satisfy one of the following three conditions:
2579

- 2580 A) A current rating for its senior unsubordinated debt of AAA, AA, A,
2581 or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as
2582 issued by Moody's; or
2583
2584 B) A ratio of less than 1.5 comparing total liabilities to net worth; or
2585
2586 C) A ratio of greater than 0.10 comparing the sum of net income plus
2587 depreciation, depletion and amortization, minus \$10 million, to
2588 total liabilities.
2589

- 2590 2) The tangible net worth of the owner or operator must be greater than:
2591

- 2592 A) The sum of the current closure, post-closure care, corrective action
2593 cost estimates and any other environmental obligations, including
2594 guarantees, covered by a financial test plus \$10 million except as
2595 provided in subsection (a)(2)(B)-of this Section.
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- B) \$10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements, provided all of the current closure, post-closure care, and corrective action costs and any other environmental obligations covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the Agency.
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- 3) The owner or operator must have assets located in the United States amounting to at least the sum of current closure, post-closure care, corrective action cost estimates and any other environmental obligations covered by a financial test, as described in subsection (c) ~~of this Section.~~
- 2610
2611
- b) Recordkeeping and reporting requirements.
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2614
- 1) The owner or operator must place the following items into the facility's operating record:
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- A) A letter signed by the owner's or operator's chief financial officer that includes the following:
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- i) All the current cost estimates covered by a financial test, including, but not limited to, cost estimates required for municipal solid waste management facilities pursuant to this Part; cost estimates required for UIC facilities pursuant to 35 Ill. Adm. Code 730, if applicable; cost estimates required for petroleum underground storage tank facilities pursuant to 40 CFR 280, if applicable; cost estimates required for PCB storage facilities pursuant to 40 CFR 761, if applicable; and cost estimates required for hazardous waste treatment, storage, and disposal facilities pursuant to 35 Ill. Adm. Code 724 or 725, if applicable; and
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- ii) Evidence demonstrating that the firm meets the conditions of subsection (a)(1)(A), (a)(1)(B), or (a)(1)(C) ~~of this Section~~ and subsection ~~subsection~~ (a)(2) and (a)(3) ~~of this Section.~~
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- B) A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public

2640 accountant. An adverse opinion, disclaimer of opinion, or other
 2641 qualified opinion will be cause for disallowance, with the potential
 2642 exception for qualified opinions provided in the next sentence.
 2643 The Agency must evaluate qualified opinions on a case-by-case
 2644 basis and allow use of the financial test in cases where the Agency
 2645 deems that the matters that form the basis for the qualification are
 2646 insufficient to warrant disallowance of the test. If the Agency does
 2647 not allow use of the test, the owner or operator must provide
 2648 alternative financial assurance that meets the requirements of this
 2649 Section.

2650
 2651 C) If the chief financial officer's letter providing evidence of financial
 2652 assurance includes financial data showing that the owner or
 2653 operator satisfies subsection (a)(1)(B) or (a)(1)(C) ~~of this Section~~
 2654 that are different from data in the audited financial statements
 2655 referred to in subsection (b)(1)(B) ~~of this Section~~ or any other
 2656 audited financial statement or data filed with the federal Security
 2657 Exchange Commission, then a special report from the owner's or
 2658 operator's independent certified public accountant to the owner or
 2659 operator is required. The special report must be based upon an
 2660 agreed upon procedures engagement in accordance with
 2661 professional auditing standards and must describe the procedures
 2662 performed in comparing the data in the chief financial officer's
 2663 letter derived from the independently audited, year-end financial
 2664 statements for the latest fiscal year with the amounts in such
 2665 financial statements, the findings of that comparison, and the
 2666 reasons for any differences.
 2667

2668 D) If the chief financial officer's letter provides a demonstration that
 2669 the firm has assured for environmental obligations, as provided in
 2670 subsection (a)(2)(B) ~~of this Section~~, then the letter must include a
 2671 report from the independent certified public accountant that
 2672 verifies that all of the environmental obligations covered by a
 2673 financial test have been recognized as liabilities on the audited
 2674 financial statements, how these obligations have been measured
 2675 and reported, and that the tangible net worth of the firm is at least
 2676 \$10 million plus the amount of any guarantees provided.
 2677

2678 2) An owner or operator must place the items specified in subsection (b)(1)
 2679 ~~of this Section~~ in the operating record and notify the Agency in writing
 2680 that these items have been placed in the operating record before the initial
 2681 receipt of waste ~~or before February 17, 1999, whichever is later~~, in the
 2682 case of closure and post-closure care, or no later than 120 days after the

- 2683 corrective action remedy has been selected in accordance with the
 2684 requirements of Section 811.324.
 2685
- 2686 BOARD NOTE: Corresponding 40 CFR 258.74(e)(2)(ii) provides that
 2687 this requirement is effective "before the initial receipt of waste or before
 2688 the effective date of the requirements of this Section (April 9, 1997 or
 2689 October 9, 1997 for MSWLF units meeting the conditions of Sec.
 2690 258.1(f)(1)), whichever is later." The Board has instead inserted the date
 2691 on which these amendments are to be filed and become effective in
 2692 Illinois.
 2693
- 2694 3) After the initial placement of items specified in subsection (b)(1) ~~of this~~
 2695 ~~Section~~ in the operating record, the owner or operator must annually
 2696 update the information and place updated information in the operating
 2697 record within 90 days following the close of the owner's or operator's
 2698 fiscal year. The Agency must provide up to an additional 45 days for an
 2699 owner or operator who can demonstrate that 90 days is insufficient time to
 2700 acquire audited financial statements. The updated information must
 2701 consist of all items specified in subsection (b)(1) ~~of this Section~~.
 2702
- 2703 4) The owner or operator is no longer required to submit the items specified
 2704 in this subsection (b) or comply with the requirements of this Section
 2705 when either of the following occurs:
 2706
- 2707 A) It substitutes alternative financial assurance, as specified in this
 2708 Subpart G, that is not subject to these recordkeeping and reporting
 2709 requirements; or
 2710
- 2711 B) It is released from the requirements of this Subpart G in
 2712 accordance with Sections 811.700 and 811.706.
 2713
- 2714 5) If the owner or operator no longer meets the requirements of subsection
 2715 (a) ~~of this Section~~, the owner or operator must obtain alternative financial
 2716 assurance that meets the requirements of this Subpart G within 120 days
 2717 following the close of the facility's fiscal year. The owner or operator
 2718 must also place the required submissions for the alternative financial
 2719 assurance in the facility operating record and notify the Agency that it no
 2720 longer meets the criteria of the financial test and that it has obtained
 2721 alternative financial assurance. The owner or operator must submit
 2722 evidence of the alternative financial assurance to the Agency.
 2723
- 2724 6) The Agency may require the owner or operator to provide reports of its
 2725 financial condition in addition to or including current financial test

2726 documentation specified in subsection (b) ~~of this Section~~ at any time it has
2727 a reasonable belief that the owner or operator may no longer meet the
2728 requirements of subsection (a) ~~of this Section~~. If the Agency finds that the
2729 owner or operator no longer meets the requirements of subsection (a) ~~of~~
2730 ~~this Section~~, the owner or operator must provide alternative financial
2731 assurance that meets the requirements of this Subpart G.
2732

2733 c) Calculation of costs to be assured. When calculating the current cost estimates for
2734 closure, post-closure care, corrective action, the sum of the combination of such
2735 costs to be covered, and any other environmental obligations assured by a
2736 financial test referred to in this Section, the owner or operator must include cost
2737 estimates required for municipal solid waste management facilities pursuant to
2738 this Part, as well as cost estimates required for the following environmental
2739 obligations, if it assures them through a financial test: obligations associated with
2740 UIC facilities pursuant to 35 Ill. Adm. Code 730; petroleum underground storage
2741 tank facilities pursuant to 40 CFR 280; PCB storage facilities pursuant to 40 CFR
2742 761; and hazardous waste treatment, storage, and disposal facilities pursuant to 35
2743 Ill. Adm. Code 724 or 725.
2744

2745 (Source: Amended at 42 Ill. Reg. _____, effective _____)
2746

2747 **Section 811. APPENDIX Appendix A Financial Assurance Forms**

2748
2749 **Section 811. ILLUSTRATION A Trust Agreement**

2750
2751 **TRUST AGREEMENT**

2752 Trust Fund Number _____

Trust Agreement, the "Agreement," entered into as of the _____ day of _____,
by and between _____, a
_____, the "Grantor," and _____,
the "Trustee."

2753
2754 Whereas, Section 21.1 of the Environmental Protection Act, "Act", prohibits any person from
2755 conducting any waste disposal operation unless such person has posted with the Illinois
2756 Environmental Protection Agency, "IEPA", a performance bond or other security for the purpose
2757 of insuring closure of the site and post-closure care or corrective action in accordance with the
2758 Act and Illinois Pollution Control Board, "IPCB", rules.

2759
2760 Whereas, the IPCB has established certain regulations applicable to the Grantor, requiring that an
2761 operator of a waste disposal site provide assurance that funds will be available when needed for
2762 closure and/or post-closure care or corrective action of the site.

2763
2764 Whereas, the Grantor has elected to establish a trust to provide all or part of such financial
2765 assurance for the sites identified in this agreement.

2766
2767 Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be
2768 the trustee under this agreement, and the Trustee is willing to act as trustee.

2769
2770 Whereas, Trustee is an entity that has authority to act as a trustee and whose trust operations are
2771 regulated by the Illinois Department of Financial and Professional Regulation or who complies
2772 with the Corporate Fiduciary Act [205 ILCS 5]. (Line through any condition that does not
2773 apply.)

2774
2775 Now, Therefore, the Grantor and the Trustee agree as follows:

2776
2777 **Section 1. Definitions.**

2778
2779 As used in this Agreement:

- 2780
2781 a) The term "Grantor" means the operator who enters into this Agreement and any
2782 successors or assigns of the operator.
2783

2784 b) The term "Trustee" means the Trustee who enters into this Agreement and any
2785 successor Trustee.
2786

2787 **Section 2. Identification of Sites and Cost Estimates.**
2788

2789 This Agreement pertains to the sites and cost estimates identified on attached Schedule A (on
2790 Schedule A, list the name and address and current cost estimate of each site for which financial
2791 assurance is demonstrated by this agreement).
2792

2793 **Section 3. Establishment of Fund.**
2794

2795 The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the
2796 IEPA. The Grantor and the Trustee intend that no other third party have access to the Fund
2797 except as provided in this agreement. The Fund is established initially as consisting of the
2798 property, which is acceptable to the Trustee, described in Schedule B attached to this agreement.
2799 Such property and any other property subsequently transferred to the Trustee is referred to as the
2800 Fund, together with all earnings and profits on the Fund, less any payments or distributions made
2801 by the Trustee pursuant to this agreement. The Fund shall be held by the Trustee, in trust, as
2802 provided in this agreement. The Trustee shall not be responsible nor shall it undertake any
2803 responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any
2804 payments necessary to discharge any liabilities of the Grantor.
2805

2806 **Section 4. Payment for Closure and Post-Closure care or Corrective Action.**
2807

2808 The Trustee shall make payments from the Fund as the IEPA shall direct, in writing, to provide
2809 for the payment of the costs of closure and/or post-closure care or corrective action of the sites
2810 covered by this agreement. The Trustee shall reimburse the Grantor or other persons as specified
2811 by the IEPA from the Fund for closure and post-closure or corrective action expenditures in such
2812 amounts as the IEPA shall direct in writing. In addition, the Trustee shall refund to the Grantor
2813 such amounts as the IEPA specifies in writing. Upon refund, such funds shall no longer
2814 constitute part of the Fund.
2815

2816 **Section 5. Payments Comprising the Fund.**
2817

2818 Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the
2819 Trustee.
2820

2821 **Section 6. Trust Management.**
2822

2823 The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund
2824 invested as a single fund, without distinction between principal and income, in accordance with
2825 general investment policies and guidelines which the Grantor may communicate in writing to the
2826 Trustee from time to time, subject, however, to the provisions of this Section. In investing,

2827 reinvesting, exchanging, selling and managing the Fund, the Trustee shall discharge his duties
2828 with respect to the trust fund solely in the interest of the beneficiary and with the care, skill,
2829 prudence and diligence under the circumstances then prevailing which persons of prudence,
2830 acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise
2831 of a like character and with like aims; except that:

- 2832
- 2833 a) Securities or other obligations of the Grantor, or any other owner or operator of the site,
2834 or any of their affiliates as defined in Section 80a-2(a)(2) of the Investment Company Act
2835 of 1940, as amended (15 USC 80a-2(a)(2)) shall not be acquired or held, unless they are
2836 securities or other obligations of the Federal government or the State of Illinois;
 - 2837
 - 2838 b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to
2839 the extent insured by the Federal Deposit Insurance Corporation.
 - 2840
 - 2841 c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for
2842 a reasonable time and without liability for the payment of interest thereon.
 - 2843

2844 **Section 7. Commingling and Investment.**

2845
2846 The Trustee is expressly authorized in its discretion:

- 2847
- 2848 a) To transfer from time to time any or all of the assets of the Fund to any common,
2849 commingled or collective trust fund created by the Trustee in which the Fund is eligible
2850 to participate, subject to all of the provisions thereof, to be commingled with the assets of
2851 other trusts participating therein; and
 - 2852
 - 2853 b) To purchase shares in any investment company registered under the Investment Company
2854 Act of 1940 (15 USC 80a-1 et seq.) including one which may be created, managed,
2855 underwritten or to which investment advice is rendered or the shares of which are sold by
2856 the Trustee. The Trustee may vote such shares in its discretion.
 - 2857

2858 **Section 8. Express Powers of Trustee.**

2859
2860 Without in any way limiting the powers and discretions conferred upon the Trustee by the other
2861 provisions of this agreement or by law, the Trustee is expressly authorized and empowered;

- 2862
- 2863 a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by
2864 public or private sale. No person dealing with the Trustee shall be bound to see to the
2865 application of the purchase money or to inquire into the validity or expedience of any
2866 such sale or other disposition;
 - 2867

- 2868 b) To make, execute, acknowledge and deliver any and all documents of transfer and
2869 conveyance and any and all other instruments that may be necessary or appropriate to
2870 carry out the powers granted in this agreement;
2871
- 2872 c) To register any securities held in the Fund in its own name or in the name of a nominee
2873 and to hold any security in bearer form or in book entry, or to combine certificates
2874 representing such securities with certificates of the same issue held by the Trustee in
2875 other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a
2876 qualified central depository even though, when so deposited, such securities may be
2877 merged and held in bulk in the name of the nominee of such depository with other
2878 securities deposited therein by another person, or to deposit or arrange for the deposit of
2879 any securities issued by the United States Government, or any agency or instrumentality
2880 thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all
2881 times show that all such securities are part of the Fund;
2882
- 2883 d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings
2884 certificates issued by the Trustee, in its separate corporate capacity, or in any other
2885 banking institution affiliated with the Trustee, to the extent insured by the Federal
2886 Deposit Insurance Corporation; and
2887
- 2888 e) To compromise or otherwise adjust all claims in favor of or against the Fund.
2889

2890 **Section 9. Taxes and Expenses.**

2891
2892 All taxes of any kind that may be assessed or levied against or in respect of the Fund and all
2893 brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses
2894 incurred by the Trustee, to the extent not paid directly by the Grantor, and all other proper
2895 charges and disbursements of the Trustee shall be paid from the Fund.
2896

2897 **Section 10. Annual Valuation.**

2898
2899 The Trustee shall annually furnish to the Grantor and to the IEPA a statement confirming the
2900 value of the Trust. The evaluation day shall be each year on the _____ day of _____.
2901 Any securities in the Fund shall be valued at market value as of the evaluation day. The Trustee
2902 shall mail the evaluation statement to the Grantor and the IEPA within 30 days after the
2903 evaluation day. The failure of the Grantor to object in writing to the Trustee within 90 days after
2904 the statement has been furnished to the Grantor and the IEPA shall constitute a conclusively
2905 binding assent by the Grantor, barring the Grantor from asserting any claim or liability against
2906 the Trustee with respect to matters disclosed in the statement.
2907

2908 **Section 11. Advice of Counsel.**

2909

2910 The Trustee may from time to time consult with counsel, who may be counsel to the Grantor,
2911 with respect to any question arising as to the construction of this agreement or any action to be
2912 taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting
2913 upon the advice of counsel.

2914

2915 **Section 12. Trustee Compensation.**

2916

2917 The Trustee shall be entitled to reasonable compensation for its services as agreed upon in
2918 writing from time to time with the Grantor.

2919

2920 **Section 13. Successor Trustee.**

2921

2922 The Trustee may resign or the Grantor may replace the Trustee, but such resignation or
2923 replacement shall not be effective until the Grantor has appointed a successor trustee and the
2924 successor accepts the appointment. The successor trustee shall have the same powers and duties
2925 as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the
2926 appointment, the Trustee shall assign, transfer and pay over to the successor trustee the funds and
2927 properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the
2928 event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction
2929 for the appointment of a successor trustee or for instructions. The successor trustee shall specify
2930 the date on which it assumes administration of the trust in a writing sent to the Grantor, the
2931 IEPA and the present Trustee by certified mail ten days before such change becomes effective.
2932 Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section
2933 shall be paid as provided in Section 9.

2934

2935 **Section 14. Instructions to the Trustee.**

2936

2937 All orders, requests and instructions by the Grantor to the Trustee shall be in writing, signed by
2938 such persons as are designated in the attached Exhibit A or such other designees as the Grantor
2939 may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting
2940 without inquiry in accordance with the Grantor's orders, requests and instructions. All orders,
2941 requests and instructions by the IEPA to the Trustee shall be in writing, signed by the IEPA
2942 Director or his/her designee, and the Trustee shall act and shall be fully protected in acting in
2943 accordance with such orders, requests and instructions. The Trustee shall have the right to
2944 assume, in the absence of written notice to the contrary, that no event constituting a change or a
2945 termination of the authority of any person to act on behalf of the Grantor or IEPA hereunder has
2946 occurred. The Trustee shall have no duty to act in the absence of such orders, requests and
2947 instructions from the Grantor and/or IEPA, except as provided in this agreement.

2948

2949 **Section 15. Notice of Nonpayment.**

2950

2951 The Trustee shall notify the Grantor and the IEPA, by certified mail within ten days following
2952 the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no

2953 payment is received from the Grantor during that period. After the pay-in period is completed,
2954 the Trustee shall not be required to send a notice of nonpayment.

2955

2956 **Section 16. Amendment of Agreement.**

2957

2958 This Agreement may be amended by an instrument in writing executed by the Grantor, the
2959 Trustee and the IEPA Director or his/her designee, or by the Trustee and the IEPA Director or
2960 his/her designee if the Grantor ceases to exist.

2961

2962 **Section 17. Irrevocability and Termination.**

2963

2964 Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust
2965 shall be irrevocable and shall continue until terminated at the written agreement of the Grantor,
2966 the Trustee and the IEPA Director or his/her designee, or by the Trustee and the IEPA Director
2967 or his/her designee, if the Grantor ceases to exist. Upon termination of the Trust, all remaining
2968 trust property, less final trust administration expenses, shall be delivered to the Grantor.

2969

2970 **Section 18. Immunity and Indemnification.**

2971

2972 The Trustee shall not incur personal liability of any nature in connection with any act or
2973 omission, made in good faith, in the administration of this Trust, or in carrying out any directions
2974 by the Grantor or the IEPA Director or his/her designee issued in accordance with this
2975 Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the
2976 Trust Fund, or both, from and against any personal liability to which the Trustee may be
2977 subjected by reason of any act or conduct in its official capacity, including all expenses
2978 reasonably incurred in its defense in the event the Grantor fails to provide such defense.

2979

2980 **Section 19. Choice of Law.**

2981

2982 This Agreement shall be administered, construed and enforced according to the laws of the State
2983 of Illinois.

2984

2985 **Section 20. Interpretation.**

2986

2987 As used in this Agreement, words in the singular include the plural and words in the plural
2988 include the singular. The descriptive headings for each Section of this Agreement shall not
2989 affect the interpretation or the legal efficacy of this Agreement.

2990

2991 In Witness Whereof the parties have caused this Agreement to be executed by their respective
2992 officers duly authorized and their corporate seals to be hereunto affixed and attested as of the
2993 date first above written. The parties below certify that the wording of this Agreement is identical
2994 to the wording specified in 35 Ill. Adm. Code 811.Appendix A, Illustration A as those
2995 regulations were constituted on the date this Agreement was entered.

2996

Attest: Signature of Grantor _____
 Typed Name _____
 Title _____

Seal

Attest: Signature of Trustee _____
 Typed Name _____
 Title _____

Seal

2997
2998
2999

(Source: Amended at 42 Ill. Reg. _____, effective _____)

3000 **Section 811.APPENDIX A Financial Assurance Forms**

3001
3002 **Section 811.ILLUSTRATIONIllustration B Certificate of Acknowledgment**

3003
3004 CERTIFICATE OF ACKNOWLEDGMENT

3005
State of _____)
) SS
County of _____)

On this _____ day of _____, _____ before me personally came
_____ (operator) to me known, who, being by me duly sworn, did depose
and say that she/he resides at _____ (address), that
she/he is _____ (title) of
_____ (corporation), the corporation described in and
which executed the above instrument; that she/he knows the seal of said corporation; that the seal
affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of
Directors of said corporation, and that she/he signed her/his name thereto by like order.

3006
3007 _____ Notary Public

My Commission Expires _____

3008
3009
3010 (Source: Amended at 42 Ill. Reg. _____, effective _____)
3011

3012 **Section 811.APPENDIX A Financial Assurance Forms**

3013

3014 **Section 811.ILLUSTRATION C Forfeiture Bond**

3015

3016

FORFEITURE BOND

Date bond executed: _____

Effective date: _____

Principal: _____

Type of organization: _____

State of incorporation: _____

Surety: _____

Sites:

Name _____

Address _____

City _____

Amount guaranteed by this bond: \$ _____

Name _____

Address _____

City _____

Amount guaranteed by this bond: \$ _____

Please attach a separate page if more space is needed for all sites.

Total penal sum of bond: _____

Surety's bond number: _____

3017

3018 The Principal and the Surety promise to pay the Illinois Environmental Protection Agency
3019 ("IEPA") the above penal sum unless the Principal provides closure and post-closure care or
3020 corrective action for each site in accordance with the closure and post-closure care or corrective
3021 action plans for that site. To the payment of this obligation the Principal and Surety jointly and
3022 severally bind themselves, their heirs, executors, administrators, successors and assigns.
3023

3024 Whereas the Principal is required, under Section 21(d) of the Environmental Protection Act [415
3025 ILCS 5/21(d)], to have a permit to conduct a waste disposal operation.
3026

3027 Whereas the Principal is required, under Section 21.1 of the Environmental Protection Act [415
3028 ILCS 5/21.1], to provide financial assurance for closure and post-closure care or corrective
3029 action.
3030

3031 Whereas the Surety is licensed by the Illinois Department of Insurance or is licensed to transact
3032 the business of insurance or approved to provide insurance as an excess or surplus lines insurer
3033 by the insurance department in one or more states.
3034

3035 Whereas the Principal and Surety agree that this bond shall be governed by the laws of the State
3036 of Illinois.
3037

3038 The Surety shall pay the penal sum to the IEPA if, during the term of the bond, the Principal fails
3039 to provide closure or post-closure care or corrective action for any site in accordance with the
3040 closure and post-closure care or corrective action plans for that site as guaranteed by this bond.
3041 The Principal fails to so provide when the Principal:

- 3042 a) Abandons the site;
- 3043 b) Is adjudicated bankrupt;
- 3044 c) Fails to initiate closure of the site or post-closure care or corrective action when
3045 ordered to do so by the Illinois Pollution Control Board or a court of competent
3046 jurisdiction;
- 3047 d) Notifies the IEPA that it has initiated closure, or initiates closure, but fails to close
3048 the site or provide post-closure care or corrective action in accordance with the
3049 closure and post-closure care or corrective action plans;
- 3050 e) For corrective action, fails to implement corrective action at a municipal solid
3051 waste landfill unit in accordance with 35 Ill. Adm. Code 811.326; or
3052 f) Fails to provide alternative financial assurance and obtain the IEPA written
3053 approval of the assurance provided within 90 days after receipt by both the
3054 Principal and the IEPA of a notice from the Surety that the bond will not be
3055
3056
3057
3058
3059
3060

3061 renewed for another term.

3062
3063 The Surety shall pay the penal sum of the bond to the IEPA within 30 days after the IEPA mails
3064 notice to the Surety that the Principal has met one or more of the conditions described above .
3065 Payment shall be made by check or draft payable to the State of Illinois, Landfill Closure and
3066 Post-Closure Fund.

3067
3068 The liability of the Surety shall not be discharged by any payment or succession of payments
3069 unless and until such payment or payments shall amount in the aggregate to the penal sum of the
3070 bond. In no event shall the obligation of the Surety exceed the amount of the penal sum.

3071
3072 This bond shall expire on the ____ day of _____, _____ [date], but that expiration
3073 date shall be automatically extended for a period of [at least one year] on [date] and on each
3074 successive expiration date, unless, at least 120 days before the current expiration date, the Surety
3075 notifies both the IEPA and the Principal by certified mail that the Surety has decided not to
3076 extend the term of this surety bond beyond the current expiration date. The 120 days will begin
3077 on the date when both the Principal and the IEPA have received the notice, as evidenced by the
3078 return receipts.

3079
3080 The Principal may terminate this bond by sending written notice to the Surety; provided,
3081 however, that no such notice shall become effective until the Surety receives written
3082 authorization for termination of the bond from the IEPA in accordance with 35 Ill. Adm. Code
3083 811.702.

3084
3085 In Witness Whereof, the Principal and Surety have executed this Forfeiture Bond and have
3086 affixed their seals on the date set forth above.

3087
3088 The persons whose signatures appear below certify that they are authorized to execute this surety
3089 bond on behalf of the Principal and Surety and that the wording of this surety bond is identical to
3090 the wording specified in 35 Ill. Adm. Code 811.Appendix A, Illustration C as that regulation was
3091 constituted on the date this bond was executed.

| | |
|---|---|
| 3092 PRINCIPAL _____ Signature _____ Typed Name _____ Title _____ | SURETY _____ Name _____ Address _____ State of Incorporation _____ |
|---|---|

3096 **Section 811. APPENDIX A Financial Assurance Forms**

3097
3098 **Section.811.ILLUSTRATION E Irrevocable Standby Letter of Credit**

3099
3100 **IRREVOCABLE STANDBY LETTER OF CREDIT**

3101
3102 Director
3103 Illinois Environmental Protection Agency
3104 C/O Bureau of Land #24
3105 Financial Assurance Program
3106 1021 North Grand Avenue East
3107 Post Office Box 19276
3108 Springfield, Illinois 62794-9276

3109
3110 Dear Sir or Madam:

3111
3112 We have authority to issue letters of credit. Our letter-of-credit operations are regulated by the
3113 Illinois Department of Financial and Professional Regulation or our deposits are insured by the
3114 Federal Deposit Insurance Corporation. (Omit language that does not apply.)

3115
We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor,
at the request and for the account of _____ up to the
aggregate amount of _____ U.S. dollars (\$ _____)
available upon presentation of:

1. your sight draft, bearing references to this letter of credit No. _____ ; and
2. your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Environmental Protection Act [415 ILCS 5] and 35 Ill. Adm. Code 811.713(e)."

3116
This letter of credit is effective as of _____ [date] and shall expire on _____ [date] at least one year later]; but that expiration date shall be automatically extended for a period of [at least one year] on _____ [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and _____ [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. The 120 days will begin on the date when both the _____ [owner's or operator's name] and the IEPA have received the notice, as evidenced by the return receipts. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and _____ [owner's or operator's name], as shown on the signed return receipts.

3117
3118 Whenever this letter of credit is drawn on, under and in compliance with the terms of this credit,
3119 we shall duly honor that draft upon presentation to us, and we shall deposit the amount of the
3120 draft directly into the State of Illinois Landfill Closure and Post-Closure or Corrective Action
3121 Fund in accordance with your instructions.

3122
3123 We certify that the wording of this letter of credit is identical to the wording specified in 35 Ill.
3124 Adm. Code 811.Appendix A, Illustration E as that regulation was constituted on the date shown
3125 below.

3126
3127

Signature _____

Typed Name _____

Title _____

Date _____

Name and address of issuing institution _____

This credit is subject to _____ ({insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce;" or "the Uniform Commercial Code"}.)

3128
3129 (Source: Amended at 42 Ill. Reg. _____, effective _____)
3130

3131 **Section 811.**~~APPENDIX~~**Appendix B State-Federal MSWLF Regulations Correlation**
 3132 **Table**
 3133

| RCRA SUBTITLE D REGULATIONS | ILLINOIS LANDFILL REGULATIONS |
|--|---|
| 3134 | |
| I. SUBPART A: General | |
| 1) Purpose, Scope, and Applicability (40 CFR 258.1) | 1) NL ¹ : Sections 811.101, 811.301, 811.401, 811.501, and 811.700. EL ² : Section 814.101. |
| 2) Definitions (40 CFR 258.2) | 2) Section 810.103. |
| 3) Research, Development, and Demonstration Permits (40 CFR 258.4) | 3) Sections 811.103(b)(1) and (b)(2), 811.107(m)(1)(C), 811.314(a), and 813.112. |
| II. SUBPART B: Location Restrictions | |
| 1) Airport safety (40 CFR 258.10) | 1) NL ¹ : Section 811.302(e) and (f). EL ² : Section 814.302(c) and 814.402(c). |
| 2) Floodplains. (40 CFR 258.11) | 2) NL ¹ : Section 811.102(b). EL ² : Sections Section 814.302(a)(1) and 814.402(a)(1). |
| 3) Wetlands. (40 CFR 258.12) | 3) NL ¹ : Sections 811.102(d) and (e); 811.102(e) , and 811.103. EL ² : Sections Section 814.302 and 814.402. |
| 4) Fault areas. (40 CFR 258.13) | 4) NL ¹ : Sections 811.304 and 811.305. EL ² : Section 814.302 and 814.402. |
| 5) Seismic impact zones. (40 CFR 258.14) | 5) Same as above. |
| 6) Unstable areas. (40 CFR 258.15) | 6) NL ¹ : Sections 811.304 and 811.305. EL ² : Sections 811.302(c) and 811.402(c). |
| 7) Closure of existing MSWL units. (40 CFR 258.16) | 7) EL ² : Sections 814.301 and 814.401. |

III. SUBPART C: Operating Criteria

- | | | | |
|-----|--|-----|--|
| 1) | Procedures for excluding the receipt of hazardous waste. (40 CFR 258.20) | 1) | NL ¹ : Section 811.323. EL ² : Sections 814.302 and 814.402. |
| 2) | Cover material requirements. (40 CFR 258.21) | 2) | NL ¹ : Section 811.106. EL ² : Sections 814.302 and 814.402. |
| 3) | Disease vector control. (40 CFR 258.22) | 3) | NL ¹ : Section 811.107(i). EL ² : Sections 814.302 and 814.402. |
| 4) | Explosive gas control. (40 CFR 258.23) | 4) | NL ¹ : Sections 811.310, 811.311, and 811.312. EL ² : Sections 814.302 and 814.402. |
| 5) | Air criteria. (40 CFR 258.24) | 5) | NL ¹ : Sections 811.107(b), 811.310, and 811.311. EL ² : Sections 814.302 and 814.402. |
| 6) | Access requirements. (40 CFR 258.25) | 6) | NL ¹ : Section 811.109. EL ² : Sections 814.302 and 814.402. |
| 7) | Run-on/run-off control system. (40 CFR 258.26) | 7) | NL ¹ : Section 811.103. EL ² : Sections 814.302 and 814.402. |
| 8) | Surface water requirements. (40 CFR 258.27) | 8) | Same as above. |
| 9) | Liquids restrictions. (40 CFR 258.28) | 9) | NL ¹ : Section 811.107(m). EL ² : Sections 814.302 and 814.402. |
| 10) | Recordkeeping requirements. (40 CFR 258.29) | 10) | NL ¹ : Sections 811.112, and Parts 812 and 813. EL ² : Sections 814.302 and 814.402. |

IV. SUBPART D: Design criteria (40 CFR 258.40)

- IV) NL¹: 811.303, 811.304, 811.305, 811.306, 811.307, 811.308, 811.309, 811.315, 811.316, 811.317, and 811.Subpart E. EL²: Sections 814.302 and 814.402.

V. SUBPART E: Groundwater Monitoring and Corrective Action

- | | | | |
|--|--|----|--|
| 1) | Applicability. | 1) | NL ¹ : 35 Section 811.319(a)(1). EL ² : Sections 814.302 and 814.402. |
| 2) | Groundwater monitoring systems. (40 CFR 258.51) | 2) | NL ¹ : Sections 811.318 and 811.320(d). EL ² : Sections 814.302 and 814.402. |
| 3) | Groundwater sampling and analysis. (40 CFR 258.53) | 3) | NL ¹ : Sections Section 811.318(e), 811.320(d) and 811.320(e) . EL ² : Sections 814.302 and 814.402. |
| 4) | Detection monitoring program. (40 CFR 258.54) | 4) | NL ¹ : Section 811.319(a). EL ² : Sections 814.302 and 814.402. |
| 5) | Assessment monitoring program. (40 CFR 258.55) | 5) | NL ¹ : Section 811.319(b). EL ² : Sections 814.302 and 814.402. |
| 6) | Assessment of corrective measures. (40 CFR 258.56) | 6) | NL ¹ : Sections 811.319(d) and 811.324. EL ² : Sections 814.302 and 814.402. |
| 7) | Selection of remedy. (40 CFR 258.57) | 7) | NL ¹ : Sections 811.319(d) and 811.325. EL ² : Sections 814.302 and 814.402. |
| 8) | Implementation of the corrective action program. (40 CFR 258.58) | 8) | NL ¹ : Sections 811.319(d) and 811.326 325 . EL ² : Sections 814.302 and 814.402. |
| VI. SUBPART F: Closure and Post-Closure Care | | | |
| 1) | Closure criteria. (40 CFR 258.60) | 1) | NL ¹ : Sections 811.110, 811. 314 315 and 811.322. EL ² : Sections 814.302 and 814.402. |
| 2) | Post-closure care requirements. (40 CFR 258.61) | 2) | NL ¹ : Section 811.111. EL ² : Sections 814.302 and 814.402. |
| VII. SUBPART G: Financial Assurance Criteria | | | |
| 1) | Applicability and effective date. (40 CFR 258.70) | 1) | NL ¹ : Section 811.700. EL ² : Sections 814.302 and 814.402. |

- | | | | |
|----|--|----|---|
| 2) | Financial assurance for closure. (40 CFR 258.71) | 2) | NL ¹ : Sections 811.701 through 811.705. EL ² : Sections 814.302 and 814.402. |
| 3) | Financial assurance for post-closure. (40 CFR 258.72) | 3) | Same as (2). |
| 4) | Financial assurance for corrective action. (40 CFR 258.73) | 4) | Same as (2). |
| 5) | Allowable mechanisms. (40 CFR 258.74 and 258.75) | 5) | NL ¹ : Section 811.706 through 811.720. EL ² : Sections 814.302 and 814.402. |

1 – NL: New Landfill; 2 – EL: Existing Landfill and Lateral Expansions.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

3135
3136
3137

3138 **Section 811.**~~APPENDIX~~**Appendix C List of Leachate Monitoring Parameters**

3139

- pH
- Elevation Leachate Surface
- Bottom of Well Elevation
- Leachate Level from Measuring Point
- Arsenic (total)
- Barium (total)
- Cadmium (total) mg/l
- Iron (total)
- Ammonia Nitrogen – N
- Bacteria (Fecal Coliform)
- Biochemical Oxygen Demand (BOD5)
- 1,1,1,2-Tetrachloroethane
- 1,1,1-Trichloroethane
- 1,1,2,2-Tetrachloroethane
- 1,1,2-Trichloroethane
- 1,1-Dichloroethane
- 1,1-Dichloroethylene
- 1,1-Dichloropropene
- 1,2,3-Trichlorobenzene
- 1,2,3-Trichloropropane
- 1,2,4-Trichlorobenzene
- 1,2,4-Trimethylbenzene
- 1,2-Dibromo-3-Chloropropane
- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,3,5-Trimethylbenzene
- 1,3-Dichloropropane
- 1,3-Dichloropropene
- 1,4-Dichloro-2-Butene
- 1-Propanol
- 2,2-Dichloropropane
- 2,4,5-tp (Silvex)

2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dichlorophenoxyacetic Acid (2,4-D)
2,4-Dimethylphenol
2,4-Dinitrotoluene
2,4-Dinitrophenol
2,6-Dinitrotoluene
2-Chloroethyl Vinyl Ether
2-Chloronaphthalene
2-Chlorophenol
2-Hexanone
2-Propanol (Isopropyl Alcohol)
3,3-Dichlorobenzidine
4,4-DDD
4,4-DDE
4,4-DDT
4,6-Dinitro-o-Cresol
4-Bromophenyl Phenyl Ether
4-Chlorophenyl Phenyl Ether
4-Methyl-2-Pentanone
4-Nitrophenol
Acenaphthene
Acetone
Alachlor
Aldicarb
Aldrin
Alpha – BHC
Aluminum
Anthracene
Antimony
Atrazine
Benzene
Benzo (a) Anthracene

Benzo (a) Pyrene
Benzo (b) Fluoranthene
Benzo (ghi) Perylene
Benzo (k) Fluoranthene
Beryllium (total)
Beta – BHC
Bicarbonate
Bis (2-Chloro-1-Methylethyl) Ether
Bis (2-Chloroethoxy) Methane
Bis (2-Chloroethyl) Ether
Bis (2-Ethylhexyl) Ether
Bis (2-Ethylhexyl) Phthalate
Bis(Chloromethyl) Ether
Boron
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Butanol
Butyl Benzyl Phthalate
Calcium mg/l
Carbofuran
Carbon Disulfide
Carbon Tetrachloride
Chemical Oxygen Demand (COD)
Chlordane
Chloride mg/l
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
Chromium (hexavalent)

Chromium (total)
Chrysene
Cis-1,2-Dichloroethylene
Cobalt (total)
Copper (total)
Cyanide
DDT
Delta – BHC
Di-N-Butyl Phthalate
Di-N-Octyl Phthalate
Dibenzo (a,h) Anthracene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane
Dieldrin
Diethyl Phthalate
Dimethyl Phthalate
Endosulfan I
Endosulfan II
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Ethyl Acetate
Ethylbenzene
Ethylene Dibromide (EDB)
Fluoranthene
Fluorene
Fluoride
Heptachlor Epoxide
Heptachlor
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene

Hexachloroethane
Ideno (1,2,3-cd) Pyrene
Iodomethane
Isopropylbenzene
Lead (total)
Lindane
Magnesium (total)
Manganese (total)
Mercury (total)
Methoxychlor
Methyl Chloride
Methyl Ethyl Ketone
Methylene Bromide
Methylene Chloride
Naphthalene
Nickel (total)
Nitrate-Nitrogen
Nitrobenzine
Oil. Hexane Soluble (or Equivalent)
Parathion
Pentachlorophenol
Phenanthrene
Phenols
Phosphorous
Polychlorinated Biphenyls
Potassium
Pyrene
Selenium
Silver (total)
Specific Conductance
Sodium
Styrene
Sulfate

Temperature of Leachate Sample (°F)

tert-Butylbenzene

Tetrachlorodibenzo-p-Dioxins

Tetrachloroethylene

Tetrahydrofuran

Thallium

Tin

Toluene

Total Organic Carbon (TOC)

Total Dissolved Solids (TDS) mg/l

Total Suspended Solids (TSS) mg/l

Toxaphene

trans-1,2-Dichloroethylene

trans-1,3-Dichloropropene

Trichloroethylene

Trichlorofluoromethane

Vinyl Acetate

Vinyl Chloride

Xylene

Zinc (total)

m-Dichlorobenzene

m-Xylene

n-Butylbenzene

n-Nitrosodimethylamine

n-Nitrosodiphenylamine

n-Nitrosodipropylamine

n-Propylbenzene

o-Chlorotoluene

o-Dichlorobenzene

o-Nitrophenol

o-Xylene

p-Chlorotoluene

p-Cresol

p-Dichlorobenzene

p-Isopropyltoluene

p-Nitrophenol

p-Xylene

sec-Butylbenzene

3140

3141 Note: All parameters must ~~shall~~ be determined from unfiltered samples.

3142

3143 (Source: Amended at 42 Ill. Reg. _____, effective _____)

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STATE OF ILLINOIS
Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 811
STANDARDS FOR NEW SOLID WASTE LANDFILLS

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811.103 Surface Water Drainage
811.104 Survey Controls
811.105 Compaction
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811.APPENDIX C List of Leachate Monitoring Parameters

AUTHORITY: Implementing Sections 7.2, 21, 21.1, 22, 22.17, and 22.40
and authorized by Section 27 of the Environmental Protection Act [415
ILCS 5/7.2, 21, 21.1, 22, 22.17, 22.40, and 27].

SOURCE: Adopted in R88-7 at 14 Ill. Reg. 15861, effective September 18,
1990; amended in R92-19 at 17 Ill. Reg. 12413, effective July 19, 1993;
amended in R93-10 at 18 Ill. Reg. 1308, effective January 13, 1994;
expedited correction at 18 Ill. Reg. 7504, effective July 19, 1993;
amended in R90-26 at 18 Ill. Reg. 12481, effective August 1, 1994;
amended in R95-13 at 19 Ill. Reg. 12257, effective August 15, 1995;
amended in R96-1 at 20 Ill. Reg. 12000, effective August 15, 1996;
amended in R97-20 at 21 Ill. Reg. 15831, effective November 25, 1997;
amended in R98-9 at 22 Ill. Reg. 11491, effective June 23, 1998; amended
in R99-1 at 23 Ill. Reg. 2794, effective February 17, 1999; amended in
R98-29 at 23 Ill. Reg. 6880, effective July 1, 1999; amended in
R04-5/R04-15 at 28 Ill. Reg. 9107, effective June 18, 2004; amended in
R05-1 at 29 Ill. Reg. 5044, effective March 22, 2005; amended in
R06-5/R06-6/R06-7 at 30 Ill. Reg. 4136, effective February 23, 2006;
amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 1435, effective December
20, 2006; amended in R07-8 at 31 Ill. Reg. 16172, effective November 27,
2007; amended in R10-9 at 35 Ill. Reg. 10842, effective June ~~22~~.22,
2011; amended in R10-09(A) at 35 Ill. Reg. 18882, effective October 24,
2011; amended in R14-1/~~?~~R14-2/~~?~~R14-3 at 38 Ill. Reg. 7259, effective

March 13, 2014; amended in R17-14/R17-15/R18-12 at 42 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL STANDARDS FOR ALL LANDFILLS

Section 811.103 Surface Water Drainage

a) Runoff from ~~From~~ Disturbed Areas.

1) Runoff from disturbed areas resulting from precipitation events less than or equal to the 25-year, 24-hour precipitation event that is discharged to waters of the State must meet the requirements of 35 Ill. Adm. Code 304.

2) All discharges of runoff from disturbed areas to waters of the State must be permitted by the Agency in accordance with 35 Ill. Adm. Code 309.

3) All treatment facilities must be equipped with bypass outlets designed to pass the peak flow of runoff from the 100-year, 24-hour precipitation event without damage to the treatment facilities or surrounding structures.

4) All surface water control structures must be operated until the final cover is placed and erosional stability is provided by the vegetative or other cover meeting the requirements of Section 811.205 or 811.322.

5) All discharge structures must be designed to have flow velocities that will not cause erosion and scouring of the natural or constructed lining, i.e., bottom and sides, of the receiving stream channel.

b) Diversion of Runoff ~~From~~from Undisturbed Areas.

1) Runoff from undisturbed areas must be diverted around disturbed areas, unless the operator shows that it is impractical based on site-specific conditions or unless the Agency has issued a research, development, and demonstration (RD&D) permit that provides otherwise pursuant to 35 Ill. Adm. Code 813.112(a)(1), relating to run-on control systems, and that permit is in effect.

2) Diversion facilities must be designed to prevent runoff from the 25-year, 24-hour precipitation event from entering disturbed areas, unless the Agency has issued an RD&D permit that provides otherwise pursuant to 35 Ill. Adm. Code 813.112(a)(1), relating to run-on control systems, and that permit is in effect.

3) Runoff from undisturbed areas that becomes commingled with runoff from disturbed areas must be handled as runoff from disturbed areas and treated in accordance with subsection (a) ~~of this Section~~.

BOARD NOTE: This subsection (c) is derived from 40 CFR 258.21(d) (2017)-(2004).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.107 Operating Standards

a) Phasing of Operations.

1) Waste must be placed in a manner and at such a rate that mass stability is provided during all phases of operation. Mass stability means that the mass of waste deposited will not undergo settling or slope failure that interrupts operations at the facility or causes damage to any of the various landfill operations or structures, such as the liner, leachate or drainage collection system, gas collection system, or monitoring system.

2) The phasing of operations at the facility must be designed in such a way as to allow the sequential construction, filling, and closure of discrete units or parts of units.

3) The operator must design and sequence the waste placement operation in each discrete unit or parts of units, in conjunction with the overall operations of the facility, so as to shorten the operational phase and allow wastes to be built up to the planned final grade.

b) Size and Slope of Working Face.

1) The working face of the unit must be no larger than is necessary, based on the terrain and equipment used in waste placement, to conduct operations in a safe and efficient manner.

2) The slopes of the working face area must be no steeper than two to one (horizontal to vertical) unless the waste is stable at steeper slopes.

c) Equipment. Equipment must be maintained and available for use at the facility during all hours of operation, so as to achieve and maintain compliance with the requirements of this Part.

d) Utilities. All utilities, including but not limited to heat, lights, power and communications equipment, necessary for safe operation in compliance with the requirements of this Part must be available at the facility at all times.

e) Maintenance. The operator must maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with this Part.

- f) Open Burning. Open burning is prohibited, except in accordance with 35 Ill. Adm. Code 200 through 245.
- g) Dust Control. The operator must implement methods for controlling dust, so as to prevent wind dispersal of particulate matter.
- h) Noise Control. The facility must be designed, constructed, and maintained to minimize the level of equipment noise audible outside the facility. The facility must not cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905 or of Section 24 of the Act ~~[415 ILCS 5/24]~~.
- i) Vector Control. The operator must implement measures to control the population of disease and nuisance vectors.
- j) Fire Protection. The operator must institute fire protection measures including, but not limited to, maintaining a supply of water onsite and radio or telephone access to the nearest fire department.
- k) Litter Control.
- 1) The operator must patrol the facility daily to check for litter accumulation. All litter must be collected and placed in the fill or in a secure, covered container for later disposal.
 - 2) The facility must not accept solid waste from vehicles that do not utilize devices such as covers or tarpaulins to control litter, unless the nature of the solid waste load is such that it cannot cause any litter during its transportation to the facility.
- l) Mud Tracking. The facility must implement methods, such as use of wheel washing units, to prevent tracking of mud by hauling vehicles onto public roadways.
- m) Liquids Restrictions for MSWLF Units.
- 1) Bulk or noncontainerized liquid waste may not be placed in MSWLF units, unless one of the following conditions is true:
 - A) The waste is household waste other than septic waste;
 - B) The waste is leachate or gas condensate derived from the MSWLF unit and the MSWLF unit, whether it is a new or existing MSWLF unit or lateral expansion, is designed with a composite liner and leachate collection system that complies with the requirements of Sections 811.306 through 811.309; or
 - C) The Agency has issued an RD&D permit pursuant to 35 Ill. Adm. Code 813.112(a)(2) that allows the placement of noncontainerized liquids in the landfill, and that permit is in effect.

2) Containers holding liquid waste may not be placed in an MSWLF unit, unless one of the following conditions is true:

- A) The container is a small container similar in size to that normally found in household waste;
- B) The container is designed to hold liquids for use other than storage; or
- C) The waste is household waste.

3) For purposes of this Section, the following definitions apply:

A) "Liquid waste" means any waste material that is determined to contain "free liquids", as defined by Method 9095B (Paint Filter Liquids Test) (Revision 2, November 2004), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", incorporated by reference in 35 Ill. Adm. Code 810.104.

B) "Gas condensate" means the liquid generated as a result of gas recovery processes at the MSWLF unit.

BOARD NOTE: Subsections (m)(1) through (m)(3) ~~of this Section~~ are derived from 40 CFR 258.28 (2017) ~~(2013)~~. Subsection (m)(1)(C) ~~of this Section~~ relating to RD&D permits is derived from 40 CFR 258.4(a)(2) (2017) ~~(2013)~~.

(Source: Amended at 42 Ill. Reg. ~~—~~, effective _____)

Section 811.110 Closure and Written Closure Plan

a) The final slopes and contours must ~~shall~~ be designed to complement and blend with the surrounding topography of the proposed final land use of the area.

b) All drainage ways and swales must ~~shall~~ be designed to safely pass the runoff from the 100-year, 24-hour precipitation event without scouring or erosion.

c) The final configuration of the facility must ~~shall~~ be designed in a manner that minimizes the need for further maintenance.

d) Written closure plan

1) The operator must ~~shall~~ maintain a written plan describing all actions that the operator will undertake to close the unit or facility in a manner that fulfills the provisions of the Act, of this Part and of other applicable Parts of 35 Ill. Adm. Code: Chapter I. The written closure plan must ~~shall~~ fulfill the minimum information requirements of 35 Ill. Adm. Code 812.114.

2) A modification of the written closure plan must ~~shall~~ constitute a significant modification of the permit for the purposes of 35 Ill. Adm. Code 813.Subpart B.

3) In addition to the informational requirements of subsection 811.100(d)(1), an owner or operator of a MSWLF unit must ~~shall~~ include the following information in the written closure plan:

A) An estimate of the largest area of the MSWLF unit ever requiring a final cover, as required by Section 811.314, at any time during the active life; and

B) An estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility.

BOARD NOTE: Subsection 811.110(d)(3) is derived from 40 CFR 258.60(c)(1) and (c)(2) (2017) ~~(1992)~~.

e) The owner or operator of a MSWLF unit must ~~shall~~ begin closure activities for each MSWLF unit no later than the date determined as follows:

1) 30 days after the date on which the MSWLF unit receives the final receipt of wastes; or

2) If the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, no later than one year after the most recent receipt of wastes.

3) The Agency must ~~shall~~ grant extensions beyond this one year deadline for beginning closure if the owner or operator demonstrates that:

A) The MSWLF unit has the capacity to receive additional wastes; and

B) The owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE: Subsection (e) is derived from 40 CFR 258.60(f) (2017) ~~(1992)~~.

f) The owner or operator of a MSWLF unit must ~~shall~~ complete closure activities for each unit in accordance with closure plan no later than the dates determined as follows:

1) Within 180 days of beginning closure, as specified in subsection (e) ~~of this Section~~.

2) The Agency must ~~shall~~ grant extension of the closure period if the owner or operator demonstrates that:

- A) The closure will, of necessity, take longer than 180 days; and
- B) The owner or operator has taken and will continue to take all necessary steps to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE: Subsection ~~(e)~~-(f) is derived from 40 CFR 258.60(g) (2017) ~~-(1992)~~.

g) Deed notation.

1) Following closure of all MSWLF units at a site, the owner or operator must ~~shall~~ record a notation on the deed to the landfill facility property or some other instrument that is normally examined during title search. The owner or operator must ~~shall~~ place a copy of the instrument in the operating record, and must ~~shall~~ notify the Agency that the notation has been recorded and a copy has been placed in the operating record.

2) The notation on the deed or other instrument must be made in such a way that in perpetuity notify any potential purchaser of the property that:

A) The land has been used as a landfill facility; and

B) Its use is restricted pursuant to Section 811.111(d).

BOARD NOTE: Subsection (g) is derived from 40 CFR 258.60(i) (2017) ~~-(1992)~~.

h) The Agency must ~~shall~~ allow the owner or operator of a MSWLF unit to remove the notation from the deed only if the owner or operator demonstrates to the Agency that all wastes are removed from the facility.

BOARD NOTE: Subsection (h) is derived from 40 CFR 258.60(j) (2017) ~~-(1992)~~.

(Source: Amended at 42 Ill. Reg. ~~—~~_____, effective _____)

SUBPART C: PUTRESCIBLE AND CHEMICAL WASTE LANDFILLS

Section 811.302 Facility Location

a) No part of a unit may be located within a setback zone established pursuant to Section 14.2 or 14.3 of the Act;

b) No part of a unit may be located within the recharge zone or within 366 meters (1200 feet), vertically or horizontally, of a sole-source aquifer designated by the United States Environmental Protection Agency pursuant to Section 1424(e) of the Safe Drinking Water

Act (42 USC 300f et seq.), unless there is a stratum between the bottom of the waste disposal unit and the top of the aquifer that meets the following minimum requirements:

- 1) The stratum has a minimum thickness of 15.2 meters (50 feet);
 - 2) The maximum hydraulic conductivity in both the horizontal and vertical directions is no greater than 1×10^{-7} centimeters per second, as determined by in situ borehole or equivalent tests;
 - 3) There is no indication of continuous sand or silt seams, faults, fractures, or cracks within the stratum that may provide paths for migration; and
 - 4) Age dating of extracted water samples from both the aquifer and the stratum indicates that the time of travel for water percolating downward through the relatively impermeable stratum is no faster than 15.2 meters (50 feet) in 100 years.
- c) A facility located within 152 meters (500 feet) of the right of way of a township or county road or state or interstate highway must have its operations screened from view by a barrier of natural objects, fences, barricades, or plants no less than 2.44 meters (eight feet) in height.
- d) No part of a unit may be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital provides permission to the operator, in writing, for a closer distance.
- e) The facility may not be located closer than 1525 meters (5000 feet) of any runway used by piston type aircraft or within 3050 meters (10,000 feet) of any runway used by turbojet aircraft unless the Federal Aviation Administration (FAA) provides the operator with written permission, including technical justification, for a closer distance.
- f) An owner or operator proposing to locate a new MSWLF unit within a five-mile radius of any airport runway used by turbojet or piston-type aircraft must notify the affected airport and the FAA within seven days after filing a permit application with Agency in accordance with 35 Ill. Adm. Code 813 for developing a new landfill.

BOARD NOTE: ~~Subsection (f)~~ Subsections (e) and (f) ~~of this Section is are~~ derived from 40 CFR 258.10 (2017) ~~(2003), as amended at 68 Fed. Reg. 59333 (October 15, 2003).~~ USEPA added the following information in a note appended to 40 CFR 258.10: A prohibition on locating a new MSWLF near certain airports was enacted in Section 503 of the federal Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Ford Act) (49 USC 44718(d)). Section 503 prohibits the "construction or establishment" of a new MSWLF after April 5, 2000

within six miles of certain smaller public airports unless the FAA allows an exemption. The FAA administers the Ford Act and has issued guidance in FAA Advisory Circular 150/5200-34, dated August 26, 2000. For further information, please contact the FAA.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.309 Leachate Treatment and Disposal Systems

a) Leachate must ~~shall~~ be allowed to flow freely from the drainage and collection system. The operator is responsible for the operation of a leachate management system designed to handle all leachate as it drains from the collection system. The leachate management system must ~~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 must ~~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 Onsite Treatment and Pretreatment

1) All onsite treatment or pretreatment systems must ~~shall~~ be considered part of the facility.

2) The onsite treatment or pretreatment system must ~~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 onsite treatment or pretreatment system must ~~shall~~ be designed to function for the entire design period.

4) All of the facility's unit operations, tanks, ponds, lagoons and basins must ~~shall~~ be designed and constructed with liners or containment structures to control seepage to groundwater.

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

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

d) Standards for Leachate Storage Systems

1) Except as otherwise provided in subsection (d)(6) ~~of this Section~~, 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 811.307. 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 is available at any time during the design period of the facility.

2) All leachate storage tanks must ~~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 must ~~shall~~ be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.

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

5) The leachate drainage and collection system must ~~shall~~ not be used for the purpose of storing leachate.

6) A facility may have less than five days' worth of storage capacity for accumulated leachate as required by subsection (d)(1) ~~of this Section~~, if the owner or operator of the facility demonstrates that multiple treatment, storage and disposal options in the facility's approved leachate management system developed in accordance with subsection (b) ~~of this Section~~ will achieve equivalent performance. Such options must ~~shall~~ consist of not less than one day's worth of storage capacity for accumulated leachate plus at least two alternative means of managing accumulated leachate through treatment or disposal, or both treatment and disposal, each of which means is capable of treating or disposing of all leachate generated at the maximum generation rate on a daily basis.

e) Standards for Discharge to an Offsite Treatment Works

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

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

B) The treatment systems must ~~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 must ~~shall~~ be considered a part of the solid waste disposal facility.

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

3) All discharges to a treatment works must ~~shall~~ meet the requirements of 35 Ill. Adm. Code 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 must ~~shall~~ be considered part of the facility and must ~~shall~~ be accessible to the operator at all times.

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

6) Where leachate is not directly discharged into a sewage system, the operator must ~~shall~~ provide storage capacity sufficient to transfer all leachate to an offsite treatment works. The storage system must ~~shall~~ meet the requirements of subsection (d).

f) Standards for Leachate Recycling Systems.

1) Leachate recycling systems may be utilized only at permitted waste disposal units that meet the following requirements:

A) The unit must have a liner designed, constructed and maintained to meet the minimum standards of Section 811.306.

B) The unit must have a leachate collection system in place and operating in accordance with Section 811.307.

C) A gas management system, equipped with a mechanical device such as a compressor to withdraw gas, must be implemented to control odors and prevent migration of methane in accordance with Section 811.311.

D) The topography must be such that any accidental leachate runoff can be controlled by ditches, berms or other equivalent control means.

2) Leachate must ~~shall~~ not be recycled during precipitation events or in volumes large enough to cause runoff or surface seeps.

3) The amount of leachate added to the unit must ~~shall~~ not exceed the ability of the waste and cover soils to transmit leachate flow downward. All other leachate must ~~shall~~ be considered excess leachate, and a leachate management system capable of disposing of all excess leachate must be available.

4) The leachate storage and distribution system must ~~shall~~ be designed to avoid exposure of leachate to air unless aeration or functionally equivalent devices are utilized.

5) The distribution system must ~~shall~~ be designed to allow leachate to be evenly distributed beneath the surface over the recycle area.

6) Daily and intermediate cover must ~~shall~~ be permeable to the extent necessary to prevent the accumulation of water and formation of perched watertables and gas buildup; alternatively cover must ~~shall~~ be removed prior to additional waste placement.

7) Daily and intermediate cover must ~~shall~~ slope away from the perimeter of the site to minimize surface discharges.

g) Leachate Monitoring

1) Representative samples of leachate must ~~shall~~ be collected from each established leachate monitoring location in accordance with subsection (g)(5) and tested for the parameters referenced in subsections (g)(2)(G) and (g)(3)(D). The Agency may, by permit condition, require additional, or allow less, leachate sampling and testing as necessary to ensure compliance with this Section and Sections 811.312, 811.317, and 811.319.

2) Discharges of leachate from units that dispose of putrescible wastes must ~~shall~~ be tested for the following constituents prior to treatment or pretreatment:

A) Five day biochemical oxygen demand (BOD5);

B) Chemical oxygen demand;

C) Total Suspended Solids;

D) Total Iron;

E) pH;

F) Any other constituents listed in the operator's National Pollution Discharge Elimination System (NPDES) discharge permit, pursuant to 35 Ill. Adm. Code 304, or required by a publicly owned treatment works, pursuant to 35 Ill. Adm. Code 310; and

G) All the monitoring parameters listed in Section 811.Appendix C, unless an alternate monitoring list has been approved by the Agency.

3) Discharges of leachate from units which dispose only chemical wastes must ~~shall~~ be monitored for constituents determined by the characteristics of the chemical waste to be disposed of in the unit. They must ~~shall~~ include, as a minimum:

A) pH;

B) Total Dissolved Solids;

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 310; and

D) All the monitoring parameters listed in Section 811. Appendix C, unless an alternate monitoring list has been approved by the Agency.

4) A network of leachate monitoring locations must ~~shall~~ be established, capable of characterizing the leachate produced by the unit. Unless an alternate network has been approved by the Agency, the network of leachate monitoring locations must ~~shall~~ include:

A) At least four leachate monitoring locations; and

B) At least one leachate monitoring location for every 25 acres within the unit's waste boundaries.

5) Leachate monitoring must ~~shall~~ be performed at least once every six months and each established leachate monitoring location must ~~shall~~ be monitored at least once every two years.

h) Time of Operation of the Leachate Management System

1) The operator must ~~shall~~ collect and dispose of leachate for a minimum of five years after closure and thereafter 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, 304.126 and do not contain a BOD5 concentration greater than 30 mg/L for six consecutive months.

3) Leachate collection at a MSWLF unit must ~~shall~~ be continued for a minimum period of 30 years after closure, except as otherwise provided by subsections (h)(4) and (h)(5).

4) The Agency may reduce the leachate collection period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

5) The owner or operator of a MSWLF unit must ~~shall~~ petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

i) Inspection and maintenance (Section 811.111);

ii) Leachate collection (Section 811.309);

iii) Gas monitoring (Section 811.310); and

iv) Groundwater monitoring (Section 811.319).

BOARD NOTE: Subsection (h) is derived from 40 CFR 258.61 (2017)-
(1992).

(Source: Amended at 42 Ill. Reg. _____, effective
_____)

Section 811.310 Landfill Gas Monitoring

a) This Section applies to all units that dispose putrescible wastes.

b) Location and Design of Monitoring Wells.

1) Gas monitoring devices must be placed at intervals and elevations within the waste to provide a representative sampling of the composition and buildup of gases within the unit.

2) Gas monitoring devices must be placed around the unit at locations and elevations capable of detecting migrating gas from the ground surface to the lowest elevation of the liner system or the top elevation of the groundwater, whichever is higher.

3) A predictive gas flow model may be utilized to determine the optimum placement of monitoring points required for making observations and tracing the movement of gas.

4) Gas monitoring devices must be constructed from materials that will not react with or be corroded by the landfill gas.

5) Gas monitoring devices must be designed and constructed to measure pressure and allow collection of a representative sample of gas.

6) Gas monitoring devices must be constructed and maintained to minimize gas leakage.

7) The gas monitoring system must not interfere with the operation of the liner, leachate collection system, or delay the construction of the final cover system.

8) At least three ambient air monitoring locations must be chosen and samples must be taken no higher than 0.025 meter (1 inch) above the ground and 30.49m (100 feet) downwind from the edge of the unit or at the property boundary, whichever is closer to the unit.

c) Monitoring Frequency.

1) All gas monitoring devices, including the ambient air monitors must be operated to obtain samples on a monthly basis for the entire operating period and for a minimum of five years after closure.

2) After a minimum of five years after closure, monitoring frequency may be reduced to quarterly sampling intervals.

3) The sampling frequency may be reduced to yearly sampling intervals upon the installation and operation of a gas collection system equipped with a mechanical device such as a compressor to withdraw gas.

4) Monitoring must be continued for a minimum period of: thirty years after closure at MSWLF units, except as otherwise provided by subsections (c)(5) and (c)(6) ~~of this Section~~; five years after closure at landfills, other than MSWLF units, which are used exclusively for disposing of wastes generated at the site; or fifteen years after closure at all other landfills regulated under this Part. Monitoring, beyond the minimum period, may be discontinued if the following conditions have been met for at least one year:

A) The concentration of methane is less than five percent of the lower explosive limit in air for four consecutive quarters at all monitoring points outside the unit; and

B) Monitoring points within the unit indicate that methane is no longer being produced in quantities that would result in migration from the unit and exceed the standards of subsection (a)(1) ~~of this Section~~.

5) The Agency may reduce the gas monitoring period at an MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

6) The owner or operator of an MSWLF unit must petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

A) Inspection and maintenance (Section 811.111);

B) Leachate collection (Section 811.309);

C) Gas monitoring (Section 811.310); and

D) Groundwater monitoring (Section 811.319).

BOARD NOTE: Those segments of this subsection (c) that relate to MSWLF units are derived from 40 CFR 258.61 (2017) ~~(2002)~~.

d) Parameters to be Monitored.

1) All below ground monitoring devices must be monitored for the following parameters at each sampling interval:

A) Methane;

B) Pressure;

C) Oxygen; and

3) The low permeability layer must consist of any one of the following:

A) A compacted earth layer constructed in accordance with the following standards:

i) The minimum allowable thickness must be 0.91 meter (3 feet); and

ii) The layer must be compacted to achieve a permeability of 1×10^{-7} centimeters per second and minimize void spaces.

iii) Alternative specifications may be utilized provided that the performance of the low permeability layer is equal to or superior to the performance of a layer meeting the requirements of subsections (b) (3) (A) (i) and (b) (3) (A) (ii) ~~of this Section~~.

B) A geomembrane constructed in accordance with the following standards:

i) The geomembrane must provide performance equal or superior to the compacted earth layer described in subsection (b) (3) (A) ~~of this Section~~.

ii) The geomembrane must have strength to withstand the normal stresses imposed by the waste stabilization process.

iii) The geomembrane must be placed over a prepared base free from sharp objects and other materials that may cause damage.

C) Any other low permeability layer construction techniques or materials, provided that they provide equivalent or superior performance to the requirements of this subsection (b).

4) For an MSWLF unit, subsection (b) (3) ~~of this Section~~ notwithstanding, if the bottom liner system permeability is lower than 1×10^{-7} cm/sec, the permeability of the low permeability layer of the final cover system must be less than or equal to the permeability of the bottom liner system.

c) Standards for the Final Protective Layer.

1) The final protective layer must cover the entire low permeability layer.

2) The thickness of the final protective layer must be sufficient to protect the low permeability layer from freezing and minimize root penetration of the low permeability layer, but must not be less than 0.91 meter (3 feet).

3) The final protective layer must consist of soil material capable of supporting vegetation.

4) The final protective layer must be placed as soon as possible after placement of the low permeability layer to prevent desiccation, cracking, freezing, or other damage to the low permeability layer.

d) Any alternative requirements for the infiltration barrier in subsection (b) ~~of this Section~~ for any owner or operator of an MSWLF that disposes of 20 tons (18 megagrams) of municipal solid waste per day or less, based on an annual average, must be established by an adjusted standard pursuant to Section 28.1 of the Act ~~[415 ILCS 5/28.1]~~ and Subpart D of 35 Ill. Adm. Code 104. Any alternative requirements established under this subsection must fulfill the following requirements:

1) They must consider the unique characteristics of small communities;

2) They must take into account climatic and hydrogeologic conditions; and

3) They must be protective of human health and the environment.

BOARD NOTE: Subsection (b)(4) ~~of this Section~~ is derived from 40 CFR 258.60(a) (2017) ~~(2004)~~. Subsection (d) ~~of this Section~~ is derived from 40 CFR 258.60(b)(3) (2017) ~~(2004)~~. Those segments of subsection (a) ~~of this Section~~ that relate to RD&D permits are derived from 40 CFR 258.4(b) (2017) ~~(2004)~~.

(Source: Amended at 42 Ill. Reg. ~~—~~, effective)

Section 811.319 Groundwater Monitoring Programs

a) Detection Monitoring Program. Any use of the term maximum allowable predicted concentration in this Section is a reference to Section 811.318(c). The operator must implement a detection monitoring program in accordance with the following requirements:

1) Monitoring Schedule and Frequency.

A) The monitoring period must begin as soon as waste is placed into the unit of a new landfill or within one year of the effective date of this Part for an existing landfill. Monitoring must continue for a minimum period of 15 years after closure, or in the case of MSWLF units, a minimum period of 30 years after closure, except as otherwise provided by subsection (a)(1)(C) ~~of this Section~~. The operator must sample all monitoring points for all potential sources of contamination on a quarterly basis except as specified in subsection (a)(3), for a period of five years from the date of issuance of the initial permit for significant modification under 35 Ill. Adm. Code 814.104 or a permit for a new unit pursuant to 35 Ill. Adm. Code 813.104. After the initial five-year period, the sampling frequency for each monitoring point must be reduced to a semi-annual basis, provided the operator has submitted

the certification described in 35 Ill. Adm. Code 813.304(b). Alternatively, after the initial five-year period, the Agency must allow sampling on a semi-annual basis where the operator demonstrates that monitoring effectiveness has not been compromised, that sufficient quarterly data has been collected to characterize groundwater, and that leachate from the monitored unit does not constitute a threat to groundwater. For the purposes of this Section, the source must be considered a threat to groundwater if the results of the monitoring indicate either that the concentrations of any of the constituents monitored within the zone of attenuation is above the maximum allowable predicted concentration for that constituent or, for existing landfills, subject to Subpart D of 35 Ill. Adm. Code 814, that the concentration of any constituent has exceeded the applicable standard at the compliance boundary as defined in 35 Ill. Adm. Code 814.402(b)(3).

B) Beginning fifteen years after closure of the unit, or five years after all other potential sources of discharge no longer constitute a threat to groundwater, as defined in subsection (a)(1)(A) ~~of this Section~~, the monitoring frequency may change on a well by well basis to an annual schedule if either of the following conditions exist. However, monitoring must return to a quarterly schedule at any well where a statistically significant increase is determined to have occurred in accordance with Section 811.320(e), in the concentration of any constituent with respect to the previous sample.

i) All constituents monitored within the zone of attenuation have returned to a concentration less than or equal to ten percent of the maximum allowable predicted concentration; or

ii) All constituents monitored within the zone of attenuation are less than or equal to their maximum allowable predicted concentration for eight consecutive quarters.

C) Monitoring must be continued for a minimum period of: 30 years after closure at MSWLF units, except as otherwise provided by subsections (a)(1)(D) and (a)(1)(E) ~~of this Section~~; five years after closure at landfills, other than MSWLF units, which are used exclusively for disposing waste generated at the site; or 15 years after closure at all other landfills regulated under this Part. Monitoring, beyond the minimum period, may be discontinued under the following conditions:

i) No statistically significant increase is detected in the concentration of any constituent above that measured and recorded during the immediately preceding scheduled sampling for three consecutive years, after changing to an annual monitoring frequency; or

ii) Immediately after contaminated leachate is no longer generated by the unit.

D) The Agency may reduce the groundwater monitoring period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

E) An owner or operator of a MSWLF unit must petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the post-closure care monitoring period for all of the following requirements:

- i) Inspection and maintenance (Section 811.111);
- ii) Leachate collection (Section 811.309);
- iii) Gas monitoring (Section 811.310); and
- iv) Groundwater monitoring (Section 811.319).

BOARD NOTE: Changes to subsections (a)(1)(A), (a)(1)(C), (a)(1)(D), and (a)(1)(E) ~~of this Section~~ are derived from 40 CFR 258.61 (2017) ~~(2013)~~.

2) Criteria for Choosing Constituents to be Monitored.

A) The operator must monitor each well for constituents that will provide a means for detecting groundwater contamination. Constituents must be chosen for monitoring if they meet the following requirements:

i) The constituent appears in, or is expected to be in, the leachate; and

ii) Is contained within the following list of constituents:

Ammonia - Nitrogen (dissolved)
Arsenic (dissolved)
Boron (dissolved)
Cadmium (dissolved)
Chloride (dissolved)
Chromium (dissolved)
Cyanide (total)
Lead (dissolved)
Magnesium (dissolved)
Mercury (dissolved)
Nitrate (dissolved)
Sulfate (dissolved)
Total Dissolved Solids (TDS)
Zinc (dissolved)

iii) This is the minimum list for MSWLFs.

iv) Any facility accepting more than 50% by volume non-municipal waste must determine additional indicator parameters based upon leachate characteristic and waste content.

B) One or more indicator constituents, representative of the transport processes of constituents in the leachate, may be chosen for

monitoring in place of the constituents it represents. The use of such indicator constituents must be included in an Agency approved permit.

3) Organic Chemicals Monitoring. The operator must monitor each existing well that is being used as a part of the monitoring well network at the facility within one year after the effective date of this Part, and monitor each new well within the three months after its establishment. The monitoring required by this subsection (a)(3) must be for a broad range of organic chemical contaminants in accordance with the following procedures:

A) The analysis must be at least as comprehensive and sensitive as the tests for the 51 organic chemicals in drinking water described at 40 CFR 141.40 and appendix I to 40 CFR 258 (2017) ~~(2006)~~, each incorporated by reference at 35 Ill. Adm. Code 810.104 and:

Acetone
Acrylonitrile
Benzene
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform; Tribromomethane
n-Butylbenzene
sec-Butylbenzene
tert-Butylbenzene
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform; Trichloromethane
o-Chlorotoluene
p-Chlorotoluene
Dibromochloromethane

AcetoneAcrylonitrileBenzeneBromobenzeneBromochloromethaneBromodichloromethaneBromoform;Tribromomethanen-Butylbenzenesec-Butylbenzenetert-ButylbenzeneCarbon disulfideCarbon tetrachlorideChlorobenzeneChloroethaneChloroform;Trichloromethaneo-Chlorotoluenep-ChlorotolueneDibromochloromethane1,2-Dibromo-3-chloropropane1,2-Dibromoethane1,2-Dichlorobenzene1,3-Dichlorobenzene1,4-Dichlorobenzenetrans-Dichlorobenzenetrans-1,4-Dichloro-2-buteneDichlorodifluoromethanebuteneDichlorodifluoromethane1,1-Dichloroethane1,2-Dichloroethane1,1-Dichloroethylenecis-1,2-Dichloroethenetrans-Dichloroethenecis-1,2-Dichloroethenetrans-1,2-Dichloroethene1,2-Dichloropropane1,3-Dichloropropane2,2-Dichloropropane1,1-Dichloropropane1,3-Dichloropropanecis-1,3-Dichloropropenetrans-1,3-DichloropropeneEthylbenzeneHexachlorobutadieneDichloropropenecis-1,3-Dichloropropenetrans-1,3-DichloropropeneEthylbenzeneHexachlorobutadiene2-Hexanone; Methyl butyl ketone

Isopropylbenzene

~~p-IsopropyltolueneMethylketoneIsopropylbenzenep-IsopropyltolueneMethyl bromide; BromomethaneMethylBromomethaneMethyl chloride; Chloromethane Methylene bromide; Dibromomethane~~

~~Dichloromethane~~

~~Methyl ethyl ketoneMethylChloromethaneMethylene bromide;~~

~~DibromomethaneDichloromethaneMethyl ethyl ketoneMethyl iodide;~~

~~Iodomethane4-Methyl-2-pentanone~~

~~NaphthaleneOilpentanoneNaphthaleneOil and Grease (hexane soluble)n-Propylbenzene~~

~~StyrenePropylbenzeneStyrene1,1,1,2-Tetrachloroethane1,1,2,2-Tetrachloroethane~~

~~Tetrachloroethylene~~

~~Tetrahydrofuran~~

~~TolueneTotalTetrachloroethaneTetrachloroethyleneTetrahydrofuranTolueneTotal~~

~~Phenolics1,2,3-Trichlorobenzene1,2,4-TrichlorobenzeneTrichlorobenzene1,1,1-Trichloroethane1,1,2-Trichloroethane~~

~~Trichloroethylene~~

~~TrichlorofluoromethaneTrichloroethaneTrichloroethyleneTrichlorofluoromethane1,2,3-Trichloropropane1,2,4-Trimethylbenzene1,3,5-TrimethylbenzeneTrimethylbenzeneVinyl acetateVinyl chlorideXylenes~~

~~Vinyl acetate~~

~~Vinyl chloride~~

~~Xylenes~~

B) At least once every two years, the operator must monitor each well in accordance with subsection (a) (3) (A) ~~of this Section~~.

C) The operator of a MSWLF unit must monitor each well in accordance with subsection (a) (3) (A) ~~of this Section~~ on a semi-annual basis.

BOARD NOTE: Subsection (a) (3) (C) ~~of this Section~~ is derived from 40 CFR 258.54(b) (2017) ~~(2013)~~.

4) Confirmation of Monitored Increase.

A) The confirmation procedures of this subsection must be used only if the concentrations of the constituents monitored can be measured at or above the practical quantitation limit (PQL). The PQL is defined as the lowest concentration that can be reliably measured within specified limits of precision and accuracy, under routine laboratory operating conditions. The operator must institute the confirmation procedures of subsection (a) (4) (B) ~~of this Section~~ after notifying the Agency in writing, within ten days, of observed increases:

i) The concentration of any inorganic constituent monitored in accordance with subsections (a) (1) and (a) (2) ~~of this Section~~ shows a progressive increase over eight consecutive monitoring events;

ii) The concentration of any constituent exceeds the maximum allowable predicted concentration at an established monitoring point within the zone of attenuation;

iii) The concentration of any constituent monitored in accordance with subsection (a)(3) ~~of this Section~~ exceeds the preceding measured concentration at any established monitoring point; and

iv) The concentration of any constituent monitored at or beyond the zone of attenuation exceeds the applicable groundwater quality standards of Section 811.320.

B) The confirmation procedures must include the following:

i) The operator must verify any observed increase by taking additional samples within 90 days after the initial sampling event and ensure that the samples and sampling protocol used will detect any statistically significant increase in the concentration of the suspect constituent in accordance with Section 811.320(e), so as to confirm the observed increase. The operator must notify the Agency of any confirmed increase before the end of the next business day following the confirmation.

ii) The operator must determine the source of any confirmed increase, which may include, but must not be limited to, natural phenomena, sampling or analysis errors, or an offsite source.

iii) The operator must notify the Agency in writing of any confirmed increase. The notification must demonstrate a source other than the facility and provide the rationale used in such a determination. The notification must be submitted to the Agency no later than 180 days after the original sampling event. If the facility is permitted by the Agency, the notification must be filed for review as a significant permit modification pursuant to Subpart B of 35 Ill. Adm. Code 813.

iv) If an alternative source demonstration described in subsections (a)(4)(B)(ii) and (a)(4)(B)(iii) ~~of this Section~~ cannot be made, assessment monitoring is required in accordance with subsection (b) ~~of this Section~~.

v) If an alternative source demonstration, submitted to the Agency as an application, is denied pursuant to 35 Ill. Adm. Code 813.105, the operator must commence sampling for the constituents listed in subsection (b)(5) ~~of this Section~~, and submit an assessment monitoring plan as a significant permit modification, both within 30 days after the dated notification of Agency denial. The operator must sample the well or wells that exhibited the confirmed increase.

b) Assessment Monitoring. The operator must begin an assessment monitoring program in order to confirm that the solid waste disposal facility is the source of the contamination and to provide information needed to carry out a groundwater impact assessment in accordance with subsection (c) ~~of this Section~~. The assessment monitoring program must be conducted in accordance with the following requirements:

1) The assessment monitoring must be conducted in accordance with this subsection to collect information to assess the nature and extent of groundwater contamination. The owner or operator of a MSWLF unit must comply with the additional requirements prescribed in subsection (b) (5) ~~of this Section~~. The assessment monitoring must consist of monitoring of additional constituents that might indicate the source and extent of contamination. In addition, assessment monitoring may include any other investigative techniques that will assist in determining the source, nature and extent of the contamination, which may consist of, but need not be limited to the following:

A) More frequent sampling of the wells in which the observation occurred;

B) More frequent sampling of any surrounding wells; and

C) The placement of additional monitoring wells to determine the source and extent of the contamination.

2) Except as provided for in subsections (a) (4) (B) (iii) and (a) (4) (B) (v) ~~of this Section~~, the operator of the facility for which assessment monitoring is required must file the plans for an assessment monitoring program with the Agency. If the facility is permitted by the Agency, then the plans must be filed for review as a significant permit modification pursuant to Subpart B of 35 Ill. Adm. Code 813 within 180 days after the original sampling event. The assessment monitoring program must be implemented within 180 days after the original sampling event in accordance with subsection (a) (4) ~~of this Section~~ or, in the case of permitted facilities, within 45 days after Agency approval.

3) If the analysis of the assessment monitoring data shows that the concentration of one or more constituents, monitored at or beyond the zone of attenuation is above the applicable groundwater quality standards of Section 811.320 and is attributable to the solid waste disposal facility, then the operator must determine the nature and extent of the groundwater contamination including an assessment of the potential impact on the groundwater should waste continue to be accepted at the facility and must implement the remedial action in accordance with subsection (d) ~~of this Section~~.

4) If the analysis of the assessment monitoring data shows that the concentration of one or more constituents is attributable to the solid waste disposal facility and exceeds the maximum allowable predicted concentration within the zone of attenuation, then the operator must conduct a groundwater impact assessment in accordance with the requirements of subsection (c) ~~of this Section~~.

5) In addition to the requirements of subsection (b) (1) ~~of this Section~~, to collect information to assess the nature and extent of groundwater contamination, the following requirements are applicable to MSWLF units:

A) The monitoring of additional constituents pursuant to subsection (b) ~~(1) of this Section~~¹ must include, at a minimum (except as otherwise provided in subsection (b) (5) (E) ~~of this Section~~), the constituents listed in 40 appendix II to ~~40~~ CFR 258, incorporated by reference at 35 Ill. Adm. Code 810.104, and constituents from 35 Ill. Adm. Code 620.410.

BOARD NOTE: Subsection (b) (5) (A) ~~of this Section~~ is derived from 40 CFR 258.55(b) (2017) ~~(2013)~~.

B) Within 14 days after obtaining the results of sampling required under subsection (b) (5) (A) ~~of this Section~~, the owner or operator must do as follows:

i) The owner or operator must place a notice in the operating record identifying the constituents that have been detected; and

ii) The owner or operator must notify the Agency that such a notice has been placed in the operating record.

BOARD NOTE: Subsection (b) (5) (B) ~~of this Section~~ is derived from 40 CFR 258.55(d) (~~1~~¹) (2017) ~~(2013)~~.

C) The owner or operator must establish background concentrations for any constituents detected pursuant to subsection (b) (5) (A) ~~of this Section~~ in accordance with Section 811.320(e).

BOARD NOTE: Subsection (b) (5) (C) ~~of this Section~~ is derived from 40 CFR 258.55(d) (3) (2017) ~~(2013)~~.

D) Within 90 days after the initial monitoring in accordance with subsection (b) (5) (A) ~~of this Section~~, the owner or operator must monitor for the detected constituents listed in appendix II to 40 CFR 258, incorporated by reference in 35 Ill. Adm. Code 810.104, and 35 Ill. Adm. Code 620.410 on a semiannual basis during the assessment monitoring. The operator must monitor all the constituents listed in appendix II to 40 CFR 258 and 35 Ill. Adm. Code 620.410 on an annual basis during assessment monitoring.

BOARD NOTE: Subsection (b) (5) (D) ~~of this Section~~ is derived from 40 CFR 258.55(d) (2) (2017) ~~(2012)~~.

E) The owner or operator may request the Agency to delete any of the 40 CFR 258 and 35 Ill. Adm. Code 620.410 constituents by demonstrating to the Agency that the deleted constituents are not reasonably expected to be in or derived from the waste contained in the leachate.

BOARD NOTE: Subsection (b) (5) (E) ~~of this Section~~ is derived from 40 CFR 258.55(b) (2017) ~~(2012)~~.

F) Within 14 days after finding an exceedance above the applicable groundwater quality standards in accordance with subsection (b) (3) ~~of this Section~~, the owner or operator must do as follows:

i) The owner or operator must place a notice in the operating record that identifies the constituents monitored under subsection (b)(1)(D) ~~of this Section~~ that have exceeded the groundwater quality standard;

ii) The owner or operator must notify the Agency and the appropriate officials of the local municipality or county within whose boundaries the site is located that such a notice has been placed in the operating record; and

iii) The owner or operator must notify all persons who own land or reside on land that directly overlies any part of the plume of contamination if contaminants have migrated off-site.

BOARD NOTE: Subsection (b)(5)(F) ~~of this Section~~ is derived from 40 CFR 258.55(g)(1)(i) through (g)(1)(iii) (2017) ~~(2012)~~.

G) If the concentrations of all constituents in appendix II to 40 CFR 258, incorporated by reference in 35 Ill. Adm. Code 810.104, and 35 Ill. Adm. Code 620.410 are shown to be at or below background values, using the statistical procedures in Section 811.320(e), for two consecutive sampling events, the owner or operator must notify the Agency of this finding and may stop monitoring the appendix II to 40 CFR 258 and 35 Ill. Adm. Code 620.410 constituents.

BOARD NOTE: Subsection (b)(5)(G) ~~of this Section~~ is derived from 40 CFR 258.55(e) (2017) ~~(2013)~~.

c) Assessment of Potential Groundwater Impact. An operator required to conduct a groundwater impact assessment in accordance with subsection (b)(4) ~~of this Section~~ must assess the potential impacts outside the zone of attenuation that may result from confirmed increases above the maximum allowable predicted concentration within the zone of attenuation, attributable to the facility, in order to determine if there is need for remedial action. In addition to the requirements of Section 811.317, the following requirements apply:

1) The operator must utilize any new information developed since the initial assessment and information from the detection and assessment monitoring programs and such information may be used for the recalibration of the GCT model; and

2) The operator must submit the groundwater impact assessment and any proposed remedial action plans determined necessary pursuant to subsection (d) ~~of this Section~~ to the Agency within 180 days after the start of the assessment monitoring program.

d) Remedial Action. The owner or operator of a MSWLF unit must conduct corrective action in accordance with Sections 811.324, 811.325, and 811.326. The owner or operator of a landfill facility, other than a MSWLF unit, must conduct remedial action in accordance with this subsection (d).

1) The operator must submit plans for the remedial action to the Agency. Such plans and all supporting information including data collected during the assessment monitoring must be submitted within 90 days after determination of either of the following:

A) The groundwater impact assessment, performed in accordance with subsection (c) ~~of this Section~~, indicates that remedial action is needed; or

B) Any confirmed increase above the applicable groundwater quality standards of Section 811.320 is determined to be attributable to the solid waste disposal facility in accordance with subsection (b) ~~of this Section~~.

2) If the facility has been issued a permit by the Agency, then the operator must submit this information as an application for significant modification to the permit;

3) The operator must implement the plan for remedial action program within 90 days after the following:

A) Completion of the groundwater impact assessment that requires remedial action;

B) Establishing that a violation of an applicable groundwater quality standard of Section 811.320 is attributable to the solid waste disposal facility in accordance with subsection (b) (3) ~~of this Section~~; or

C) Agency approval of the remedial action plan, where the facility has been permitted by the Agency.

4) The remedial action program must consist of one or a combination of one or more of the following solutions:

A) Retrofit additional groundwater protective measures within the unit;

B) Construct an additional hydraulic barrier, such as a cutoff wall or slurry wall system;

C) Pump and treat the contaminated groundwater; or

D) Any other equivalent technique which will prevent further contamination of groundwater.

5) Termination of the Remedial Action Program.

A) The remedial action program must continue in accordance with the plan until monitoring shows that the concentrations of all monitored constituents are below the maximum allowable predicted concentration within the zone of attenuation, below the applicable groundwater quality

quality standards no greater than those of 35 Ill. Adm. Code 620.410, 620.420, ~~620.430~~620.430, or 620.440, respectively, upon a demonstration by the operator that:

A) The change in standards will not interfere with, or become injurious to, any present or potential beneficial uses for such water;

B) The change in standards is necessary for economic or social development, by providing information including, but not limited to, the impacts of the standards on the regional economy, social disbenefits such as loss of jobs or closing of landfills, and economic analysis contrasting the health and environmental benefits with costs likely to be incurred in meeting the standards ; and

C) All technically feasible and economically reasonable methods are being used to prevent the degradation of the groundwater quality.

3) Notwithstanding subsection (b)(2), in no case must ~~shall~~ the Board specify adjusted groundwater quality standards for a MSWLF unit greater than the following levels:

Chemical Concentration (mg/l) -
~~(mg/l)~~ Arsenic 0.05 Barium 1.0 Benzene 0.005 Cadmium 0.01 Carbon tetrachloride 0.005 Chromium (hexavalent) 0.05 2,4-Dichlorophenoxy acetic acid 0.11,4-Dichlorobenzene 0.075 1,2-Dichloroethane 0.005 1,1-Dichloroethylene 0.007 Endrin 0.0002 Fluoride 4 Lindane 0.004 Lead 0.05 Mercury 0.002 Methoxychlor 0.1 Nitrate 10 Selenium 0.01 Silver 0.05 Toxaphene ~~0.005~~1,1,1-0.0051,1,1-Trichloromethane 0.2 ~~Trichloroethylene~~Trichloroethylene 0.005 2,4,5-Trichlorophenoxy acetic acid 0.01 Vinyl Chloride ~~0.002~~40.002

4) For groundwater which contains naturally occurring constituents which do not meet the standards of 35 Ill. Adm. Code 620.410, 620.420, 620.430 or 620.440, the Board will specify adjusted groundwater quality standards, upon a demonstration by the operator that:

A) The groundwater does not presently serve as a source of drinking water;

B) The change in standards will not interfere with, or become injurious to, any present or potential beneficial uses for such waters;

C) The change in standards is necessary for economic or social development, by providing information including, but not limited to, the impacts of the standards on the regional economy, social disbenefits such as loss of jobs or closing of landfills, and economic analysis contrasting the health and environmental benefits with costs likely to be incurred in meeting the standards; and

D) The groundwater cannot presently, and will not in the future, serve as a source of drinking water because:

i) It is impossible to remove water in usable quantities;

ii) The groundwater is situated at a depth or location such that recovery of water for drinking purposes is not technologically feasible or economically reasonable;

iii) The groundwater is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption;

iv) The total dissolved solids content of the groundwater is more than 3,000 ~~(mg/l)~~ and that water will not be used to serve a public water supply system; or

v) The total dissolved solids content of the groundwater exceeds 10,000 ~~(mg/l)~~.

c) Determination of the Zone of Attenuation

1) The zone of attenuation, within which concentrations of constituents in leachate discharged from the unit may exceed the applicable groundwater quality standard of this Section, is a volume bounded by a vertical plane at the property boundary or 100 feet from the edge of the unit, whichever is less, extending from the ground surface to the bottom of the uppermost aquifer and excluding the volume occupied by the waste.

2) Zones of attenuation must ~~shall~~ not extend to the annual high water mark of navigable surface waters.

3) Overlapping zones of attenuation from units within a single facility may be combined into a single zone for the purposes of establishing a monitoring network.

d) Establishment of Background Concentrations

1) The initial monitoring to determine background concentrations must ~~shall~~ commence during the hydrogeological assessment required by Section 811.315. The background concentrations for those parameters identified in Sections 811.315(e)(1)(G) and 811.319(a)(2) and (a)(3) must ~~shall~~ be established based on consecutive quarterly sampling of wells for a minimum of one year, monitored in accordance with the requirements of subsections (d)(2), (d)(3) and (d)(4). Non-consecutive data may be considered by the Agency, if only one data point from a quarterly event is missing, and it can be demonstrated that the remaining data set is representative of consecutive data in terms of any seasonal or temporal variation. Statistical tests and procedures must ~~shall~~ be employed, in accordance with subsection (e), depending on the number, type and frequency of samples collected from the wells, to establish the background concentrations.

2) Adjustments to the background concentrations must ~~shall~~ be made if changes in the concentrations of constituents observed in background wells over time are determined, in accordance with subsection (e), to be

statistically significant, and due to natural temporal or spatial variability or due to an off-site source not associated with the landfill or the landfill activities. Such adjustments may be conducted no more frequently than once every two years during the operation of a facility and modified subject to approval by the Agency. Non-consecutive data may be used for an adjustment upon Agency approval. Adjustments to the background concentration must ~~shall~~ not be initiated prior to November 27, 2009 unless required by the Agency.

3) Background concentrations determined in accordance with this subsection must ~~shall~~ be used for the purposes of establishing groundwater quality standards, in accordance with subsection (a). The operator must ~~shall~~ prepare a list of the background concentrations established in accordance with this subsection. The operator must ~~shall~~ maintain such a list at the facility, must ~~shall~~ submit a copy of the list to the Agency for establishing standards in accordance with subsection (a), and must ~~shall~~ provide updates to the list within ten days of any change to the list.

4) A network of monitoring wells must ~~shall~~ be established upgradient from the unit, with respect to groundwater flow, in accordance with the following standards, in order to determine the background concentrations of constituents in the groundwater:

A) The wells must ~~shall~~ be located at such a distance that discharges of contaminants from the unit will not be detectable;

B) The wells must ~~shall~~ be sampled at the same frequency as other monitoring points to provide continuous background concentration data, throughout the monitoring period; and

C) The wells must ~~shall~~ be located at several depths to provide data on the spatial variability.

5) A determination of background concentrations may include the sampling of wells that are not hydraulically upgradient of the waste unit where:

A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient of the waste; and

B) Sampling at other wells will provide an indication of background concentrations that is representative of that which would have been provided by upgradient wells.

6) If background concentrations cannot be determined on site, then alternative background concentrations may be determined from actual monitoring data from the aquifer of concern, which includes, but is not limited to, data from another landfill site that overlies the same aquifer.

e) Statistical Analysis of Groundwater Monitoring Data

1) Statistical tests must ~~shall~~ be used to analyze groundwater monitoring data. One or more of the normal theory statistical tests must ~~shall~~ be chosen first for analyzing the data set or transformations of the data set. Where such normal theory tests are demonstrated to be inappropriate, tests listed in subsection (e)(4) must ~~shall~~ be used. The level of significance (Type I error level) must ~~shall~~ be no less than 0.01, for individual well comparisons, and no less than 0.05, for multiple well comparisons. The statistical analysis must ~~shall~~ include, but not be limited to, the accounting of data below the detection limit of the analytical method used, the establishment of background concentrations and the determination of whether statistically significant changes have occurred in:

A) The concentration of any chemical constituent with respect to the background concentration or maximum allowable predicted concentration; and

B) The established background concentration of any chemical constituents over time.

2) The statistical test or tests used must ~~shall~~ be based upon the sampling and collection protocol of Sections 811.318 and 811.319.

3) Monitored data that are below the level of detection must ~~shall~~ be reported as not detected (ND). The level of detection for each constituent must ~~shall~~ be the practical quantitation limit (PQL), and must ~~shall~~ be the lowest concentration that is protective of human health and the environment, and can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions. In no case, must ~~shall~~ the PQL be established above the level that the Board has established for a groundwater quality standard under the Illinois Groundwater Protection Act [415 ILCS 55]. The following procedures must ~~shall~~ be used to analyze such data, unless an alternative procedure in accordance with subsection (e)(4), is shown to be applicable:

A) Where the percentage of nondetects in the data base used is less than 15 percent, the operator must ~~shall~~ replace NDs with the PQL divided by two, then proceed with the use of one or more of the Normal Theory statistical tests;

B) Where the percentage of nondetects in the data base used is between 15 and 50 percent, and the data are normally distributed, the operator must ~~shall~~ use Cohen's or Aitchison's adjustment to the sample mean and standard deviation, followed by an applicable statistical procedure;

C) Where the percentage of nondetects in the database used is above 50 percent, then the owner or operator must ~~shall~~ use an alternative procedure in accordance with subsection (e)(4).

4) Nonparametric statistical tests or any other statistical test if it is demonstrated to meet the requirements of 35 Ill. Adm. Code 724.197(i).

BOARD NOTE: Subsection (b)(3) is derived from 40 CFR 258.40 Table 1 (2017). ~~(1992)~~.

(Source: Amended at 42 Ill. Reg. ~~—~~, effective)

Section 811.321 Waste Placement

a) Phasing of Operations

1) Waste disposal operations must ~~shall~~ move from the lowest portions of the unit to the highest portions. Except as provided in subsection (a)(2), the placement of waste must ~~shall~~ begin in the lowest part of the active face of the unit, located in the part of the facility most downgradient, with respect to groundwater flow.

2) The operator may dispose of wastes in areas other than those specified in subsection (a)(1) only under any of the following conditions:

A) Climatic conditions, such as wind and precipitation, are such that the placement of waste in the bottom of the unit would cause water pollution, litter or damage to any part of the liner;

B) The topography of the land surrounding the unit makes the procedure of subsection (a)(1) environmentally unsound, for example, because steep slopes surround the unit; or

C) When groundwater monitoring wells, constructed in accordance with the requirements of Section 811.319, are placed 50 feet, or less, downgradient from the filled portions of the unit.

b) Initial Waste Placement

1) Construction, compaction and earth moving equipment must ~~shall~~ be prohibited from operating directly on the leachate collection piping system until a minimum of five feet of waste has been mounded over the system.

2) Construction, compaction and earth moving equipment must ~~shall~~ be prohibited from operating directly on the leachate drainage blanket. Waste disposal operations must ~~shall~~ begin at the edge of the drainage layer by carefully pushing waste out over the drainage layer.

3) An initial layer of waste, a minimum of five feet thick, or, alternatively, a temporary protective layer of other material suitable to prevent the compacted earth liner from freezing, must ~~shall~~ be placed over the entire drainage blanket prior to the onset of weather

conditions that may cause the compacted earth liner to freeze, except as provided in subsection (b) (4) ~~of this Section.~~

4) Waste must ~~shall~~ not be placed over areas that are subject to freezing conditions until the liner has been certified or recertified by the CQA officer designated pursuant to Section 811.502 and reconstructed (if necessary) to meet the requirements of Section 811.306.

(Source: Amended at 42 Ill. Reg. ~~—~~, effective _____)

Section 811.323 Load Checking Program

a) The operator must ~~shall~~ implement a load checking program that meets the requirements of this Section, for detecting and discouraging attempts to dispose regulated hazardous wastes at the facility. For purposes of this Section and Section 811.406, "regulated hazardous waste ~~wastes~~" means a solid waste that is a hazardous waste, as defined in 35 Ill. Adm. Code 721.103, that is not excluded from regulation as hazardous waste under 35 Ill. Adm. Code 721.104(b) or which was not generated by a VSQG, as defined in 35 Ill. Adm. Code ~~720.110 are wastes defined as such under RCRA, at 35 Ill. Adm. Code 721, and subject to regulations under 35 Ill. Adm. Code: Subtitle G. 720.110.~~

b) In addition to checking for hazardous waste in accordance with subsection (a), the load checking program at a MSWLF unit must ~~shall~~ include waste load inspection for detecting and discouraging attempts to dispose "polychlorinated biphenyl wastes" as defined in 40 CFR 761.3 (2017) ~~(1992).~~

~~BOARD NOTE: Subsection (b) is derived from 40 CFR 258.20(a) (1992).~~

c) The load checking program must ~~shall~~ consist of, at a minimum, the following components:

1) Random Inspections. ~~inspections~~

A) An inspector designated by the facility must ~~shall~~ examine at least three random loads of solid waste delivered to the landfill on a random day each week. The drivers randomly selected by the inspector must ~~shall~~ be directed to discharge their loads at a separate, designated location within the facility. The facility must ~~shall~~ conduct a detailed inspection of the discharged material for any regulated hazardous or other unacceptable wastes that may be present. Cameras or other devices may be used to record the visible contents of solid waste shipments. Where such devices are employed, their use should be designated on a sign posted near the entrance to the facility.

B) If regulated hazardous wastes or other unacceptable wastes are suspected, the facility must ~~shall~~ communicate with the generator, hauler or other party responsible for shipping the waste to the facility to determine the identity of the waste.

2) Recording ~~inspection results.~~ ~~inspection results~~ Inspection Results.

Information and observations derived from each random inspection must be recorded in writing and retained at the facility for at least three years. The recorded information must include, at a minimum, the date and time of the inspection; the names of the hauling firm and the driver of the vehicle, the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record must ~~shall~~ be signed by both the inspector and the driver.

~~Information and observations derived from each random inspection shall be recorded in writing and retained at the facility for at least three years. The recorded information shall include, at a minimum, the date and time of the inspection; the names of the hauling firm and the driver of the vehicle, the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record shall be signed by both the inspector and the driver.~~

3) Training.

The solid waste management facility must train designated inspectors, equipment operators, weigh station attendants, spotters at large facilities, and all other appropriate facility personnel in the identification of potential sources of regulated hazardous wastes and other unacceptable wastes, including but not limited to PCBs. The training program must ~~shall~~ emphasize familiarity with containers typically used for regulated hazardous wastes and with labels for regulated hazardous wastes, under RCRA, and for hazardous materials under the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.).

~~The solid waste management facility shall train designated inspectors, equipment operators, weigh station attendants, spotters at large facilities, and all other appropriate facility personnel in the identification of potential sources of regulated hazardous wastes and other unacceptable wastes, including but not limited to PCBs. The training program shall emphasize familiarity with containers typically used for regulated hazardous wastes and with labels for regulated hazardous wastes, under RCRA, and for hazardous materials under the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.).~~

BOARD NOTE: Subsections (a) through (c) are derived from 40 CFR 258.20 (2017).

d) Handling Regulated Hazardous Wastes.

1) If any regulated hazardous wastes are identified by random load checking, or are otherwise discovered to be improperly deposited at the facility, the facility must ~~shall~~ promptly notify the Agency, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. Waste loads identical to the regulated hazardous waste identified through the random load checking which have not yet been deposited in the landfill must ~~shall~~ not be accepted. The

- B) Any actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
- C) Any actual or potential contamination of drinking water supplies or sensitive ecosystems;
- D) Any further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
- E) The weather conditions that may cause hazardous constituents to migrate or be released;
- F) Any risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and
- G) Any other situations that may pose threats to human health and the environment.

b) If an owner or operator determines, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of Section 811.325(b) are not being achieved through the remedy selected, the owner or operator must fulfill the following requirements:

1) It must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination pursuant to subsection (c) ~~of this Section~~.

2) It must submit to the Agency, prior to implementing any alternative methods pursuant to subsection (b)(1) ~~of this Section~~, an application for a significant modification to the permit describing the alternative methods or techniques and how they meet the standards of Section 811.325(b).

c) If the owner or operator determines that compliance with the requirements of Section 811.325(b) cannot be practically achieved with any currently available methods, the owner or operator must fulfill the following requirements:

1) It must obtain the certification of a qualified groundwater scientist or a determination by the Agency that compliance with requirements pursuant to Section 811.325(b) cannot be practically achieved with any currently available methods.

2) It must implement alternative measures to control exposure of humans or the environment to residual contamination, as necessary ~~toadequately~~ to adequately protect human health and the environment.

3) It must implement alternative measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that fulfill the following requirements:

A) The measures are technically practicable; and

B) The measures are consistent with the overall objective of the remedy.

4) It must submit to the Agency, prior to implementing the alternative measures in accordance with subsection (c) ~~of this Section~~, an application for a significant modification to the permit justifying the alternative measures.

5) For purposes of this Section, a "qualified groundwater scientist" is a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

d) All solid wastes that are managed pursuant to ~~pursuant to~~ Section 811.325 or subsection (a)(3) ~~of this Section~~ must be managed by the owner or operator in a manner that fulfills the following requirements:

1) It adequately protects human health and the environment; and

2) It complies with applicable requirements of this Part, 811.

e) Remedies selected pursuant to Section 811.325 must be considered complete when the following requirements are fulfilled:

1) The owner or operator complies with the groundwater quality standards established pursuant to Section 811.320 at all points within the plume of contamination that lie beyond the zone of attenuation established pursuant to Section 811.320;

2) Compliance with the groundwater quality standards established pursuant to Section 811.320 has been achieved by demonstrating that concentrations of the constituents monitored under the assessment monitoring program pursuant to Section 811.319(b) have not exceeded the groundwater quality standards for a period of three consecutive years using the statistical procedures and performance standards in Section 811.320(e). The Agency may specify an alternative time period during which the owner or operator must demonstrate compliance with the groundwater quality standard(s). The Agency must specify such an alternative time period by considering the following factors:

A) The extent and concentration of the releases;

- 7) The metals content of the waste;
- 8) Hazardous characteristics (including identification of wastes deemed hazardous by the United States Environmental Protection Agency or the state);
- 9) Presence of polychlorinated ~~polychlorinated~~-biphenyls (PCB~~s~~PCBs) or 2,3,7,8-tetrachlorodibenzodioxin (2,3,7,8-TCDD); and
- 10) Any other information, such as the result of any test carried out in accordance with Section 811.202, that can be used to determine:
 - A) Whether the special waste is regulated as a hazardous waste, as defined at 35 Ill. Adm. Code 721;
 - B) Whether the special waste is of a type that is permitted for or has been classified, in accordance with 35 Ill. Adm. Code 809, for storage, treatment, or disposal at the facility; and
 - C) Whether the method of storage, treatment, or disposal, using the methods available at the facility, is appropriate for the waste.
- b) Special waste recertification
Each subsequent shipment of a special waste from the same generator must be accompanied by a transportation record in accordance with 35 Ill. Adm. Code 811.403(b), a copy of the original special waste profile identification sheet, and either:
 - 1) A special waste recertification by the generator describing whether there have been changes in the following:
 - A) Laboratory analysis (copies to be attached);
 - B) Raw material in the waste-generating process;
 - C) The waste-generating process itself;
 - D) The physical or hazardous characteristics of the waste; and
 - E) New information on the human health effects of exposure to the waste; or
 - 2) Certification indicating that any change in the physical or hazardous characteristic of the waste is not sufficient to require a new special waste profile.

(Source: Amended at 42 Ill. Reg. _____, effective _____)

SUBPART G: FINANCIAL ASSURANCE

Section 811.704 Closure and Post-Closure Care and Corrective Action Cost Estimates

- a) Written cost estimate. The owner or operator must ~~shall~~ have a written estimate of the cost of closure of all parts of the facility where wastes have been deposited in accordance with the requirements of this Part; the written closure plan, required by Section 811.110 and 35 Ill. Adm. Code 812.114; and the cost of post-closure care and plans, required by this Part and the written post-closure care plans required by 35 Ill. Adm. Code 812.115. The cost estimate is the total cost for closure and post-closure care.
- b) The owner or operator must ~~shall~~ revise the cost estimate whenever a change in the closure plan or post-closure care plan increases the cost estimate.
- c) The cost estimate must be based on the steps necessary for the premature final closure of the facility on the assumed closure date.
- d) The cost estimate must be based on the assumption that the Agency will contract with a third party to implement the closure plan.
- e) The cost estimate may not be reduced by allowance for the salvage value of equipment or waste, for the resale value of land, or for the sale of landfill gas.
- f) The cost estimate must, at a minimum, include all costs for all activities necessary to close the facility in accordance with all requirements of this Part.
- g) (Blank)
- h) The post-closure care cost estimate must, at a minimum, be based on the following elements in the post-closure care plan:
 - 1) Groundwater monitoring, based on the number of monitoring points and parameters and the frequency of sampling specified in the permit.
 - 2) The annual Cost of Cover Placement and Stabilization, including an estimate of the annual residual settlement and erosion control and the cost of mowing.
 - 3) Alternative Landfill Gas Disposal. If landfill gas is transported to an off-site processing system, then the owner or operator must ~~shall~~ include in the cost estimate the costs necessary to operate an onsite gas disposal system, should access to the off-site facility become unavailable. The cost estimate must include the following information: installation, operation, maintenance and monitoring of an on-site gas disposal system.
 - 4) Cost Estimates Beyond the Design Period. When a facility must extend the post-closure care period beyond the applicable design period,

the cost estimate must be based upon such additional time and the care activities occurring during that time.

i) This Section does not authorize the Agency to require the owner or operator to perform any of the indicated activities upon which cost estimates are to be based; however, if the site permit requires a closure activity, the owner or operator must ~~shall~~ include the cost of that activity in the cost estimate.

j) Once the owner or operator has completed an activity, the owner or operator may file an application for significant permit modification pursuant to 35 Ill. Adm. Code 813.201 indicating that the activity has been completed, and zeroing that element of the cost estimate.

k) Cost estimate for corrective action at MSWLF units.

1) An owner or operator of a MSWLF unit required to undertake a corrective action program pursuant to Section 811.326 must ~~shall~~ have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective action in accordance with the Section 811.326. The corrective action cost estimate must account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period. The owner or operator must ~~shall~~ notify the Agency that the estimate has been placed in the operating record.

2) The owner or operator must annually adjust the estimate for inflation until the corrective action program is completed in accordance with Section 811.326(f).

3) The owner or operator must increase the corrective action cost estimate and the amount of financial assurance provided pursuant to subsections (k)(5) and (k)(6) ~~of this Section~~ if changes in the corrective action program or MSWLF unit conditions increase the maximum costs of corrective action.

4) The owner or operator may reduce the amount of the corrective action cost estimate and the amount of financial assurance provided pursuant to subsections (k)(5) and (k)(6) ~~of this Section~~ if the cost estimate exceeds the maximum remaining costs of corrective action. The owner or operator must ~~shall~~ notify the Agency that the justification for the reduction of the corrective action cost estimate and the amount of financial assurance has been placed in the operating record.

5) The owner or operator of each MSWLF unit required to undertake a corrective action program under Section 811.326 must ~~shall~~ establish, in accordance with Section 811.706, financial assurance for the most recent corrective action program.

6) The owner or operator must ~~shall~~ provide continuous coverage for corrective action until released from the financial assurance

requirements for corrective action by demonstrating compliance with Section 811.326 (f) and (g).

BOARD NOTE: Subsection (k) is derived from 40 CFR 258.73 (2017)—(1992).

(Source: Amended at 42 Ill. Reg. —, effective _____)

Section 811.715 Self-Insurance for Non-Commercial Sites

a) Definitions. The following definitions are intended to assist in the understanding of this Part and are not intended to limit the meanings of terms in any way that conflicts with generally accepted accounting principles:

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Generally accepted accounting principles" means the accounting and auditing standards of the American Institute of Certified Public Accountants and the Governmental Accounting Standards Board that are incorporated by reference in 35 Ill. Adm. Code 810.104.

"Gross Revenue" means total receipts less returns and allowances.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means tangible assets less liabilities; tangible assets to not include intangibles such as goodwill and rights to patents or royalties.

b) Information to be Filed. An owner or operator may satisfy the financial assurance requirements of this Part by providing the following:

1) Bond without surety promising to pay the cost estimate (subsection (c) ~~of this Section~~).

2) Proof that the owner or operator meets the gross revenue test (subsection (d) ~~of this Section~~).

3) Proof that the owner or operator meets the financial test (subsection (e) ~~of this Section~~).

c) Bond Without Surety. An owner or operator utilizing self-insurance must provide a bond without surety on the forms specified in Appendix A, Illustration G ~~of this Part~~. The owner or operator must promise to pay the current cost estimate to the Agency unless the owner or operator provides closure and post-closure care in accordance with the closure and post-closure care plans.

d) Gross Revenue Test. The owner or operator must demonstrate that less than one-half of its gross revenues are derived from waste disposal operations. Revenue is "from waste disposal operations" if it would stop upon cessation of the owner or operator's waste disposal operations.

e) Financial Test.

1) To pass the financial test, the owner or operator must meet the criteria of either subsection (e) (1) (A) or (e) (1) (B) ~~of this Section~~:

A) The owner or operator must have:

i) Two of the following three ratios: a ratio of total liabilities to net worth of less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities of greater than 0.1; or a ratio of current assets to current liabilities of greater than 1.5; ~~and~~

ii) Net working capital and tangible net worth each at least six times the current cost estimate; ~~and~~

iii) Tangible net worth of at least \$10 million; and

iv) Assets in the United States amounting to at least 90 percent of the owner's or operator's total assets and at least six times the current cost estimate.

B) The owner or operator must have:

i) A current rating of AAA, AA, A, or BBB for its most recent bond issuance as issued by Standard and Poor, or a rating of Aaa, Aa, A, or Baa, as issued by Moody;

ii) Tangible net worth at least six times the current cost estimate;

iii) Tangible net worth of at least \$10 million; and

iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the current cost estimate.

2) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:

A) A letter signed by the owner or operator's chief financial officer and worded as specified in Appendix A, Illustration I;

B) A copy of the independent certified public accountant's report on examination of the owner or operator's financial statements for the latest completed fiscal year; and

C) A special report from the owner or operator's independent certified public accountant to the owner or operator stating the following:

i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.

f) Updated Information.

1) After the initial submission of items specified in subsections (d) and (e) ~~of this Section~~, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year.

2) If the owner or operator no longer meets the requirements of subsections (d) and (e) ~~of this Section~~, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the operator no longer meets the requirements.

g) Qualified Opinions. If the opinion required by subsections (e) (2) (B) and (e) (2) (C) ~~of this Section~~ includes an adverse opinion or a disclaimer of opinion, the Agency must disallow the use of self-insurance. If the opinion includes other qualifications, the Agency must disallow the use of self-insurance if:

- 1) The qualifications relate to the numbers that are used in the gross revenue test or the financial test; and
 - 2) In light of the qualifications, the owner or operator has failed to demonstrate that it meets the gross revenue test or financial test.
- h) Parent Corporation. An owner or operator may satisfy the financial assurance requirements of this Part by either of the following means:

- 1) Demonstrating that a corporation that owns an interest in the owner or operator meets the requirements of this Section; and
- 2) Providing a bond to the Agency with the parent corporation as surety on a form specified in Appendix A, Illustration H in accordance with Section 811.711(d), (e), (f), and (g) ~~of this Part~~.

(Source: Amended at 42 Ill. Reg. ~~—~~, effective _____)

Section 811.716 Local Government Financial Test

A unit of local government owner or operator that satisfies the requirements of subsections (a) through (c) ~~of this Section~~ may demonstrate financial assurance up to the amount specified in subsection (d) ~~of this Section~~.

a) Financial Component.

- 1) The unit of local government owner or operator must satisfy subsection (a)(1)(A) or (a)(1)(B) ~~of this Section~~, as applicable:
 - A) If the owner or operator has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, it must have a current rating of Aaa, Aa, A, or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard and Poor's, on all such general obligation bonds; or
 - B) The owner or operator must satisfy each of the following financial ratios based on the owner or operator's most recent audited annual financial statement:
 - i) A ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05; and
 - ii) A ratio of annual debt service to total expenditures less than or equal to 0.20.
- 2) The unit of local government owner or operator must prepare its financial statements in conformity with Generally Accepted Accounting Principles for governments and have its financial statements audited by an independent certified public accountant or the Comptroller of the

State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310].

3) A unit of local government is not eligible to assure its obligations pursuant to this Section if any of the following is true:

A) It is currently in default on any outstanding general obligation bonds;

B) It has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's;

C) It operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years; or

D) It receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310] auditing its financial statement as required pursuant to subsection (a)(2) ~~of this Section~~. However, the Agency must evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Agency deems the qualification insufficient to warrant disallowance of use of the test.

4) Terms used in this Section are defined as follows:

"Cash plus marketable securities" is all the cash plus marketable securities held by the unit of local government on the last day of a fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions.

"Debt service" is the amount of principal and interest due on a loan in a given time period, typically the current year.

"Deficit" equals total annual revenues minus total annual expenditures.

"Total revenues" include revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by a unit of local government on behalf of a specific third party.

"Total expenditures" include all expenditures excluding capital outlays and debt repayment.

b) Public Notice Component.

1) The unit of local government owner or operator must place a reference to the closure and post-closure care costs assured through the financial test into its next comprehensive annual financial report (CAFR), or prior to the initial receipt of waste at the facility, whichever is later.

2) Disclosure must include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care cost remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years.

3) A reference to corrective action costs must be placed in the CAFR not later than 120 days after the corrective action remedy has been selected in accordance with the requirements of Sections 811.319(d) and 811.325.

4) For the first year the financial test is used to assure costs at a particular facility, the reference may instead be placed in the operating record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget.

5) For closure and post-closure costs, conformance with Government Accounting Standards Board Statement 18, incorporated by reference in 35 Ill. Adm. Code 810.104, assures compliance with this public notice component.

c) Recordkeeping and Reporting Requirements.

1) The unit of local government owner or operator must place the following items in the facility's operating record:

A) A letter signed by the unit of local government's chief financial officer that provides the following information:

i) It lists all the current cost estimates covered by a financial test, as described in subsection (d) ~~of this Section~~;

ii) It provides evidence and certifies that the unit of local government meets the conditions of subsections (a)(1), (a)(2), and (a)(3) ~~of this Section~~; and

iii) It certifies that the unit of local government meets the conditions of subsections (b) and (d) ~~of this Section~~.

B) The unit of local government's independently audited year-end financial statements for the latest fiscal year (except for a unit of local government where audits are required every two years, where unaudited statements may be used in years when audits are not required), including the unqualified opinion of the auditor who must be an independent certified public accountant (CPA) or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310].

C) A report to the unit of local government from the unit of local government's independent CPA or the Comptroller of the State of Illinois pursuant to the Governmental Account Audit Act [50 ILCS 310] based on

performing an agreed upon procedures engagement relative to the financial ratios required by subsection (a)(1)(B) ~~of this Section~~, if applicable, and the requirements of subsections (a)(2), (a)(3)(C), and (a)(3)(D) ~~of this Section~~. The CPA or Comptroller's report should state the procedures performed and the CPA or Comptroller's findings.

D) A copy of the comprehensive annual financial report (CAFR) used to comply with subsection (b) ~~of this Section~~ or certification that the requirements of Government Accounting Standards Board Statement 18, incorporated by reference in Section 810.104, have been met.

2) The items required in subsection (c)(1) ~~of this Section~~ must be placed in the facility operating record as follows:

A) In the case of closure and post-closure care, ~~before November 27, 1997 or~~ prior to the initial receipt of waste at the facility, ~~whichever is later~~; or

B) In the case of corrective action, not later than 120 days after the corrective action remedy is selected in accordance with the requirements of Sections 811.319(d) and 811.325.

3) After the initial placement of the items in the facility operating record, the unit of local government owner or operator must update the information and place the updated information in the operating record within 180 days following the close of the owner or operator's fiscal year.

4) The unit of local government owner or operator is no longer required to meet the requirements of subsection (c) ~~of this Section~~ when either of the following occurs:

A) The owner or operator substitutes alternative financial assurance as specified in this Section; or

B) The owner or operator is released from the requirements of this Section in accordance with Section 811.326(g), 811.702(b), or 811.704(j) or (k)(6).

5) A unit of local government must satisfy the requirements of the financial test at the close of each fiscal year. If the unit of local government owner or operator no longer meets the requirements of the local government financial test it must, within 120 days following the close of the owner or operator's fiscal year, obtain alternative financial assurance that meets the requirements of this Subpart, place the required submissions for that assurance in the operating record, notify the Agency that the owner or operator no longer meets the criteria of the financial test and that alternative assurance has been obtained, and submit evidence of the alternative financial assurance to the Agency.

A) A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; or

B) A ratio of less than 1.5 comparing total liabilities to net worth; or

C) A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

2) The tangible net worth of the owner or operator must be greater than:

A) The sum of the current closure, post-closure care, corrective action cost estimates and any other environmental obligations, including guarantees, covered by a financial test plus \$10 million except as provided in subsection (a)(2)(B) ~~of this Section~~.

B) \$10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements, provided all of the current closure, post-closure care, and corrective action costs and any other environmental obligations covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the Agency.

3) The owner or operator must have assets located in the United States amounting to at least the sum of current closure, post-closure care, corrective action cost estimates and any other environmental obligations covered by a financial test, as described in subsection (c) ~~of this Section~~.

b) Recordkeeping and reporting requirements.

1) The owner or operator must place the following items into the facility's operating record:

A) A letter signed by the owner's or operator's chief financial officer that includes the following:

i) All the current cost estimates covered by a financial test, including, but not limited to, cost estimates required for municipal solid waste management facilities pursuant to this Part; cost estimates required for UIC facilities pursuant to 35 Ill. Adm. Code 730, if applicable; cost estimates required for petroleum underground storage tank facilities pursuant to 40 CFR 280, if applicable; cost estimates required for PCB storage facilities pursuant to 40 CFR 761, if applicable; and cost estimates required for hazardous waste treatment, storage, and disposal facilities pursuant to 35 Ill. Adm. Code 724 or 725, if applicable; and

ii) Evidence demonstrating that the firm meets the conditions of subsection (a) (1) (A), (a) (1) (B), or (a) (1) (C) ~~of this Section~~ and subsections ~~subsection~~-(a) (2) and (a) (3) ~~of this Section~~.

B) A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Agency must evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Agency deems that the matters that form the basis for the qualification are insufficient to warrant disallowance of the test. If the Agency does not allow use of the test, the owner or operator must provide alternative financial assurance that meets the requirements of this Section.

C) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies subsection (a) (1) (B) or (a) (1) (C) ~~of this Section~~ that are different from data in the audited financial statements referred to in subsection (b) (1) (B) ~~of this Section~~ or any other audited financial statement or data filed with the federal Security Exchange Commission, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report must be based upon an agreed upon procedures engagement in accordance with professional auditing standards and must describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

D) If the chief financial officer's letter provides a demonstration that the firm has assured for environmental obligations, as provided in subsection (a) (2) (B) ~~of this Section~~, then the letter must include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least \$10 million plus the amount of any guarantees provided.

2) An owner or operator must place the items specified in subsection (b) (1) ~~of this Section~~ in the operating record and notify the Agency in writing that these items have been placed in the operating record before the initial receipt of waste ~~or before February 17, 1999, whichever is later~~, in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of Section 811.324.

BOARD NOTE: Corresponding 40 CFR 258.74(e)(2)(ii) provides that this requirement is effective "before the initial receipt of waste or before the effective date of the requirements of this Section (April 9, 1997 or October 9, 1997 for MSWLF units meeting the conditions of Sec. 258.1(f)(1)), whichever is later-". The Board has instead inserted the date on which these amendments are to be filed and become effective in Illinois.

3) After the initial placement of items specified in subsection (b)(1) ~~of this Section~~ in the operating record, the owner or operator must annually update the information and place updated information in the operating record within 90 days following the close of the owner's or operator's fiscal year. The Agency must provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in subsection (b)(1) ~~of this Section~~.

4) The owner or operator is no longer required to submit the items specified in this subsection (b) or comply with the requirements of this Section when either of the following occurs:

A) It substitutes alternative financial assurance, as specified in this Subpart G, that is not subject to these recordkeeping and reporting requirements; or

B) It is released from the requirements of this Subpart G in accordance with Sections 811.700 and 811.706.

5) If the owner or operator no longer meets the requirements of subsection (a) ~~of this Section~~, the owner or operator must obtain alternative financial assurance that meets the requirements of this Subpart G within 120 days following the close of the facility's fiscal year. The owner or operator must also place the required submissions for the alternative financial assurance in the facility operating record and notify the Agency that it no longer meets the criteria of the financial test and that it has obtained alternative financial assurance. The owner or operator must submit evidence of the alternative financial assurance to the Agency.

6) The Agency may require the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation specified in subsection (b) ~~of this Section~~ at any time it has a reasonable belief that the owner or operator may no longer meet the requirements of subsection (a) ~~of this Section~~. If the Agency finds that the owner or operator no longer meets the requirements of subsection (a) ~~of this Section~~, the owner or operator must provide alternative financial assurance that meets the requirements of this Subpart G.

c) Calculation of costs to be assured. When calculating the current cost estimates for closure, post-closure care, corrective action, the sum of the combination of such costs to be covered, and any other environmental obligations assured by a financial test referred to in this Section, the owner or operator must include cost estimates required for municipal solid waste management facilities pursuant to this Part, as well as cost estimates required for the following environmental obligations, if it assures them through a financial test: obligations associated with UIC facilities pursuant to 35 Ill. Adm. Code 730; petroleum underground storage tank facilities pursuant to 40 CFR 280; PCB storage facilities pursuant to 40 CFR 761; and hazardous waste treatment, storage, and disposal facilities pursuant to 35 Ill. Adm. Code 724 or 725.

(Source: Amended at 42 Ill. Reg. , effective)

Section 811.APPENDIX A ~~811.Appendix A~~ Financial Assurance Forms

Section 811.ILLUSTRATION A Trust Agreement

TRUST AGREEMENT

Trust Fund Number Trust Agreement, the "Agreement~~r~~", entered into as of the day of, by and between, a, the "Grantor~~r~~", and, the "Trustee~~r~~". Whereas, Section 21.1 of the Environmental Protection Act, "Act", prohibits any person from conducting any waste disposal operation unless such person has posted with the Illinois Environmental Protection Agency, "IEPA", a performance bond or other security for the purpose of insuring closure of the site and post-closure care or corrective action in accordance with the Act and Illinois Pollution Control Board, "IPCB", rules.

Whereas, the IPCB has established certain regulations applicable to the Grantor, requiring that an operator of a waste disposal site provide assurance that funds will be available when needed for closure and/or post-closure care or corrective action of the site.

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the sites identified in this agreement.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Whereas, Trustee is an entity that has authority to act as a trustee and whose trust operations are regulated by the Illinois Department of Financial and Professional Regulation or who complies with the Corporate Fiduciary Act [205 ILCS 5]. (Line through any condition that does not apply.)

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions.

As used in this Agreement:

- a) The term "Grantor" means the operator who enters into this Agreement and any successors or assigns of the operator.
- b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Sites and Cost Estimates.

This Agreement pertains to the sites and cost estimates identified on attached Schedule A (on Schedule A, list the name and address and current cost estimate of each site for which financial assurance is demonstrated by this agreement).

Section 3. Establishment of Fund.

The Grantor and the Trustee hereby establish a trust fund, the "Fund", for the benefit of the IEPA. The Grantor and the Trustee intend that no other third party have access to the Fund except as provided in this agreement. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached to this agreement. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits on the Fund, less any payments or distributions made by the Trustee pursuant to this agreement. The Fund shall be held by the Trustee, in trust, as provided in this agreement. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor.

Section 4. Payment for Closure and Post-Closure care or Corrective Action.

The Trustee shall make payments from the Fund as the IEPA shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care or corrective action of the sites covered by this agreement. The Trustee shall reimburse the Grantor or other persons as specified by the IEPA from the Fund for closure and post-closure or corrective action expenditures in such amounts as the IEPA shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the IEPA specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund.

Section 5. Payments Comprising the Fund.

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trust Management.

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- a) Securities or other obligations of the Grantor, or any other owner or operator of the site, or any of their affiliates as defined in Section 80a-2(a)(2) of the Investment Company Act of 1940, as amended (15 USC 80a-2(a)(2)) shall not be acquired or held, unless they are securities or other obligations of the Federal government or the State of Illinois;
- b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by the Federal Deposit Insurance Corporation.
- c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment.

The Trustee is expressly authorized in its discretion:

- a) To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 USC 80a-1 et seq.) including one which may be created, managed, underwritten or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee.

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this agreement or by law, the Trustee is expressly authorized and empowered;

- a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expedience of any such sale or other disposition;
- b) To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers granted in this agreement;
- c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by the Federal Deposit Insurance Corporation; and
- e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses.

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee, to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation.

The Trustee shall annually furnish to the Grantor and to the IEPA a statement confirming the value of the Trust. The evaluation day shall be each year on the _____ day of _____. Any securities in the

Fund shall be valued at market value as of the evaluation day. The Trustee shall mail the evaluation statement to the Grantor and the IEPA within 30 days after the evaluation day. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the IEPA shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel.

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation.

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee.

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and the successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the IEPA and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee.

All orders, requests and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests and instructions. All orders, requests and instructions by the IEPA to the Trustee shall be in writing, signed by the IEPA Director or his/her designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests and instructions. The

Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or IEPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests and instructions from the Grantor and/or IEPA, except as provided in this agreement.

Section 15. Notice of Nonpayment.

The Trustee shall notify the Grantor and the IEPA, by certified mail within ten days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement.

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee and the IEPA Director or his/her designee, or by the Trustee and the IEPA Director or his/her designee if the Grantor ceases to exist.

Section 17. Irrevocability and Termination.

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee and the IEPA Director or his/her designee, or by the Trustee and the IEPA Director or his/her designee, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification.

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the IEPA Director or his/her designee issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law.

This Agreement shall be administered, construed and enforced according to the laws of the State of Illinois.

Section 20. Interpretation.

bond:\$NameAddressCityAmount guaranteed by this bond:\$Please attach a separate page if more space is needed for all sites. Total penal sum of bond:Surety's bond number:

The Principal and the Surety promise to pay the Illinois Environmental Protection Agency ("IEPA") the above penal sum unless the Principal provides closure and post-closure care or corrective action for each site in accordance with the closure and post-closure care or corrective action plans for that site. To the payment of this obligation the Principal and Surety jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns.

Whereas the Principal is required, under Section 21(d) of the Environmental Protection Act [415 ILCS 5/21(d)], to have a permit to conduct a waste disposal operation.

Whereas the Principal is required, under Section 21.1 of the Environmental Protection Act [415 ILCS 5/21.1], to provide financial assurance for closure and post-closure care or corrective action.

Whereas the Surety is licensed by the Illinois Department of Insurance or is licensed to transact the business of insurance or approved to provide insurance as an excess or surplus lines insurer by the insurance department in one or more states.

Whereas the Principal and Surety agree that this bond shall be governed by the laws of the State of Illinois.

The Surety shall pay the penal sum to the IEPA if, during the term of the bond, the Principal fails to provide closure or post-closure care or corrective action for any site in accordance with the closure and post-closure care or corrective action plans for that site as guaranteed by this bond. The Principal fails to so provide when the Principal:

- a) Abandons the site;
- b) Is adjudicated bankrupt;
- c) Fails to initiate closure of the site or post-closure care or corrective action when ordered to do so by the Illinois Pollution Control Board or a court of competent jurisdiction;
- d) Notifies the IEPA that it has initiated closure, or initiates closure, but fails to close the site or provide post-closure care or corrective action in accordance with the closure and post-closure care or corrective action plans;
- e) For corrective action, fails to implement corrective action at a municipal solid waste landfill unit in accordance with 35 Ill. Adm. Code 811.326; or
- f) Fails to provide alternative financial assurance and obtain the IEPA written approval of the assurance provided within 90 days after

receipt by both the Principal and the IEPA of a notice from the Surety that the bond will not be renewed for another term.

The Surety shall pay the penal sum of the bond to the IEPA within 30 days after the IEPA mails notice to the Surety that the Principal has met one or more of the conditions described above . Payment shall be made by check or draft payable to the State of Illinois, Landfill Closure and Post-Closure Fund.

The liability of the Surety shall not be discharged by any payment or succession of payments unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety exceed the amount of the penal sum.

This bond shall expire on the ____ day of _____, _____ [date], but that expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, the Surety notifies both the IEPA and the Principal by certified mail that the Surety has decided not to extend the term of this surety bond beyond the current expiration date. The 120 days will begin on the date when both the Principal and the IEPA have received the notice, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety; provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond from the IEPA in accordance with 35 Ill. Adm. Code 811.702.

In Witness Whereof, the Principal and Surety have executed this Forfeiture Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below certify that they are authorized to execute this surety bond on behalf of the Principal and Surety and that the wording of this surety bond is identical to the wording specified in 35 Ill. Adm. Code 811.Appendix A, Illustration C as that regulation was constituted on the date this bond was executed.

PRINCIPALSURETYSignatureNameTyped NameAddressTitleState of
IncorporationDateSignatureCorporate SealTyped NameTitleCorporate
SealBond Premium: \$

(Source: Amended at 3542 Ill. Reg. 10842, , effective June 22,
2011)

Section 811. APPENDIX A Financial Assurance Forms

Section.811.ILLUSTRATION E Irrevocable Standby Letter of Credit

IRREVOCABLE STANDBY LETTER OF CREDIT

Director

Illinois Environmental Protection Agency
C/O Bureau of Land #24
Financial Assurance Program
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Dear Sir or Madam:

We have authority to issue letters of credit. Our letter-of-credit operations are regulated by the Illinois Department of Financial and Professional Regulation or our deposits are insured by the Federal Deposit Insurance Corporation. (Omit language that does not apply.)

We hereby establish our Irrevocable Standby Letter of Credit No. in your favor, at the request and for the account of up to the aggregate amount of U.S. dollars (\$) available upon presentation of: 1. your sight draft, bearing references to this letter of credit No.; and 2. your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Environmental Protection Act [415 ILCS 5] and 35 Ill. Adm. Code 811.713(e)."

This letter of credit is effective as of [date] and shall expire on [date] at least one year later]; but that expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. The 120 days will begin on the date when both the [owner's or operator's name] and the IEPA have received the notice, as evidenced by the return receipts. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your ~~sight draft~~ sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on, under and in compliance with the terms of this credit, we shall duly honor that draft upon presentation to us, and we shall deposit the amount of the draft directly into the State of Illinois Landfill Closure and Post-Closure or Corrective Action Fund in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 35 Ill. Adm. Code 811. Appendix A, Illustration E as that regulation was constituted on the date shown below.

Signature Typed Name Title Date Name and address of issuing institution This credit is subject to f (insert "the most recent edition of the ~~Uniform Customs~~ Uniform Customs and Practice for Documentary Credits, published and copyrighted by the ~~International Chamber of~~ International Chamber of Commerce r", or "the Uniform Commercial Code" +).

(Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.APPENDIX ~~811.Appendix~~-B State-Federal MSWLF Regulations Correlation Table

RCRA SUBTITLE D REGULATIONS ILLINOIS LANDFILL ~~REGULATIONS~~I. REGULATIONS
I. SUBPART A: General1) Purpose, Scope, and Applicability (40 CFR 258.1)1) NL1: Sections 811.101, 811.301, 811.401, 811.501, and 811.700. EL2: Section 814.101.2) Definitions (40 CFR 258.2)2) Section 810.103.3) Research, Development, and ~~Demonstration~~
~~Permits (40 CFR 258.4)3) 3)~~Sections 811.103(b)(1) and (b)(2),
Demonstration Permits (40 CFR 258.4)811.107(m)(1)(C), 811.314(a), and 813.112.II. SUBPART B: Location Restrictions1) Airport safety (40 CFR 258.10)1) NL1: Section 811.302(e) and (f). EL2: Section 814.302(c) and 814.402(c).2) Floodplains. (40 CFR 258.11)2) NL1: Section 811.102(b). EL2: Sections ~~Section~~814.302(a)(1) and 814.402(a)(1).3) Wetlands. (40 CFR 258.12)3) NL1: Sections 811.102(d) and (e), ~~811.102(e)~~, and 811.103. EL2: Sections ~~811.102(d) and (e)~~, ~~811.102(e)~~, and ~~811.103.4)~~814.302 and 814.402.4)Fault areas. (40 CFR 258.13)4) NL1: Sections 811.304 and 811.305. EL2: Section 814.302 and 814.402.5) Seismic impact zones. (40 CFR 258.14)5) Same as above.6) Unstable areas. (40 CFR 258.15)6) NL1: Sections 811.304 and 811.305. EL2: Sections 811.302(c) and 811.402(c).7) Closure of existing MSWL units. (40 CFR 258.16)7) EL2: Sections 814.301 and 814.401.III. SUBPART C: Operating Criteria1) Procedures for excluding the receipt of hazardous waste. (40 CFR 258.20)1) NL1: Section 811.323. EL2: Sections 814.302 and 814.402.2) Cover material requirements. (40 CFR 258.21)2) NL1: Section 811.106. EL2: Sections 814.302 and 814.402.3) Disease vector control. (40 CFR 258.22)3) NL1: Section 811.107(i). EL2: Sections 814.302 and 814.402.4) Explosive gas control. (40 CFR 258.23)4) NL1: Sections 811.310, 811.311, and 811.312. EL2: Sections 814.302 and 814.402.5) Air criteria. (40 CFR 258.24)5) NL1: Sections 811.107(b), 811.310, and 811.311. EL2: Sections 814.302 and 814.402.6) Access requirements. (40 CFR 258.25)6) NL1: Section 811.109. EL2: Sections 814.302 and 814.402.7) Run-on/run-off control system. (40 CFR 258.26)7) NL1: Section 811.103. EL2: Sections 814.302 and 814.402.8) Surface water requirements. (40 CFR 258.27)8) Same as above.9) Liquids restrictions. (40 CFR 258.28)9) NL1: Section 811.107(m). EL2: Sections 814.302 and 814.402.10) Recordkeeping requirements. (40 CFR 258.29)10) NL1: Sections 811.112, and Parts 812 and 813. EL2: Sections 814.302 and 814.402.IV. SUBPART D: Design criteria (40 CFR 258.40)IV) NL1: 811.303, 811.304, 811.305, 811.306, 811.307, 811.308, 811.309, 811.315, 811.316, 811.317, and 811.Subpart E. EL2: Sections 814.302 and 814.402.V. SUBPART E: Groundwater Monitoring and Corrective Action1) Applicability.1) NL1: 35 Section 811.319(a)(1). EL2: Sections 814.302 and 814.402.2) Groundwater monitoring systems. (40 CFR 258.51)2) NL1: Sections 811.318 and 811.320(d). EL2: Sections 814.302 and 814.402.3) Groundwater sampling and analysis. (40 CFR 258.53)3) NL1: Sections ~~Section~~811.318(e), 811.320(d), ~~811.320~~ and (e). EL2: Sections 814.302 and 814.402.4) Detection monitoring

program. (40 CFR 258.54)4) NL1: Section 811.319(a). EL2: Sections 814.302 and 814.402.5) Assessment monitoring program. (40 CFR 258.55)5) NL1: Section 811.319(b). EL2: Sections 814.302 and 814.402.6) Assessment of corrective measures. (40 CFR 258.56)6) NL1: Sections 811.319(d) and 811.324. EL2: Sections 814.302 and 814.402.7) Selection of remedy. (40 CFR 258.57)7) NL1: Sections 811.319(d) and 811.325. EL2: Sections 814.302 and 814.402.8) Implementation of the corrective action program. (40 CFR 258.58)8) NL1: Sections 811.319(d) and ~~811.325~~ 811.326. EL2: Sections 814.302 and 814.402.VI. SUBPART F: Closure and Post-Closure Care1) Closure criteria. (40 CFR 258.60)1) NL1: Sections 811.110, ~~811.315~~ 811.314, and 811.322. EL2: Sections 814.302 and 814.402.2) Post-closure care requirements. (40 CFR 258.61)2) NL1: Section 811.111. EL2: Sections 814.302 and 814.402.VII. SUBPART G: Financial Assurance Criteria1) Applicability and effective date. (40 CFR 258.70)1) NL1: Section 811.700. EL2: Sections 814.302 and 814.402.2) Financial assurance for closure. (40 CFR 258.71)2) NL1: Sections 811.701 through 811.705. EL2: Sections 814.302 and 814.402.3) Financial assurance for post-closure. (40 CFR 258.72)3) Same as (2).4) Financial assurance for corrective action. (40 CFR 258.73)4) Same as (2).5) Allowable mechanisms. (40 CFR 258.74 and 258.75)5) NL1: Section 811.706 through 811.720. EL2: Sections 814.302 and 814.402.1 - NL: New Landfill; 2 - EL: Existing Landfill and Lateral Expansions. (Source: Amended at 42 Ill. Reg. _____, effective _____)

Section 811.APPENDIX ~~Appendix~~-C List of Leachate Monitoring Parameters
pH

~~Elevation~~pH~~Elevation~~ Leachate ~~Surface~~Bottom~~Surface~~Bottom of Well
~~Elevation~~Leachate~~Elevation~~Leachate Level from Measuring
~~Point~~Arsenic~~Point~~Arsenic (total) Barium (total) ~~Cadmium~~Cadmium (total)
mg/~~Iron~~Iron (total) Ammonia Nitrogen - ~~NBacteria~~NBacteria (Fecal
Coliform) Biochemical Oxygen Demand
(BOD5) 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,1-Dichloropropene
1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene 1,2-Dibromo-3-Chloropropane 1,2-Dichloroethane
1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichloropropane 1,3-Dichloropropene
1,4-Dichloro-2-Butene 1-Propanol 2,2-Dichloropropane 2,4,5-tp (Silvex)
2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dichlorophenoxyacetic Acid
(2,4-D) 2,4-Dimethylphenol 2,4-Dinitrotoluene 2,4-Dinitrophenol 2,6-Dinitrotoluene
2-Chloroethyl Vinyl Ether 2-Chloronaphthalene 2-Chlorophenol 2-Hexanone 2-Propanol (Isopropyl
Alcohol) 3,3-Dichlorobenzidine 4,4-DDD 4,4-DDE 4,4-DDT 4,6-Dinitro-o-Cresol 4-Bromophenyl
Phenyl Ether 4-Chlorophenyl Phenyl Ether 4-Methyl-2-Pentanone 4-~~Nitrophenol~~
~~Acenaphthene~~
~~Acetone~~
~~Alachlor~~
~~Aldicarb~~

Aldrin
Alpha - BHC
Aluminum
Anthracene
Antimony
Atrazine
Benzene
Benzo (a) Anthracene
Benzo (a) Pyrene
Benzo (b)
FluorantheneBenzoNitrophenolAcenaphtheneAcetoneAlachlorAldicarbAldrinAlp
ha - BHCAluminumAnthraceneAntimonyAtrazineBenzeneBenzo (a)
AnthraceneBenzo (a) PyreneBenzo (b) FluorantheneBenzo (ghi) Perylene
Benzo (k) FluorantheneBerylliumPeryleneBenzo (k) FluorantheneBeryllium
(total) Beta - BHC
BicarbonateBisBHCBicarbonateBis (2-Chloro-1-Methylethyl)
EtherBisEtherBis (2-Chloroethoxy) MethaneBisMethaneBis (2-Chloroethyl)
EtherBisEtherBis (2-Ethylhexyl) Ether
Bis (2-Ethylhexyl) Phthalate
Bis (Chloromethyl) Ether
Boron
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Butanol
Butyl Benzyl Phthalate
Calcium mg/l
Carbofuran
Carbon Disulfide
Carbon TetrachlorideChemicalEtherBis (2-Ethylhexyl)
PhthalateBis (Chloromethyl)
EtherBoronBromobenzeneBromochloromethaneBromodichloromethaneBromoformBro
momethaneButanolButyl Benzyl PhthalateCalcium mg/lCarbofuranCarbon
DisulfideCarbon TetrachlorideChemical Oxygen Demand (COD)
Chlordane
Chloride mg/l
Chlorobenzene
Chloroethane
Chloroform
ChloromethaneChromiumChlordaneChloride
mg/lChlorobenzeneChloroethaneChloroformChloromethaneChromium
(hexavalent) Chromium (total)
Chrysene
Cis-1,2-DichloroethyleneCobaltChryseneCis-1,2-DichloroethyleneCobalt
(total) Copper (total)
Cyanide
DDT
Delta - BHC DiCyanideDDTDelta - BHCDi-N-Butyl Phthalate
Di-N-Octyl Phthalate
Dibenzo (a,h) Anthracene

Dibromochloromethane
Dibromomethane
Dichlorodifluormethane
Dieldrin
Diethyl Phthalate
Dimethyl Phthalate
Endosulfan I
Endosulfan II
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Ethyl Acetate
Ethylbenzene
Ethylene Dibromide (EDB)
Fluoranthene
Fluorene
Fluoride
Heptachlor Epoxide
Heptachlor
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Ideno (1,2,3-cd) Pyrene
Iodomethane
Isopropylbenzene
Lead (total)
LindaneMagnesiumPhthalateDi-N-Octyl PhthalateDibenzo (a,h)
AnthraceneDibromochloromethaneDibromomethaneDichlorodifluoromethaneDield
rinDiethyl PhthalateDimethyl PhthalateEndosulfan IEndosulfan
IIEndosulfan SulfateEndrinEndrin AldehydeEthyl
AcetateEthylbenzeneEthylene Dibromide
(EDB)FluorantheneFluoreneFluorideHeptachlor
EpoxideHeptachlorHexachlorobenzeneHexachlorobutadieneHexachlorocyclopent
adieneHexachloroethaneIdeno (1,2,3-cd)
PyreneIodomethaneIsopropylbenzeneLead (total)LindaneMagnesium
(total)Manganese (total)Mercury (total)
Methoxychlor
Methyl Chloride
Methyl Ethyl Ketone
Methylene Bromide
Methylene Chloride
NaphthaleneNickelMethoxychlorMethyl ChlorideMethyl Ethyl KetoneMethylene
BromideMethylene ChlorideNaphthaleneNickel (total)Nitrate-Nitrogen
NitrobenzineOilNitrogenNitrobenzineOil. Hexane Soluble (or Equivalent)
Parathion
Pentachlorophenol
Phenanthrene
Phenols
Phosphorous
Polychlorinated Biphenyls
Potassium

Pyrene
~~Selenium~~~~Silver~~~~Parathion~~~~Pentachlorophenol~~~~Phenanthrene~~~~Phenols~~~~Phosphorous~~~~Polychlorinated Biphenyls~~~~Potassium~~~~Pyrene~~~~Selenium~~~~Silver~~ (total) Specific
 Conductance
 Sodium
 Styrene
~~Sulfate~~~~Temperature~~~~Conductance~~~~Sodium~~~~Styrene~~~~Sulfate~~~~Temperature~~ of Leachate
 Sample (°F)
~~Tert-Butylbenzene~~
~~Tetrachlorodibenzo-p-Dioxins~~
~~Tetrachloroethylene~~
~~Tetrahydrofuran~~
~~Thallium~~
~~Tin~~
~~Toluene~~~~Total~~~~tert-Butylbenzene~~~~Tetrachlorodibenzo-p-Dioxins~~~~Tetrachloroethylene~~~~Tetrahydrofuran~~~~Thallium~~~~Tin~~~~Toluene~~~~Total~~ Organic Carbon (TOC) Total
 Dissolved Solids (TDS) mg/l ~~Total~~ ~~Suspended Solids~~ (TSS) ~~mg/l~~ ~~Total~~
~~Suspended Solids~~ (TSS)
~~mg/l~~ ~~Toxaphene~~ ~~trans-1,2-Dichloroethylene~~ ~~trans-1,3-Dichloropropene~~ ~~Trichloroethylene~~ ~~Trichlorofluoromethane~~ ~~Vinyl Acetate~~ ~~Vinyl Chloride~~ ~~Xylene~~ ~~Zinc~~
~~(total)~~ ~~m-Dichlorobenzene~~ ~~m-Xylenes~~ ~~n-Butylbenzene~~ ~~n-Nitrosodimethylamine~~ ~~n-Nitrosodiphenylamine~~ ~~n-Nitrosodipropylamine~~ ~~Propylbenzene~~ ~~o-Chlorotoluene~~ ~~o-Dichlorobenzene~~ ~~o-Nitrophenol~~ ~~o-Xylene~~ ~~p-Chlorotoluene~~ ~~p-Cresol~~ ~~p-Dichlorobenzene~~ ~~p-Isopropyltoluene~~ ~~p-Nitrophenol~~ ~~p-Xylene~~ ~~sec-Butylbenzene~~

Note: All parameters must ~~shall~~ be determined from unfiltered samples.

(Source: Amended at 42 Ill. Reg. _____, effective
_____)

~~ILLINOIS REGISTER~~

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

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| Statistics: | |
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| Deletions | 632 |
| Moved from | 2 |
| Moved to | 2 |
| Style change | 0 |
| Format changed | 0 |
| Total changes | 727 |