

From: [McGill, Richard](#)
To: [Brown, Don](#)
Cc: [Leoni, Carlie M.](#); [Bilbruck, Shannon O.](#)
Subject: FW: R18-25 [IPCB, 35 IAC 501, 502, 503, 506]
Date: Thursday, December 14, 2023 4:07:05 PM
Attachments: [image001.png](#)
[R18-25 resp to JCAR.pdf](#)
[35-501RG-P r01 \(47-10\).pdf](#)
[35-502RG-P r01 \(47-10\).pdf](#)
[35-503RG-P r01 \(47-10\).pdf](#)
[35-506RG-P r01 \(47-10\).pdf](#)

Good afternoon, Mr. Clerk:

Please docket this email exchange with JCAR (including all five attachments) as a public comment in R18-25.

Thank you.

Richard R. McGill, Jr.
Senior Attorney for Research & Writing
Illinois Pollution Control Board
60 E. Van Buren St., Suite 630
Chicago, Illinois 60605
(312) 814-6983
richard.mcgill@illinois.gov



From: McGill, Richard
Sent: Thursday, December 14, 2023 4:05 PM
To: Schultz, Kimberly A. <KimberlyS@ilga.gov>; Spencer, Elaine M. <elaines@ilga.gov>
Cc: Bockewitz, Chrystal <crystalb@ilga.gov>
Subject: FW: R18-25 [IPCB, 35 IAC 501, 502, 503, 506]

Good afternoon:

Attached are the Illinois Pollution Control Board's staff responses to Jonathan Eastvold's suggested changes and questions (forwarded here), along with the corresponding line-numbered JCAR r01 documents for 35 IAC 501, 502, 503 and 506.

Thanks for your help. If you have any questions or require additional information, please let me know.

Best regards,

Richard

Richard R. McGill, Jr.

Senior Attorney for Research & Writing
Illinois Pollution Control Board
60 E. Van Buren St., Suite 630
Chicago, Illinois 60605
(312) 814-6983
richard.mcgill@illinois.gov



From: Eastvold, Jonathan C. <JonathanE@ilga.gov>
Sent: Thursday, April 6, 2023 3:06 PM
To: McGill, Richard <Richard.McGill@illinois.gov>
Subject: [External] R18-25

Richard –

What would PCB think of the following first notice changes?

Thanks for your consideration.

Sincerely,

Jonathan

Jonathan C. Eastvold, Ph.D.
Rules Analyst III

Illinois General Assembly
Joint Committee on Administrative Rules
700 Stratton Building
Springfield IL 62706
217-524-9010

Part 501

1. In lines 109 and 110, after "22" add a comma.
2. In line 142, after "property" add a comma. After "and" strike "the".
3. In line 144 after "provide" strike "the" and add "a". After "milk" add a comma.
4. In line 146, strike "high quality" and add "high-quality".

5. In line 147, strike "of".
6. In line 151, strike "which" and add "that".
7. In line 153, after "transported" add a comma.
8. In line 156, after "establishment" add a comma.
9. In line 159, after "threatens" add a comma.
10. In line 162, after "welfare" strike "or" and add a comma.
11. In line 163, after "uses" add a comma. Strike "man" and add "humans".
12. In line 166, after "establishment" add a comma.
13. In line 169, after "threatens" add a comma.
14. In line 187, after "safeguards" add "for". After "location" add a comma.
15. In line 195. After "requirements" add a comma.
16. In line 261, strike "East West" and add "East-West".

In line 262, the URL does not work.

17. In line 291, after "502" add a comma.
18. In line 299, after "walkways" add a comma.
19. In line 311, after "growth" add a comma.
20. In line 331, after "erection" add a comma.
21. In line 354, after "tenants" add a comma.
22. In line 357, strike "which" and add "that".
23. In line 376, after "Operation" add a comma.
24. In line 385, after "treating" add a comma.
25. In line 414, after "water" add a comma.
26. In line 425, strike "which" and add "that".
27. In lines 444 and 447, after "after" add "the".
28. In line 456, after the second "for" add a comma.

29. In line 458, after "adopted" add "under the CWA".
30. In line 459, after "or" add "those".
31. In line 485, after "confined" add a comma.
32. In line 486, after "sorting" add a comma. Strike "which are" and add "that is".
33. In line 494, strike "which" and add "that".
34. In line 503, strike "Narrow" and add "A narrow".
35. In line 519, after "biological" add a comma.
36. In lines 520-521, strike "as will or" and add "that".
37. In line 521, change "the" to "those".
38. In line 522, after "welfare," strike "or".
39. In line 523, strike "man" and add "humans". After "birds" add a comma.
40. In line 537, after "requirements" add a comma.
41. In line 541, after "and" strike "to".
42. In line 575, strike the second "within".
43. In line 579, strike "location of" and add "to be".
44. In lines 582 and 588, change "Start" to "The start".
45. In line 582, strike "which" and add "that".
46. In line 583, strike the comma.
47. In line 623, strike the second "within".
48. In line 639, after "walls" add a comma.
49. In line 641, after "holding" add a comma.
50. In line 643, strike "which" and add "that".
51. In line 649, after "walls" add a comma.
52. In line 656, strike "not a" and add "that is not part".
53. In line 671, strike "in excess of" and add "for more than".

54. In line 680, strike "from" and add "of".
55. In line 698, strike "waste handling" and add "waste-handling".
56. In line 729, after "570" strike the comma.
57. In line 731, strike the comma.
58. In line 734, change "does" to "do".
59. In line 738, strike "facility" and add "facility's". After "to" add "the".
60. In line 739, after "into" add "the".
61. In line 743, strike "man-made" and add "human-made" (twice). After "system" add a comma. Strike "other" and add "another".
62. In line 747, after "discharge" strike "to" and add "into the".
63. In line 808, after "sampling" add a comma.

Part 502

1. In line 53, after "Scope" add a comma.
2. In line 80, after "BAT" add a comma.
3. In line 108, after "into" add "the".
4. In line 109, strike "is" and add "are".
5. In line 112, change "and violate" to "that violates".
6. In line 113, after "Act" add a comma. Strike "regulations" and add "rules".
7. In line 143, strike "The" and "livestock" and add "Livestock". After "into" add "the".
8. In line 144, after "from" strike "the".
9. In line 150, strike "land applied" and add "land-applied".
10. In the table after line 168, in the third row, after "bulls" add a comma.
11. In the table after line 177, in the third row, after "bulls" add a comma.
12. In line 179, after "into" add "the". Strike "man-made" and add "human-made".
13. In line 180, after "system" add a comma. Strike "other" and add "a". Strike "man-made" and add "human-made".

14. In line 182, after "into" add "the".
15. In line 183, after "through" add a comma.
16. In line 194, strike the comma.
17. In line 210, after "reaching" add "the".
18. In line 213, after "to" add "the".
19. In line 215, after "into" add "the".
20. In line 218, after "rainfall" add a comma.
21. In line 229, after "into" add "the".
22. In lines 229-230 and 230, strike "man-made" and add "human-made".
23. In line 230, after "system" add a comma. Strike "other" and add "a".
24. In line 233, after "through" add a comma.
25. In line 248, after "to" add "the".
26. In line 256, change "a" to "an".
27. In line 275, strike "where" and add "when".
28. In line 281, after "longitude" strike "at" and add "of".
29. In line 284, after "under" add "a".
30. In line 294, strike "above ground" and add "above-ground".
31. In lines 294-295, strike "below ground" and add "below-ground".
32. In line 311, after "of" add "the".
33. In line 329, strike "regulations" and add "rules".

In line 342, the email address does not work.

34. In line 352, strike "non-compliance" and add "noncompliance".
35. In line 359, strike "vice-president," and add "vice president". Strike "his" and add "a". After "representative" strike the comma.
36. In line 363, strike "other" and add "another".
37. In line 371, strike "et. seq."

38. In line 384, strike "regulations" and add "rules".
39. In line 396, strike "regulation" and add "Part".
40. In line 409, change "will" to "applies" and strike "apply".
41. In line 410, after "conditions" add a comma.
42. In line 417, strike "regulations" and add "rules".
43. In line 423, strike "regulations" and add "rules".
44. In line 424, strike "which" and add "that".

UNRESOLVED ISSUE: Background text in Sec. 502.305(a) authorizes EPA to adopt "procedures" that state criteria for the design and maintenance of concentrated animal feeding operations (CAFOs). This could allow for the imposition of policy by EPA outside of rule. Can the standards underlying this authority on EPA's part be spelled out in a subsequent rulemaking on this Part?

45. In line 435, strike the comma. Delete "et seq.".
46. In line 480, change "are" to "apply".
47. In line 481, strike "apply".
48. In line 505, after "G" add a comma.
49. In line 554, strike "actually".
50. In line 577, after "tons" add a comma.
51. In line 600, after "direction" add a comma. After "at" add "the".
52. In line 610, strike "Records" and add "Soil analyses, as well as records".
53. In line 611, strike "and soil analyses".
54. In line 628, delete "generates" and restore "generated".
55. In line 631, delete "transfers" and restore "transferred".
56. In line 638, strike "were" and add "that was".
57. In line 650, strike "non-compliance" and add "noncompliance".
58. In line 657, strike "in accordance with" and add "under".
59. In line 664, strike "in accordance with" and add "under".

60. In line 696, strike "regulations" and add "rules".
61. In line 701, after "43" add a comma.
62. In line 702, strike "regulations" and add "rules".
63. In line 715, strike "in accordance with" and add "under". Strike "Procedural Rules" and add "procedural rules in 35 Ill. Adm. Code 101 through 108".
64. In line 716, strike "which" and add "that".
65. In line 717, strike "regulations" and add "rules".
66. In line 734, after "**Scope**" add a comma.
67. In line 737, strike "to" and add "into the".
68. In lines 746-747, strike "site specific" and add "site-specific".
69. In line 771, after "size" add a comma.
70. In line 788, strike "five year" and add "five-year".
71. In line 802, strike "single year" and add "single-year".
72. In line 857, strike the second "single year" and add "single-year".
73. In line 858, strike "single year" and add "single-year".
74. In line 891, strike "site specific" and add "site-specific".
75. In line 910, strike "winter time" and add "wintertime". [Or simply strike "time".]
76. In line 913, after "managing" add a comma.
77. In line 920, after "outlet" add a comma.
78. In line 936, after "conditions" add a comma.
79. In line 995, strike "plant available" and add "plant-available".
80. In lines 1029-1030, strike "in accordance with" and add "under".
81. In line 1041, strike "in accordance with" and add "using".
82. In line 1060, change "volatizing" to "volatilizing".
83. In line 1076, strike "in accordance with" and add "using".
84. In line 1094, strike "plant available" and add "plant-available".

85. In line 1111, strike "in accordance with" and add "using Agency-approved".
86. In line 1112, delete "the Agency approves".
87. In lines 1127-1128, strike "in accordance with the requirements of" and add "under".
88. In line 1137, strike "to" and add "of".
89. In line 1142, strike "to" and add "of".
90. In line 1215, after "sheep" add a comma.
91. In line 1232, after "(a)(2)" add a comma.
92. In lines 1233 and 1236, after "into" add "the".
93. In line 1238, after "operated" add a comma.
94. In line 1241, after "poultry" add a comma.
95. In line 1278, strike "off site" and add "off-site".
96. In line 1281, strike "a 25-year period" and add "25 years".
97. In line 1284, after "BODs" add a comma.
98. In line 1306, after "monitoring" add a comma.
99. In line 1308, after "with" add "the".
100. In line 1327, strike "open surface" and add "open-surface".
101. In line 1344, after "to" add "the".
102. In line 1348, after "by-products" add a comma.
103. In line 1364, strike "maintain" and add "continue".
104. In line 1368, after the first "to" add "the". Strike the period.
105. In line 1391, after "roofs" add a comma.
106. In line 1394, strike "wash down" and add "wash-down".
107. In line 1408, after "piping" add a comma.
108. In line 1420, after "to" add "the".
109. In lines 1456-1457, strike "in accordance with" and add "using".

- 110. In line 1477, after "Instead" add a comma.
- 111. In line 1486, strike "50 foot" and add "50-foot".
- 112. In line 1507, strike "in accordance with" and add "under".
- 113. In line 1545, after "to" add "the".
- 114. In line 1546, strike "to" and add "into the".
- 115. In line 1566, strike "East West" and add "East-West".

Line 1571: The link does not work.

- 116. In line 1578, strike "East West" and add "East-West".

Line 1583: The link does not work.

- 117. In line 1620, after "sand" add a comma.
- 118. In line 1635, after "to" add "the".
- 119. In line 1685, strike the comma.
- 120. In line 1696, strike "plant available" and add "plant-available".
- 121. In lines 1709 and 1716, strike "is" and add "are".
- 122. In line 1725, after the second "yields" add a comma.
- 123. In line 1727, strike "soils based" and add "the owner or operator must use soil-based".
- 124. In line 1732, delete "the owner or operator must use".
- 125. In line 1838, after "days" add "of".
- 126. In line 1841, after "due to" add "a".
- 127. In line 1845, after "water" add a comma.
- 128. In line 1846, strike "during" and add "from".
- 129. In line 1856, after "for" add "large".
- 130. In line 1857, after "poultry" add a comma. Strike "large".

Lines 1865-1867: Neither address works.

- 131. In line 1879, strike "ice covered" and add "ice-covered".

132. In lines 1879-1880, strike "snow covered" and add "snow-covered".

133. In line 1884, after "during" add "the".

134. In lines 1886-1887, strike "24-hours" and add "24 hours".

135. In line 1897, strike "East West" and add "East-West".

Line 1902: The link does not work.

136. In line 1909, strike "East West" and add "East-West".

Line 1914: The link does not work.

137. In line 1917, strike "ice covered" and add "ice-covered".

138. In lines 1917-1918, strike "snow covered" and add "snow-covered".

139. In line 1919, strike "24 hour" and add "24-hour".

140. In line 1929, strike "East West" and add "East-West".

Line 1934: The link does not work.

141. In line 1941, strike "East West" and add "East-West".

142. In line 1948, strike "ice covered" and add "ice-covered".

143. In lines 1948-1949, strike "snow covered" and add "snow-covered".

144. In line 1953, strike "East West" and add "East-West".

145. In lines 1964 and 1967, strike "ice covered" and add "ice-covered".

146. In lines 1964-1965 and 1967, strike "snow covered" and add "snow-covered".

147. In line 1972, strike "ice covered" and add "ice-covered".

148. In lines 1972-1973, strike "snow covered" and add "snow-covered".

149. In line 1994, strike "ice covered" and add "ice-covered". After "land" add a comma.

150. In line 1995, strike "snow covered" and add "snow-covered".

151. In line 2000, after "basins" add a comma.

152. In line 2003, after "residue" add a comma.

153. In line 2011, strike "field specific" and add "field-specific".

154. In line 2013, after "T" strike the comma.
155. In line 2014, strike ", in accordance with" and add "equal to or less than 300 pounds per acre using".
156. In line 2016, strike ", equal to or less than 300 pounds per acre".
157. In lines 2034 and 2040, strike "quarter mile" and add "quarter-mile".
158. In line 2050, change "premit's" to "permit's".
159. In line 2052, strike "be in accordance with" and add "follow".
160. In line 2081, strike "kjeldahl" and add "Kjeldahl".
161. In line 2109, strike the comma.
162. In line 2114, strike "upgrade" and add "uphill".
163. In lines 2114-2115, strike ", which includes" and add "(i.e.,".
164. In line 2117, after "area" add a closing parenthesis.
165. In lines 2119-2120, strike "down gradient" and add "down-gradient".
166. In line 2121, after "waterways" add a comma. After "waters" strike the comma.
167. In line 2122, strike "35 foot" and add "35-foot".
168. In line 2124, after "sinkholes" add a comma.
169. In line 2138, after "waterways" add a comma.
170. In line 2173, after "**BAT**" add a comma.
171. In line 2187, strike "to" and add "into the".
172. In line 2195, after "constructed" add a comma. Strike "process generated" and add "process-generated".
173. In line 2203, strike "of".
174. In lines 2204 and 2205, strike "to" and add "into the".
175. In line 2210, after "operated" add a comma.
176. In lines 2218 and 2219, strike "to" and add "into the".
177. In line 2253, after "into" add "the".

178. In line 2254, strike "to" and add "into the".
179. In line 2258, after "operated" add a comma.
180. In line 2271, after "poultry" add a comma.
181. In line 2329, after "saturated" add a comma.
182. In line 2340, strike "in accordance with" and add "under".
183. In line 2369, after "Alternatively" add a comma.
184. In lines 2383-2384, strike "in accordance with" and add "under".
185. In line 2407, strike "approved by".
186. In line 2412, strike the URL and add "<https://hrsl.ba.ars.usda.gov/SPAW/Index.htm>".

Part 503

1. In line 27, after "farms" add a comma. Strike "which" and add "that". After "grow" add a comma.
2. In line 28, after "raceways" add a comma.
3. In line 34, strike "which" and add "that".
4. In line 37, strike "which" and add "that".
5. In line 39, strike the comma.
6. In line 40, strike "The non-native" and add "Non-native". Strike "defined" and add "identified".
7. In line 44, strike "Cyprinum" and add "Cyprinus".

Part 506

1. In line 16, after "Modifications" add a comma.
2. In line 173, strike "five foot" and add "five-foot".
3. In line 186, strike "that" and add "the".
4. In line 189, after "McHenry" add a comma.
5. In line 194, strike "0.1 foot" and add "0.1-foot".
6. In line 197, after "lake" add a comma.

7. In line 207, after "through" strike "a".
8. In line 233, after "*corporation*" add a comma.
9. In line 275, after "settling of" add "the".
10. In line 322, strike "on a yearly basis, where water table is the surface on which the fluid" and add "annually".
11. Strike lines 323-326.
12. In line 337, after "by" add "the".
13. Before line 340, add "\"Water table\" means the depth at which the fluid pressure in the soil pore space is equal to the atmospheric pressure. The location of the water table is determined by the level at which water stands in a shallow well open along its length and penetrating the surficial deposits just deeply enough to encounter standing water at the bottom.". (Could we replace "surficial" with "surface" too?)
14. In line 342, after "**Modifications**" add a comma.
15. In lines 353 and 361, after "water" add a comma.
16. In lines 414 and 423, after "water" add a comma.
17. In line 447, after "If" add "the soil boring reveals".
18. In line 448, strike "is discovered".
19. In lines 448-449, delete "from the soil boring performed".
20. In line 470, strike "subsection" and add "subsections".
21. In line 534, strike "bermtop" and add "berm top".
22. In line 553, strike the semicolon and add a comma.
23. In lines 569 and 572, strike "wash down" and add "washdown".
24. In line 570, after "roofs" add a comma.
25. In line 587, strike "bermtop" and add "berm top".
26. In line 608, after the comma add "a". After "drainage well" add a comma. After "or" add "an".
27. In line 619, strike "wash down" and add "washdown".
28. In line 636, after "water" add a comma.

29. In lines 682 and 693, after "construction" add a comma.
30. In line 710, after "water" add a comma.
31. In line 724, strike "down gradient of" and add "downgradient from".
32. In line 738, strike "five foot" and add "five-foot".
33. In line 752, after "water" add a comma.
34. In line 775, after "water" add a comma.
35. In line 794, strike "bermtop" and add "berm top".
36. In line 804, strike "the".
37. In line 880, after "water" add a comma.
38. In lines 953 and 962, after "water" add a comma.
39. In line 1048, after "roofs" add a comma.
40. In line 1053, strike "wash down" and add "washdown".
41. In line 1072, strike "wash down" and add "washdown". Strike the comma.
42. In line 1095, strike "that is".
43. In lines 1103 and 1113, strike "MidWest" and add "Midwest".
44. In line 1138, after the first comma add "a". After "or" add "an".
45. In lines 1150, 1157, 1163, 1169, and 1176, strike "MidWest" and add "Midwest".
46. In line 1188, strike "other" and add "another".
47. In line 1200, after "to" add "a".
48. In line 1201, strike the comma.
49. In lines 1221 and 1226, strike "MidWest" and add "Midwest".
50. In line 1230, strike "be in".
51. In line 1231, change "compliance" to "comply".
52. In line 1232, strike "MidWest" and add "Midwest".
53. In line 1237, strike "be in" and change "compliance" to "comply".

54. In line 1238, strike "MidWest" and add "Midwest".
55. In line 1293, strike "deep bedded" and add "deep-bedded".

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From: Eastvold, Jonathan C. <JonathanE@ilga.gov>
Sent: Thursday, April 6, 2023 3:06 PM
To: McGill, Richard <Richard.McGill@illinois.gov>
Subject: [External] R18-25

Richard –

What would PCB think of the following first notice changes?

Thanks for your consideration.

Sincerely,

Jonathan

Jonathan C. Eastvold, Ph.D.
Rules Analyst III

Illinois General Assembly
Joint Committee on Administrative Rules
700 Stratton Building
Springfield IL 62706
217-524-9010

Board staff responses and related changes (12/13/23) appear in bold, red font below.

Part 501

1. In lines 109 and 110, after "22" add a comma.

ACCEPT.

In line 141, after "maintain" add a comma.

2. In line 142, after "property" add a comma.

ACCEPT.

After "and" strike "the".

ACCEPT.

3. In line 144 after "provide" strike "the" and add "a".

ACCEPT.

After "milk" add a comma.

ACCEPT.

4. In line 146, strike "high quality" and add "high-quality".

ACCEPT.

5. In line 147, strike "of".

ACCEPT.

6. In line 151, strike "which" and add "that".

ACCEPT.

7. In line 153, after "transported" add a comma.

ACCEPT.

8. In line 156, after "establishment" add a comma.

ACCEPT.

9. In line 159, after "threatens" add a comma.

ACCEPT.

10. In line 162, after "welfare" strike "or" and add a comma.

ACCEPT.

After both "safety" and "agricultural" add a comma.

11. In line 163, after "uses" add a comma.

ACCEPT.

Strike "man" and add "humans".

ACCEPT.

After "birds" add a comma.

12. In line 166, after "establishment" add a comma.

ACCEPT.

13. In line 169, after "threatens" add a comma.

ACCEPT.

14. In line 187, after "safeguards" add "for".

ACCEPT.

After "location" add a comma.

ACCEPT.

15. In line 195. After "requirements" add a comma.

ACCEPT.

16. In line 261, strike "East West" and add "East-West".

DECLINE. The NOAA/NWS website does not hyphenate "East West Highway" in its street address: <https://www.weather.gov/owp/oh>

In line 262, the URL does not work.

Delete "<https://hdsc.nws.noaa.gov/hdsc/pfds/doc/NA14Vol2.pdf>" and add "https://www.weather.gov/media/owp/oh/hdsc/docs/Atlas14_Volume2.pdf".

17. In line 291, after "502" add a comma.

ACCEPT.

18. In line 299, after "walkways" add a comma.

ACCEPT.

In line 308 after "are" add a comma.

19. In line 311, after "growth" add a comma.

ACCEPT.

20. In line 331, after "erection" add a comma.

ACCEPT.

21. In line 354, after "tenants" add a comma.

ACCEPT.

22. In line 357, strike "which" and add "that".

ACCEPT.

23. In line 376, after "Operation" add a comma.

ACCEPT.

24. In line 385, after "treating" add a comma.

ACCEPT.

25. In line 414, after "water" add a comma.

ACCEPT.

26. In line 425, strike "which" and add "that".

ACCEPT.

27. In lines 444 and 447, after "after" add "the".

ACCEPT.

28. In line 456, after the second "for" add a comma.

ACCEPT.

29. In line 458, after "adopted" add "under the CWA".

ACCEPT.

Strike "which" and add "that".

30. In line 459, after "or" add "those".

ACCEPT.

31. In line 485, after "confined" add a comma.

ACCEPT.

32. In line 486, after "sorting" add a comma.

ACCEPT.

Strike "which are" and add "that is".

ACCEPT.

In line 493, strike "which reflects" and add "reflecting".

33. In line 494, strike "which" and add "that".

ACCEPT.

34. In line 503, strike "Narrow" and add "A narrow".

ACCEPT.

35. In line 519, after "biological" add a comma.

ACCEPT.

36. In lines 520-521, strike "as will or" and add "that".

DECLINE. The phrase "as will or is likely" appears in the Environmental Protection Act's definition of "water pollution". See 415 ILCS 5/3.545. Because JCAR's change would remove one of the two standards, it could be construed as a substantive change and therefore beyond the scope of this rulemaking.

37. In line 521, change "the" to "those".

ACCEPT.

38. In line 522, after "welfare," strike "or".

ACCEPT.

After "safety" add a comma.

39. In line 523, strike "man" and add "humans".

ACCEPT.

After "birds" add a comma.

ACCEPT.

40. In line 537, after "requirements" add a comma.

ACCEPT.

41. In line 541, after "and" strike "to"

ACCEPT.

In line 561, strike "No" and add "A".

In line 562, delete "can" and add "must not".

42. In line 575, strike the second "within".

ACCEPT.

43. In line 579, strike "location of" and add "to be".

DECLINE. It is "locating" that subsection (c)(1) prohibits. Subsection (c)(2) describes two activities that are not considered "locating".

In line 578, delete "must" and add "are not considered locating".

In lines 578-79, strike "not be considered location of".

44. In lines 582 and 588, change "Start" to "The start".

DECLINE. Delete "Start" and add "Starting". Strike "of".

45. In line 582, strike "which" and add "that".

ACCEPT.

46. In line 583, strike the comma.

ACCEPT.

47. In line 623, strike the second "within".

ACCEPT.

48. In line 639, after "walls" add a comma.

ACCEPT.

49. In line 641, after "holding" add a comma.

ACCEPT.

In line 642, strike "aforementioned" and add "these".

50. In line 643, strike "which" and add "that".

ACCEPT.

51. In line 649, after "walls" add a comma.

ACCEPT.

In line 651, after "holding" add a comma.

In line 652, strike "aforementioned" and add "these".

In line 653, change "which" to "that".

52. In line 656, strike "not a" and add "that is not part".

DECLINE. Strike "not a" and add "that is not".

In line 662, strike "In no case" and delete "will". Strike the first "the" and add "The".

In line 663, after "facility", add "must never".

53. In line 671, strike "in excess of" and add "for more than".

ACCEPT.

54. In line 680, strike "from" and add "of".

ACCEPT.

55. In line 698, strike "waste handling" and add "waste-handling".

ACCEPT.

56. In line 729, after "570" strike the comma.

DECLINE. This comma and the comma in line 728 set off the condition.

57. In line 731, strike the comma.

ACCEPT.

58. In line 734, change "does" to "do".

ACCEPT.

59. In line 738, strike "facility" and add "facility's".

ACCEPT.

After "to" add "the".

ACCEPT.

60. In line 739, after "into" add "the".

ACCEPT.

In line 742, after "into" add "the".

61. In line 743, strike "man-made" and add "human-made" (twice).

ACCEPT.

After "system" add a comma.

ACCEPT.

Strike "other" and add "another".

ACCEPT striking "other". DECLINE adding "another".

62. In line 747, after "discharge" strike "to" and add "into the".

ACCEPT.

63. In line 808, after "sampling" add a comma.

ACCEPT.

Part 502

1. In line 53, after "Scope" add a comma.

ACCEPT.

2. In line 80, after "BAT" add a comma.

ACCEPT.

3. In line 108, after "into" add "the".

ACCEPT.

4. In line 109, strike "is" and add "are".

DECLINE.

In line 108, delete "pollutants discharged" and restore "discharge of pollutants".

In line 111, strike "No" and add "A". Delete "is permitted to" and add "must not".

5. In line 112, change "and violate" to "that violates".

ACCEPT.

6. In line 113, after "Act" add a comma.

ACCEPT after second "Act."

Strike "regulations" and add "rules".

ACCEPT.

7. In line 143, strike "The" and "livestock" and add "Livestock".

ACCEPT.

After "into" add "the".

ACCEPT.

8. In line 144, after "from" strike "the".

ACCEPT.

9. In line 150, strike "land applied" and add "land-applied".

ACCEPT.

10. In the table after line 168, in the third row, after "bulls" add a comma.

ACCEPT.

11. In the table after line 177, in the third row, after "bulls" add a comma.

ACCEPT.

12. In line 179, after "into" add "the".

ACCEPT.

Strike "man-made" and add "human-made".

ACCEPT.

13. In line 180, after "system" add a comma.

ACCEPT.

Strike "other" and add "a".

ACCEPT striking of "other". DECLINE adding "a" as the series begins with "a".

Strike "man-made" and add "human-made".

ACCEPT.

14. In line 182, after "into" add "the".

ACCEPT.

15. In line 183, after "through" add a comma.

ACCEPT.

16. In line 194, strike the comma.

ACCEPT.

17. In line 210, after "reaching" add "the".

ACCEPT.

18. In line 213, after "to" add "the".

ACCEPT.

19. In line 215, after "into" add "the".

ACCEPT.

20. In line 218, after "rainfall" add a comma.

ACCEPT.

21. In line 229, after "into" add "the".

ACCEPT.

22. In lines 229-230 and 230, strike "man-made" and add "human-made".

ACCEPT.

23. In line 230, after "system" add a comma.

ACCEPT.

Strike "other" and add "a".

ACCEPT striking "other". DECLINE adding "a" as the series begins with "a".

24. In line 233, after "through" add a comma.

ACCEPT.

25. In line 248, after "to" add "the".

ACCEPT.

26. In line 256, change "a" to "an".

ACCEPT.

27. In line 275, strike "where" and add "when".

ACCEPT.

28. In line 281, after "longitude" strike "at" and add "of".

ACCEPT.

29. In line 284, after "under" add "a".

ACCEPT.

30. In line 294, strike "above ground" and add "above-ground".

ACCEPT.

31. In lines 294-295, strike "below ground" and add "below-ground".

ACCEPT.

32. In line 311, after "of" add "the".

ACCEPT.

33. In line 329, strike "regulations" and add "rules".

ACCEPT.

In line 342, the email address does not work.

Review of IEPA's website did not reveal an option for electronic submittal.

In lines 341 and 342, strike "or electronically submitted at CAFO@EPA.state.il.us".

34. In line 352, strike "non-compliance" and add "noncompliance".

ACCEPT.

35. In line 359, strike "vice-president," and add "vice president".

ACCEPT.

Strike "his" and add "a".

ACCEPT.

After "representative" strike the comma.

ACCEPT.

36. In line 363, strike "other" and add "another".

ACCEPT.

37. In line 371, strike "et. seq."

ACCEPT.

In line 380, change "will" to "must".

38. In line 384, strike "regulations" and add "rules".

ACCEPT.

39. In line 396, strike "regulation" and add "Part".

DECLINE. Strike "regulation" and add "Subtitle".

Strike "any" and add "if a". After "source" strike the comma.

In line 397, strike "which is commenced" and add "started construction". Strike "which is so" and add "was".

In line 398, strike the first "as".

In line 399, after "CWA" change "must" to ", the point source is". Strike "be".

40. In line 409, change "will" to "applies" and strike "apply".

ACCEPT.

41. In line 410, after "conditions" add a comma.

ACCEPT.

42. In line 417, strike "regulations" and add "rules".

ACCEPT.

43. In line 423, strike "regulations" and add "rules".

ACCEPT.

44. In line 424, strike "which" and add "that".

ACCEPT.

UNRESOLVED ISSUE: Background text in Sec. 502.305(a) authorizes EPA to adopt "procedures" that state criteria for the design and maintenance of concentrated animal feeding operations (CAFOs). This could allow for the imposition of policy by EPA outside of rule. Can the standards underlying this authority on EPA's part be spelled out in a subsequent rulemaking on this Part?

The "procedures" language in Section 502.305(a) pre-dates modern rulemaking under the IAPA. See Board docket R72-9 (Aug. 29 & Sept. 5, 1974 (formerly Rule 105); Nov. 14, 1974

(opinion)). The word “procedures” should be replaced with “rules”, which is how the provision is understood. Citing its authority under Section 502.305(a), IEPA has adopted rules codifying design criteria for the field application of livestock waste at 35 Ill. Adm. Code 560, as well as rules codifying design and maintenance criteria regarding runoff field applications systems at 35 Ill. Adm. Code 570. See 35 Ill. Adm. Code 560, 570 (Authority Notes). The change from “procedures” to “rules” is also consistent with Section 502.305(c), which requires IEPA to comply with the IAPA when adopting new or revised criteria.

In lines 424 and 425, strike “procedures” and add “rules”.

Section 502.305(a) articulates standards for adopting the design and maintenance criteria. Specifically, those criteria must “reflect current engineering judgment and advances in the state of the art.” It is unclear whether more specific standards could be stated, given that the criteria are for “the design and maintenance of facilities subject to this chapter.” But, in a future substantive rulemaking on this Part, the Board will seek comment on this issue.

In line 434, after “criteria” add a comma.

45. In line 435, strike the comma.

ACCEPT.

Delete “et seq.”.

ACCEPT.

In line 468, strike “If necessary, the” and add “The”. Strike “will” and add “must”.

In line 469, after “plan” add “if necessary”.

46. In line 480, change “are” to “apply”.

DECLINE. IEPA must notify the CAFO owner or operator and inform the public “of” the terms of the plan applicable to the CAFO, not merely “that” the terms of the plan apply to the CAFO. See below.

In line 479, delete “that” and restore “of”.

In line 480, delete “, are”.

47. In line 481, strike “apply”.

DECLINE to strike “applicable”. See response to No. 46.

In line 483, change “will” to “limits”. Strike “limit”.

48. In line 505, after “G” add a comma.

ACCEPT.

49. In line 554, strike "actually".

ACCEPT.

50. In line 577, after "tons" add a comma.

ACCEPT after first "tons".

51. In line 600, after "direction" add a comma.

ACCEPT.

After "at" add "the".

ACCEPT.

52. In line 610, strike "Records" and add "Soil analyses, as well as records".

DECLINE. Subsection (y) requires maintaining records documenting soil analyses. The suggested change could be misinterpreted as requiring that the soil analyses be maintained rather than the records documenting them.

After "litter" add a comma.

53. In line 611, strike "and soil analyses".

DECLINE. See response in No. 52.

54. In line 628, delete "generates" and restore "generated".

ACCEPT.

55. In line 631, delete "transfers" and restore "transferred".

ACCEPT.

56. In line 638, strike "were" and add "that was".

ACCEPT.

57. In line 650, strike "non-compliance" and add "noncompliance".

ACCEPT.

58. In line 657, strike "in accordance with" and add "under".

ACCEPT.

59. In line 664, strike "in accordance with" and add "under".

ACCEPT.

In line 669, strike "in accordance with" and add "under".

60. In line 696, strike "regulations" and add "rules".

ACCEPT.

61. In line 701, after "43" add a comma.

ACCEPT.

62. In line 702, strike "regulations" and add "rules".

ACCEPT.

63. In line 715, strike "in accordance with" and add "under".

ACCEPT.

After the first "and" add "opportunity for". A case may be decided by summary judgment, i.e., without holding a hearing.

Strike "Procedural Rules" and add "procedural rules in 35 Ill. Adm. Code 101 through 108".

DECLINE. Strike "Procedural Rules" and add "procedural rules in 35 Ill. Adm. Code 101 through 130".

64. In line 716, strike "which" and add "that".

ACCEPT.

65. In line 717, strike "regulations" and add "rules".

ACCEPT.

66. In line 734, after "**Scope**" add a comma.

ACCEPT.

67. In line 737, strike "to" and add "into the".

ACCEPT.

68. In lines 746-747, strike "site specific" and add "site-specific".

ACCEPT.

In line 746, after "submit" add a comma.

69. In line 771, after "size" add a comma.

ACCEPT.

70. In line 788, strike "five year" and add "five-year".

ACCEPT.

71. In line 802, strike "single year" and add "single-year".

ACCEPT.

72. In line 857, strike the second "single year" and add "single-year".

ACCEPT.

73. In line 858, strike "single year" and add "single-year".

ACCEPT.

74. In line 891, strike "site specific" and add "site-specific".

ACCEPT.

75. In line 910, strike "winter time" and add "wintertime". [Or simply strike "time".]

ACCEPT striking "time".

76. In line 913, after "managing" add a comma.

ACCEPT.

77. In line 920, after "outlet" add a comma.

ACCEPT.

78. In line 936, after "conditions" add a comma.

ACCEPT after first "conditions".

79. In line 995, strike "plant available" and add "plant-available".

ACCEPT.

80. In lines 1029-1030, strike "in accordance with" and add "under".

ACCEPT.

81. In line 1041, strike "in accordance with" and add "using".

ACCEPT.

82. In line 1060, change "volatizing" to "volatilizing".

ACCEPT.

83. In line 1076, strike "in accordance with" and add "using".

ACCEPT.

84. In line 1094, strike "plant available" and add "plant-available".

ACCEPT.

85. In line 1111, strike "in accordance with" and add "using Agency-approved".

ACCEPT.

86. In line 1112, delete "the Agency approves".

ACCEPT.

87. In lines 1127-1128, strike "in accordance with the requirements of" and add "under".

ACCEPT.

In line 1127, delete "calculated". After "results" add "calculated". Strike "made".

88. In line 1137, strike "to" and add "of".

DECLINE. In lines 1134 and 1137, strike "revision to" and add "revising".

89. In line 1142, strike "to" and add "of".

DECLINE. Strike "revision to" and add "revising".

In line 1164, strike the commas.

90. In line 1215, after "sheep" add a comma.

ACCEPT.

91. In line 1232, after "(a)(2)" add a comma.

ACCEPT.

92. In lines 1233 and 1236, after "into" add "the".

ACCEPT.

93. In line 1238, after "operated" add a comma.

ACCEPT.

94. In line 1241, after "poultry" add a comma.

ACCEPT.

95. In line 1278, strike "off site" and add "off-site".

ACCEPT.

96. In line 1281, strike "a 25-year period" and add "25 years".

DECLINE. The phrase "a 25-year period" more clearly requires rainfall data from consecutive years.

97. In line 1284, after "BODs" add a comma.

ACCEPT after "BOD₅".

98. In line 1306, after "monitoring" add a comma.

ACCEPT.

99. In line 1308, after "with" add "the".

ACCEPT.

100. In line 1327, strike "open surface" and add "open-surface".

ACCEPT.

101. In line 1344, after "to" add "the".

ACCEPT.

102. In line 1348, after "by-products" add a comma.

ACCEPT.

103. In line 1364, strike "maintain" and add "continue".

ACCEPT.

104. In line 1368, after the first "to" add "the".

ACCEPT.

Strike the period.

ACCEPT.

105. In line 1391, after "roofs" add a comma.

ACCEPT.

106. In line 1394, strike "wash down" and add "wash-down".

ACCEPT.

107. In line 1408, after "piping" add a comma.

ACCEPT.

108. In line 1420, after "to" add "the".

ACCEPT.

109. In lines 1456-1457, strike "in accordance with" and add "using".

ACCEPT.

110. In line 1477, after "Instead" add a comma.

ACCEPT.

111. In line 1486, strike "50 foot" and add "50-foot".

ACCEPT.

112. In line 1507, strike "in accordance with" and add "under".

ACCEPT.

113. In line 1545, after "to" add "the".

ACCEPT.

114. In line 1546, strike "to" and add "into the".

ACCEPT.

115. In line 1566, strike "East West" and add "East-West".\

DECLINE. The NOAA/NWS website does not hyphenate "East West Highway" in its street address: <https://www.weather.gov/owp/oh>

Line 1571: The link does not work.

Delete "http://www.wpc.ncep.noaa.gov/pqpf.conus_hpc_pqph.php" and add "https://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php".

116. In line 1578, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

Line 1583: The link does not work.

In lines 1583-84, delete "<https://www.wpc.ncep.noaa.gov/qpf.qpfz.shtml>." and add "<http://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml>".

117. In line 1620, after "sand" add a comma.

ACCEPT.

118. In line 1635, after "to" add "the".

ACCEPT.

119. In line 1685, strike the comma.

ACCEPT.

120. In line 1696, strike "plant available" and add "plant-available".

ACCEPT.

121. In lines 1709 and 1716, strike "is" and add "are".

ACCEPT.

122. In line 1725, after the second "yields" add a comma.

ACCEPT.

123. In line 1727, strike "soils based" and add "the owner or operator must use soil-based".

ACCEPT.

124. In line 1732, delete "the owner or operator must use".

ACCEPT.

In line 1808, after "ice-covered" add a comma.

In line 1826, strike ", but are not limited to,".

125. In line 1838, after "days" add "of".

ACCEPT.

126. In line 1841, after "due to" add "a".

ACCEPT.

127. In line 1845, after "water" add a comma.

ACCEPT.

128. In line 1846, strike "during" and add "from".

ACCEPT.

129. In line 1856, after "for" add "large".

DECLINE. "Large CAFO" is a defined term. See 35 Ill. Adm. Code 502.103.

130. In line 1857, after "poultry" add a comma. Strike "large".

ACCEPT adding a comma. DECLINE striking "large". See response in No. 129.

Lines 1865-1867: Neither address works.

Delete "<http://www.isws.illinois.edu/atmos/statecli/newnormals/newnormals.htm> or <http://cdo.ncdc.noaa.gov/cgi-bin/climatenormals/climatenormals.pl>." and add "<http://www.isws.illinois.edu/atmos/statecli/newnormals/newnormals.htm> or <https://www.ncei.noaa.gov/products/land-based-station/us-climate-normals>".

131. In line 1879, strike "ice covered" and add "ice-covered".

ACCEPT.

132. In lines 1879-1880, strike "snow covered" and add "snow-covered".

ACCEPT.

133. In line 1884, after "during" add "the".

ACCEPT.

134. In lines 1886-1887, strike "24-hours" and add "24 hours".

ACCEPT.

135. In line 1897, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

Line 1902: The link does not work.

In lines 1902-03, delete “http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php.” and add “https://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php”.

136. In line 1909, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

Line 1914: The link does not work.

In lines 1914-15, delete “http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php.” and add “<https://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml>”.

137. In line 1917, strike "ice covered" and add "ice-covered".

ACCEPT.

138. In lines 1917-1918, strike "snow covered" and add "snow-covered".

ACCEPT.

139. In line 1919, strike "24 hour" and add "24-hour".

ACCEPT.

140. In line 1929, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

Line 1934: The link does not work.

In lines 1934-35, delete “http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php.” and add “https://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php”.

141. In line 1941, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

In line 1946, strike “<http://www.nws.noaa.gov/mdl/synop/products/bullform.mex.htm>” and add “<https://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml>”.

142. In line 1948, strike "ice covered" and add "ice-covered".

ACCEPT.

143. In lines 1948-1949, strike "snow covered" and add "snow-covered".

ACCEPT.

144. In line 1953, strike "East West" and add "East-West".

DECLINE. See first response in No. 115.

145. In lines 1964 and 1967, strike "ice covered" and add "ice-covered".

ACCEPT.

146. In lines 1964-1965 and 1967, strike "snow covered" and add "snow-covered".

ACCEPT.

147. In line 1972, strike "ice covered" and add "ice-covered".

ACCEPT.

148. In lines 1972-1973, strike "snow covered" and add "snow-covered".

ACCEPT.

149. In line 1994, strike "ice covered" and add "ice-covered".

ACCEPT.

After "land" add a comma.

ACCEPT.

150. In line 1995, strike "snow covered" and add "snow-covered".

ACCEPT.

In line 1998, strike the second comma.

151. In line 2000, after "basins" add a comma.

ACCEPT.

152. In line 2003, after "residue" add a comma.

ACCEPT.

153. In line 2011, strike "field specific" and add "field-specific".

ACCEPT.

154. In line 2013, after "T" strike the comma.

ACCEPT.

155. In line 2014, strike ", in accordance with" and add "equal to or less than 300 pounds per acre using".

ACCEPT.

156. In line 2016, strike ", equal to or less than 300 pounds per acre".

ACCEPT.

157. In lines 2034 and 2040, strike "quarter mile" and add "quarter-mile".

ACCEPT.

158. In line 2050, change "premit's" to "permit's".

ACCEPT.

159. In line 2052, strike "be in accordance with" and add "follow".

ACCEPT.

160. In line 2081, strike "kjeldahl" and add "Kjeldahl".

ACCEPT.

161. In line 2109, strike the comma.

ACCEPT.

162. In line 2114, strike "upgrade" and add "uphill".

DECLINE as "upgrade" is more precise.

163. In lines 2114-2115, strike ", which includes" and add "(i.e.,".

DECLINE as "i.e." or "that is" would restrict "adequate diking" to the description that follows. In contrast, the description that follows "includes" is one example—but not necessarily the only example—of "adequate diking". Accordingly, switching to "i.e." could be construed as a substantive change and therefore beyond the scope of this rulemaking.

In line 2115, after "includes" strike the comma.

164. In line 2117, after "area" add a closing parenthesis.

DECLINE. As we decline the suggestion in No. 163, subsection (b)(1) does not have an opening parenthesis.

165. In lines 2119-2120, strike "down gradient" and add "down-gradient".

DECLINE. Strike "down gradient" and add "downgradient".

166. In line 2121, after "waterways" add a comma.

ACCEPT.

After "waters" strike the comma.

ACCEPT.

167. In line 2122, strike "35 foot" and add "35-foot".

ACCEPT.

168. In line 2124, after "sinkholes" add a comma.

ACCEPT.

169. In line 2138, after "waterways" add a comma.

ACCEPT.

170. In line 2173, after "BAT" add a comma.

ACCEPT.

171. In line 2187, strike "to" and add "into the".

ACCEPT.

172. In line 2195, after "constructed" add a comma.

ACCEPT.

Strike "process generated" and add "process-generated".

ACCEPT.

173. In line 2203, strike "of".

ACCEPT.

174. In lines 2204 and 2205, strike "to" and add "into the".

ACCEPT.

175. In line 2210, after "operated" add a comma.

ACCEPT.

176. In lines 2218 and 2219, strike "to" and add "into the".

ACCEPT.

177. In line 2253, after "into" add "the".

ACCEPT.

178. In line 2254, strike "to" and add "into the".

ACCEPT.

179. In line 2258, after "operated" add a comma.

ACCEPT.

180. In line 2271, after "poultry" add a comma.

ACCEPT.

181. In line 2329, after "saturated" add a comma.

ACCEPT.

182. In line 2340, strike "in accordance with" and add "under".

ACCEPT in lines 2340-41.

183. In line 2369, after "Alternatively" add a comma.

ACCEPT.

184. In lines 2383-2384, strike "in accordance with" and add "under".

ACCEPT.

185. In line 2407, strike "approved by".

ACCEPT.

186. In line 2412, strike the URL and add "<https://hrsl.ba.ars.usda.gov/SPAW/Index.htm>".

ACCEPT.

Part 503

1. In line 27, after "farms" add a comma.

DECLINE. Addressed below.

In line 25, before "National" add "A". Strike "are" and add "is".

In lines 26-27, strike "facilities such as hatcheries, fish farms or other facilities which contain, grow or hold" and add "a facility that contains, grows, or holds".

Strike "which" and add "that".

DECLINE. Addressed above.

After "grow" add a comma.

DECLINE. Addressed above.

2. In line 28, after "raceways" add a comma.

ACCEPT.

Strike "other".

Change "that" to "such as a hatchery or fish farm, and that".

In line 30, strike "NPDES permits are" and add "an NPDES permit is".

In line 32, strike "Closed ponds" and add "A closed pond". Strike "discharge" and add "discharges".

3. In line 34, strike "which" and add "that".

DECLINE. Addressed below.

Strike "Facilities which produce" and add "A facility that produces".

In line 37, strike "NPDES permits are" and add "An NPDES permit is". Strike "fish or aquatic animal".

4. In line 37, strike "which" and add "that".

ACCEPT.

5. In line 39, strike the comma.

ACCEPT.

6. In line 40, strike "The non-native" and add "Non-native".

ACCEPT.

Strike "defined" and add "identified".

ACCEPT.

7. In line 44, strike "Cyprinum" and add "Cyprinus".

ACCEPT.

After "auratus)" add a comma.

Part 506

1. In line 16, after "Modifications" add a comma.

ACCEPT.

2. In line 173, strike "five foot" and add "five-foot".

ACCEPT.

3. In line 186, strike "that" and add "the".

ACCEPT.

4. In line 189, after "McHenry" add a comma.

ACCEPT.

5. In line 194, strike "0.1 foot" and add "0.1-foot".

ACCEPT.

6. In line 197, after "lake" add a comma.

ACCEPT.

7. In line 207, after "through" strike "a".

ACCEPT.

8. In line 233, after "*corporation*" add a comma.

ACCEPT.

In lines 245 and 266, strike "*shall*" and add "will".

9. In line 275, after "settling of" add "the".

ACCEPT.

In line 276, strike "*berm top*" and add "berm-top".

In line 287, strike "*shall not be deemed*" and add "will not be considered".

10. In line 322, strike "on a yearly basis, where water table is the surface on which the fluid" and add "annually".

ACCEPT.

11. Strike lines 323-326.

ACCEPT.

12. In line 337, after "by" add "the".

ACCEPT.

13. Before line 340, add "“Water table” means the depth at which the fluid pressure in the soil pore space is equal to the atmospheric pressure. The location of the water table is determined by the level at which water stands in a shallow well open along its length and penetrating the surficial deposits just deeply enough to encounter standing water at the bottom.".

DECLINE. Before line 340, add "“Water table” means the surface on which the fluid pressure in the soil pore space is equal to the atmospheric pressure. The location of the water table is determined by the level at which water stands in a shallow well open along its length and penetrating the surficial deposits just deeply enough to encounter standing water in the bottom.".

Unlike JCAR's proposal, our proposed definition of "water table" above tracks verbatim the existing text's explanation of what a water table is. JCAR's alternative language could be construed as a substantive change and therefore beyond the scope of this rulemaking. For example, in the new definition's first sentence, JCAR's proposal uses "depth at" instead of "surface on". In the field, the water table is referred to as the "surface" on which the fluid pressure in the soil pore space equals the atmospheric pressure.

(Could we replace "surficial" with "surface" too?)

DECLINE. "Surficial" is a geological term of art.

14. In line 342, after "**Modifications**" add a comma.

ACCEPT.

15. In lines 353 and 361, after "water" add a comma.

ACCEPT.

After the first comma add "the".

16. In lines 414 and 423, after "water" add a comma.

ACCEPT.

After the first comma add "the".

17. In line 447, after "If" add "the soil boring reveals".

ACCEPT.

18. In line 448, strike "is discovered".

ACCEPT.

19. In lines 448-449, delete "from the soil boring performed".

ACCEPT.

20. In line 470, strike "subsection" and add "subsections".

DECLINE. The singular applies because of the disjunctive "or" before the last item in the list.

In line 478, strike "shall" and add "must".

21. In line 534, strike "bermtop" and add "berm top".

DECLINE. Strike "bermtop" and add "berm-top".

22. In line 553, strike the semicolon and add a comma.

ACCEPT striking the semicolon. DECLINE adding a comma.

After "or" add ", if designed by a Licensed Professional Engineer and maintained to eliminate berm deterioration,".

In lines 554-55, strike "if designed by a Licensed Professional Engineer and maintained to eliminate berm deterioration".

23. In lines 569 and 572, strike "wash down" and add "washdown".

ACCEPT.

24. In line 570, after "roofs" add a comma.

ACCEPT.

25. In line 587, strike "bermtop" and add "berm top".

DECLINE. Strike "bermtop" and add "berm-top".

26. In line 608, after the comma add "a".

ACCEPT.

After "drainage well" add a comma.

ACCEPT.

After "or" add "an".

ACCEPT.

27. In line 619, strike "wash down" and add "washdown".

ACCEPT.

28. In line 636, after "water" add a comma.

ACCEPT.

After the comma add "the".

29. In lines 682 and 693, after "construction" add a comma.

ACCEPT.

In line 709, strike "~~shall~~" and add "must".

30. In line 710, after "water" add a comma.

ACCEPT.

After the comma add "the".

31. In line 724, strike "down gradient of" and add "downgradient from".

DECLINE. Strike "~~down gradient~~" and add "downgradient".

32. In line 738, strike "five foot" and add "five-foot".

ACCEPT.

33. In line 752, after "water" add a comma.

ACCEPT.

After the comma add "the".

In lines 760 and 762, strike "~~shall~~" and add "must".

34. In line 775, after "water" add a comma.

ACCEPT.

After the comma add "the".

In line 776, delete "in compliance with" and restore "~~as the requirements of~~".

In line 783, strike "*provided that*" and add "if".

35. In line 794, strike "bermtop" and add "berm top".

ACCEPT.

36. In line 804, strike "the".

ACCEPT.

In line 810, after the first comma add "the".

In line 817, strike "*Notwithstanding*" and add "Despite".

In line 818, strike "*pursuant to*" and add "under". Strike "*shall*" and add "must".

37. In line 880, after "water" add a comma.

ACCEPT.

After the comma add "the".

38. In lines 953 and 962, after "water" add a comma.

ACCEPT.

After the comma add "the".

In line 1041, strike "*shall*" and add "must". Strike "*not less than*" and add "at least".

39. In line 1048, after "roofs" add a comma.

ACCEPT.

40. In line 1053, strike "wash down" and add "washdown".

ACCEPT.

In line 1059, strike "*shall*" and add "must".

In line 1060, strike "*not less than*" and add "at least".

41. In line 1072, strike "wash down" and add "washdown".

ACCEPT.

Strike the comma.

ACCEPT.

42. In line 1095, strike "that is".

ACCEPT.

43. In lines 1103 and 1113, strike "MidWest" and add "Midwest".

DECLINE. MidWest Plan Service uses this spelling at mwps.iastate.edu

44. In line 1138, after the first comma add "a".

ACCEPT.

After "or" add "an".

ACCEPT.

45. In lines 1150, 1157, 1163, 1169, and 1176, strike "MidWest" and add "Midwest".

DECLINE. See response in No. 43.

46. In line 1188, strike "other" and add "another".

ACCEPT striking "other". DECLINE adding "another".

47. In line 1200, after "to" add "a".

ACCEPT.

48. In line 1201, strike the comma.

ACCEPT.

In line 1209, after the first comma add "the".

49. In lines 1221 and 1226, strike "MidWest" and add "Midwest".

DECLINE. See response in No. 43.

50. In line 1230, strike "be in".

ACCEPT.

51. In line 1231, change "compliance" to "comply".

ACCEPT.

52. In line 1232, strike "MidWest" and add "Midwest".

DECLINE. See response in No. 43.

53. In line 1237, strike "be in".

ACCEPT.

Change "compliance" to "comply".

ACCEPT.

54. In line 1238, strike "MidWest" and add "Midwest".

DECLINE. See response in No. 43.

In lines 1246 and 1272, after the first comma add "the".

55. In line 1293, strike "deep bedded" and add "deep-bedded".

ACCEPT.

In lines 1302, 1340, 1360, and 1416, after the first comma add "the".

In line 1427, strike "*provided that*" and add "if".

In line 1451, after the first comma add "the".

In line 1460, strike "*shall*" and add "must".

In line 1474, after the first comma add "the".

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE E: AGRICULTURE RELATED POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 501
GENERAL PROVISIONS

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22	501.210	Administrator
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74	501.357	Process Wastewater
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76	501.359	Raw Materials Storage Area
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- 87 501.379 Waste Containment Area
- 88 501.380 Water Pollution
- 89 501.385 Wet Lot
- 90 501.390 25-Year, 24-Hour Precipitation Event
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92

93 SUBPART C: OPERATIONAL RULES FOR ALL LIVESTOCK MANAGEMENT
94 FACILITIES AND LIVESTOCK WASTE-HANDLING FACILITIES

95

96 Section

- 97 501.401 Purpose and Scope of Operational Rules for Livestock Management Facilities and
98 Livestock Waste-Handling Facilities
- 99 501.402 Location of New Livestock Management Facilities and New Livestock Waste-
100 Handling Facilities
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102 Facilities
- 103 501.404 Handling and Storage of Livestock Waste
- 104 501.405 Field Application of Livestock Waste
- 105 501.406 Inspections and Disease Prevention

106

107 501.APPENDIX A References to Previous Rules [\(Repealed\)](#)

108

109 AUTHORITY: Implementing and authorized by Sections 9, 12, 13, 21, 22 and 27 of the
110 Environmental Protection Act [415 ILCS 5/9, 12, 13, 21, 22 and 27].

111

112 SOURCE: Filed and effective January 1, 1978; amended at 2 Ill. Reg. 44, p. 137, effective
113 October 30, 1978; codified at 7 Ill. Reg. 10592; amended in R90-7 at 15 Ill. Reg. 10075,
114 effective July 1, 1991; amended in R12-23 at 38 Ill. Reg. 17661, effective August 11, 2014;
115 amended in R18-25 at 47 Ill. Reg. _____, effective _____.

116

117 SUBPART A: AUTHORITY AND POLICY

118

119 Section 501.101 Authority [\(Repealed\)](#)

120

121 ~~Pursuant to authority granted by Sections 9, 12, 13, 21 and 22 of the Environmental Protection~~
122 ~~Act, which empowers the Board to designate equipment or facilities capable of causing or~~
123 ~~contributing to air and water pollution and to set standards for the issuance of permits for the~~
124 ~~construction, installation and operation and for the inspection of said equipment or facilities; and~~
125 ~~to adopt regulations to promote the purpose of the Act which prohibits the deposit of any~~
126 ~~contaminants upon the land in such a place and manner as to create a water pollution hazard; and~~
127 ~~to set standards limiting the amounts or concentrations of contaminants that may be discharged~~
128 ~~into the waters; and to set standards for the disposal of any refuse and to set procedures for~~
129 ~~monitoring and reporting contaminant discharges at their source; and which directs the Board to~~

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130 ~~adopt requirements, standards and procedures which will enable the State to implement and~~
131 ~~participate in the National Pollutant Discharge Elimination System (NPDES) established by the~~
132 ~~Federal Water Pollution Control Act Amendments of 1972 and 1977 also called the Clean Water~~
133 ~~Act (CWA) (12 U.S.C. 24; 15 U.S.C. 633 and 636; 31 U.S.C. 711; 33 U.S.C. 1251 et seq.), the~~
134 ~~Board adopts the following rules and regulations.~~

135
136 (Source: Repealed at 47 Ill. Reg. _____, effective _____)
137

138 Section 501.102 Policy

- 139
- 140 a) It is the purpose of the General Assembly in adopting the Environmental
141 Protection Act to restore, maintain and enhance the purity of the air and waters of
142 Illinois ~~in order~~ to protect health, welfare, property and the quality of life. An
143 adequate supply of healthy livestock is essential to the well-being of Illinois
144 citizens and the nation. They provide the daily source of meat, milk and eggs.
145 Their efficient, economic production must be the concern of both producers and
146 consumers if we are to have a continued abundance of high quality, wholesome
147 food and of other livestock products at reasonable prices. The policy ~~must~~ shall be
148 ~~to~~ establish regulations that will provide a balance between a wholesome
149 environment and the efficient production of adequate livestock products.
150
- 151 b) Livestock produce wastes which, when properly used, supply nutrients and
152 organic matter to soils. The mere presence of livestock waste in a given location
153 does not denote pollution, but may, when improperly stored, transported or
154 disposed of, undesirably affect the environment.
155
- 156 c) It is ~~hereby~~ determined that the construction, establishment and operation of
157 specified ~~certain~~ livestock management facilities and livestock waste-handling
158 facilities without environmental planning and safeguards or the use of specified
159 ~~certain~~ livestock wastes for agricultural purposes causes, threatens or allows the
160 discharge of contaminants into the air or waters of Illinois so as to cause or
161 threaten to cause pollution or to render those ~~such~~ waters harmful to public health,
162 safety or welfare or to domestic, commercial, industrial, agricultural and
163 recreational uses or to man, livestock, wild animals, birds or fish or other aquatic
164 life.
165
- 166 d) It is ~~hereby~~ determined that the construction, establishment and operation of
167 livestock management facilities and livestock waste-handling facilities without
168 environmental planning and safeguards or the use of livestock wastes for
169 agricultural purposes causes, threatens or allows air pollution. *The discharge of*
170 *contaminants into the air of Illinois in sufficient quantities and of such*
171 *characteristics and duration as to be injurious to human, plant, or animal life, to*
172 *health, or to property, or to unreasonably interfere with the enjoyment of life or*

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173 *property. [415 ILCS 5/3.115], ~~The discharge of contaminants into the air of~~*
174 *~~Illinois in sufficient quantities and of such characteristics and duration as to be~~*
175 *~~injurious to human, plant, or animal life, to health, or to property, or to~~*
176 *~~unreasonably interfere with the enjoyment of life or property. [415 ILCS~~*
177 *~~5/3.115]the discharge of contaminants into the air of Illinois in sufficient~~*
178 *~~quantities and of such characteristics and duration as to be injurious to human,~~*
179 *~~plant or animal life, to health, or to property, or to unreasonably interfere with~~*
180 *~~the enjoyment of life or property. (Ill. Rev. Stat. ch. 111 ½ par. 1003.2) It is~~*
181 recognized that the presence of odor is an inherent characteristic of livestock
182 management facilities and livestock waste-handling facilities, and that the
183 detection of ~~that~~*such* odor ~~is~~*does* not per se ~~constitute~~ air pollution.
184

- 185 e) It is the purpose of this Chapter to prevent pollution of the air and waters of
186 Illinois caused by failure to plan ~~regarding~~*with regard to* proper environmental
187 safeguards the construction, location and operation of ~~specified~~*certain* livestock
188 management facilities and livestock waste-handling facilities. A permit system is
189 established to ensure that ~~those~~*such* activities take account of environmental
190 considerations and to meet the requirements for federal approval, as established
191 by the CWA. It is also the purpose of these regulations to prevent pollution from
192 the numerous point and non-point discharges, both continuous and fluctuating,
193 which are present in ~~specified~~*certain* livestock management facilities or livestock
194 waste-handling facilities. To this end, procedural safeguards are required, in
195 addition to compliance with the CWA, NPDES filing requirements and the feedlot
196 category of point source effluent guidelines.
197

198 (Source: Amended at 47 Ill. Reg. _____, effective _____)
199

200 **Section 501.104 Severability**

201
202 If any provision of this Part is adjudged invalid, or if the application of this Part to any person or
203 in any circumstance is adjudged invalid, that invalidity ~~will~~*shall* not affect the validity of this
204 Chapter as a whole, or of any Part, Subpart, sentence or clause ~~of this Part~~ not adjudged invalid.
205

206 (Source: Amended at 47 Ill. Reg. _____, effective _____)
207

208 SUBPART B: DEFINITIONS AND INCORPORATIONS

209 **Section 501.200 Incorporations by Reference**

- 210
211
212 a) The Board incorporates the following material by reference:
213

214 [ASABE. American Society of Agricultural and Biological Engineers, 2950 Niles](#)
215 [Road, St. Joseph, MI 49085 \(269-429-0300\), fax 269-429-3852, \[hq@asabe.org\]\(mailto:hq@asabe.org\)](#)

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"Management of Manure Odors", ASABE, EP379.4 (January 2007).

"Design of Anaerobic Lagoons for Animal Waste Management", ASABE, EP403.4 (R2011)

"Illinois Agronomy Handbook, 24th Edition", University of Illinois, College of Agriculture, Consumer and Environmental Sciences. Urbana, IL, July 2009. Available from University of Illinois, Office of Extension and Outreach, 111 Mumford Hall (MC-710), 1301 W. Gregory Dr., Urbana, IL 61801 (217) 333-5900.

MWPS. Available from MidWest Plan Service, 122 Davidson Hall, Iowa State University, Ames, IA 50011-3080 (515) 294-4337.

"Livestock Waste Facilities Handbook, Third Edition", MWPS-18. MidWest Plan Service. April 1993.

"Manure Characteristics", Section 1. Second Edition MWPS-18-S1. MidWest Plan Service. 2004.

"Recommended Chemical Soil Test Procedures for the North Central Region", North Central Regional Publication No. 221, Missouri Agricultural Experiment Station Bulletin SB 1001 (January 1998). Available from North Central Region-University of Missouri Soil Testing Lab, 23 Mumford Hall, University of Missouri, Columbia, MO 65211 (573) 884-4288.

"Average Crop, Pasture, and Forestry Productivity Ratings for Illinois Soils; Bulletin No. 810", University of Illinois, College of Agricultural, Consumer and Environmental Sciences, Office of Research (2000), revised January 15, 2011 to amend Table 2 for B810. Available from University of Illinois, College of Agricultural, Consumer, and Environmental Sciences, Office of Research, 228 Mumford Hall, 1301 W. Gregory Dr., Urbana IL 61801 (217) 333-0240.

"Optimum Crop Productivity Ratings for Illinois Soils; Bulletin 811", University of Illinois, College of Agricultural, Consumer and Environmental Sciences, Office of Research (2000), revised January 15, 2011 to amend Table S2 for B811. Available from University of Illinois, College of Agricultural, Consumer, and Environmental Sciences, Office of Research, 228 Mumford Hall, 1301 W. Gregory Dr., Urbana IL 61801 (217) 333-0240.

"NOAA Atlas 14: Precipitation Frequency Atlas of the United States", United States Department of Commerce, National Oceanic and Atmospheric

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259 Administration, National Weather Service, Volume 2, Version 3.0 (2004), revised
260 2006. Available from NOAA, NWS, Office of Hydrologic Development, 1325
261 East West Highway, Silver Spring MD 20910 (Available online at
262 <https://hdsc.nws.noaa.gov/hdsc/pfds/doc/NA14Vol2.pdf>
263 http://www.nws.noaa.gov/oh/hdsc/PF_documents/Atlas14_Volume2.pdf).

264
265 Code of Federal Regulations. Available from the Superintendent of Documents,
266 U.S. Government Printing Office, Washington, DC 20401 (202) 783-3238:

267
268 40 CFR 412.46(a)(1)(ii) (2008), New Source Performance Standards
269 (NSPS).

270
271 40 CFR 412.46(a)(1)(vi) (2008), New Source Performance Standards
272 (NSPS).

273
274 "Agricultural Waste Management Field Handbook", United States Department of
275 Agriculture, Natural Resources Conservation Service (2009). Available from
276 USDA, NRCS, 1400 Independence Ave., S.W., Washington, DC 20250.
277 (Available online at
278 <http://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21430>).

279
280 b) This Section incorporates no later editions or amendments.

281
282 (Source: Amended at 47 Ill. Reg. _____, effective _____)

283
284 **Section 501.201 Definitions**

285
286 a) Except as otherwise stated in this Part, and unless a different meaning of the term
287 is clear from its context, the definitions of terms used in this Chapter ~~are~~**shall be**
288 the same as those used in the Act and 35 Ill. Adm. Code: Subtitle C, Chapter I.

289
290 b) The definitions contained in this Subpart ~~apply~~**are applicable** to 35 Ill. Adm. Code
291 501, 502 and 503.

292
293 (Source: Amended at 47 Ill. Reg. _____, effective _____)

294
295 **Section 501.223 Animal Confinement Area**

296
297 Animal confinement area includes, ~~but is not limited to,~~ open lots, housed lots, feedlots,
298 confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards,
299 barnyards, medication pens, walkers, animal walkways and stables.

300
301 (Source: Amended at 47 Ill. Reg. _____, effective _____)

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Section 501.225 Animal Feeding Operation

- a) A lot or facility (other than an aquatic animal production facility) where the following conditions are met:
 - 1) Animals have been, are or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
 - 2) Crops, vegetation, forage growth or post-harvest residues that are grown in place are not sustained in the normal growing season over any portion of the lot or facility.
- b) Two or more animal feeding operations under common ownership are considered ~~deemed~~ to be a single animal feeding operation if they are adjacent to each other or if they use~~utilize~~ a common area or system to dispose~~for the disposal~~ of wastes.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.238 Concentrated Animal Feeding Operation (CAFO)

An Animal Feeding Operation (AFO) that is defined as a Large CAFO under~~pursuant to~~ 35 Ill. Adm. Code 502.103 or as a medium CAFO under~~pursuant to~~ 35 Ill. Adm. Code 502.104, or that is designated as a CAFO under~~pursuant to~~ 35 Ill. Adm. Code 502.106.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.240 Construction

Start~~Commencement~~ of on-site fabrication, erection or installation.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.245 Existing Livestock Management Facility and Livestock Waste-Handling Facility

Any livestock management facility and livestock waste-handling facility, the construction or modification ~~of~~ which started before~~has commenced prior to~~ the effective date of this Chapter.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.246 Expansion

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345 ~~Start~~Commencement of construction at a livestock management facility or livestock waste-
346 handling facility where the fixed capital cost of the new components constructed within a 2-year
347 period exceeds 50% of a comparable entirely new facility's~~the fixed capital cost-of-a comparable~~
348 ~~entirely new facility.~~

349
350 (Source: Amended at 47 Ill. Reg. _____, effective _____)

351
352 **Section 501.248 Farm Residence**

353
354 Any residence on a farm owned or occupied by the farm owners, operators, tenants or seasonal
355 or year-round hired workers. For ~~purposes of~~ this definition, a "farm" is the land, buildings, and
356 machinery used in the commercial production of farm products, and "farm products" are those
357 plants and animals and their products which are produced or raised for commercial purposes and
358 include ~~but are not limited to~~ forages and sod crops, grains and feed crops, dairy and dairy
359 products, poultry and poultry products, livestock, fruits, vegetables, flowers, seeds, grasses, trees,
360 fish, honey and other similar products, or any other plant, animal, or plant or animal product
361 which supplies people with food, feed, fiber, or fur.

362
363 (Source: Amended at 47 Ill. Reg. _____, effective _____)

364
365 **Section 501.290 Livestock Shelter**

366
367 Any covered structure, including ~~but not limited to~~ livestock houses or barns, in which livestock
368 are enclosed at any time.

369
370 (Source: Amended at 47 Ill. Reg. _____, effective _____)

371
372 **Section 501.295 Livestock Waste**

373
374 Manure, litter, process wastewater, overflow from watering systems, wash waters, sprinkling
375 waters from livestock cooling, precipitation polluted by falling on or flowing onto an Animal
376 Feeding Operation and other materials polluted by livestock, including ~~but not limited to~~ soils
377 and sludges removed from livestock waste storage structures. Livestock waste does not include
378 agricultural stormwater discharge.

379
380 (Source: Amended at 47 Ill. Reg. _____, effective _____)

381
382 **Section 501.300 Livestock Waste-Handling Facility**

383
384 Individually or collectively those constructions or devices, except sewers, used for collecting,
385 pumping, treating or disposing of livestock waste or for the recovery of by-products from ~~such~~
386 livestock waste. The~~Such a~~ facility includes acceptable disposal areas, such as pasture or other
387 suitable agricultural land, which can serve as an adequate filtering device to settle out and

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388 assimilate pollutants from livestock waste before the clarified water reaches a stream or other
389 body of surface water or groundwater.

390
391 (Source: Amended at 47 Ill. Reg. _____, effective _____)

392
393 **Section 501.313 Manure Storage Area**

394
395 Includes ~~but is not limited to~~ lagoons, runoff ponds, storage sheds, stockpiles, under-the-house or
396 pit storages, liquid impoundments, static piles, and composting piles.

397
398 (Source: Amended at 47 Ill. Reg. _____, effective _____)

399
400 **Section 501.317 Maximum Feasible Location**

401
402 Any location ~~establishing for the establishment of~~ a new livestock management facility or new
403 livestock waste-handling facility where one of the following conditions ~~exists~~exist:

404
405 a) The site is located closer to the livestock owner's or operator's residence than to a
406 neighboring farm or non-farm residence or populated area; or

407
408 b) The site is adjacent to an existing livestock management facility or livestock
409 waste-handling facility, or is farther away from a neighboring farm or non-farm
410 residence or populated area than the existing livestock management facility or
411 livestock waste-handling facility, when the livestock owner or operator does not
412 reside on the farm where the livestock are to be kept or raised; or

413
414 c) The site is accessible to roads, water and electricity and is at the farthest location
415 from a neighboring farm or non-farm residence or populated area; there is no
416 existing livestock management facility or livestock waste-handling facility on the
417 site, and the livestock owner or operator does not reside on the farm where the
418 livestock are to be kept or raised.

419
420 (Source: Amended at 47 Ill. Reg. _____, effective _____)

421
422 **Section 501.320 Modification**

423
424 ~~The~~Such physical change in or alteration in the method of operation of any livestock
425 management facility or livestock waste-handling facility which increases the ~~amount of~~ livestock
426 waste amount over the level authorized by the NPDES permit.

427
428 (Source: Amended at 47 Ill. Reg. _____, effective _____)

429
430 **Section 501.330 New Livestock Management Facility and New Livestock Waste-Handling**

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431 **Facility**

432

433 Any livestock management facility or livestock waste-handling facility the construction or
434 modification of which is started after December 31, 1977~~commenced on or after January 1,~~
435 ~~1978.~~

436

437 (Source: Amended at 47 Ill. Reg. _____, effective _____)

438

439 **Section 501.333 New Source**

440

441 Any building, structure, facility, or installation from which there is or may be a discharge of
442 pollutants, the construction of which started~~commenced~~ after either of the following dates:

443

444 a) after promulgation of standards of performance under section 306 of the Clean
445 Water Act that apply~~are applicable~~ to the source; or

446

447 b) after proposal of standards of performance in compliance~~accordance~~ with section
448 306 of the Clean Water Act that apply~~are applicable~~ to the source, but only if the
449 standards are promulgated in compliance~~accordance~~ with section 306 within 120
450 days after their proposal.

451

452 (Source: Amended at 47 Ill. Reg. _____, effective _____)

453

454 **Section 501.335 NPDES**

455

456 The National Pollutant Discharge Elimination System for issuing, establishing conditions for and
457 denying permits under Section 402 of the CWA. All terms used regarding~~in connection with~~
458 NPDES which have been defined in the CWA or regulations adopted ~~thereunder shall~~ have the
459 meanings specified in the CWA or regulations~~therein~~, unless specifically noted otherwise.

460

461 (Source: Amended at 47 Ill. Reg. _____, effective _____)

462

463 **Section 501.340 NPDES Permit**

464

465 A permit issued under~~pursuant to~~ the NPDES.

466

467 (Source: Amended at 47 Ill. Reg. _____, effective _____)

468

469 **Section 501.359 Raw Materials Storage Area**

470

471 Includes,~~but is not limited to,~~ feed silos, silage bunkers, and bedding materials stacks.

472

473 (Source: Amended at 47 Ill. Reg. _____, effective _____)

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Section 501.363 Setbacks

A specified distance from surface waters or potential conduits to surface waters where livestock waste may not be land applied. Examples of conduits to surface waters include, ~~but are not limited to,~~ open tile intake structures, sinkholes, and agriculture well heads.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.365 Silvicultural Point Source

Any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting or log storage facilities which are operated ~~for in connection with~~ silvicultural activities and from which pollutants are discharged into navigable waters.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.370 Standard of Performance

A standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through ~~applying application of~~ the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants, as defined in Section 306 of CWA.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.377 Vegetative Buffer

Narrow, permanent strip of dense perennial vegetation established parallel to the ~~land~~ contours ~~of the land~~ and perpendicular to the ~~field's~~ dominant slope ~~of the field~~ for ~~the purposes of~~ slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 501.379 Waste Containment Area

Includes, ~~but is not limited to,~~ settling basins, and areas within berms and diversions that separate uncontaminated stormwater from livestock waste.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

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517 **Section 501.380 Water Pollution**

518
519 ~~The~~~~sueh~~ alteration of the physical, thermal, chemical, biological or radioactive properties of any
520 waters of the State, or ~~the~~~~sueh~~ discharge of any contaminant into any waters of the State, as will
521 or is likely to create a nuisance or render ~~the~~~~sueh~~ waters harmful or detrimental or injurious to
522 public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational,
523 or other legitimate uses, or to man, livestock, wild animals, birds or fish or other aquatic life.

524
525 (Source: Amended at 47 Ill. Reg. _____, effective _____)

526
527 **SUBPART C: OPERATIONAL RULES FOR ALL LIVESTOCK MANAGEMENT**
528 **FACILITIES AND LIVESTOCK WASTE-HANDLING FACILITIES**

529
530 **Section 501.401 Purpose and Scope of Operational Rules for Livestock Management**
531 **Facilities and Livestock Waste-Handling Facilities**

- 532
533 a) Besides the regulations contained within this Chapter, every person ~~must~~~~shall~~ also
534 comply with ~~provisions of~~ the Act and other Board regulations.
535
536 b) The owner or operator of any livestock management facility or livestock waste-
537 handling facility ~~must~~~~shall~~ comply with the CWA, NPDES filing requirements
538 and the feedlot category of point source effluent guidelines. All livestock
539 management facilities and livestock waste-handling facilities ~~must determine~~~~have~~
540 ~~the obligation to make a site specific determination of~~ whether the facility is
541 subject to NPDES permit requirements and to follow those requirements when
542 and where they ~~apply~~~~are applicable~~. CAFOs are subject to additional
543 requirements applicable under 35 Ill. Adm. Code 502.
544
545 c) This Subpart ~~applies~~~~shall apply~~ to stockyards and similar operations where
546 animals are held briefly, as well as to conventional livestock operations.
547
548 d) The transportation of livestock wastes ~~must~~~~shall~~ be planned and conducted so as
549 not to cause, threaten, or allow any violation of the Act and applicable
550 regulations.
551
552 e) Any runoff or overflow from a livestock management facility or a livestock
553 waste-handling facility ~~must~~~~shall~~ not cause a water quality violation
554 ~~under~~~~pursuant to~~ the Act or 35 Ill. Adm. Code Subtitle C: Water Pollution.
555

556 (Source: Amended at 47 Ill. Reg. _____, effective _____)

557
558 **Section 501.402 Location of New Livestock Management Facilities and New Livestock**
559 **Waste-Handling Facilities**

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- 560
561 a) No new livestock management facility or new livestock waste-handling facility
562 ~~can~~~~shall~~ contain within its boundaries any stream or other surface waters except
563 small temporary accumulations of water occurring as a direct result of
564 precipitation.
565
- 566 b) New livestock management facilities and new livestock waste-handling facilities
567 located within a 10-year flood height as recorded by the United States Geological
568 Survey or as officially estimated by the Illinois State Water Survey ~~must~~~~shall~~ be
569 protected against ~~that~~~~such~~ flood.
570
- 571 c) Limitations Effective July 15, 1991
572
- 573 1) Upon July 15, 1991, new or expanded livestock management facilities and
574 new or expanded livestock waste-handling facilities ~~must~~~~shall~~ not be
575 located within ½ mile of a populated area or within ¼ mile of a non-farm
576 residence.
577
- 578 2) For ~~purposes of this~~-subsection (c), the following ~~must~~~~shall~~ not be
579 considered location of a new or expanded livestock management or waste-
580 handling facility:
581
- 582 A) ~~Start~~~~Commencement~~ of operations at an idle facility which has
583 livestock shelters left intact, and that has been operated as a
584 livestock management facility or livestock waste-handling facility
585 for four consecutive months at any time within the 10 previous
586 years;
587
- 588 B) ~~Start~~~~Commencement~~ of operations at a facility reconstructed after
589 partial or total destruction due to natural causes, i.e., tornado, fire,
590 or earthquake.
591
- 592 3) Adequate odor control methods and technology ~~must~~~~shall~~ be practiced by
593 operators of new and existing livestock management facilities and
594 livestock waste-handling facilities so as not to cause air pollution.
595
- 596 d) The setback requirements of subsection (c) ~~do~~~~shall~~ not apply to any livestock
597 management facility or livestock waste-handling facility that meets any of the
598 following conditions:
599
- 600 1) The facility is located in an agricultural area, ~~so~~ designated ~~under~~~~as such~~
601 ~~pursuant to~~ the Agricultural Areas Conservation and Protection Act, [505
602 ILCS 5];

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- 603
604 2) The facility undergoes expansion, and the ~~owner of the~~ facility owner
605 certifies and notifies the Agency in writing that the facility was operating
606 as a livestock management facility or livestock waste-handling facility for
607 at least one year ~~before~~prior to the existence of any non-farm residence
608 within ¼ mile of the facility or of a populated area within ½ mile of the
609 facility; or
610
611 3) The use of the facility as a livestock management or livestock waste
612 handling facility is allowed by local zoning or municipal ordinance. If no
613 local zoning or municipal ordinance exists that covers that use, the facility
614 ~~is~~shall be exempt if the livestock are not raised or kept at the facility
615 primarily for hire or the raising or keeping of livestock at the facility does
616 not have financial profit as a primary aim.
617
618 e) A new livestock management facility or new livestock waste-handling facility that
619 locates within ¼ mile of a neighboring farm residence ~~must~~shall locate at the
620 maximum feasible location from that residence.
621
622 f) A new livestock management facility or new livestock waste-handling facility that
623 locates within ¼ mile of a non-farm residence or within ½ mile of a populated
624 area, as allowed by subsection (d), ~~must~~shall locate at the maximum feasible
625 location from the residence or populated area.
626
627 g) New livestock management facilities or new livestock waste-handling facilities
628 located on soil types or geological formations where the deposition of livestock
629 waste is likely to cause groundwater pollution ~~must~~shall be constructed in such a
630 way that pollution will be prevented, or supplementary measures ~~must~~shall be
631 adopted that will prevent pollution.
632

633 (Source: Amended at 47 Ill. Reg. _____, effective _____)
634

635 **Section 501.403 Protection of Livestock Management Facilities and Livestock Waste-**
636 **Handling Facilities**
637

- 638 a) Existing livestock management facilities and livestock waste-handling facilities
639 ~~must~~shall have adequate diversion dikes, walls or curbs that will prevent
640 excessive outside surface waters from flowing through the animal feeding
641 operation and will direct runoff to an appropriate disposal, holding or storage
642 area. The diversions are required on all aforementioned structures unless there is
643 negligible outside surface water which can flow through the facility or the runoff
644 is tributary to an acceptable disposal area or a livestock waste-handling facility. If
645 inadequate diversions cause or threaten to cause a violation of the Act or

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646 applicable regulations, the Agency may require corrective measures.

647

648 b) New livestock management facilities and livestock waste-handling facilities ~~must~~
649 ~~shall~~ have adequate diversions, dikes, walls or curbs that will prevent excessive
650 outside surface runoff waters from flowing through the animal feeding operation
651 and will direct runoff to an appropriate disposal, holding or storage area. The
652 diversions are required on all aforementioned structures unless there is negligible
653 outside surface water which can flow through the facility or the runoff is tributary
654 to an acceptable disposal area or a livestock waste-handling facility. A holding
655 pond must be capable of storing a volume equal to or exceeding the ~~area of the~~
656 animal feeding ~~operation's area~~ operation, plus any tributary area not a part of the
657 animal feeding operation (including roof area if tributary to the facility),
658 multiplied by 12 inches for runoff from earthen areas or 15 inches for runoff from
659 concrete areas unless the operator has justifiable reasons substantiating that a
660 lesser storage volume is adequate. If inadequate storage volumes cause or threaten
661 to cause a violation of the Act or applicable regulations, the Agency may require
662 corrective measures. In no case ~~will~~ ~~shall~~ the storage volume of the containment
663 facility be less than the 25-year 24-hour storm effluent guidelines as required by
664 the new source performance standards of the U.S. Environmental Protection
665 Agency ~~in 40 CFR 412~~ ~~for the feedlot point source category~~.

666

667 (Source: Amended at 47 Ill. Reg. _____, effective _____)

668

669 **Section 501.404 Handling and Storage of Livestock Waste**

670

671 a) Any livestock waste stored in excess of six months ~~must~~ ~~shall~~ be contained in a
672 manure storage structure.

673

674 b) Temporary Manure Stacks

675

676 1) A temporary manure stack is a potential secondary source, as defined by
677 the Act. As a potential secondary source, a temporary manure stack is
678 subject to the minimum setback zones established in Title IV of the Act.

679

680 2) A temporary manure stack ~~must~~ ~~shall~~ not be located within 75 feet from
681 any water well, except monitoring wells.

682

683 3) A temporary manure stack ~~must~~ ~~shall~~ be constructed or established and
684 maintained in a manner to prevent runoff and leachate from entering
685 surface waters or groundwaters. A cover and pad or other control must be
686 provided to prevent runoff and leachate from entering surface waters and
687 groundwater.

688

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- 689 c) Livestock Waste-Holding Facilities
690
691 1) Liquid manure-holding tanks ~~must~~shall be impermeable and capable of
692 withstanding pressures and loadings to which ~~those tanks~~such a tank may
693 be subjected.
694
695 2) Holding ponds and lagoons ~~must~~shall be impermeable or so sealed as to
696 prevent groundwater or surface water pollution.
697
698 3) For livestock management facilities and livestock waste handling facilities
699 that are not required to obtain an NPDES permit, the contents of livestock
700 waste-handling facilities ~~must~~shall be kept at levels such that there is
701 adequate storage capacity so that an overflow does not occur except in the
702 case of precipitation ~~exceeding~~in excess of a 25-year 24-hour storm.
703
704 4) Liquid Livestock Waste
705
706 A) Existing livestock management facilities that handle the waste in a
707 liquid form ~~must~~shall have adequate storage capacity in a liquid
708 manure-holding tank, lagoon, holding pond, or any combination
709 ~~thereof~~ so as not to cause air or water pollution as defined in the
710 Act or applicable regulations. If inadequate storage time causes or
711 threatens to cause a violation of the Act or applicable regulations,
712 the Agency may require that additional storage time be provided.
713 In ~~those~~such cases, interim pollution prevention measures may be
714 required by the Agency.
715
716 B) New livestock waste-handling facilities that handle the waste in a
717 liquid form ~~must~~shall provide a minimum of 120-day storage with
718 a liquid manure-holding tank, lagoon, holding pond, or any
719 combination ~~thereof~~ unless the operator has justifiable reasons
720 substantiating that a lesser storage volume is adequate. If
721 inadequate storage volumes cause or threaten to cause a violation
722 of the Act or applicable regulations, the Agency may require
723 corrective measures.
724
725 d) Runoff Field Application Systems
726 Any livestock management facility not meeting the definition of a CAFO in
727 Section 501.238 may construct and operate a runoff field application system for
728 ~~treating the treatment of~~ livestock waste from fewer than 300 animal units,
729 ~~complying with~~meeting the requirements of 35 Ill. Adm. Code 570, in lieu of
730 utilizing liquid manure-holding tanks, holding ponds, or lagoons in compliance
731 with subsection (c), or other livestock waste-handling systems that would assure

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732 compliance with the Act and this Subtitle E.

- 733
- 734 e) Subsections (a) through (d) ~~does~~shall not apply to livestock management facilities
- 735 with fifty (50) or fewer animal units ~~if, provided that~~ the following conditions
- 736 exist:
- 737

- 738 1) The ~~location of the~~ facility location relative to waters of the State is such
- 739 that there is no discharge of livestock waste into waters of the State, in
- 740 violation of Section 12 of the Act;
- 741
- 742 2) There is no discharge of livestock waste into waters of the State throughby
- 743 ~~means of~~ a man-made ditch, flushing system or other similar man-made
- 744 device, in violation of Section 12 of the Act; and
- 745
- 746 3) The facility is managed so that livestock waste is not allowed to
- 747 accumulate to an extent that threatens to cause a discharge to waters of the
- 748 State, in violation of Section 12 of the Act.
- 749

750 (Source: Amended at 47 Ill. Reg. _____, effective _____)

751

752 **Section 501.405 Field Application of Livestock Waste**

753

- 754 a) For livestock management facilities and livestock waste handling facilities that
- 755 are not required to obtain an NPDES permit, the quantity of livestock waste
- 756 applied on soils ~~must~~shall not exceed a practical limit as determined by soil type,
- 757 especially its permeability, the soil condition (frozen or unfrozen) ~~of the soil~~, the
- 758 percent slope of the land, cover mulch, proximity to surface waters and likelihood
- 759 of reaching groundwater, and other relevant considerations. These livestock
- 760 waste application guidelines will be adopted underpursuant to 35 Ill. Adm. Code
- 761 502.305, unless otherwise provided for by Board regulations. Facilities required
- 762 to obtain an NPDES permit are subject to the requirements in 35 Ill. Adm. Code
- 763 502.Subpart F. Unpermitted Large CAFOs claiming an agricultural stormwater
- 764 exemption must comply with 35 Ill. Adm. Code 502.102 and the practices listed
- 765 in Section 502.510(b) to qualify for the exemption.
- 766
- 767 b) Operators of livestock waste handling facilities ~~must~~shall practice odor control
- 768 methods during ~~the course of~~ manure removal and field application so as not to
- 769 affect a neighboring farm or non-farm residence or populated area by causing air
- 770 pollution as described in Section 501.102(d). Odor control methods include, ~~but~~
- 771 ~~are not limited to:~~
- 772
- 773 1) Soil injection or other methods of incorporation of waste into the soil,
- 774 including disking or plowing;

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- 775
776 2) Consideration of climatic conditions, including wind direction and
777 inversions;
778
779 3) For liquid livestock waste: whether supernatant used for irrigation
780 purposes has been stored in a livestock waste lagoon system that complies
781 ~~is designed and operated in accordance~~ with "Design of Anaerobic
782 Lagoons for Animal Waste Management", as incorporated by reference at
783 Section 501.200.
784
785 4) Other methods as described in "Management of Manure Odor", as
786 incorporated by reference at Section 501.200.
787

788 (Source: Amended at 47 Ill. Reg. _____, effective _____)
789

790 **Section 501.406 Inspections and Disease Prevention**
791

- 792 a) The Agency ~~has~~shall have the authority to enter at all reasonable times upon any
793 private or public property for ~~the purpose of~~ inspecting and investigating to
794 ascertain possible violations of the Act or regulations ~~thereunder~~, in
795 compliance~~accordance~~ with constitutional limitations, except that ~~a~~ no
796 representative of the Agency must not~~shall~~ enter a livestock management facility
797 or livestock waste-handling facility unless sanitized footwear and sanitized outer
798 garments provided by the Agency are used (unless waived by the farm owner or
799 operator) and any other reasonable disease prevention procedures or equipment,
800 as provided by ~~the owner or operator of~~ the facility owner or operator, are
801 used~~utilized~~.
802
803 b) The activities of inspecting and investigating include:
804
805 1) Having access to and the right to copy any records required to be kept
806 under the terms of the permit; and
807
808 2) Having access to, sampling and monitoring any discharge of pollutants to
809 ground and surface waters.
810

811 (Source: Amended at 47 Ill. Reg. _____, effective _____)
812

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813 **Section 501.APPENDIX A References to Previous Rules (Repealed)**

814

815 ~~The following table is provided to aid in referencing old Board rule numbers to section numbers~~
816 ~~pursuant to codification.~~

817

~~Chapter 5: Agriculture Related Pollution 35 Ill. Admin. Code 501~~

~~Part I, General Provisions~~

~~Rule 101 Section 501.101~~

~~Rule 102 Section 501.102~~

~~Rule 103 Section 501.201 et seq.~~

~~Rule 104(a) Section 501.401~~

~~Rule 104(b) Section 501.402~~

~~Rule 104(c) Section 501.403~~

~~Rule 104(d) Section 501.404~~

~~Rule 104(e) Section 501.405~~

~~Rule 105 Section 502.305~~

~~Rule 106 Section 501.406~~

818

819 (Source: Repealed at 47 Ill. Reg. _____, effective _____)

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE E: AGRICULTURE RELATED POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 502
PERMITS

SUBPART A: PERMITS REQUIRED

10	Section	
11	502.101	NPDES Permit Requirement and Duty to Maintain Permit Coverage
12	502.102	Land Application Discharges and Agricultural Stormwater
13	502.103	Large CAFOs
14	502.104	Medium CAFOs
15	502.105	Small CAFOs
16	502.106	Case-By-Case Designation Requiring NPDES Permits

SUBPART B: PERMIT APPLICATIONS

20	Section	
21	502.201	Permit Applications
22	502.202	Permit Application Submissions
23	502.203	New Applications (Repealed)
24	502.204	Renewal
25	502.205	New Operations (Repealed)
26	502.206	Signatures
27	502.207	Disclosure Required for Land Trusts

SUBPART C: PERMIT ISSUANCE AND CONDITIONS

31	Section	
32	502.301	Standards for Issuance
33	502.302	Duration of Permits
34	502.303	New Source Standards
35	502.304	Issuance and Conditions
36	502.305	Agency Criteria
37	502.310	CAFOs Seeking Coverage Under NPDES General Permits
38	502.315	CAFO Permit Requirements
39	502.320	Recordkeeping Requirements
40	502.325	Annual Report

SUBPART D: APPEAL AND ENFORCEMENT

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44 Section
45 502.401 Appeals from Conditions in Permits
46 502.402 Defenses
47 502.403 Modification or Termination of Permits

48

49 SUBPART E: REQUIREMENTS FOR DEVELOPING AND
50 IMPLEMENTING NUTRIENT MANAGEMENT PLANS

51

52 Section
53 502.500 Purpose, Scope and Applicability
54 502.505 Nutrient Management Plan Information
55 502.510 Nutrient Management Plan Requirements
56 502.515 Terms of Nutrient Management Plan
57 502.520 Changes to the Nutrient Management Plan

58

59 SUBPART F: LIVESTOCK WASTE DISCHARGE LIMITATIONS
60 AND TECHNICAL STANDARDS

61

62 Section
63 502.600 Applicability
64 502.605 Livestock Waste Discharge Limitations for the Production Area for Permitted
65 CAFOs
66 502.610 Additional Measures for CAFO Production Areas
67 502.615 Nutrient Transport Potential
68 502.620 Protocols to Land Apply Livestock Waste
69 502.625 Determination of Livestock Waste Application Rates
70 502.630 Protocols to Land Apply Livestock Waste During Winter
71 502.635 Manure and Soil Sampling and Analysis
72 502.640 Inspection of Land Application Equipment for Leaks
73 502.645 Land Application Setback Requirements

74

75 SUBPART G: ADDITIONAL LIVESTOCK WASTE DISCHARGE LIMITATIONS

76

77 Section
78 502.710 New Source Performance Standards for Dairy Cows and Cattle Other Than Veal
79 Calves
80 502.720 Horse and Sheep CAFOs: BPT, BAT and NSPS
81 502.730 Duck CAFOs: BPT and NSPS

82

83 SUBPART H: NEW SOURCE PERFORMANCE STANDARDS FOR
84 NEW SWINE, POULTRY AND VEAL LARGE CAFOS

85

86 Section

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87	502.800	Applicability
88	502.810	Production Area Requirements
89	502.820	Land Application Area Requirements
90	502.830	Alternative Best Management Practice Livestock Waste Discharge Limitations
91	502.840	Technical Evaluation

92

93 502.APPENDIX A References to Previous Rules (Repealed)

94

95 AUTHORITY: Implementing Sections 9, 10, 12, 13, 21, and 22 of the Environmental Protection
 96 Act [415 ILCS 5/9, 10, 12, 13, 21, 22] and authorized by Section 27 of the Environmental
 97 Protection Act [415 ILCS 5/27].

98

99 SOURCE: Filed and effective January 1, 1978; amended at 2 Ill. Reg. 44, p. 137, effective
 100 October 30, 1978; codified at 7 Ill. Reg. 10594; amended in R12-23 at 38 Ill. Reg. 17687,
 101 effective August 11, 2014; amended in R18-25 at 47 Ill. Reg. _____, effective _____.

102

103 SUBPART A: PERMITS REQUIRED

104

105 **Section 502.101 NPDES Permit Requirement and Duty to Maintain Permit Coverage**

106

107 a) A Concentrated Animal Feeding Operation (CAFO) is a point source. Any
 108 pollutants discharged~~discharge of pollutants~~ into waters of the United States from
 109 a CAFO is prohibited unless authorized by an NPDES permit or unless the
 110 discharge is an agricultural stormwater discharge as described in Section
 111 502.102(b). No person is permitted to~~shall~~ cause or allow a discharge from a
 112 CAFO and violate~~in violation of~~ federal or State law, including but not limited to
 113 the Clean Water Act (CWA) (33 U.S.C.~~USC~~ 1251), the Act or Board regulations.

114

115 b) The owner or operator of a CAFO must seek coverage under an NPDES permit if
 116 the CAFO discharges.

117

118 c) The owner or operator of a CAFO that discharges must either apply for an
 119 individual NPDES permit or submit a notice of intent for coverage under an
 120 NPDES general permit. If the Agency has not made a general permit available to
 121 the CAFO, the CAFO owner or operator must apply~~submit an application~~ for an
 122 individual permit to the Agency. All permit applications and applications for
 123 permit modifications must contain the information stated~~set forth~~ in Subpart B.

124

125 d) Any permitted CAFO must~~shall~~ apply for reissuance of the NPDES permit at least
 126 not less than-180 days before the NPDES permit expires~~prior to the expiration~~
 127 date of the permit unless the CAFO will not discharge after the NPDES permit
 128 expires~~the expiration date of the NPDES permit~~.

129

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130 e) The owner or operator of a new CAFO that will discharge must apply for NPDES
131 permit coverage at least 180 days ~~before~~~~prior to~~ the time that the CAFO
132 ~~begins~~~~commences~~ operation.

133
134 f) Once an Animal Feeding Operation is defined as a CAFO for at least one type of
135 animal, the NPDES permit requirements for CAFOs apply ~~with respect to~~ all
136 ~~confined~~ animals ~~in confinement~~ at the animal feeding operation and all livestock
137 waste generated by those animals or the production of those animals.

138
139 (Source: Amended at 47 Ill. Reg. _____, effective _____)
140

141 **Section 502.102 Land Application Discharges and Agricultural Stormwater**

142
143 a) The ~~discharge of~~ livestock waste ~~discharge into to~~ waters of the United States
144 from a CAFO ~~resulting from a result of~~ the livestock waste application ~~by the~~
145 ~~CAFO~~ to land application areas is a discharge from that CAFO subject to NPDES
146 permit requirements, except when it is an agricultural stormwater discharge and
147 therefore exempt from the definition of a point source under section 502 of the
148 Clean Water Act.

149
150 b) Where livestock waste has been land applied ~~both according to site-specific~~~~in~~
151 ~~accordance with site specific~~ nutrient management practices that ensure
152 appropriate agricultural ~~use~~~~utilization~~ of the ~~livestock waste's~~ nutrients ~~in the~~
153 ~~livestock waste~~ and in compliance with Section 502.510 for permitted CAFOs and
154 Section 502.510(b) for unpermitted Large CAFOs, a precipitation-related
155 discharge of livestock waste from land application areas of an unpermitted large
156 CAFO or a permitted CAFO, is an agricultural stormwater discharge.

157
158 c) Unpermitted large CAFOs must maintain the documentation specified in Section
159 502.510(b)(16) either on site or at a nearby office, or otherwise make that
160 documentation readily available to the Agency upon request.

161
162 (Source: Amended at 47 Ill. Reg. _____, effective _____)
163

164 **Section 502.103 Large CAFOs**

165
166 An Animal Feeding Operation is defined as a Large CAFO if at least the numbers of animals
167 specified in any of the following categories are stabled or confined:
168

Number of Animals	Kind of Animals
700	Mature dairy cows, whether milked or dry
1,000	Veal calves

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- 1,000 Cattle other than mature dairy cows or veal calves. Cattle includes ~~but is not limited to~~ heifers, steers, bulls and cow/calf pairs.
- 2,500 Swine, each weighing 55 pounds or more
- 10,000 Swine, each weighing less than 55 pounds
- 500 Horses
- 10,000 Sheep or lambs
- 55,000 Turkeys
- 30,000 Laying hens or broilers, if the Animal Feeding Operation uses a liquid manure handling system
- 125,000 Chickens (other than laying hens), if the Animal Feeding Operation uses other than a liquid manure handling system
- 82,000 Laying hens, if the Animal Feeding Operation uses other than a liquid manure handling system
- 30,000 Ducks, if the Animal Feeding Operation uses other than a liquid manure handling system
- 5,000 Ducks, if the Animal Feeding Operation uses a liquid manure handling system

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(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.104 Medium CAFOs

- a) An Animal Feeding Operation is defined as a Medium CAFO if the following numbers of animals specified in any of the following categories are stabled or confined and ~~the provisions of~~ subsection (b), (c) or (d) ~~of this Section~~ is met:

Number of Animals	Kind of Animals
200 to 699	Mature dairy cows, whether milked or dry
300 to 999	Veal calves
300 to 999	Cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs.
750 to 2,499	Swine, each weighing 55 pounds or more
3,000 to 9,999	Swine, each weighing less than 55 pounds
150 to 499	Horses
3,000 to 9,999	Sheep or lambs
16,500 to 54,999	Turkeys
9,000 to 29,999	Laying hens or broilers, if the Animal Feeding Operation uses a liquid manure handling system
37,500 to 124,999	Chickens (other than laying hens), if the Animal Feeding Operation uses other than a liquid manure handling system

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25,000 to 81,999	Laying hens, if the Animal Feeding Operation uses other than a liquid manure handling system
10,000 to 29,999	Ducks, if the Animal Feeding Operation uses other than a liquid manure handling system
1,500 to 4,999	Ducks, if the Animal Feeding Operation uses a liquid manure handling system

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- b) Pollutants are discharged into waters of the United States through a man-made ditch, flushing system or other similar man-made device;
- c) Pollutants are discharged directly into waters of the United States that originate outside of and pass over, across, through or otherwise come into direct contact with the animals confined in the operation; or
- d) The Agency designates the Animal Feeding Operation ~~is designated~~ as a CAFO under~~by the Agency pursuant to~~ Section 502.106.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.105 Small CAFOs

An Animal Feeding Operation is a Small CAFO if the Agency designates it ~~is designated~~ as a CAFO under~~by the Agency pursuant to~~ Section 502.106, and it is not a Medium CAFO.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.106 Case-By-Case Designation Requiring NPDES Permits

- a) ~~Despite~~Notwithstanding any other provision of this Part, the Agency may require any Animal Feeding Operation not falling within Section 502.103 or 502.104 to obtain an NPDES permit by designating the Animal Feeding Operation as a CAFO upon determining that it significantly contributes~~is a significant contributor of~~ pollutants to waters of the United States. In determining~~making the determination of~~ whether the Animal Feeding Operation significantly contributes~~is a significant contributor of~~ pollutants, the Agency must~~shall~~ consider the following factors:

- 1) The ~~size of the~~ Animal Feeding Operation's size~~Operation~~ and the amount of livestock wastes reaching waters of the United States;
- 2) The ~~location of the~~ Animal Feeding Operation's location~~Operation~~ relative to waters of the United States;

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- 215 3) The means to convey~~of conveyance of~~ livestock wastes into waters of the
216 United States;
- 217
- 218 4) The slope, vegetation, rainfall and other factors relative to the likelihood
219 or frequency of livestock~~discharge of livestock~~ waste discharge into
220 waters of the United States; and
- 221
- 222 5) Other ~~such~~ factors signifying~~bearing on the significance of~~ the pollution
223 problem sought to be regulated.
- 224
- 225 b) The Agency, however, may not require a permit under subsection (a) for any
226 Animal Feeding Operation with less than the number of animals stated~~set forth~~ in
227 Section 502.104, unless it meets either of the following conditions:
- 228
- 229 1) Pollutants are discharged into waters of the United States through a man-
230 made ditch, flushing system or other similar man-made device; or
- 231
- 232 2) Pollutants are discharged directly into waters of the United States that
233 originate outside of and pass over, across, through or otherwise come into
234 direct contact with the animals confined in the operation.
- 235
- 236 c) In no case may a permit application be required from an Animal Feeding
237 Operation designated under~~pursuant to~~ this Section until the operation has been
238 inspected and determined~~there has been an onsite inspection of the operation and~~
239 a determination that the operation should and could be regulated under the permit
240 program.
- 241
- 242 d) Before~~Prior to~~ designating an Animal Feeding Operation as a CAFO, the Agency
243 must~~shall~~ send the Animal Feeding Operation a written notice that it intends to
244 designate the Animal Feeding Operation as a CAFO. The notice must~~shall~~
245 include grounds for the designation and information regarding the opportunity to
246 request a meeting with the Agency within 90 days after the Animal Feeding
247 Operation's receipt of the notice to present evidence that it is not significantly
248 contributing~~a significant contributor of~~ pollutants to waters of the United States as
249 provided in subsection (a). Beginning 90 days after the Animal Feeding
250 Operation receives initial written notice ~~is received by the Animal Feeding~~
251 Operation, the Agency may designate the Animal Feeding Operation as a CAFO.
252 The Agency must~~shall~~ send the Animal Feeding Operation a written notice of its
253 ~~designation~~ decision and ~~the~~ grounds to designate~~for the designation~~ in writing.
- 254
- 255 e) Upon receipt of the Agency's ~~designation~~ decision to designate, the owner or
256 operator must apply for a~~shall make an~~ NPDES permit with~~application to~~
257 the Agency within 90 days. The Agency may issue an NPDES permit with a

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258 compliance schedule detailing interim steps to be taken along with a final date,
259 not to exceed 14 months from the date the permit is issued, by which compliance
260 with the Act and all applicable regulations ~~must~~ shall be achieved.

261
262 f) The question of whether the designation was proper will remain open while the
263 permit application is pending ~~during the pendency of the permit application~~. Any
264 appeal of the Agency's designation decision must be made as part of an NPDES
265 permit appeal.

266
267 (Source: Amended at 47 Ill. Reg. _____, effective _____)

268
269 SUBPART B: PERMIT APPLICATIONS

270
271 **Section 502.201 Permit Applications**

- 272
273 a) All applications from a new or existing CAFO for any permit, including an
274 individual permit or a general permit, required under this Chapter ~~must~~ shall
275 contain, where appropriate, the following information and documents:
276
- 277 1) The name of the owner or operator;
 - 278 2) The facility location and mailing addresses;
 - 279 3) The latitude and longitude at the entrance to the production area;
 - 280 4) Specific information about the average and maximum number and type of
281 animals, whether in open confinement or housed under roof (beef cattle,
282 broilers, layers, swine weighing 55 pounds or more, swine weighing less
283 than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and
284 lambs, horses, ducks, turkeys, other);
 - 285 5) A statement as to any projected changes in the ~~size of the~~ livestock
286 operation's size ~~operation~~ and when they may occur during the term of the
287 permit;
 - 288 6) The type of containment and storage (anaerobic lagoon, roofed storage
289 shed, storage ponds, underfloor pits, above ground storage tanks, below
290 ground storage tanks, concrete pad, impervious soil pad, other) and total
291 capacity for manure, litter, and process wastewater storage (in tons or
292 gallons);
 - 293 7) A topographic map of the geographic area in which the CAFO is located
294 showing the specific location of the production area and land application
295
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- 301 areas, and indicating the following:
302
303 A) Direction and location of surface and subsurface drainage and
304 other discharges from the facility; and
305
306 B) Location of waterways in the area.
307
308 8) Estimated amounts of livestock waste generated per year (in tons or
309 gallons);
310
311 9) The total ~~acrea~~number of acres of land application area and the
312 estimated amount of waste to be applied to those acres per year;
313
314 10) Estimated amount of livestock waste transferred to other persons per year
315 (in tons or gallons);
316
317 11) A nutrient management plan that is consistent with ~~the requirements of~~
318 Subpart E;
319
320 12) A stormwater pollution prevention plan;
321
322 13) A spill control and prevention plan; and
323
324 14) A statement identifying and justifying any departure from current design
325 criteria ~~the Agency promulgates~~promulgated by the Agency.
326
327 b) The Agency may adopt procedures requiring ~~such~~ additional information as is
328 necessary to determine whether the CAFO will meet ~~the requirements of~~ the Act
329 and applicable Board regulations.
330
331 c) Applicable requirements of 35 Ill. Adm. Code 309: Subpart A ~~shall~~ apply to
332 applications for NPDES permits required by this Chapter. The Agency may
333 prescribe the form in which information required under this Section ~~must~~shall be
334 submitted.

335
336 (Source: Amended at 47 Ill. Reg. _____, effective _____)
337

338 **Section 502.202 Permit Application Submissions**

339
340 All permit applications ~~must~~shall be mailed or delivered to Illinois Environmental Protection
341 Agency, Bureau of Water, 1021 N. Grand Ave. E., Springfield IL 62794 or electronically
342 submitted at CAFO@EPA.state.il.us.
343

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344 (Source: Amended at 47 Ill. Reg. _____, effective _____)
345

346 **Section 502.204 Renewal**
347

348 Permittees seeking reissuance of their NPDES permit ~~under pursuant to~~ Section 502.101(d) must
349 apply for reissuance of the permit, using proper forms, ~~at least not less than~~ 180 days ~~before prior~~
350 ~~to~~ the ~~permit expires~~ ~~permit expiration date~~. The Agency will notify those persons of the need for
351 renewal at least 60 days ~~before prior to~~ the date on which the renewal application must be
352 submitted; however, failure to do so does not excuse non-compliance with this Chapter.
353

354 (Source: Amended at 47 Ill. Reg. _____, effective _____)
355

356 **Section 502.206 Signatures**
357

358 An application submitted by a corporation ~~must shall~~ be signed by a principal executive officer of
359 at least the level of vice-president, or his duly authorized representative, if ~~that such~~
360 representative is responsible for ~~operating the overall operation of~~ the facility. In the case of a
361 partnership or a sole proprietorship, the application must be signed by a general partner or the
362 proprietor, respectively. In the case of a publicly-owned facility, the application must be signed
363 by either a principal executive officer, ranking elected official, or other duly authorized
364 employee.
365

366 (Source: Amended at 47 Ill. Reg. _____, effective _____)
367

368 **Section 502.207 Disclosure Required for Land Trusts**
369

370 An applicant filing for an NPDES permit ~~must shall~~ satisfy ~~the requirements of~~ the Land Trust
371 Beneficial Interest Disclosure Act [735 ILCS 405 et. seq.] before the Agency grants the applicant
372 its permit.
373

374 (Source: Amended at 47 Ill. Reg. _____, effective _____)
375

376 SUBPART C: PERMIT ISSUANCE AND CONDITIONS
377

378 **Section 502.301 Standards for Issuance**
379

380 The Agency ~~will shall~~ not grant any NPDES permit unless the applicant submits proof that the
381 subject facility:

- 382
- 383 a) Will be constructed, modified, or operated so as not to ~~violate cause a violation of~~
384 the Act or ~~of~~ applicable Board regulations or ~~of~~ the Federal Water Pollution
385 Control Act (CWA) (12 U.S.C. 24), or has been granted a variance under Title IX
386 of the Act; and

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- b) Either conforms to the design criteria the Agency promulgates~~promulgated by the Agency~~ under Section 502.305 or is based on ~~such~~ other criteria which the applicant proves will produce consistently satisfactory results.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.303 New Source Standards

~~Despite~~Notwithstanding any other provision of this regulation, any point source, ~~the construction of~~ which is commenced after the ~~date of~~enactment date of the CWA and which is so constructed as to meet the applicable federal "standard of performance" as defined in Section 306 of the CWA ~~must~~shall not be subject to any more stringent federal "standard of performance" during a ten-year period beginning on the date ~~the construction is completed~~of completion of such construction or during the ~~period of~~depreciation or amortization period of ~~the~~such facility for ~~the purposes of~~Section 167 or 169 (or both) of the Internal Revenue Code of 1954, whichever period ends first (26 U.S.C. 167 and 169).

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.304 Issuance and Conditions

- a) ~~The provisions of~~35 Ill. Adm. Code 309: Subpart A will~~shall~~ apply to the issuance, conditions and modification of NPDES permits under this Chapter in the same manner as those provisions apply to NPDES permits issued under~~pursuant to~~ 35 Ill. Adm. Code 309. Specific provisions applicable to CAFOs seeking coverage under NPDES general permits are found in Section 502.310.
- b) In addition to specific conditions authorized under this Part, the Agency may impose ~~such~~ conditions in any permit issued under~~pursuant to~~ this Part as may be necessary to accomplish the purposes of the Act or Board regulations.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.305 Agency Criteria

- a) Unless otherwise provided for by Board regulations, the Agency may adopt procedures which ~~states~~set forth criteria for the design and maintenance of facilities subject to this chapter. These procedures ~~must~~shall be revised from time to time to reflect current engineering judgment and advances in the state of the art.
- b) Before adopting new criteria or making substantive changes in any criteria the

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430 ~~Agency adopts~~~~adopted by the Agency~~, the Agency ~~must~~~~shall~~ publish a summary
431 of the proposed changes in the Environmental Register and, at the Agency's
432 expense, in a widely circulated agricultural periodical.
433

434 c) In adopting new or revised criteria the Agency ~~must~~~~shall~~ comply with ~~the~~
435 ~~requirements of~~ the Illinois Administrative Procedure Act, [5 ILCS 100 et seq]~~(Ill.~~
436 ~~Rev. Stat. 1981, ch. 127, par. 1001 et seq)~~.
437

438 (Source: Amended at 47 Ill. Reg. _____, effective _____)
439

440 **Section 502.310 CAFOs Seeking Coverage Under NPDES General Permits**

441
442 a) CAFO owners or operators must submit a notice of intent that meets the
443 requirements of Section 502.201 and Subpart E ~~of this Part~~ when seeking
444 authorization to discharge under a general permit.
445

446 b) When additional information is necessary to complete the notice of intent or to
447 clarify, modify, or supplement previously submitted material, the Agency may
448 request that information from the owner or operator as provided in 35 Ill. Adm.
449 Code 309.106.
450

451 c) The Agency must notify the public of its proposal to grant coverage under the
452 general permit to the CAFO. This public notice must include the CAFO's nutrient
453 management plan.
454

455 d) The process for submitting public comments and hearing requests, and the hearing
456 process if a request for a hearing is granted, will follow the procedures applicable
457 to draft individual permits found in 35 Ill. Adm. Code 309.109(b) and 309.115
458 through 309.118.
459

460 e) The time period for the public to comment and request a hearing is 30 days
461 following the date of the notice issued ~~under~~~~pursuant to~~ subsection (c).
462

463 f) When a public hearing is held, the Agency must respond to significant comments
464 received during the comment period as provided in 35 Ill. Adm. Code 309.119
465 and 309.120, except that notice and transmission to the USEPA Regional
466 Administrator is not required. If no hearing is held, the Agency ~~must~~~~shall~~ follow
467 the procedures in 35 Ill. Adm. Code 309.112 and 309.120 for Agency action after
468 the comment period. If necessary, the Agency will require the CAFO owner or
469 operator to revise the nutrient management plan ~~in order~~ to be granted permit
470 coverage.
471

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- 472 g) When the Agency authorizes coverage for the CAFO owner or operator under the
473 general permit, the terms of the nutrient management plan ~~must~~shall become
474 incorporated as terms and conditions of the permit for the CAFO.
475 ~~Incorporating This incorporation of~~ terms and conditions does not require a
476 modification of the general permit.
477
- 478 h) The Agency ~~must~~shall notify the CAFO owner or operator and inform the public
479 that coverage has been authorized and ~~that of~~ the terms of the nutrient
480 management plan, incorporated as terms and conditions of the permit, are
481 applicable to the CAFO.
482
- 483 i) Nothing in this Section ~~will~~shall limit the Agency's authority to require an
484 individual NPDES permit ~~under pursuant to~~ Section 39(b) of the Act.
485

486 (Source: Amended at 47 Ill. Reg. _____, effective _____)
487

488 **Section 502.315 CAFO Permit Requirements**

489
490 NPDES permits issued to CAFOs under this Part must include:

- 491
- 492 a) Requirements to implement a nutrient management plan that meets ~~the provisions~~
493 ~~of~~ Subpart E.
494
- 495 b) Requirements for the permittee to create a complete copy of the records required
496 in Section 502.320; maintain the records on-site for five years from creation ~~on~~
497 site, and make the records available to the Agency; upon request, ~~a complete copy~~
498 ~~of the records required in Section 502.320~~.
499
- 500 c) Annual reporting requirements for permitted CAFOs. The permittee must submit
501 an annual report to the Agency. The annual report must include the information
502 specified in Section 502.325.
503
- 504 d) Requirements to comply with the livestock waste discharge limitations in
505 Subparts F, G and H, if applicable.
506

507 (Source: Amended at 47 Ill. Reg. _____, effective _____)
508

509 **Section 502.320 Recordkeeping Requirements**

510
511 The permittee must create, maintain for five years, and make available to the Agency, upon
512 request, the following records:
513

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- 514 a) A copy of all applicable records identified ~~underpursuant to~~ Section
515 502.510(b)(16);
516
517 b) A copy of the information required under Section 502.201;
518
519 c) Records documenting the visual inspections required under Section 502.610(c);
520
521 d) Weekly records of the depth of the manure and process wastewater in the liquid
522 livestock waste storage as indicated by the depth marker, as described in Section
523 502.610(d);
524
525 e) Records documenting any actions taken to correct deficiencies as required by
526 Sections 502.610(e) and (f). Deficiencies not corrected within 30 days must be
527 accompanied by an explanation of the factors preventing immediate correction;
528
529 f) Records of mortalities management and practices ~~the facility uses~~used by the
530 ~~facility~~ to meet the requirements of Section 502.610(g);
531
532 g) Records documenting the current design of any livestock waste storage structures,
533 including volume for solids accumulation, design treatment volume, total design
534 volume, and approximate number of days of storage capacity;
535
536 h) Records of the date, time, and estimated volume of any overflow;
537
538 i) A copy of the facility's site-specific nutrient management plan;
539
540 j) Expected crop yields for land application areas;
541
542 k) The dates livestock waste is applied to each land application area;
543
544 l) Records documenting subsurface drainage inspections conducted according to the
545 plan developed ~~underpursuant to~~ Section 502.510(b)(13);
546
547 m) Results from livestock waste and soil sampling;
548
549 n) Explanation of the basis for determining livestock waste application rates;
550
551 o) Calculations showing the total nitrogen and phosphorus to be applied to each
552 field, including sources other than livestock waste;
553
554 p) Total amount of nitrogen and phosphorus actually applied to each field, including
555 documentation of calculations for the total amount applied;
556

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- 557 q) The method used to apply the livestock waste;
558
- 559 r) Date of livestock waste application equipment inspection;
560
- 561 s) Maximum number and type of animals, whether in open confinement or housed
562 under roof by the following types: beef cattle, broilers, layers, swine weighing 55
563 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy
564 heifers, veal calves, sheep and lambs, horses, turkeys, ducks, other;
565
- 566 t) All records necessary to prepare the annual report required by Section 502.325;
567
- 568 u) Total ~~acreage~~~~number of acres~~ of land application area the nutrient management
569 plan covers~~covered by the nutrient management plan~~;
570
- 571 v) The quantity of livestock waste removed when a manure storage area or waste
572 containment area is dewatered;
573
- 574 w) The following information for each day during which livestock wastes are applied
575 to land:
576
- 577 1) the amount applied to each field in either gallons, wet tons or dry tons per
578 acre;
579
- 580 2) soil water conditions at the time of application (such as dry, saturated,
581 flooded, frozen, snow-covered);
582
- 583 3) an estimate of the precipitation amount ~~of precipitation~~ 24 hours
584 before~~prior to~~, and for 24 hours after, the application;
585
- 586 4) the type of application method used (surface, surface with incorporation,
587 or injection);
588
- 589 5) the location of the field where livestock waste was applied;
590
- 591 6) Leak inspection results~~the results of leak inspection~~ of livestock waste
592 application equipment;
593
- 594 7) the name and address of off-site recipients of livestock waste, the amount
595 of waste transferred to each off-site recipient in gallons or dry tons, off-
596 site location on a topographic map, and acreage of each site the off-site
597 recipient used ~~by the off-site recipient~~;
598

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- 599 8) Weather conditions, including precipitation, air temperature, wind speed,
600 wind direction and dew point, at time of land application and for 24 hours
601 ~~before, prior to~~ and for 24 hours following, the application; and
602
603 9) Records of the weather forecasts required to be maintained under~~pursuant~~
604 ~~to~~ Sections 502.620(d) and 502.630(b)(3), (4), and (5);
605
606 x) The laboratory analysis sheets reporting the analysis of the livestock waste
607 samples must~~shall~~ be kept on file at the facility for the permit's term ~~of the permit~~
608 and for 5 years after the permit expires~~expiration of the permit~~; and
609
610 y) Records documenting the test methods and sampling protocols for manure, litter
611 and process wastewater and soil analyses.
612

613 (Source: Amended at 47 Ill. Reg. _____, effective _____)
614

615 **Section 502.325 Annual Report**

- 616
617 a) The NPDES permit must specify annual reporting requirements for the CAFO.
618 The annual report must be submitted to the Agency.
619
620 b) The annual report must contain the following minimum elements:
621
622 1) Maximum number and type of animals, whether in open confinement or
623 housed under roof by the following types: beef cattle, broilers, layers,
624 swine weighing 55 pounds or more, swine weighing less than 55 pounds,
625 mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses,
626 turkeys, ducks, other;
627
628 2) Quantity of livestock waste the facility generates~~generated by the facility~~
629 in the previous 12 months (tons/gallons);
630
631 3) Quantity of livestock waste the facility transfers~~transferred~~ to another
632 person ~~by the facility~~ in the previous 12 months (in tons or gallons);
633
634 4) Total acreage~~number of acres~~ of land application area the nutrient
635 management plan covers~~covered by the nutrient management plan~~;
636
637 5) Total acreage~~number of acres~~ the CAFO used for land application of
638 livestock waste in the previous 12 months and were under the control of
639 the CAFO through ownership, lease, or consent agreement;
640

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- 641 6) A statement indicating whether the current version of the CAFO's nutrient
642 management plan for land application of livestock waste was developed or
643 approved by a certified nutrient management planner and by who issued
644 the certificate~~whom the certification was issued~~;
- 645
- 646 7) Summary of all livestock waste discharges from the production area that
647 have occurred in the previous 12 months, including date, time, and
648 approximate volume;
- 649
- 650 8) A report of instances of non-compliance with the NPDES permit in the
651 previous 12 months;
- 652
- 653 9) The actual crops planted and actual yields for each field;
- 654
- 655 10) The actual nitrogen and phosphorus content of the livestock waste;
- 656
- 657 11) The results of calculations conducted in accordance with Section
658 502.515(d)(3) and (e)(3);
- 659
- 660 12) The amount of livestock waste land applied to each field during the
661 previous 12 months;
- 662
- 663 13) For any CAFO that implements a nutrient management plan that addresses
664 application rates ~~of application~~ in accordance with Section 502.515(e):
- 665
- 666 Aa) the results of any soil testing for nitrogen and phosphorus taken
667 during the preceding 12 months;
- 668
- 669 Bb) data used to calculate~~in calculations conducted~~ in accordance with
670 Section 502.515(e)(3), and
- 671
- 672 Ce) the amount of any supplemental fertilizer applied during the
673 previous 12 months; and
- 674
- 675 14) Annual review of the nutrient management practices to be implemented
676 and an update of the nutrient management plan when ~~there is a change in~~
677 the nutrient management practices change.
- 678

679 (Source: Amended at 47 Ill. Reg. _____, effective _____)

680 SUBPART D: APPEAL AND ENFORCEMENT

681 **Section 502.401 Appeals from Conditions in Permits**

682

683

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684
 685 An applicant may consider any condition the Agency imposes~~imposed by the Agency~~ in a permit
 686 as the Agency refusing~~a refusal by the Agency~~ to grant a permit. An applicant or others who
 687 have been a party or participant at an Agency hearing are~~shall be~~ entitled to appeal the Agency's
 688 decision to the Board under~~pursuant to~~ Section 40 of the Act, 35 Ill. Adm. Code 105 and 35 Ill.
 689 Adm. Code: Subtitle C, Chapter I.

690
 691 (Source: Amended at 47 Ill. Reg. _____, effective _____)
 692

693 **Section 502.402 Defenses**

- 694
 695 a) Issuing or possessing~~The issuance or possession of~~ a permit does not allow the
 696 permittee to violate the Act or Board regulations and is not~~does not constitute~~ a
 697 defense to ~~such~~ a violation other than an alleged violation for construction or
 698 operation without a permit.
 699
 700 b) Compliance with an NPDES permit must~~shall be~~ considered~~deemed~~ compliance
 701 for purposes of Sections 42, 43 and 44 of the Act (Penalties), with the Act and
 702 applicable regulations, to the extent that such compliance would be a defense to
 703 enforcement action under the CWA.
 704
 705 c) Except for federally-imposed requirements for~~with respect to~~ NPDES permits,
 706 complying~~compliance~~ with the rules the Board promulgates~~and regulations~~
 707 promulgated by the Board under the Act will be~~shall constitute~~ a prima facie
 708 defense to any action, legal, equitable, or criminal, or an administrative
 709 proceeding for a violation of the Act, brought by any person.
 710

711 (Source: Amended at 47 Ill. Reg. _____, effective _____)
 712

713 **Section 502.403 Modification or Termination of Permits**

714
 715 The Board may, after petition and hearing in accordance with the Act and its Procedural Rules,
 716 terminate any permit or modify it in any manner which is consistent with the Act and applicable
 717 Board regulations or federal requirements upon proof of cause, including ~~but not limited to,~~ the
 718 following:

- 719
 720 a) Violating~~Violation of~~ any condition of the permit ~~(including, but not limited to,~~
 721 ~~conditions concerning monitoring, entry and inspection);~~
 722
 723 b) Obtaining a permit by misrepresentation or failure to disclose fully all relevant
 724 facts; or
 725
 726 c) Change in any condition that requires either a temporary or permanent reduction

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727 or elimination of the permitted discharge.

728
729 (Source: Amended at 47 Ill. Reg. _____, effective _____)

730
731 **SUBPART E: REQUIREMENTS FOR DEVELOPING AND**
732 **IMPLEMENTING NUTRIENT MANAGEMENT PLANS**

733
734 **Section 502.500 Purpose, Scope and Applicability**

735
736 The requirements in this Subpart are intended to minimize the ~~transportation~~transport of nitrogen
737 and phosphorus to waters of the United States ~~to comply with~~in compliance with the nutrient
738 management plan.

- 739
- 740 a) The requirements in this Subpart apply to CAFOs required to obtain an NPDES
741 permit. Unpermitted large CAFOs claiming an agricultural stormwater exemption
742 ~~under~~pursuant to Section 502.102 are not required to have a nutrient management
743 plan but must comply with the requirements listed in Section 502.510(b) to
744 qualify for the exemption.
 - 745
746 b) The CAFO owner or operator ~~must~~shall develop, submit and implement a site
747 specific nutrient management plan. This plan ~~must~~shall specifically identify and
748 describe practices that will be implemented to assure compliance with this
749 Subpart and the livestock waste discharge limitations and technical standards of
750 Subparts F, G, and H.

751
752 (Source: Amended at 47 Ill. Reg. _____, effective _____)

753
754 **Section 502.505 Nutrient Management Plan Information**

755
756 The nutrient management plan ~~must include~~shall contain, at a minimum, the following items:

- 757
- 758 a) Name, address, and phone number of the ~~CAFO~~owners ~~of the CAFO~~;
 - 759
760 b) Name, address, and phone number of the managers or operators if different than
761 the owners;
 - 762
763 c) Address, phone number, and plat location of the CAFO production area;
 - 764
765 d) Name of the person who developed the nutrient management plan and a statement
766 indicating whether it was developed or approved by a certified nutrient
767 management planner and by whom the certification was issued;
 - 768
769 e) Type of waste storage for the CAFO;

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- 770
771 f) Species, size and maximum number of animals at the CAFO;
772
773 g) Scaled aerial photos or maps depicting each field available and intended for
774 livestock waste applications with available acreage listed and indicating
775 residences, non-farm businesses, common places of assembly, streams, wells,
776 waterways, lakes, ponds, rivers, drainage ditches, subsurface drainage systems,
777 other water sources, 10-year flood plain, buffers, slope, locations of structural
778 Best Management Practices, setbacks and areas restricted from application by this
779 Subpart E;
780
781 h) For land application areas the owner or operator of the CAFO does not own or
782 rent~~not owned or rented by the owner or operator of the CAFO~~, copies of the
783 consent statement~~statement of consent~~ between the livestock facilities' owner or
784 operator ~~of the livestock facilities~~ and the landowner~~owner of the land~~ where
785 livestock waste will be applied;
786
787 i) Cropping schedule for each field for the past year, anticipated crops for the
788 current year, and anticipated crops for the five year term of the permit;
789
790 j) Realistic crop yield goal for each crop in each field;
791
792 k) An estimate of the livestock waste's nutrient value ~~of the livestock waste or~~
793 the results of livestock waste analysis results determined under~~pursuant to~~ Section
794 502.625(c);
795
796 l) Livestock waste application methods;
797
798 m) Results of the Bray P1 or Mehlich 3 test for soil phosphorus, conducted according
799 to~~in accordance with~~ Recommended Chemical Soil Test Procedures for the North
800 Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200, reported
801 in pounds of elemental phosphorus per acre. If the livestock waste is to be land
802 applied based on a single year or multi-year phosphorus application on the land
803 application area, the following items must be provided:
804
805 1) An estimate of the volume of livestock waste to be disposed of annually;
806
807 2) The phosphorus content of the livestock waste;
808
809 3) The phosphorus amount needed for each crop in the planned crop rotation,
810 expressed as pounds of P₂O₅ per acre, obtained from the Illinois Agronomy
811 Handbook, 24th Edition, incorporated by reference at 35 Ill. Adm. Code
812 501.200; and

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- 4) The maximum livestock waste application rate based on phosphorus for each field, determined ~~underpursuant to~~ Section 502.625(g).
- n) Calculations showing the following:
 - 1) An estimate of the volume of livestock waste to be disposed of annually;
 - 2) Nitrogen loss due to the method of storage, if applicable;
 - 3) Amount of nitrogen available for application;
 - 4) Nitrogen loss due to the method of application;
 - 5) Amount of plant-available nitrogen including mineralized first-year ~~mineralization of~~ organic nitrogen;
 - 6) Amount of nitrogen required by each crop in each field based on realistic crop yield goal;
 - 7) Nitrogen credits from previous crops, from other sources of fertilizer applied for the growing season, and from any livestock waste applications during the previous three years for each field;
 - 8) Livestock waste application rate based on nitrogen for each field; and
 - 9) Land area required for application;
- o) A listing of fields and the planned livestock waste application amounts for each field.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.510 Nutrient Management Plan Requirements

- a) Any permit issued to a CAFO must require implementing~~include a requirement to implement~~ a nutrient management plan by the date of permit coverage that includes, at a minimum, contains best management practices necessary to meet ~~the requirements of~~ this Section and the applicable livestock discharge limitations and technical standards in 35 Ill. Adm. Code 501 and 502.
- b) The nutrient management plan must specify and demonstrate:

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- 856 1) The livestock waste application rate of nitrogen in a single year and
857 phosphorus in a single year or multiple years, not to exceed the single year
858 crop nitrogen and single year or multi-year phosphorus requirements for
859 realistic crop yield goals in the rotation;
860
- 861 2) Adequate land application area for livestock waste application which may
862 include:
863
- 864 A) land the CAFO owner or operator owns~~owned by the CAFO owner~~
865 ~~or operator~~;
866
- 867 B) land the CAFO rents or leases~~rented or leased by the CAFO~~;
868
- 869 C) land covered by a consent agreement between the CAFO owner or
870 operator and the property owner; or
871
- 872 D) any combination of the land described in subsection (b)(2)(A)
873 through (C);
874
- 875 3) Adequate storage of livestock waste, including procedures to ensure
876 proper operation and maintenance of the storage facilities;
877
- 878 4) Proper management of mortalities to ensure that they are not disposed of
879 in a liquid livestock waste or stormwater storage or treatment system that
880 is not specifically designed to treat animal mortalities;
881
- 882 5) That clean water is diverted, as appropriate, from the production area;
883
- 884 6) That~~Prevention of~~ direct contact of confined animals with waters of the
885 United States is prevented;
886
- 887 7) That chemicals and other contaminants handled on-site are not disposed of
888 in any livestock waste or stormwater storage or treatment system unless
889 specifically designed to treat those chemicals and other contaminants;
890
- 891 8) Appropriate site specific conservation practices to be implemented,
892 including, as appropriate, buffers or equivalent practices, to control
893 pollutant runoff ~~of pollutants~~ to waters of the United States;
894
- 895 9) Protocols for appropriate livestock waste and soil testing~~of livestock~~
896 ~~waste and soil~~. Livestock waste must be analyzed at least~~a minimum of~~
897 once annually for nitrogen and phosphorus content, and soil analyzed at
898 least~~a minimum of~~ twice every five years for phosphorus content. The

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- 899 results of these analyses are to be used in determining application rates for
900 livestock wastes;
- 901
- 902 10) Protocols to land apply livestock waste ~~according to~~in accordance with
903 site-specific nutrient management practices that ensure appropriate
904 agricultural utilization of the nutrients ~~in the livestock waste~~;
- 905
- 906 11) Livestock waste ~~must~~shall not be applied within the distance from
907 residences provided in Section 502.645(a) and within the areas prohibited
908 from land application by this Part;
- 909
- 910 12) A winter time land application plan that meets ~~the requirements of~~ Section
911 502.630;
- 912
- 913 13) The plan ~~for inspecting~~for the inspection, monitoring, managing and
914 repairing~~management and repair of~~ subsurface drainage systems at the
915 livestock waste application site. ~~Inspecting~~Inspection of subsurface
916 drainage systems ~~must~~shall include visual inspection ~~before~~prior to land
917 application to determine failures that may cause discharges and visual
918 inspection during and after land application to identify discharges. For
919 ~~purposes of~~ this subsection (b)(13), visual inspection means a person
920 inspecting~~inspection by a person of~~ the tile inlet, tile outlet and
921 unobstructed land surface to assess the structural ability of the subsurface
922 drainage system;
- 923
- 924 14) A spill prevention and control plan;
- 925
- 926 15) Annual review of the nutrient management practices to be implemented
927 and an update of the nutrient management plan when ~~there is a change in~~
928 the nutrient management practices change;
- 929
- 930 16) Specific records that will be maintained to document implementing the
931 implementation and managing~~management of~~ the minimum elements
932 described in subsections (b)(2) through (15); and
- 933
- 934 17) A description of the storage provisions and schedules provided for
935 livestock waste when cropping practices, soil conditions, weather
936 conditions or other conditions prevent applying~~the application of~~ livestock
937 waste to land or prevent other methods of livestock waste disposal.
- 938

939 (Source: Amended at 47 Ill. Reg. _____, effective _____)

940

941 **Section 502.515 Terms of Nutrient Management Plan**

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942

943 Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-
944 specific nutrient management plan. These terms include:

945

946 a) The terms of the nutrient management plan are the information, protocols, best
947 management practices, and other conditions in the nutrient management plan the
948 Agency determines are~~determined by the Agency to be~~ necessary to meet ~~the~~
949 ~~requirements of~~ Sections 502.505 and 502.510.

950

951 b) The terms of the nutrient management plan, regarding~~with respect to~~ protocols for
952 land application of livestock waste as required by Subpart F, must include:

953

954 1) the fields available for land application;

955

956 2) field-specific rates of application properly developed under~~pursuant to~~
957 subsection (d) or (e) to ensure appropriate agricultural utilization of the
958 nutrients in the livestock waste; and

959

960 3) any timing limitations identified in the nutrient management plan
961 concerning land application on the fields available for land application.

962

963 c) The terms of the nutrient management plan must address rates of application
964 using either the linear approach as described in subsection (d) or the narrative rate
965 approach as described in subsection (e), unless the Agency specifies that only one
966 of these approaches may be used.

967

968 d) The linear approach is an approach that expresses application rates~~rates of~~
969 ~~application~~ as pounds of nitrogen and phosphorus, according to the following
970 specifications:

971

972 1) The terms include maximum application rates from livestock waste for
973 each year of permit coverage, for each crop identified in the nutrient
974 management plan, in chemical forms determined to be acceptable to the
975 Agency, in pounds per acre, per year, for each field to be used for land
976 application, and the~~certain~~ factors necessary to determine those rates.

977

978 2) The~~At a minimum, the~~ factors that are terms must include:

979

980 A) the outcome of assessing the field-specific ~~assessment of the~~
981 potential for nitrogen and phosphorus transport from each field;

982

983 B) the crops to be planted in each field or any other uses of a field
984 such as pasture or fallow fields;

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- 985
986 C) the realistic yield goal for each crop or use identified for each field;
987
988 D) the nitrogen and phosphorus recommendations, according to
989 Section 502.625, for each crop or use identified for each field;
990
991 E) credits for all nitrogen in the field that will be plant available;
992
993 F) consideration of multi-year phosphorus application;
994
995 G) accounting for all other additions of plant available nitrogen and
996 phosphorus to the field;
997
998 H) the form and source of livestock waste to be land-applied;
999
1000 I) the timing and method of land application; and
1001
1002 J) the methodology by which the nutrient management plan accounts
1003 for the amount of nitrogen and phosphorus in the livestock waste
1004 to be applied.
1005
1006 3) CAFOs that use this linear approach must calculate the maximum amount
1007 of livestock waste to be land applied at least once each year using the
1008 results of the most recent representative livestock waste tests for nitrogen
1009 and phosphorus taken within 12 months ~~before~~prior to the date of land
1010 application required by Section 502.635.
1011
1012 e) The narrative rate approach is an approach that expresses application rates ~~of~~
1013 ~~application~~ as a narrative rate of application that results in the amount, in tons or
1014 gallons, of livestock waste to be land applied, according to the provisions of this
1015 subsection (e).
1016
1017 1) The terms include:
1018
1019 A) maximum amounts of nitrogen and phosphorus derived from all
1020 sources of nutrients, for each crop identified in the nutrient
1021 management plan, in chemical forms determined to be acceptable
1022 to the Agency, in pounds per acre, for each field, and ~~the~~certain
1023 factors necessary to determine those amounts;
1024
1025 B) the outcome of assessing the field-specific ~~assessment of the~~
1026 potential for nitrogen and phosphorus transport from each field;
1027

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- 1028 C) the crops to be planted in each field or any other uses, such as
1029 pasture or fallow fields, including alternative crops identified in
1030 accordance with subsection (e)(1)(G);
1031
- 1032 D) the realistic yield goal for each crop or use identified for each field;
1033
- 1034 E) the nitrogen and phosphorus recommendations according to
1035 Section 502.625 for each crop or use identified for each field;
1036
- 1037 F) the methodology by which the nutrient management plan accounts
1038 for the following factors when calculating the amounts of livestock
1039 waste to be land applied:
1040
- 1041 i) results of soil tests conducted in accordance with protocols
1042 identified in the nutrient management plan, as required by
1043 Section 502.510(b)(9);
1044
- 1045 ii) credits for all nitrogen in the field that will be plant
1046 available;
1047
- 1048 iii) the amount of nitrogen and phosphorus in the livestock
1049 waste to be applied;
1050
- 1051 iv) consideration of multi-year phosphorus application;
1052
- 1053 v) accounting for all other additions of plant nitrogen and
1054 phosphorus to the field;
1055
- 1056 vi) the form and source of livestock waste;
1057
- 1058 vii) the timing and method of land application; and
1059
- 1060 viii) ~~volatizing~~~~volatilization of~~ nitrogen and
1061 ~~mineralizing~~~~mineralization of~~ organic nitrogen.
1062
- 1063 G) alternative crops identified in the CAFO's nutrient management
1064 plan that are not in the planned crop rotation.
1065
- 1066 i) When a CAFO includes alternative crops in its nutrient
1067 management plan, the crops must be listed by field, in
1068 addition to the crops identified in the planned crop rotation
1069 for that field, and the nutrient management plan must
1070 include realistic crop yield goals and the nitrogen and

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- 1071 phosphorus recommendations according to Section 502.625
1072 for each crop.
1073
1074 ii) Maximum amounts of nitrogen and phosphorus from all
1075 sources of nutrients and the amounts of livestock waste to
1076 be applied must be determined in accordance with the
1077 methodology described in subsections (e)(1)(A) through
1078 (F).
1079
- 1080 2) For CAFOs using this narrative approach, the following projections must
1081 be included in the nutrient management plan submitted to the Agency, but
1082 are not terms of the nutrient management plan:
1083
- 1084 A) the CAFO's planned crop rotations for each field for the period of
1085 permit coverage;
1086
1087 B) the projected amount of livestock waste to be applied;
1088
1089 C) projected credits for all nitrogen in the field that will be plant
1090 available;
1091
1092 D) consideration of multi-year phosphorus application;
1093
1094 E) accounting for all other additions of plant available nitrogen and
1095 phosphorus to the field;
1096
1097 F) the predicted form, source, and method of ~~applying~~application of
1098 livestock waste for each crop; and
1099
1100 G) timing of application for each field, insofar as it concerns
1101 ~~calculating the~~the calculation of rates of application.
1102
- 1103 3) CAFOs that use this narrative rate approach must calculate maximum
1104 amounts of livestock waste to be land applied at least once each year using
1105 the methodology required in subsections (e)(1)(A) through (F) before land
1106 applying livestock waste and must rely on the following data:
1107
- 1108 A) a field-specific determination of nitrogen that will be plant
1109 available consistent with the methodology required by subsections
1110 (e)(1)(A) through (F), and for phosphorus, the results of the most
1111 recent soil test conducted in accordance with soil testing
1112 requirements ~~the Agency approves~~approved by the Agency; and
1113

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1114 B) the results of most recent representative livestock waste tests for
1115 nitrogen and phosphorus taken within 12 months ~~before~~prior to the
1116 date of land application, in order to determine the amount of
1117 nitrogen and phosphorus in the livestock waste to be applied.
1118

1119 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1120

1121 **Section 502.520 Changes to the Nutrient Management Plan**
1122

1123 When a CAFO owner or operator makes changes to the CAFO's nutrient management plan
1124 previously submitted to the Agency, the procedures in this Section are applicable.
1125

1126 a) The CAFO owner or operator must identify changes to the nutrient management
1127 plan, except that the calculated results ~~of calculations~~ made in accordance with
1128 the requirements of Sections 502.515(d)(3) and (e)(3) are not subject to ~~the~~
1129 ~~requirements of~~ this Section. These calculations may be revised without submittal
1130 to the Agency if provided the calculation revisions do not change the terms of the
1131 nutrient management plan.
1132

1133 b) The Agency must determine whether the changes to the nutrient management plan
1134 necessitate revision to the terms of the nutrient management plan incorporated
1135 into the permit issued to the CAFO.
1136

1137 1) If revision to the terms of the nutrient management plan is not necessary,
1138 the Agency must notify the CAFO owner or operator and, upon ~~that such~~
1139 notification, the CAFO may implement the revised nutrient management
1140 plan.
1141

1142 2) If revision to the terms of the nutrient management plan is necessary, the
1143 Agency must determine whether the changes are substantial changes as
1144 described in subsection (d).
1145

1146 3) If the Agency determines that the changes to the terms of the nutrient
1147 management plan are not substantial, the Agency must notify the owner or
1148 operator and inform the public of any changes to the terms of the nutrient
1149 management plan that are incorporated into the permit.
1150

1151 c) If the Agency determines that the changes to the terms of the nutrient
1152 management plan are substantial, the Agency must notify the public and make the
1153 proposed changes and the information the CAFO owner or operator
1154 submits~~submitted by the CAFO owner or operator~~ available for public review and
1155 comment.
1156

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- 1157 1) The process and time limits for submitting public comments and hearing
1158 requests, the hearing process if a request for a hearing is granted, and the
1159 process for responding to significant comments received during the
1160 comment period will follow the procedures applicable to draft general
1161 permits found in Section 502.310(d) through (f).
1162
- 1163 2) The Agency will require the CAFO owner or operator to further revise the
1164 nutrient management plan, if necessary, ~~in order~~ to approve the revision to
1165 the terms of the nutrient management plan incorporated into the CAFO's
1166 permit.
1167
- 1168 3) Once the Agency incorporates the revised terms of the nutrient
1169 management plan into the permit, the Agency must notify the owner or
1170 operator and inform the public of the final decision concerning the
1171 revisions to the terms and conditions of the permit.
1172
- 1173 d) Substantial changes to the terms of the nutrient management plan incorporated as
1174 terms and conditions of a permit include, ~~but are not limited to~~:
- 1175
- 1176 1) ~~Adding~~ Addition of new land application areas not previously included in
1177 the CAFO's nutrient management plan; except that, if the land application
1178 area that is being added to the nutrient management plan is covered by the
1179 terms of a nutrient management plan incorporated into an existing NPDES
1180 permit in ~~compliance~~ accordance with ~~the requirements of~~ Section
1181 502.515, and the CAFO owner or operator applies livestock waste on the
1182 newly added land application area in ~~compliance~~ accordance with the
1183 existing field-specific permit terms applicable to the newly added land
1184 application area, ~~adding~~ addition of new land would be a change to the new
1185 CAFO owner's or operator's nutrient management plan but not a
1186 substantial change for ~~purposes of~~ this Section;
1187
- 1188 2) For nutrient management plans using the linear approach ~~stated as set forth~~
1189 in Section 502.515(d), changes to the field-specific maximum annual rates
1190 of land application (pounds of nitrogen and phosphorus from livestock
1191 waste). For nutrient management plans using the narrative rate approach,
1192 changes to the maximum amounts of nitrogen and phosphorus derived
1193 from all sources for each crop;
1194
- 1195 3) ~~Adding~~ Addition of any crop or other uses not included in the terms of the
1196 CAFO's nutrient management plan and corresponding field-specific
1197 application rates ~~of application~~ expressed in accordance with Section
1198 502.515; and
1199

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- 1200 4) Changes to site-specific components of the CAFO's nutrient management
1201 plan, when the changes are likely to increase the risk of nitrogen and
1202 phosphorus transport to waters of the United States.
1203

1204 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1205

1206 SUBPART F: LIVESTOCK WASTE DISCHARGE LIMITATIONS
1207 AND TECHNICAL STANDARDS
1208

1209 **Section 502.600 Applicability**
1210

- 1211 a) This Subpart provides livestock waste discharge limitations and technical
1212 standards for permitted CAFOs. Permitted CAFOs must achieve the livestock
1213 waste discharge limitations and technical standards in this Subpart by the permit
1214 coverage dates ~~as of the date of permit coverage~~. This Subpart does not apply to
1215 CAFOs that stable or confine horses, sheep or ducks. CAFOs that stable or
1216 confine horses or sheep are subject to applicable production area livestock waste
1217 discharge limitations and technical standards found in Section 502.720. CAFOs
1218 that confine ducks in either a dry lot or wet lot are subject to applicable
1219 production area livestock waste discharge limitations and technical standards
1220 found in Section 502.730.
1221
- 1222 b) Unpermitted Large CAFOs claiming an agricultural stormwater exemption
1223 under ~~pursuant to~~ Section 502.102 are not required to have a nutrient management
1224 plan but must comply with the requirements listed in Section 502.510(b) to
1225 qualify for the exemption.
1226

1227 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1228

1229 **Section 502.605 Livestock Waste Discharge Limitations for the Production Area for**
1230 **Permitted CAFOs**
1231

- 1232 a) Except as provided in subsections (a)(1), (a)(2) and (c), there must be no livestock
1233 waste discharge ~~of livestock wastes~~ into waters of the United States from the
1234 CAFO production area. Whenever precipitation causes an overflow of livestock
1235 wastes from the containment or storage structure, livestock wastes in the overflow
1236 may be discharged into waters of the United States if ~~provided~~:
1237
- 1238 1) The production area is designed, constructed, operated and maintained to
1239 contain all livestock wastes, including the runoff and the direct
1240 precipitation from a 25-year, 24-hour precipitation event, except that, for
1241 swine, poultry or veal, large CAFOs that are new sources must comply
1242 with Subpart H, and

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1285
- 2) The production area is operated in accordance with the additional measures and records required by Section 502.610.
 - b) Any point source subject to this Subpart must achieve the livestock waste discharge limitations in this Section by the permit coverage date~~as of the date of the permit coverage~~.
 - c) Voluntary Alternative Performance Standards. Any CAFO subject to this Subpart may request the Agency to establish NPDES permit livestock waste discharge limitations based upon site-specific alternative technologies that achieve a quantity of pollutants discharged from the production area equal to or less than the quantity of pollutants that would be discharged under the baseline performance standards as provided by subsection (a).
 - 1) In requesting site-specific livestock waste discharge limitations to be included in the NPDES permit, the CAFO owner or operator must submit a supporting technical analysis and any other relevant information and data that would support those site-specific livestock waste discharge limitations within the time frame the Agency provides~~provided by the Agency~~.
 - 2) The supporting technical analysis must include calculating~~calculation of~~ the quantity of pollutants discharged, on a mass basis when appropriate, based on a site-specific analysis of a system designed, constructed, operated, and maintained to contain all livestock waste, including the runoff from a 25-year, 24-hour rainfall event.
 - 3) The technical analysis of the discharge of pollutants must include:
 - A) all daily inputs to the storage system, including livestock waste, direct precipitation, and runoff;
 - B) all daily outputs from the storage system, including losses due to evaporation, sludge removal, and ~~removal of~~ wastewater removal for use on cropland at the CAFO or transport off site;
 - C) a calculation determining the predicted median annual overflow volume based on a 25-year period of actual rainfall data applicable to the site;
 - D) site-specific pollutant data, including nitrogen, phosphorus, BOD₅ and total suspended solids, for the CAFO from representative

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- 1286 sampling and ~~analyzing~~ ~~analysis of~~ all sources of input to the
1287 storage system, or other appropriate pollutant data; and
1288
1289 E) predicted annual average ~~pollutant discharge~~ ~~discharge of~~
1290 ~~pollutants~~, expressed, when appropriate, as a mass discharge on a
1291 daily basis (lbs/day), and calculated considering subsections
1292 (c)(3)(A) through (D).
1293
1294 4) The Agency ~~may~~ ~~has the discretion to~~ request additional information to
1295 supplement the supporting technical analysis, including
1296 ~~inspecting~~ ~~inspection of~~ the CAFO.
1297

1298 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1299

1300 **Section 502.610 Additional Measures for CAFO Production Areas**
1301

1302 Each CAFO subject to this Subpart must implement the following:
1303

- 1304 a) The CAFO owner or operator must at all times properly operate and maintain all
1305 structural and operational aspects of the facilities, including all systems for
1306 livestock waste treatment, storage, management, monitoring and testing.
1307
1308 b) Livestock within a CAFO production area ~~must~~ ~~shall~~ not come into contact with
1309 waters of the United States.
1310
1311 c) Visual Inspections. There must be routine visual inspections of the CAFO
1312 production area, ~~including the.~~ ~~At a minimum, the~~ following ~~must occur~~:
1313
1314 1) ~~Inspecting weekly~~ ~~Weekly inspections of~~ all stormwater diversion devices,
1315 runoff diversion structures, and devices channeling contaminated
1316 stormwater to the wastewater and manure storage and containment
1317 structure;
1318
1319 2) ~~Inspecting~~ ~~Daily inspection of~~ water lines ~~daily~~ in the production areas,
1320 including drinking water or cooling water lines; and
1321
1322 3) ~~Inspecting~~ ~~Weekly inspections of the~~ livestock waste storage facilities
1323 ~~weekly~~. The inspection will note the ~~level of~~ total volume of materials in
1324 the liquid livestock waste storage facility using the depth marker required
1325 in subsection (d).
1326
1327 d) Depth Marker. All open surface liquid livestock waste storage facilities must have
1328 a depth marker that clearly indicates the minimum capacity necessary to contain

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- 1329 the runoff and direct precipitation of the 25-year, 24-hour rainfall event. In the
1330 case of new sources subject to livestock waste discharge limitations established
1331 ~~under~~pursuant to Section 502.830, all open surface livestock waste storage
1332 structures associated with the sources must include a depth marker that clearly
1333 indicates the minimum capacity necessary to contain the maximum runoff and
1334 direct precipitation associated with the design storm used in sizing the storage
1335 facility for no discharge.
- 1336
- 1337 e) Corrective Actions. Any deficiencies found ~~because of~~as a result of these
1338 inspections must be corrected as soon as possible.
- 1339
- 1340 f) In addition to the requirement in subsection (e), deficiencies not corrected within
1341 30 days must be accompanied by an explanation of the factors preventing
1342 immediate correction.
- 1343
- 1344 g) ~~Pollutant discharge~~Discharge to waters of the United States ~~of pollutants~~-from
1345 dead livestock or dead animal disposal facilities is prohibited. Dead livestock and
1346 water contaminated by dead livestock ~~must~~shall not be disposed of in the liquid
1347 manure storage structures, egg wash wastewater facilities, egg processing
1348 wastewater facilities, or areas used to hold products, by-products or raw materials
1349 that are set aside for disposal, or contaminated stormwater facilities, other than
1350 facilities used solely ~~to dispose~~for disposal of dead livestock.
- 1351
- 1352 h) Chemicals and other contaminants ~~must~~shall not be disposed of in any livestock
1353 waste or stormwater storage or treatment system unless specifically designed to
1354 treat those chemicals and other contaminants.
- 1355
- 1356 i) A CAFO owner or operator utilizing an earthen lagoon or other earthen manure
1357 storage area or waste containment area ~~must~~shall inspect all berm tops, exterior
1358 berm sides, and non-submerged interior berm sides for evidence of erosion,
1359 burrowing animal activity, and other indications of berm degradation on a
1360 frequency of ~~at least~~not less than once every week.
- 1361
- 1362 j) The CAFO owner or operator ~~must periodically remove~~shall perform periodic
1363 ~~removal of~~ livestock waste solids from liquid manure storage areas and the waste
1364 containment area to maintain ~~operating~~proper operation of the storage structures
1365 properly. Soils that are contaminated with livestock waste removed from earthen
1366 manure storage structures ~~must~~shall be considered livestock waste.
- 1367
- 1368 k) Requirements Relating to Transfer of Livestock Waste to Other Persons.
- 1369

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- 1370 1) ~~Before~~~~Prior to~~ transferring livestock waste to other persons, CAFOs must
1371 provide the recipient of the livestock waste with the most current nutrient
1372 analysis.
1373
- 1374 2) The analysis provided must be consistent with applicable requirements to
1375 sample livestock wastes in Section 502.635(b).
1376
- 1377 3) CAFOs must retain for five years records of the date, recipient name and
1378 address, and approximate amount of livestock waste transferred to another
1379 person.
1380

1381 l) Livestock Waste Storage Requirements
1382

- 1383 1) Livestock waste storage structures at the CAFO production area ~~must~~~~shall~~
1384 be designed to contain a volume equal to or greater than the ~~total sum of~~
1385 ~~the~~ volumes of the following:
1386
- 1387 A) the amount of waste generated during a 180-day period of
1388 operation at design capacity;
1389
- 1390 B) the runoff volumes generated during a 180-day period, including
1391 all runoff and precipitation from lots, roofs and other surfaces
1392 where precipitation is directed into the storage structure;
1393
- 1394 C) the volume of all wash down liquid generated during the 180-day
1395 period that is directed into the manure storage structure;
1396
- 1397 D) the volume of runoff and precipitation directed to the storage
1398 structure during a 25-year, 24-hour storm event;
1399
- 1400 E) the design volatile solids loading volume, if applicable;
1401
- 1402 F) the sludge accumulation volume, if applicable; and
1403
- 1404 G) a freeboard of 2 feet, except for structures with a cover or
1405 otherwise protected from precipitation.
1406
- 1407 2) The storage volume requirements in this subsection (l) do not apply to
1408 pump stations, settling tanks, pumps, piping or other components of the
1409 CAFO production area that temporarily hold or transport waste to a
1410 storage facility meeting ~~the requirements of~~ this subsection (l).
1411

1412 (Source: Amended at 47 Ill. Reg. _____, effective _____)

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1454
1455**Section 502.615 Nutrient Transport Potential**

- a) Field Assessment. An individual field assessment of the potential for nitrogen and phosphorus transport from the field to surface waters must be conducted and the results contained in the nutrient management plan. The following factors must be identified for each field to determine nitrogen and phosphorus transport potential to waters of the United States.
- 1) Soil type;
 - 2) Slope;
 - 3) Conservation practices;
 - 4) Soil erodibility or potential for soil erosion;
 - 5) Soil test phosphorus;
 - 6) Tile inlet locations;
 - 7) Distance to surface waters;
 - 8) Proximity to wells;
 - 9) Location of conduits to surface water, including preferential flow paths; and
 - 10) Subsurface drainage tiles.
- b) The applicant ~~shall utilize~~ must use the field assessment information obtained in subsection (a) to determine the appropriate phosphorus-based or nitrogen-based application rate for each assessed field. The determination ~~of phosphorus-based or nitrogen-based application of livestock waste on an assessed field~~ must be consistent with subsection (c) or (d) and Sections 502.620, 502.625, 502.630, and 502.635.
- c) Nitrogen-based application of livestock waste must be conducted consistent with the following requirements:
- 1) livestock waste is applied consistent with the setback requirements in Section 502.645;

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1456 2) available soil phosphorus (median Bray P1 or Mehlich 3 in accordance
1457 with Recommended Chemical Soil Test Procedures for the North Central
1458 Region, incorporated by reference in 35 Ill. Adm. Code 501.200) is equal
1459 to or less than 300 pounds per acre;

1460
1461 3) the soil loss calculated using the Revised Universal Soil Loss Equation 2
1462 (RUSLE2) is less than the Erosion Factor T;

1463
1464 BOARD NOTE: Soil loss may be calculated using the Revised Universal
1465 Soil Loss Equation 2 (RUSLE2) software program available at
1466 http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm.
1467 Additional information may be obtained from the United States
1468 Department of Agriculture, Agricultural Research Service, 1400
1469 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656.
1470 Erosion Factor T for Illinois soils is available from the United States
1471 Department of Agriculture, Natural Resources Conservation Service,
1472 Illinois Office, 2118 W. Park Court, Champaign IL 61821, (217) 353-
1473 6600. The published soil surveys for Illinois are available at
1474 <http://www.nrcs.usda.gov>.

1475
1476 4) if conduits on the field are less than 400 feet from surface waters, the
1477 setback requirements in Section 502.645(b)(2) do not apply. Instead the
1478 following setbacks apply:

1479
1480 A) Livestock waste application ~~must~~~~shall~~ be conducted no closer than:

1481
1482 i) 150 feet from a tile inlet, agricultural well head, sinkhole,
1483 or edge of a ditch that has no vegetative buffer; or

1484
1485 ii) 50 feet from a tile inlet, agricultural well head, sinkhole, or
1486 edge of a ditch that has a 50 foot vegetative buffer or 50
1487 feet from the center of a grass waterway;

1488
1489 B) These setbacks do not apply if the CAFO ~~demonstrates~~~~is able to~~
1490 ~~demonstrate~~ to the Agency that a setback or buffer is not necessary
1491 because ~~implementing~~~~implementation of~~ alternative conservation
1492 practices (including, ~~but not limited to~~, injection and incorporation)
1493 or field-specific conditions will provide pollutant reductions
1494 equivalent to or better than the reductions that would be achieved
1495 by the 150-foot setback under subsection (c)(4)(A)(i) or the 50-
1496 foot setback under subsection (c)(4)(A)(ii);

1497

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- 1498 5) if conduits on the field are more than 400 feet from surface waters, the
1499 setback requirements in subsection (c)(4) do not apply;
1500
- 1501 6) where surface waters are on the assessed field or within 200 feet of the
1502 field, the livestock waste applied to the field ~~must~~ shall be injected or
1503 incorporated within 24 hours after the application or equivalent
1504 conservation practices must be installed and maintained on the field
1505 ~~under~~ pursuant to USDA-NRCS practice standards; and
1506
- 1507 7) if nitrogen-based application cannot be conducted in accordance with this
1508 subsection (c), then phosphorus-based application must be conducted as
1509 specified in subsection (d).
1510
- 1511 d) Phosphorus-based application of livestock waste must be conducted consistent
1512 with the following requirements:
1513
- 1514 1) livestock waste must be applied consistent with the setback requirements
1515 in Section 502.645;
1516
- 1517 2) the livestock waste application rate must not exceed the annual agronomic
1518 nitrogen demand of the next crop grown as provided in Section
1519 502.625(a);
1520
- 1521 3) if the soil contains greater than 50 pounds of available soil phosphorus per
1522 acre (median Bray P1 or Mehlich 3 in accordance with Recommended
1523 Chemical Soil Test Procedures for the North Central Region, incorporated
1524 by reference in 35 Ill. Adm. Code 501.200), phosphorus-based application
1525 rates must maintain or lower the soil test phosphorus during the nutrient
1526 management plan period;
1527
- 1528 4) if the soil contains greater than 300 pounds of available soil phosphorus
1529 per acre (median Bray P1 or Mehlich 3 in accordance with Recommended
1530 Chemical Soil Test Procedures for the North Central Region, incorporated
1531 by reference in 35 Ill. Adm. Code 501.200), the amount of phosphorus
1532 applied in the livestock waste must not exceed the amount of phosphorus
1533 ~~removed by the~~ next year's crop grown and harvested ~~removes~~; and
1534
- 1535 5) livestock waste ~~must~~ shall not be applied to fields with available soil
1536 phosphorus (median Bray P1 or Mehlich 3 in accordance with
1537 Recommended Chemical Soil Test Procedures for the North Central
1538 Region, incorporated by reference in 35 Ill. Adm. Code 501.200) greater
1539 than 400 pounds per acre.
1540

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1541 (Source: Amended at 47 Ill. Reg. _____, effective _____)

1542

1543 **Section 502.620 Protocols to Land Apply Livestock Waste**

1544

1545 a) Livestock wastes ~~must~~shall not be applied to waters of the United States.
1546 Livestock waste application ~~must~~shall not cause runoff to waters of the United
1547 States during non-precipitation events. Livestock waste application ~~must~~shall not
1548 occur on land that is saturated at the time of application. Livestock waste
1549 ~~must~~shall not be applied onto land with ponded water.

1550

1551 b) Discharge of livestock waste to waters of the United States or off-site during dry
1552 weather through subsurface drains is prohibited.

1553

1554 c) Livestock waste ~~must~~shall not be applied during precipitation when runoff of
1555 livestock waste will be produced.

1556

1557 d) Surface land application of livestock waste ~~must~~shall not occur within 24 hours
1558 preceding a ~~precipitation~~ forecast of 0.5 inches or more ~~of precipitation~~ in a 24-
1559 hour period as measured in liquid form. The CAFO owner or operator ~~must~~shall
1560 use one of the following two methods for determining whether these conditions
1561 exist and ~~must~~shall maintain a record of the forecast from the source used.

1562

1563 1) A prediction of a 60 percent or greater chance of 0.5 inches or more of
1564 precipitation in a 24-hour period as measured in liquid form, obtained
1565 from the National Weather Service's Meteorological Development
1566 Laboratory, Statistical Modeling Branch, 1325 East West Highway, Silver
1567 Spring MD 20910 for the location nearest to the land application area; or

1568

1569 BOARD NOTE: The prediction in subsection (d)(1) may be obtained
1570 from the National Weather Service at

1571 http://www.wpc.ncep.noaa.gov/pqpf.conus_hpc_pqph.php

1572 ~~<http://www.nws.noaa.gov/mdl/forecast/graphics/MAV/>~~

1573

1574 2) A prediction of 0.5 inches or more of precipitation in a 24 hour period as
1575 measured in liquid form and identified as higher than Quantitative
1576 Precipitation Forecast (QPF) category 3, obtained from the National
1577 Weather Service's Meteorological Development Laboratory, Statistical
1578 Modeling Branch, 1325 East West Highway, Silver Spring MD 20910 for
1579 the land application area location.

1580

1581 BOARD NOTE: The prediction in subsection (d)(2) may be obtained
1582 from the National Weather Service at

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- 1583 <https://www.wpc.ncep.noaa.gov/qpf.qpfz.shtml>
1584 <http://www.nws.noaa.gov/mdl/synop/products/bullform.mex.htm>.
1585
1586 e) Determination of soil loss must be made for each field using Revised Universal
1587 Soil Loss Equation 2 (RUSLE2).
1588
1589 BOARD NOTE: Soil loss may be calculated using the RUSLE2 software
1590 program available at [http://fargo.nserl.purdue.edu/rusle2_dataweb/](http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm)
1591 [RUSLE2_Index.htm](http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm). Additional information may be obtained from the United
1592 States Department of Agriculture, Agricultural Research Service, 1400
1593 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656.
1594
1595 f) Surface land application may be used when the land slope is no greater than 5%
1596 or when the yearly average soil loss calculated using RUSLE2 [or the most recent](#)
1597 [USDA/NRCS soil erosion prediction tool](#) is equal to or less than 5 tons per acre
1598 per year or Erosion Factor T, whichever is less, regardless of slope. Injection or
1599 incorporation within 24 hours ~~must~~ shall be used when the land slope is greater
1600 than 5% and the yearly average soil loss calculated using RUSLE2 is greater than
1601 5 tons per acre per year or Erosion Factor T, whichever is less. Fields with
1602 varying or steep slopes must be divided into separate areas for calculating yearly
1603 average soil loss using RUSLE2 [or the most recent USDA/NRCS soil erosion](#)
1604 [prediction tool](#) to comply with this subsection.
1605
1606 BOARD NOTE: Soil loss may be calculated using the RUSLE2 [or the recent](#)
1607 [USDA/NRCS soil erosion prediction tool](#) software program available at
1608 http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm. Additional
1609 information on RUSLE2 may be obtained from the United States Department of
1610 Agriculture, Agricultural Research Services, 1400 Independence Avenue, S.W.,
1611 Washington DC 20250, (202) 720-3656. Erosion Factor T for Illinois soils is
1612 available from the United States Department of Agriculture, Natural Resources
1613 Conservation Service, Illinois Office, 2118 W. Park Court, Champaign IL 61821,
1614 (217) 353-6600. The published soil surveys for Illinois are available at
1615 <http://www.nrcs.usda.gov>.
1616
1617 g) Land application of livestock waste is prohibited on slopes greater than 15%.
1618
1619 h) Liquid livestock waste ~~must~~ shall not be applied to land with less than 36 inches of
1620 soil covering fractured bedrock, sand or gravel. The depth of soil cover may be
1621 determined by using NRCS soil surveys, Illinois State Geological Survey well
1622 logs, or soil probes.
1623
1624 i) Livestock waste ~~must~~ shall not be applied to bedrock outcrops.
1625

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1626 j) Livestock waste ~~must~~shall be applied at no greater than 50 percent of the
1627 agronomic nitrogen rate determined ~~under~~pursuant to Section 502.625 when there
1628 is less than 60 inches of unconsolidated material over bedrock. The depth of
1629 unconsolidated material may be determined by using NRCS surveys, Illinois State
1630 Geological Survey well logs, or soil probes.

1631
1632 k) Livestock waste ~~must~~shall be applied at no greater than 50 percent of the
1633 agronomic nitrogen rate determined ~~under~~pursuant to Section 502.625 when the
1634 minimum soil depth to seasonal high water table is less than or equal to 2 feet.
1635 The depth of soil to seasonal high water table may be determined by using
1636 information from NRCS soil surveys, soil probes, and water table levels from
1637 Illinois State Geological Survey well log data or well points.

1638
1639 l) Livestock waste ~~must~~shall not be applied at rates that exceed the infiltration rates
1640 of the soil.

1641
1642 (Source: Amended at 47 Ill. Reg. _____, effective _____)

1643
1644 **Section 502.625 Determination of Livestock Waste Application Rates**

1645
1646 a) Livestock waste application ~~must~~shall not exceed the agronomic nitrogen rate,
1647 which is defined as the annual application rate of nitrogen that can be expected to
1648 be required for a realistic crop yield goal. Multi-year phosphorus application is
1649 allowed when the application is specified in a nutrient management plan and
1650 meets the requirements in Section 502.615. Any ~~such~~ application must be
1651 consistent with nutrient management plan requirements. The agronomic rate must
1652 be determined in a manner consistent with this Section and Section 502.615.

1653
1654 b) Livestock Waste Volumes. The estimate of the annual volume of available
1655 livestock waste for application ~~must~~shall be obtained by multiplying the number
1656 of animals constituting the maximum design capacity of the facility by the
1657 appropriate amount of waste ~~the animals generate~~generated by the animals. For
1658 ~~purposes of~~ this Section, "maximum design capacity" means the maximum
1659 number of animals that can be housed at any time for a minimum of 45 days at a
1660 CAFO. The following sources may be used to obtain the amount of waste
1661 generated:

1662
1663 1) Livestock Waste Facilities Handbook, Third Edition, Table 2-1,
1664 incorporated by reference at 35 Ill. Adm. Code 501.200(a);

1665
1666 2) 35 Ill. Adm. Code 560.Table 1;
1667

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- 1668 3) Manure Characteristics, 2nd ed., 2004 (MWPS-18 Section 1), MidWest
1669 Plan Service, incorporated by reference at 35 Ill. Adm. Code 501.200(a);
1670 and
1671
- 1672 4) NRCS Agricultural Waste Management Field Handbook Chapter 4,
1673 incorporated by reference at 35 Ill. Adm. Code 501.200(a).
1674
- 1675 c) Nutrient Value of Livestock Waste. For new livestock facilities that have not
1676 generated livestock waste, the owner or operator must prepare a plan based on an
1677 average of the minimum and maximum numbers in the table values derived from
1678 Livestock Waste Facilities Handbook, Third Edition, Table 2-1, 10-6, or 10-7, or
1679 Manure Characteristics, incorporated by reference at 35 Ill. Adm. Code 501.200,
1680 or 35 Ill. Adm. Code 560. Table 1 or Table 2. If "as produced" or "as excreted"
1681 nutrient values are used, the nitrogen value ~~must~~shall be adjusted to account for
1682 losses due to the type of storage system ~~utilized~~ using an average of the ranges in
1683 Livestock Waste Facilities Handbook, Third Edition, Table 10-1. Other sources of
1684 nutrient values may be used if approved by the Agency. Owners or operators of
1685 existing livestock facilities, must prepare the plan based on representative
1686 sampling and analysis of the livestock waste ~~the CAFOs generate~~generated by the
1687 ~~CAFOs~~ in accordance with Section 502.635(b).
1688
- 1689 d) Adjustments to Nitrogen Availability. Adjustments ~~must~~shall be made to
1690 nitrogen availability to account for the following:
1691
- 1692 1) Nitrogen loss from livestock waste due to method of application, based on
1693 an average of the ranges in Livestock Waste Facilities Handbook, Third
1694 Edition, Table 10-2; and
1695
- 1696 2) The first-year mineralization of organic nitrogen into a plant available
1697 form, as obtained from Livestock Waste Facilities Handbook, Third
1698 Edition, Table 10-5.
1699
- 1700 e) Realistic Crop Yield Goal
1701
- 1702 1) The realistic crop yield goal ~~must~~shall be determined for each field where
1703 the livestock waste is to be land applied. The realistic crop yield goal
1704 ~~used~~shall be determined using an average yield over a five-year period
1705 from the field where livestock waste is to be land applied. The source of
1706 data ~~used to be utilized~~ to determine the realistic crop yield goal is
1707 provided in subsection (e)(2).
1708
- 1709 2) Whenever five years of data is available for the field where livestock
1710 waste is to be land applied, proven yields ~~must~~shall be used in calculating
1711 the realistic crop yield, unless there is an agronomic basis for predicting a

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1712 different realistic crop yield goal. The owner or operator ~~must~~shall
1713 indicate the method used to determine the proven yield. Data from years
1714 with crop disasters may be discarded.
1715

1716 A) If five years of proven yield data is not available for the field
1717 where the livestock waste is to be land applied, or if an agronomic
1718 basis exists for predicting a different realistic crop yield goal, the
1719 owner or operator may calculate the realistic crop yield goal using
1720 crop insurance yields or Farm Service Agency USDA yields. If
1721 either of these sources is used, a copy of the insurance or assigned
1722 crop yields ~~must~~shall be included with the nutrient management
1723 plan.
1724

1725 B) If data is not available on proven yields, crop insurance yields or
1726 Farm Service Agency yields, or if an agronomic basis exists for
1727 predicting a different realistic crop yield goal, soils based yield
1728 data from the University of Illinois "Average Crop, Pasture, and
1729 Forestry Productivity Ratings for Illinois Soils; Bulletin No. 810"
1730 (Bulletin 810) or "Optimum Crop Productivity Ratings for Illinois
1731 Soils; Bulletin 811" (Bulletin 811), incorporated by reference at 35
1732 Ill. Adm. Code 501.200, ~~the owner or operator must use~~shall be
1733 ~~used by the owner or operator~~ to calculate the realistic crop yield
1734 goal ~~under~~pursuant to subsection (e)(1).
1735

1736 i) If Bulletin 810 or 811 is used to calculate the realistic crop
1737 yield goal, a soil map of the land application areas
1738 ~~must~~shall be included in the nutrient management plan.
1739

1740 ii) If Bulletin 810 or 811 is used, the realistic crop yield goal
1741 ~~must~~shall be determined by a weighted average of the soil
1742 interpretation yield estimates for the fields where livestock
1743 waste is to be land applied.
1744

1745 iii) If Bulletin 811 is used, the owner or operator ~~must~~shall
1746 demonstrate in the nutrient management plan that the
1747 operational management and field conditions of the facility
1748 and land application areas meet the requirements for
1749 optimum conditions as provided in Bulletin 811.
1750

1751 f) Nitrogen Credits
1752

1753 1) ~~The CAFO owner or operator must calculate nitrogen~~Nitrogen credits
1754 ~~shall be calculated by the CAFO owner or operator, under~~pursuant to

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- 1755 Section 502.505(n)(7), for nitrogen-producing crops grown the previous
1756 year, for other sources of nitrogen applied for the growing season, and for
1757 mineralized organic nitrogen in livestock waste applied during the
1758 previous three years.
1759
- 1760 2) The CAFO owner or operator must calculate nitrogen~~shall be calculated by the CAFO owner or operator~~ Nitrogen credits
1761 ~~shall be calculated by the CAFO owner or operator~~ for the mineralized
1762 organic nitrogen in livestock waste applied during the previous three years
1763 at the rate of 50%, 25%, and 12.5%, respectively, of that mineralized
1764 during the first year.
1765
- 1766 g) Phosphorus. The CAFO owner or operator must develop or amend the plan ~~shall~~
1767 ~~be developed or amended by the CAFO owner or operator~~ to determine the
1768 maximum livestock waste application rate for each field. The plan for that field
1769 must~~shall~~ contain the following:
1770
- 1771 1) The phosphorus content of the livestock waste must~~shall~~ be determined in
1772 accordance with subsection (c);
1773
- 1774 2) The realistic crop yield goal of each crop in the field, obtained
1775 under~~pursuant to~~ subsection (e)(1);
1776
- 1777 3) The phosphorus amount needed for each crop in the planned crop rotation,
1778 expressed as P₂O₅, obtained from the Illinois Agronomy Handbook, 24th
1779 Edition, incorporated by reference at 35 Ill. Adm. Code 501.200.
1780 Determining this~~The determination of this~~ phosphorus amount must~~shall~~
1781 be based on the realistic crop yield goal for each planned crop and the soil
1782 test for available phosphorus (Bray P1 or Mehlich 3 conducted according
1783 to~~in accordance with~~ Recommended Chemical Soil Test Procedures for
1784 the North Central Region, incorporated by reference in 35 Ill. Adm. Code
1785 501.200);
1786
- 1787 4) The phosphorus carryover from previous years' application of phosphorus
1788 or livestock waste;
1789
- 1790 5) Soil test phosphorus results for that field; and
1791
- 1792 6) The maximum livestock waste application rate, consistent with nitrogen-
1793 based or phosphorus-based applications allowed under Section 502.615.
1794
- 1795 h) Nitrogen and phosphorus fertilization rates for the realistic crop yield goal may be
1796 obtained from the Illinois Agronomy Handbook, 24th Edition, incorporated by
1797 reference at 35 Ill. Adm. Code 501.200, or 35 Ill. Adm. Code 560.Appendix A.

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(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.630 Protocols to Land Apply Livestock Waste During Winter

- a) Winter Application Prohibition. Surface land application of livestock waste on frozen, ice-covered, or snow-covered ground is prohibited except as specified in subsection (a)(1).
 - 1) ~~Despite~~Notwithstanding the winter application prohibition in subsection (a), surface land application of livestock waste on frozen, ice-covered or snow-covered ground is allowed if all of the following conditions are met:
 - A) No practical alternative measures are available to handle the livestock waste within storage facilities or to dispose of the livestock waste at other sites. Examples of practical alternative measures may include, ~~but are not limited to,~~ the transfer of waste to another waste handling facility or sewage treatment plant, rental or acquisition of a storage tank, reduction of herd size or depopulation, and protection of the facility from direct precipitation and clean stormwater runoff;
 - B) Liquid livestock waste cannot be injected or incorporated within 24 hours after application due to soil conditions;
 - C) ~~Before~~Prior to December 1, the owner or operator has taken steps to provide 120 days of available capacity for manure storage areas~~storage capacity of manure storage areas~~. Examples of steps that could be taken may include, but are not limited to, land application of livestock waste, transfer of waste to another party, protecting~~protection of~~ waste storage structures from direct precipitation and stormwater runoff, and depopulating facilities to reduce the amount of waste generated;
 - D) The owner or operator has complied with subsection (a)(1)(C) and yet the storage volume available on December 1 of that winter season is less than 120 days of storage;
 - E) The owner or operator has notified the Agency in writing on December 1 of that winter season that the CAFO has less than 120 days storage available; and

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- 1840 F) The discharge of livestock waste from the structure to the surface
1841 waters is expected to occur due to shortage in storage capacity.
1842
- 1843 2) The storage volume calculation in subsection (a)(1)(C) must include
1844 runoff and direct precipitation plus the volume of livestock excreta, wash
1845 water and other process wastewater generated and expected to enter the
1846 storage structure during ~~the period of~~ December 1 to April 1. Runoff
1847 volume calculations must meet the following requirements:
1848
- 1849 A) Runoff calculations must be based on the runoff transferred into
1850 the storage structure under frozen ground conditions;
1851
- 1852 B) Direct precipitation that will reduce the available storage volume
1853 must be based on normal precipitation for the December 1 to April
1854 1 period for the nearest weather station and, for facilities exposed
1855 to precipitation, the 25-year, 24-hour storm event volume or the
1856 design storm event volume determined under Subpart H for swine,
1857 poultry and veal large CAFOs that are new sources. ~~Normal~~The
1858 ~~determination of normal~~ precipitation determinations must~~shall~~ be
1859 based on National Weather Service or State Water Survey
1860 Records;
1861
- 1862 BOARD NOTE: The following sources may be used to determine
1863 normal precipitation:
1864
- 1865 [http://www.isws.illinois.edu/atmos/statecli/newnormals/
1866 newnormals.htm](http://www.isws.illinois.edu/atmos/statecli/newnormals/newnormals.htm) or [http://cdo.ncdc.noaa.gov/cgi-
1867 bin/climatenormals/climatenormals.pl](http://cdo.ncdc.noaa.gov/cgi-bin/climatenormals/climatenormals.pl).
1868
- 1869 C) The owner or operator must~~shall~~ keep a record of the precipitation
1870 value used and the source from which the value was obtained; and
1871
- 1872 D) Calculations must allow for a freeboard of two feet.
1873
- 1874 3) ~~If~~In the event winter land application is necessary, it must be conducted
1875 under~~pursuant to~~ a winter application plan described in subsection (b) and
1876 according to the conditions of subsection (c).
1877
- 1878 b) Winter Application Plan
1879 To~~In order to~~ conduct surface land application on frozen, ice covered, or snow
1880 covered ground, ~~the requirements of~~ this subsection (b) must be met.
1881
- 1882 1) No land application may occur within ¼ mile of a non-farm residence.

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1924
- 2) No discharge may occur during land application of livestock waste.
- 3) Surface land application on frozen ground ~~must~~shall not occur within 24-hours preceding a precipitation forecast of 0.25 inches or more ~~of precipitation~~ in a 24-hour period as measured in liquid form. The CAFO owner or operator ~~must~~shall use one of the following two methods for determining whether these conditions exist and ~~must~~shall maintain a record of the forecast from the source used.
- A) A prediction of a 60 percent or greater chance of 0.25 inches or more of precipitation in a 24-hour period as measured in liquid form, obtained from the National Weather Service's Meteorological Development Laboratory, Statistical Modeling Branch 1325 East West Highway, Silver Spring MD 20910, for the location nearest to the land application area; or
- BOARD NOTE: The prediction in subsection (b)(3)(A) may be obtained from the National Weather Service at http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php ~~<http://www.nws.noaa.gov/mdl/forecast/graphics/MAV/>~~.
- B) A precipitation prediction of 0.25 inches or more ~~of precipitation~~ in a 24-hour period as measured in liquid form and identified as higher than QPF category 2 obtained from the National Weather Service Meteorological Development Laboratory, Statistical Modeling Branch, 1325 East West Highway, Silver Spring MD 20910, for the land application area location.
- BOARD NOTE: The prediction in subsection (b)(3)(B) may be obtained from the National Weather Service at http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php ~~<http://www.nws.noaa.gov/mdl/synop/products/bullform.mex.htm>~~.
- 4) Surface land application of livestock waste on ice covered or snow covered land ~~must~~shall not occur within 24 hours preceding a precipitation forecast of 0.1 inches or more ~~of precipitation~~ in a 24 hour period as measured in liquid form. The CAFO owner or operator ~~must~~shall use one of the two methods provided below for determining whether or not these conditions exist and ~~must~~shall maintain a record of the forecast from the source used.

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1925 A) A precipitation prediction of a 60 percent or greater chance of 0.1
1926 inches or more ~~of precipitation~~ in a 24-hour period as measured in
1927 liquid form obtained from the National Weather Service's
1928 Meteorological Development Laboratory, Statistical Modeling
1929 Branch, 1325 East West Highway, Silver Spring MD 20910 for
1930 the location nearest to the land application area; or

1931
1932 BOARD NOTE: The prediction in subsection (b)(4)(A) may be
1933 obtained from the National Weather Service at
1934 http://www.wpc.ncep.noaa.gov/pqpf/conus_hpc_pqpf.php
1935 ~~<http://www.nws.noaa.gov/mdl/forecast/graphics/MAV/>~~.

1936
1937 B) A precipitation prediction of 0.1 inches or more ~~of precipitation~~ in
1938 a 24-hour period as measured in liquid form and identified as
1939 higher than QPF category 1 obtained from the National Weather
1940 Service's Meteorological Development Laboratory, Statistical
1941 Modeling Branch, 1325 East West Highway, Silver Spring MD
1942 20910 for the land application area location.

1943
1944 BOARD NOTE: The prediction in subsection (b)(4)(B) may be
1945 obtained from the National Weather Service at
1946 <http://www.nws.noaa.gov/mdl/synop/products/bullform.mex.htm>.

1947
1948 5) If the land application of livestock waste is on ice covered or snow
1949 covered land, surface land application ~~must~~~~shall~~ not occur when the
1950 predicted high temperature exceeds 32 degrees F on the day of land
1951 application or on any of the 7 days following land application as predicted
1952 by the National Weather Service's Meteorological Development
1953 Laboratory, Statistical Modeling Branch, 1325 East West Highway, Silver
1954 Spring MD 20910 for the location nearest to the land application area.
1955 The owner or operator ~~must~~~~shall~~ maintain a record of the forecast from the
1956 source used.

1957
1958 BOARD NOTE: The predicted high temperature in subsection (b)(5) may
1959 be obtained from the National Weather Service at
1960 <https://www.weather.gov>
1961 ~~<http://www.nws.noaa.gov/mdl/forecast/graphics/MEX/index.html> or~~
1962 ~~<http://www.nws.noaa.gov/mdl/synop/products/bullform.mex.htm>~~.

1963
1964 6) If the surface land application of livestock waste is on ice covered or snow
1965 covered land, the CAFO owner or operator ~~must~~~~shall~~ visually monitor for
1966 runoff from the site. The CAFO owner or operator daily must monitor
1967 each ice covered or snow covered field where land application has been

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- 1968 conducted when the ambient temperature is 32 degrees F or greater
1969 following winter land application until all the ice or snow melts from the
1970 land application area.
1971
1972 7) If the surface land application of livestock waste is on ice covered or snow
1973 covered land and a runoff from the land application area occurs, the
1974 CAFO owner or operator ~~must~~shall report any discharge of livestock
1975 waste within 24 hours after the discovery of the discharge as follows:
1976
1977 A) The report ~~must~~shall be made to the Agency through the Illinois
1978 Emergency Management Agency by calling 1-800-782-7860 or 1-
1979 217-782-7860;
1980
1981 B) Within 5 days after this telephone report, the CAFO owner or
1982 operator ~~must~~shall file a written report with the Agency that
1983 includes the name and telephone number of the person filing the
1984 report, ~~the discharge location,~~location of the discharge, an
1985 ~~estimated~~estimate of the quantity of the discharge, ~~the discharge's~~
1986 time and duration of the discharge, actions taken in response to the
1987 discharge, and observations ~~on the discharge's condition~~of the
1988 ~~condition of the discharge~~ with regards to turbidity, color, foaming,
1989 floatable solids and other deleterious conditions ~~of the runoff~~ for
1990 each day of ~~the~~each runoff event until the ice or snow melts off the
1991 site.
1992
1993 c) Availability of Individual Fields for Winter Application
1994 If livestock waste is to be surface applied on frozen ground, ice covered land or
1995 snow covered land, the land application may only be conducted on land that meets
1996 the following requirements:
1997
1998 1) Adequate erosion and runoff control practices exist, including, ~~but not~~
1999 ~~limited to,~~vegetative fence rows around the site, contour farming,
2000 terracing, catchment basins and buffer areas that intercept surface runoff
2001 from the site;
2002
2003 2) A crop stubble, crop residue or vegetative buffer of 200 feet exists
2004 between the land application area and surface waters, waterways, open tile
2005 line intake structures, sinkholes, agricultural wellheads, or other conduits
2006 to surface water and the vegetative buffer zone is down gradient of the
2007 livestock waste application area;
2008
2009 3) Application on land with slopes greater than 5% is prohibited;
2010

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2011 4) Application may only occur on sites that have field specific soil erosion
2012 loss calculated using Revised Universal Soil Loss Equation less than
2013 Erosion Factor T, and have a median Bray P1 or Mehlich 3 soil level of
2014 phosphorus, in accordance with Recommended Chemical Soil Test
2015 Procedures for the North Central Region, incorporated by reference in 35
2016 Ill. Adm. Code 501.200, equal to or less than 300 pounds per acre;

2017
2018 BOARD NOTE: Soil loss may be calculated using the Revised Universal
2019 Soil Loss Equation 2 (RUSLE2) software program [or the most recent](#)
2020 [USDA/NRCS soil erosion prediction tool](#) available at
2021 http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm.
2022 Additional information may be obtained from the United States
2023 Department of Agriculture, Agricultural Research Service, 1400
2024 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656.
2025 Erosion Factor T for Illinois soils is available from the United States
2026 Department of Agriculture, Natural Resources Conservation Service,
2027 Illinois Office, 2118 W. Park Court, Champaign IL 61821, (217) 353-
2028 6600. The published soil surveys for Illinois are available at
2029 <http://www.nrcs.usda.gov>.

2030
2031 5) Surface application may only occur if the setbacks equal three times the
2032 otherwise applicable setbacks by Sections 502.615 and 502.645 if the
2033 slope of the field is between 2 percent and 5 percent. This setback
2034 requirement does not include the quarter mile distance from residences
2035 contained in Section 502.645(a); and

2036
2037 6) For fields with slopes of less than 2 percent, the surface application may
2038 only occur if the setbacks equal two times the otherwise applicable
2039 setbacks required by Sections 502.615 and 502.645. This setback
2040 requirement does not include the quarter mile distance from residences
2041 contained in Section 502.645(a).

2042
2043 (Source: Amended at 47 Ill. Reg. _____, effective _____)

2044
2045 **Section 502.635 Manure and Soil Sampling and Analysis**

2046
2047 a) Soil Phosphorus Sampling. Soil samples ~~must~~**shall** be obtained and analyzed
2048 from each field of the land application area where applications are planned.
2049 Fields where livestock waste is applied ~~must~~**shall** be sampled twice for each field
2050 during the ~~permit's~~**term** ~~of the permit~~. Soil testing must be conducted as follows:

2051
2052 1) Soil sampling for phosphorus ~~must~~**shall** be in accordance with the
2053 sampling protocols in Chapter 8 of the Illinois Agronomy Handbook, 24th

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2054 Edition, incorporated by reference at 35 Ill. Adm. Code 501.200.
2055 Laboratory analysis for soil phosphorus (Bray P1 or Mehlich 3) ~~must~~shall
2056 be in accordance with Recommended Chemical Soil Test Procedures for
2057 the North Central Region, incorporated by reference at 35 Ill. Adm. Code
2058 501.200;

2059
2060 2) Soil samples ~~must~~shall be at the same time in the cropping cycle and
2061 rotation so that results are comparable year to year; and

2062
2063 3) The two required soil samples for each field must be taken at least one
2064 year apart.

2065
2066 b) Manure Sampling.

2067
2068 1) The CAFO owner or operator ~~must~~shall annually obtain a laboratory
2069 analysis of the nutrient content representative of the livestock waste to be
2070 land applied as provided within the nutrient management plan. Livestock
2071 waste ~~must~~shall be sampled during the application process. Multiple
2072 subsamples ~~must~~shall be obtained and combined into one sample so that a
2073 representative sample is obtained for analysis. Results of a sample taken
2074 during waste application the previous year can be used for plan
2075 preparation unless there has been a change in the waste management
2076 practices during the year. The analytical results of livestock waste
2077 samples ~~must~~shall be used for ~~calculating~~calculation of the application
2078 rate ~~the NPDES permit allows~~allowed by the NPDES permit.

2079
2080 2) The laboratory analysis of the livestock waste sample ~~must~~shall include
2081 total kjeldahl nitrogen, ammonia or ammonium nitrogen, total phosphorus,
2082 total potassium, and percent total solids. The nutrient results ~~must~~shall be
2083 reported on the laboratory analysis sheet on a lb/ton or mg/kg dry weight
2084 basis or lb/1000 gal or mg/L wet weight basis. The results of these
2085 analyses are to be used in determining application rates for livestock
2086 waste.

2087
2088 (Source: Amended at 47 Ill. Reg. _____, effective _____)

2089
2090 **Section 502.640 Inspection of Land Application Equipment for Leaks**

2091
2092 a) For all permitted CAFOs that land apply livestock waste, the CAFO owner or
2093 operator must periodically inspect equipment used for land application of
2094 livestock waste for leaks or problems that result in improper operation.
2095

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- 2096 b) The CAFO owner or operator must ensure that the land application equipment is
2097 properly calibrated on a routine basis for ~~applying application of~~ livestock waste
2098 ~~on a routine basis~~.
2099
- 2100 c) Calibration procedures and schedules ~~must~~shall be described for all equipment in
2101 the CAFO's nutrient management plan.
2102

2103 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2104

2105 **Section 502.645 Land Application Setback Requirements**
2106

- 2107 a) Distance from Residences
2108 Livestock waste ~~must~~shall not be land applied within ¼ mile of any residence not
2109 part of the CAFO, unless it is injected or incorporated on the day of application.
2110
- 2111 b) Setbacks from Waters
2112
- 2113 1) Livestock waste ~~must~~shall not be land applied within 200 feet of surface
2114 water, unless the water is upgrade or there is adequate diking, which
2115 includes, ~~but is not limited to~~, diking that prevents runoff from the land
2116 application from entering surface waters that are within 200 feet of the
2117 land application area.
2118
- 2119 2) Livestock waste ~~must~~shall not be land applied within 100 feet of down
2120 gradient open subsurface drainage intakes, agricultural drainage wells,
2121 sinkholes, grassed waterways or other conduits to surface waters, unless a
2122 35 foot vegetative buffer exists between the land application area and the
2123 grassed waterways, open subsurface drainage intakes, agricultural
2124 drainage wells, sinkholes or other conduits to surface water.
2125
- 2126 3) The setback requirements in subsection (b)(2) do not apply if the CAFO
2127 demonstrates ~~is able to demonstrate~~ to the Agency that a setback or buffer
2128 is not necessary because implementing ~~implementation of~~ alternative
2129 conservation practices (including, ~~but not limited to~~, injection and
2130 incorporation) or field-specific conditions will provide pollutant
2131 reductions equivalent to or better than the reductions that ~~a~~would be
2132 ~~achieved by the~~ 100-foot setback would achieve.
2133
- 2134 c) Livestock waste ~~must~~shall not be applied in a 10-year flood plain unless the
2135 injection or incorporation method of application is used.
2136
- 2137 d) Livestock waste ~~must~~shall not be land applied to waters of the United States,
2138 grassed waterways or other conduits to surface waters.

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2139
2140 e) Livestock waste ~~must~~shall not be land applied within 150 feet of potable water
2141 supply wells.
2142

2143 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2144

2145 **SUBPART G: ADDITIONAL LIVESTOCK WASTE DISCHARGE LIMITATIONS**
2146

2147 **Section 502.710 New Source Performance Standards for Dairy Cows and Cattle Other**
2148 **Than Veal Calves**
2149

2150 a) New Source Performance Standards (NSPS) Applicability
2151 Any CAFO with the capacity to stable or confine 700 or more mature dairy cows,
2152 whether milked or dry, or 1,000 or more cattle other than mature dairy cows or
2153 veal calves that is a new source must achieve the livestock waste discharge
2154 limitations representing the application of NSPS as of the date of permit coverage
2155 or within the timelines provided in Section 502.303.
2156

2157 b) The livestock waste discharge limitations representing NSPS for the CAFO
2158 production area for CAFOs subject to this Section are the livestock waste
2159 discharge limitations found in Sections 502.605 and 502.610.
2160

2161 c) The livestock waste discharge limitations representing NSPS for the CAFO land
2162 application area are the livestock waste discharge limitations and requirements
2163 found in Sections 502.615 through 502.645.
2164

2165 d) CAFOs subject to this Section must comply with Subpart F as of the date of
2166 permit coverage or within the timelines provided in Section 502.303~~CAFOs~~
2167 ~~subject to this Section shall attain the limitations and requirements in Subpart F as~~
2168 ~~of the date of permit coverage or within the timelines provided in Section~~
2169 ~~502.303.~~
2170

2171 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2172

2173 **Section 502.720 Horse and Sheep CAFOs: BPT, BAT and NSPS**
2174

2175 This Section contains the effluent limitations applicable to discharges resulting from the
2176 production area at horse and sheep CAFOs. The limitations and requirements of this Section are
2177 applicable on the date of permit coverage.~~CAFOs subject to this Section shall attain the~~
2178 ~~limitations and requirements of this Section as of the date of permit coverage.~~ CAFOs with the
2179 capacity to stable or confine fewer than 10,000 sheep or fewer than 500 horses are exempt from
2180 these effluent limitations.
2181

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2182 a) Effluent Limitations Attainable by the Application of the Best Practicable Control
2183 Technology Currently Available (BPT) for Horse and Sheep CAFOs
2184

2185 1) Except as provided in subsection (a)(2), any existing point source subject
2186 to this Section ~~must~~shall have no process wastewater pollutant discharge
2187 ~~of process wastewater pollutants~~ to waters of the United States.
2188 Achieving~~Achievement of~~ no process wastewater discharge to waters of
2189 the United States is the effluent limitation representing the application of
2190 BPT for horse and sheep CAFOs.
2191

2192 2) Process waste pollutants in the overflow may be discharged to waters of
2193 the United States whenever rainfall events, either chronic or catastrophic,
2194 cause process wastewater toan overflow ~~of process waste water~~ from a
2195 facility designed, constructed and operated to contain all process generated
2196 wastewaters plus the runoff from a 10-year, 24-hour rainfall event for the
2197 ~~location of the point~~ source's locationsource.
2198

2199 b) Effluent Limitations Attainable by the Application of the Best Available
2200 Technology Economically Achievable (BAT) for Horse and Sheep CAFOs
2201

2202 1) Except when ~~the provisions of~~ subsection (b)(2) appliesapply, any existing
2203 point source subject to this Section ~~must not~~shall have no discharge of
2204 process wastewater pollutants to waters of the United States.
2205 Achieving~~Achievement of~~ no process wastewater discharge to waters of
2206 the United States is the effluent limitation representing the application of
2207 BAT for Horse and Sheep CAFOs.
2208

2209 2) Whenever rainfall events cause an overflow of process wastewater from a
2210 facility designed, constructed, operated and maintained to contain all
2211 process-generated wastewaters plus the runoff from a 25-year, 24-hour
2212 rainfall event at the ~~location of the point~~ source's locationsource, any
2213 process wastewater pollutants in the overflow may be discharged to waters
2214 of the United States.
2215

2216 c) New Source Performance Standards (NSPS) for Horse and Sheep CAFOs
2217 Except as provided in subsection (b)(2), any new source subject to this Section
2218 ~~must~~shall have no discharge of process wastewater pollutants to waters of the
2219 United States. Achieving~~Achievement of~~ no process wastewater discharge to
2220 waters of the United States is the performance standard representing NSPS for
2221 horse and sheep CAFOs.
2222

2223 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2224

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2225 **Section 502.730 Duck CAFOs: BPT and NSPS**

2226

2227 This Section contains the effluent limitations applicable to discharges resulting from the
2228 production areas at dry lot and wet lot duck CAFOs. CAFOs subject to this Section ~~must~~shall
2229 attain the limitations and requirements of this Section as of the date of permit coverage. CAFOs
2230 with the capacity to stable or confine fewer than 5,000 ducks are exempt from these effluent
2231 limitations.

2232

2233 a) Effluent Limitations Attainable by the Application of the Best Practicable Control
2234 Technology Currently Available (BPT) for Wet Lot and Dry Lot Duck CAFOs.

2235

2236 Any existing point source subject to this Section ~~must~~shall achieve the following
2237 effluent limitations representing the degree of effluent reduction attainable by ~~the~~
2238 applying~~application of~~ BPT:

2239

2240 1) BOD₅ is limited to a maximum daily limit of 3.66 pounds/1,000 ducks or
2241 1.66 kg/1,000 ducks.

2242

2243 2) BOD₅ is limited to a maximum monthly average of 2.0 pounds/1,000
2244 ducks or 0.91 kg/1,000 ducks.

2245

2246 3) Fecal coliform is not to exceed the most probable number (MPN) of
2247 400/100 ml at any time.

2248

2249 b) New Source Performance Standards for Wet Lot and Dry Lot Duck CAFOs

2250

2251 1) Except as provided in subsection (b)(2), any new source subject to this
2252 Section ~~must not~~shall have no discharge ~~of~~ process wastewater pollutants
2253 into~~to~~ waters of the United States. Achieving~~Achievement of~~ no process
2254 wastewater discharge to waters of the United States is the performance
2255 standard representing NSPS for duck CAFOs.

2256

2257 2) Whenever rainfall events cause an overflow of process wastewater from a
2258 facility designed, constructed, operated and maintained to contain all
2259 process-generated wastewaters plus the runoff from a 25-year, 24-hour
2260 rainfall event at the ~~location of the point~~ source's location~~source~~, any
2261 process wastewater pollutants in the overflow may be discharged to waters
2262 of the United States.

2263

2264 (Source: Amended at 47 Ill. Reg. _____, effective _____)

2265

2266 SUBPART H: NEW SOURCE PERFORMANCE STANDARDS FOR
2267 NEW SWINE, POULTRY AND VEAL LARGE CAFOS

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Section 502.800 Applicability

- a) This Subpart applies to all new swine, poultry and veal CAFOs with the capacity to stable or confine the total amount of specific animals~~numbers of animals of the types~~ provided for in the definition of large CAFOs in Section 502.103.
- b) This~~The requirements of this~~ Subpart H is~~are~~ in addition to the livestock waste discharge limitations and technical standards in Subpart F, except Section 502.605.
- c) The limitations and requirements of this Subpart are applicable on the date of NPDES permit coverage~~must be attained as of the date of NPDES permit coverage~~ or within the timelines provided in Section 502.303.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.820 Land Application Area Requirements

For CAFOs subject to this Subpart, the land application areas must~~shall~~ attain the same limitations and requirements as specified in Sections 502.615 through 502.645.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 502.830 Alternative Best Management Practice Livestock Waste Discharge Limitations

- a) Any CAFO subject to this Subpart may request that the Agency establish NPDES permit best management practice (BMP) livestock waste discharge limitations designed to ensure no discharge of livestock waste based upon a site-specific evaluation of the CAFO's open surface livestock storage structure.
- b) The NPDES permit BMPs for~~BMP~~ livestock waste discharge limitations must address the CAFO's entire production area. In the case of any CAFO using an open surface livestock waste storage structure for which the Agency establishes ~~such~~ livestock waste discharge limitations, "no discharge of livestock waste pollutants," as used in this Subpart H, means that the storage structure is designed, operated, and maintained in accordance with BMPs~~BMP established by~~ the Agency established on a site-specific basis after a technical evaluation of the storage structure.
- c) The technical evaluation must address the elements listed in Section 502.840.

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2311 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2312

2313 **Section 502.840 Technical Evaluation**
2314

2315 All technical evaluations conducted ~~underpursuant to~~ this Subpart H must address the minimum
2316 elements contained in this Section. Waste management and storage facilities designed,
2317 constructed, operated, and maintained consistent with the analysis conducted in subsections (a)
2318 through (g) and operated in accordance with the additional measures and records required by
2319 Section 502.610 will fulfill ~~the requirements of~~ this Subpart.

2320

2321 a) Information to be used in the design of the open manure storage structure
2322 including, ~~but not limited to:~~

2323

2324 1) Minimum storage periods for rainy seasons;

2325

2326 2) Additional minimum capacity for chronic rainfalls;

2327

2328 3) Applicable technical standards that prohibit or otherwise limit land
2329 application on frozen, saturated or snow-covered ground found in Section
2330 502.630;

2331

2332 4) Planned emptying and dewatering schedules consistent with the CAFO's
2333 nutrient management plan;

2334

2335 5) Additional storage capacity for livestock waste intended to be transferred
2336 to another recipient at a later time; and

2337

2338 6) Any other factors that would affect the sizing of the structure.

2339

2340 b) The design of the open livestock waste storage structure as determined in
2341 accordance with 40 CFR 412.46(a)(1)(ii), incorporated by reference at 35 Ill.
2342 Adm. Code 501.200, or equivalent design software or procedures approved by the
2343 Agency.

2344

2345 BOARD NOTE: NRCS Animal Waste Management (AWM) software specified
2346 under 40 CFR 412.46(a)(1)(ii) is available at <http://www.nrcs.usda.gov>.

2347

2348 Additional information may be obtained from the United States Department of
2349 Agriculture, Agricultural Research Service, 1400 Independence Avenue, S.W.,
Washington DC 20250, (202) 720-3656.

2350

2351 c) All inputs used in the open livestock waste storage structure design, including:
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- 1) actual climate data for the previous 30 years, consisting of historical average monthly precipitation and evaporation values;
 - 2) the number and types of animals;
 - 3) anticipated animal sizes or weights;
 - 4) any added water and bedding;
 - 5) any other process wastewater; and
 - 6) the size and condition of outside areas exposed to rainfall and contributing runoff to the open livestock waste storage structure.
- 2367
2368
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2372
- d) The planned minimum period of storage in months, including, ~~but not limited to,~~ the factors for designing an open livestock waste storage structure described in subsection (a). Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's nutrient management plan.
- 2373
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2382
- e) Site-specific predicted design specifications, including:
- 1) dimensions of the storage facility;
 - 2) daily manure and wastewater additions;
 - 3) the size and characteristics of the land application areas; and
 - 4) the total calculated storage period in months.
- 2383
2384
2385
2386
- f) An evaluation of the adequacy of the designed manure storage structure in accordance with 40 CFR 412.46(a)(1)(vi), incorporated by reference at 35 Ill. Adm. Code 501.200.
- 1) The evaluation must include all inputs used in the simulation, including ~~but not limited to:~~
 - A) daily precipitation, temperature, and evaporation data for the previous 100 years;
 - B) user-specified soil profiles representative of the CAFO's land application areas;
- 2387
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- 2396 C) planned crop rotations consistent with the CAFO's nutrient
2397 management plan; and
2398
2399 D) the final modeled result of no overflows from the designed open
2400 livestock waste storage structure.
2401
2402 2) For those CAFOs where 100 years of local weather data for the CAFO's
2403 location is not available, CAFOs may use a simulation with a confidence
2404 interval analysis conducted over a period of 100 years.
2405
2406 3) The adequacy of the designed manure storage structure may be evaluated
2407 using equivalent evaluation and simulation procedures approved by the
2408 Agency approves.
2409

2410 BOARD NOTE: The Soil Plant Air Water (SPAW) Hydrology Tool
2411 specified at 40 CFR 412.46(a)(1)(vi) is available at
2412 <http://hydrolab.arsusda.gov/SPAW/Index.htm>. Additional information
2413 may be obtained from the United States Department of Agriculture,
2414 Agricultural Research Service, 1400 Independence Avenue, S.W.,
2415 Washington DC 20250, (202) 720-3656.
2416

- 2417 g) The Agency may waive the requirement in subsection (f) for a site-specific
2418 evaluation of the designed livestock waste storage structure and instead authorize
2419 a CAFO to use a technical evaluation developed for a class of specific facilities
2420 within a specified geographical area.
2421
2422 h) The Agency may request additional information to support a request for livestock
2423 waste discharge limitations based on a site-specific open surface livestock waste
2424 storage structure.
2425

2426 (Source: Amended at 47 Ill. Reg. _____, effective _____)
2427

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2428 **Section 502.APPENDIX A References to Previous Rules (Repealed)**

2429
2430 ~~The following table is provided to aid in referencing old Board rule numbers to section numbers~~
2431 ~~pursuant to codification.~~

2432

Chapter 5: Agriculture Related Pollution	35 Ill. Admin. Code 502
Part II, Permits	
Rule 201	Section 502.101
Rule 202	Section 502.102
Rule 202(a)	Section 502.103
Rule 202(b)	Section 502.104
Rule 202	Section 502.105
Rule 203	Section 502.106
Rule 204	Section 502.201
Rule 205	Section 502.202
Rule 206(a)	Section 502.203
Rule 206(b)	Section 502.204
Rule 207(a)	Section 502.205
Rule 207(b)	Section 502.206
Rule 207(c)	Section 502.207
Rule 208	Section 502.301
Rule 209(a)	Section 502.302
Rule 209(b)	Section 502.303
Rule 210	Section 502.304
Rule 105	Section 502.305
Rule 211	Section 502.401
Rule 212	Section 502.402
Rule 213	Section 502.403

2433
2434 (Source: Repealed at 47 Ill. Reg. _____, effective _____)

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE E: AGRICULTURE RELATED POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 503
OTHER AGRICULTURAL AND SILVICULTURAL ACTIVITIES

Section

- 503.101 Fish and Aquatic Animal Production Facilities
503.102 Irrigation Activities
503.103 Silvicultural Activities

503.APPENDIX A References to Previous Rules [\(Repealed\)](#)

AUTHORITY: Implementing Sections 9, 12, 13, 21, and 22 of the Environmental Protection Act [415 ILCS 5/9, 12, 13, 21 and 22] and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27].

SOURCE: Filed and effective January 1, 1978; amended at 2 Ill. Reg. 44, p. 137, effective October 30, 1978; codified at 7 Ill. Reg. 10596; amended in R18-25 at 47 Ill. Reg. _____, effective _____.

Section 503.101 Fish and Aquatic Animal Production Facilities

- a) National Pollutant Discharge Elimination System (NPDES) permits are required for the construction, modification, or operation of facilities such as hatcheries, fish farms or other facilities which contain, grow or hold aquatic animals in ponds, raceways or other similar structures for ~~purposes of production, that discharges and from which there is or may be a discharge~~ for any 30 or more days per year, except that NPDES permits are not required for:
- 1) Closed ponds ~~that~~which discharge only during periods of excess runoff; or
 - 2) Facilities which produce less than 20,000 pounds of aquatic animals per year.
- b) NPDES permits are required for any fish or aquatic animal facility which contains, grows, or holds any species of fish or other aquatic animal life non-native to the United States, ~~and that discharges from which there is a discharge~~ to a navigable water at any time. The non-native species of fish are ~~as~~ defined in Special Publication No. 6 of the American Fisheries Society, entitled "A List of Common and Scientific Names of Fishes from the United States and Canada" (Washington, D.C., American Fisheries Society, 1970); except that carp

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44 (Cyprinum carpio), goldfish (Carassius auratus) and brown trout (Salmo trutta)
45 are considered ~~to be~~ native species for ~~purposes of~~ this regulation.

46
47 (Source: Amended at 47 Ill. Reg. _____, effective _____)
48

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49 **Section 503.APPENDIX A References to Previous Rules (Repealed)**

50

51 ~~The following table is provided to aid in referencing old Board rule numbers to section numbers~~
52 ~~pursuant to codification.~~

53

~~Chapter 5: Agricultural Related Pollution
Part III, Other Agricultural and
Silvicultural Activities~~

~~35 Ill. Admin. Code 503~~

~~Rule 301~~

~~Section 503.101~~

~~Rule 302~~

~~Section 503.102~~

~~Rule 303~~

~~Section 503.103~~

54

55

(Source: Repealed at 47 Ill. Reg. _____, effective _____)

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE E: AGRICULTURE RELATED POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 506
LIVESTOCK WASTE REGULATIONS
SUBPART A: GENERAL PROVISIONS

10	Section	
11	506.101	Applicability
12	506.102	Severability
13	506.103	Definitions
14	506.104	Incorporations by Reference
15	506.105	Recordkeeping (Repealed)
16	506.106	Alternatives, Modifications and Waivers

SUBPART B: STANDARDS FOR THE DESIGN AND CONSTRUCTION
OF LIVESTOCK WASTE LAGOONS

21	Section	
22	506.201	Applicability
23	506.202	Site Investigation
24	506.203	Registration (Repealed)
25	506.204	Lagoon Design Standards
26	506.205	Liner Standards
27	506.206	Groundwater Monitoring
28	506.207	Construction in a Karst Area
29	506.208	Construction in a Flood Fringe Area
30	506.209	Lagoon Closure and Ownership Transfer (Repealed)
31	506.210	Secondary Containment

SUBPART C: STANDARDS FOR THE DESIGN AND CONSTRUCTION OF LIVESTOCK
WASTE HANDLING FACILITIES OTHER THAN LAGOONS

36	Section	
37	506.301	Applicability
38	506.302	Site Investigation
39	506.303	Non-lagoon Livestock Waste Storage Volume Requirements
40	506.304	General Design and Construction Standards
41	506.305	Additional Concrete Design and Construction Standards
42	506.306	Additional Metal Design and Construction Standards
43	506.307	Additional Earthen Material Design and Construction Standards

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- 44 506.308 Additional Synthetic Material Design and Construction Standards
- 45 506.309 Additional Wooden Material Design and Construction Standards
- 46 506.310 Additional Design and Construction Standards for Construction in an Area with
- 47 Shallow Aquifer Material
- 48 506.311 Additional Design and Construction Standards for Construction in a Flood Fringe
- 49 Area
- 50 506.312 Additional Design and Construction Standards for Construction in a Karst Area
- 51 506.313 Plan Updates (Repealed)
- 52 506.314 Penalties (Repealed)

53

54 SUBPART D: CERTIFIED LIVESTOCK MANAGER

55

56 Section

- 57 506.401 Applicability (Repealed)

58

59 SUBPART E: PENALTIES

60

61 Section

- 62 506.501 General (Repealed)

63

64 SUBPART F: FINANCIAL RESPONSIBILITY

65

66 Section

- 67 506.601 Scope, Applicability, and Definitions (Repealed)
- 68 506.602 Mechanisms for Providing Evidence of Financial Responsibility (Repealed)
- 69 506.603 Level of Surety (Repealed)
- 70 506.604 Upgrading Surety Instrument (Repealed)
- 71 506.605 Release of Lagoon Owner and Financial Institution (Repealed)
- 72 506.606 Financial Responsibility Proceeds (Repealed)
- 73 506.607 Use of Multiple Surety Instruments (Repealed)
- 74 506.608 Use of a Single Surety Instrument for Multiple Lagoons (Repealed)
- 75 506.610 Commercial or Private Insurance (Repealed)
- 76 506.611 Guarantee (Repealed)
- 77 506.612 Surety Bond (Repealed)
- 78 506.613 Letter of Credit (Repealed)
- 79 506.614 Certificate of Deposit or Designated Savings Account (Repealed)
- 80 506.615 Participation in a Livestock Waste Lagoon Closure Fund (Repealed)
- 81 506.620 Penalties (Repealed)

82

83 SUBPART G: SETBACKS

84

85 Section

- 86 506.701 Applicability (Repealed)

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- 87 506.702 Procedures (Repealed)
- 88 506.703 Initial Determination of Setbacks (Repealed)
- 89 506.704 Penalties (Repealed)

90

- 91 506.APPENDIX A Surety Instruments (Repealed)
- 92 506.ILLUSTRATION A Surety Bond (Repealed)
- 93 506.ILLUSTRATION B Irrevocable Standby Letter of Credit (Repealed)

94

95 AUTHORITY: Authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27]
96 and Section 55 of the Livestock Management Facilities Act and implementing the Livestock
97 Management Facilities Act [510 ILCS 77].

98

99 SOURCE: Adopted in R97-15(A) at 21 Ill. Reg. 6851, effective May 20, 1997; amended in
100 R97-15(B) at 22 Ill. Reg. 20605, effective November 12, 1998; amended in R01-28 at 25 Ill.
101 Reg. 14883, effective November 15, 2001; amended in R18-25 at 47 Ill. Reg. _____, effective
102 _____.

103

104

SUBPART A: GENERAL PROVISIONS

105

Section 506.101 Applicability

106

107 This Subpart applies to 35 Ill. Adm. Code 506. The applicability of Subpart B, Standards for the
108 Design and Construction of Livestock Waste Lagoons, is stated in~~set forth at~~ Section 506.201-~~of~~
109 ~~this Part~~. The applicability of Subpart C, Standards for the Design and Construction of
110 Livestock Waste Handling Facilities Other Than Lagoons, is stated in~~set forth at~~ Section 506.301
111 ~~of this Part~~.

112

113

114 ~~BOARD NOTE: Upon the effective date of this Part, the emergency rules at 35 Ill. Adm. Code~~
115 ~~505, Livestock Waste Regulations, will no longer apply. This Part will take the place of those~~
116 ~~emergency rules. Additionally, the standards and specifications for the construction of livestock~~
117 ~~waste handling facilities contained in this Part shall be used in conjunction with the regulations~~
118 ~~at 8 Ill. Adm. Code 900.~~

119

120 (Source: Amended at 47 Ill. Reg. _____, effective _____)

121

Section 506.103 Definitions

122

123 Except as stated in this Section, or unless a different meaning of a word or term is clear from the
124 context, the definition of words or terms in this Part must~~shall~~ be the same as that applied to the
125 same words or terms in the Environmental Protection Act [415 ILCS 5] or the Livestock
126 Management Facilities Act [510 ILCS 77]. For ~~the purposes of~~ this Part, the terms included in
127 this Section ~~shall~~ have the following meanings:

128

129

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130 *"Animal Feeding Operation" means a feeding operation as defined in the Illinois*
131 *Environmental Protection Act and the rules promulgated under that Act*
132 *concerning agriculture related pollution. [510 ILCS 77/10.7]*
133

134 *"Animal Unit" means a unit of measurement for any animal feeding operation*
135 *calculated as follows:*
136

137 *Brood cows and slaughter and feeder cattle multiplied by 1.0.*
138

139 *Milking dairy cows multiplied by 1.4.*
140

141 *Young dairy stock multiplied by 0.6.*
142

143 *Swine weighing over 55 pounds multiplied by 0.4.*
144

145 *Swine weighing under 55 pounds multiplied by 0.03.*
146

147 *Sheep, lambs, or goats multiplied by 0.1.*
148

149 *Horses multiplied by 2.0.*
150

151 *Turkeys multiplied by 0.02.*
152

153 *Laying hens or broilers multiplied by 0.005.*
154

155 *Laying hens or broilers multiplied by 0.01 (if the facility has continuous*
156 *overflow watering).*
157

158 *Laying hens or broilers multiplied by 0.03 (if the facility has a liquid*
159 *manure handling system).*
160

161 *Ducks multiplied by 0.02. [510 ILCS 77/10.10]*
162

163 For species of animals in an animal feeding operation not specifically
164 listed in this definition, the animal unit factor ~~is shall be~~ determined by
165 dividing the average mature animal weight by 1,000. The Department
166 must determine the average mature animal weight~~The average mature~~
167 ~~animal weight shall be determined by the Department~~ with guidance from
168 the University of Illinois Cooperative Extension Service.
169

170 "Aquifer material" means sandstone that is five feet or more in thickness, or
171 fractured carbonate that is ten feet or more in thickness; or sand, gravel, or sand
172 and gravel, as defined in this Section, such that there is at least two feet or more

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173 present within any five foot section of a soil boring performed in
174 compliance~~accordance~~ with Sections 506.202 and 506.302 of this Part.

175
176 "*Department*" means the Illinois Department of Agriculture. [510 ILCS
177 77/10.20].

178
179 "Filter Strip" means a strip or area of vegetation for removing sediment, organic
180 material, organisms, nutrients, and chemicals from runoff or wastewater. A filter
181 strip must be sized to process the amount of material expected to be released from
182 the lagoon.

183
184 "Flood fringe" means that portion of the floodplain outside the floodway.

185
186 "Floodplain" means that land adjacent to a body of water with ground surface
187 elevations at or below the 100-year frequency flood elevation.

188
189 "Floodway", for the six counties including Cook, DuPage, Kane, Lake, McHenry
190 and Will, means *the channel and that portion of the floodplain adjacent to a*
191 *stream or watercourse* as designated by the Illinois Department of Natural
192 Resources under~~pursuant to~~ Section 18g of the Rivers, Lakes, and Streams Act
193 [615 ILCS 5/18g], *which is needed to store and convey the* anticipated future 100-
194 *year frequency flood discharge* with no more than a 0.1 foot increase in stage due
195 to the loss of flood conveyance or storage, and no more than a 10% increase in
196 velocities. [615 ILCS 5/18g(d)(1)] For the remaining 96 counties, "floodway"
197 means the channel of a river, lake or stream and that portion of the adjacent land
198 area that is needed to safely store and convey flood waters. Where floodways
199 have been delineated for regulatory purposes, the mapped lines show the
200 floodway encroachment limits and will be used. For other areas, floodway limits
201 will be estimated, using hydrologic and hydraulic calculations, to preserve
202 adequate conveyance and storage so that stage increases for the 100-year
203 frequency flood would not exceed 0.1 foot.

204
205 "Grass Waterway" means a natural or constructed waterway, usually broad and
206 shallow covered with erosion-resistant grasses, used to conduct surface water
207 from or through a cropland. A grass waterway is used to convey any lagoon
208 release to an area or structure where it would be contained, such as at an
209 additional berm, or processed, such as at a filter strip, or conveyed to another area,
210 such as by a terrace.

211
212 "Gravel" or "Sand and gravel" means unconsolidated materials that contain a
213 matrix (particles of two millimeters or less) that is consistent with the definition
214 of "sand" and particles larger than two millimeters in size.

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216 *"Karst Area" means an area with a land surface containing sinkholes, large*
217 *springs, disrupted land drainage, and underground drainage systems associated*
218 *with karstified carbonate bedrock and caves or a land surface without these*
219 *features but containing a karstified carbonate bedrock unit generally overlain by*
220 *less than 60 feet of unconsolidated materials. [510 ILCS 77/10.24]*
221

222 *"Karstified Carbonate Bedrock" means a carbonate bedrock unit (limestone or*
223 *dolomite) that has a pronounced conduit or secondary porosity due to dissolution*
224 *of the rock along joints, fractures, or bedding plains. [510 ILCS 77/10.26]*
225

226 *"Lagoon" or "earthen livestock waste lagoon" means any excavated, diked, or*
227 *walled structure or combination of structures designed for biological stabilization*
228 *and storage of livestock wastes. A lagoon does not include structures such as*
229 *manufactured slurry storage structures or pits under buildings as defined in rules*
230 *under the Environmental Protection Act concerning agriculture related pollution.*
231 *[510 ILCS 77/10.25]*
232

233 *"Licensed Professional Engineer" means a person, corporation or partnership*
234 *licensed under the laws of the State of Illinois to practice professional*
235 *engineering. [415 ILCS 5/57.2]*
236

237 *"Licensed Professional Geologist" means an individual who is licensed under the*
238 *laws of the State of Illinois to engage in the practice of professional geology in*
239 *Illinois. [225 ILCS 745/15]*
240

241 *"Livestock Management Facility" means any animal feeding operation, livestock*
242 *shelter, or on-farm milking and accompanying milk-handling area. Two or more*
243 *livestock management facilities under common ownership, where the facilities are*
244 *not separated by a minimum distance of ¼ mile, and that share a common*
245 *livestock waste handling facility shall be considered a single livestock*
246 *management facility. Livestock management facilities at educational institutions,*
247 *livestock pasture operations, facilities where animals are housed on a temporary*
248 *basis such as county and state fairs, livestock shows, race tracks, and horse*
249 *breeding and foaling farms, and market holding facilities are not subject to the*
250 *Livestock Management Facilities Act or the requirements of this Part. [510 ILCS*
251 *77/10.30]*
252

253 *"Livestock shelter" means any covered structure, including ~~but not limited to~~*
254 *livestock houses or barns, in which livestock are enclosed at any time.*
255

256 *"Livestock Waste" means livestock excreta and associated losses, bedding, wash*
257 *waters, sprinkling waters from livestock cooling, precipitation polluted by falling*
258 *on or flowing onto an animal feeding operation, and other materials polluted by*

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259 *livestock.* [510 ILCS 77/10.35]

260

261 *"Livestock Waste Handling Facility" means individually or collectively those*
262 *immovable constructions or devices, except sewers, used for collecting, pumping,*
263 *treating, or disposing of livestock waste or for the recovery of by-products from*
264 *the livestock waste. Two or more livestock waste handling facilities under*
265 *common ownership and where the facilities are not separated by a minimum*
266 *distance of 1/4 mile shall be considered a single livestock waste handling facility.*

267 [510 ILCS 77/10.40] The Livestock Management Facilities Act and this Part do
268 not apply to: livestock waste handling facilities at educational institutions;
269 livestock pasture operations; or facilities where animals are housed on a
270 temporary basis, such as county and State fairs, livestock shows, race tracks,
271 horse breeding and foaling farms, and market holding facilities.

272

273 "Maintained" means, with reference to a livestock waste lagoon, that the livestock
274 waste lagoon is inspected (including ~~but not limited to~~ inspection for burrow
275 holes, trees and woody vegetation, proper freeboard, erosion, settling of berm,
276 berm top integrity, leaks, and seepage) and preventive action is taken as necessary
277 to assure the integrity of the lagoon and its berm and associated appurtenances.

278

279 *"Modified" means structural changes to a lagoon that increase its volumetric*
280 *capacity.* [510 ILCS 77/10.43]

281

282 *"New Facility" means a livestock management facility or a livestock waste*
283 *handling facility the construction or expansion of which is commenced on or after*
284 *May ~~1921~~, 1996 (the effective date of the Livestock Management Facilities Act).*

285 *Expanding a facility where the fixed capital cost of the new components*
286 *constructed within a 2-year period does not exceed 50% of the fixed capital cost*
287 *of a comparable entirely new facility shall not be deemed a new facility as used in*
288 *the Livestock Management Facilities Act.* [510 ILCS 77/10.45] For facilities that

289 have ~~stopped~~~~ceased~~ operation ~~on or~~ after July ~~1213~~, 1999, ~~starting~~~~commencement~~
290 ~~of~~ operations at a facility that has livestock shelters left intact and that has
291 completed the requirements imposed under Section 13(k) of the Livestock
292 Management Facilities Act [510 ILCS 77/13(k)] and 8 Ill. Adm. Code 900.508
293 ~~and that has been operated as a livestock management facility for 4 consecutive~~
294 ~~months at any time within the previous 10 years shall not be considered a new or~~
295 ~~expanded livestock management or waste handling facility.~~ [510 ILCS 77/13(k)]

296 For facilities that have ~~stopped~~~~ceased~~ operation ~~before~~~~prior to~~ July 13, 1999,
297 ~~starting~~~~commencement~~~~of~~ operations at a facility that has livestock shelters left
298 intact and that has been operated as a livestock management facility or livestock
299 waste handling facility for 4 consecutive months at any time within the previous
300 10 years ~~is~~~~shall~~ not be considered a new or expanded livestock management or
301 waste handling facility.

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"Owner or Operator" means any person who owns, leases, controls, or supervises a livestock management facility or livestock waste-handling facility. [510 ILCS 77/10.50]

"Person" means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity or their legal representative, agent, or assigns. [510 ILCS 77/10.55]

"Placed in service" means the placement of livestock waste in a livestock waste handling facility ~~once upon the completion of~~ construction or modification is completed in compliance ~~accordance with the requirements of~~ this Part.

"Sand" means unconsolidated materials, where 70% or more of the particles are of size 0.06 millimeters to 2.00 millimeters, and which, according to the USDA soil texture classification scheme, includes soil textures of sand, and loamy sand, and portions of sandy loam and sandy clay loam.

"Seasonal high water table" means the highest level of the water table encountered on a yearly basis, where water table is the surface on which the fluid pressure in the soil pore space is equal to the atmospheric pressure. The location of the water table is determined by the level at which water stands in a shallow well open along its length and penetrating the surficial deposits just deeply enough to encounter standing water in the bottom.

"Terrace" means an embankment or combination of embankment and channel constructed across a slope to control erosion by diverting and temporarily storing surface runoff instead of permitting it to flow uninterrupted down the slope. A terrace may be used to convey the released material to a grass waterway, a filter strip, or a secondary berm.

"USDA-NRCS" means the United States Department of Agriculture's Natural Resources Conservation Service.

"Void" means an underground opening generally produced by dissolution of rock in a karst area.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 506.106 Alternatives, Modifications and Waivers

- a) All requests for alternatives, modifications, and waivers to this Part, where

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345 allowed by Sections 13(e) and 15(a) of the Act [510 ILCS 77/13(e), 15(a)] or this
346 Part ~~must~~shall be made in writing to the Department. Construction ~~must~~may not
347 begin or continue until the request for alternative, modification, or waiver is
348 granted.

349
350 b) Each request for an alternative, modification, or waiver ~~must~~shall contain a
351 certification from a Licensed Professional Engineer or Licensed Professional
352 Geologist, as relevant, that the grant of the modification is at least as protective of
353 the groundwater, surface water and the structural integrity of the livestock waste
354 management facility as the stated requirements or that the alternative or waiver is
355 at least as protective as the stated requirements.

356
357 c) The Department ~~must~~shall notify the applicant in writing of its determination
358 within 30 days after receipt of the request for an alternative, modification, or
359 waiver. To grant the requested alternative, modification, or waiver, the
360 Department must determine that the modification is at least as protective of the
361 groundwater, surface water and the structural integrity of the livestock waste
362 management facility as the stated requirements or that the alternative or waiver is
363 at least as protective as the stated requirements.

364
365 (Source: Amended at 47 Ill. Reg. _____, effective _____)
366

367 SUBPART B: STANDARDS FOR THE DESIGN AND CONSTRUCTION
368 OF LIVESTOCK WASTE LAGOONS
369

370 **Section 506.201 Applicability**
371

372 This Subpart ~~applies~~shall apply to any new or modified lagoon, ~~that the Department has not~~
373 ~~approved the design for before November 15, 2001~~ the design of which has not been approved
374 ~~by the Department prior to November 15, 2001~~. The standards and specifications for livestock
375 waste lagoon construction contained in this Subpart ~~must~~shall be ~~used~~utilized in the design plans
376 and construction of the lagoon in ~~compliance~~accordance with the registration of lagoons required
377 in 8 Ill. Adm. Code 900.Subpart F.

378
379 (Source: Amended at 47 Ill. Reg. _____, effective _____)
380

381 **Section 506.202 Site Investigation**
382

383 a) The owner or operator of a lagoon constructed ~~under~~pursuant to this Subpart
384 ~~must~~shall conduct a site investigation in ~~compliance~~accordance with ~~the~~
385 ~~requirements of~~ this Section to determine the following:

386
387 1) Whether aquifer material is considered present (or not present) within 50

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- 388 feet of the planned bottom of the lagoon;
- 389
- 390 2) Whether the proposed lagoon is to be located within the floodway or flood
- 391 fringe of a 100-year floodplain; and
- 392
- 393 3) Whether the proposed lagoon is to be located within a karst area or within
- 394 400 feet of a natural depression in a karst area.
- 395
- 396 b) The owner or operator ~~must~~shall perform one or more soil borings that ~~must~~shall
- 397 be located within the final lagoon area or within 20 feet of the final exterior berm
- 398 toe. The boring ~~must~~shall be performed to determine the presence of aquifer
- 399 material or karstified carbonate bedrock as follows:
- 400
- 401 1) The soil boring ~~must~~shall extend to a depth that includes 50 feet below the
- 402 planned bottom of lagoon native soil or to bedrock;
- 403
- 404 2) If bedrock is encountered, additional soil borings may be necessary to
- 405 verify the presence of aquifer material or karstified carbonate bedrock;
- 406
- 407 3) Continuous samples ~~must~~shall be recovered from each soil boring; and
- 408
- 409 4) Upon completion, the ~~borings must~~ ~~boring(s) shall~~ be properly abandoned
- 410 and sealed ~~under~~ ~~pursuant to~~ the Illinois Water Well Construction Code at
- 411 77 Ill. Adm. Code 920.120.
- 412
- 413 c) If the Department determines that additional soil borings are necessary to ensure
- 414 the protection of the groundwater, surface water or the structural integrity of the
- 415 livestock waste management facility, the Department ~~must~~shall require additional
- 416 soil borings.
- 417
- 418 d) As an alternative to performing the soil ~~borings~~ ~~boring(s)~~ required under
- 419 subsection (b) or (c) ~~of this Section~~, the owner or operator of the lagoon may
- 420 propose to the Department to ~~use~~ ~~utilize~~ alternative information ~~sources~~ ~~source(s)~~.
- 421 The Department ~~must~~shall evaluate the proposal; determine whether the
- 422 alternative information ~~sources~~ ~~source(s)~~ will result in a site investigation that will
- 423 be at least as protective of the groundwater, surface water and the structural
- 424 integrity of the livestock waste management facility as would have resulted from
- 425 data resulting from soil borings; and notify the owner or operator of the
- 426 Department's finding.
- 427
- 428 e) ~~Despite~~ ~~Notwithstanding~~ the other requirements of this Subpart, if the site
- 429 investigation determines that the lagoon is to be located in the flood fringe of a
- 430 100-year floodplain, the design of the lagoon ~~must comply with~~ ~~shall include the~~

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- 431 ~~additional requirements of~~ Section 506.206 ~~of this Subpart.~~
- 432
- 433 f) If the results of the soil boring conducted ~~underpursuant to~~ Section 506.202(b) ~~of~~
- 434 ~~this Subpart~~ indicate the proposed lagoon is to be located in a karst area or if the
- 435 proposed lagoon is to be located within an area designated as "Sink hole areas" on
- 436 "Karst Terrains and Carbonate Rocks of Illinois", IDNR-ISGS Illinois Map 8, the
- 437 following requirements ~~mustshall~~ be met:
- 438
- 439 1) The Department ~~mustshall~~ conduct a visual inspection of the surrounding
- 440 area to determine the presence of natural depressions during the pre-
- 441 construction site inspection as required ~~underpursuant to~~ 8 Ill. Adm. Code
- 442 900.604(a). Construction ~~mustmay~~ not occur within 400 feet of a natural
- 443 depression in a karst area; and
- 444
- 445 2) The Licensed Professional Engineer or Licensed Professional Geologist
- 446 ~~mustshall~~ evaluate the results of the soil boring conducted ~~underpursuant~~
- 447 ~~to~~ subsection (b) ~~of this Section~~. If, ~~as a result of the soil boring,~~ a void of
- 448 1 foot or greater in vertical distance is discovered from the soil boring
- 449 performed, the following requirements ~~mustshall~~ be met:
- 450
- 451 A) The Department may require additional borings to determine the
- 452 extent of the void;
- 453
- 454 B) ~~DespiteNotwithstanding~~ the other requirements of this Subpart, the
- 455 owner or operator ~~mustshall~~ submit to the Department a plan for
- 456 the design of the lagoon that ~~mustshall~~ include the additional
- 457 design requirements ~~statedset forth~~ in Section 506.207 ~~of this Part~~
- 458 and ~~mustshall~~ include any additional design requirements ~~deemed~~
- 459 necessary by the Licensed Professional Engineer; and
- 460
- 461 C) The Department ~~mustshall~~ review and approve the plan required
- 462 ~~underpursuant to~~ subsection (f)(2)(B) ~~beforeof this Section prior to~~
- 463 construction. The Department may also require additional design
- 464 criteria before the plan is approved and construction may begin. If,
- 465 ~~as a result of the soil boring,~~ no voids of 1 foot or greater ~~in~~
- 466 ~~vertical distance~~ are discovered from the soil boring performed, the
- 467 design ~~mustshall~~ include the additional requirements ~~set forth~~ in
- 468 Section 506.207 ~~of this Subpart~~.
- 469
- 470 g) The site investigation in ~~complianceaccordance~~ with subsection (b), (c), (d), (e),
- 471 or (f) ~~mustof this Section shall~~ be conducted under the direction of a Licensed
- 472 Professional Engineer or Licensed Professional Geologist.
- 473

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474 (Source: Amended at 47 Ill. Reg. _____, effective _____)

475

476 **Section 506.204 Lagoon Design Standards**

477

478 a) The owner or operator of *any livestock waste lagoon subject to this Subpart shall*
479 *construct or modify the lagoon in accordance with:*

480

481 1) *"Design of anaerobic lagoons for animal waste management", ASAE*
482 *Engineering Practice 403.2; or the guidelines published by the United*
483 *States Department of Agriculture's Natural Resource Conservation*
484 *Service titled "Waste Treatment Lagoon", which are incorporated by*
485 *reference in Section 506.104 ~~of this Part~~; and*

486

487 2) The additional design standards specified in subsections (c) through (h) ~~of~~
488 ~~this Section~~. [510 ILCS 77/15(a)]

489

490 b) *The department may require changes in design or additional requirements to*
491 *protect groundwater, such as extra liner depth or synthetic liners, when it appears*
492 *groundwater could be impacted.* [510 ILCS 77/15(a)]

493

494 c) The owner or operator ~~must~~~~shall~~ conduct a site investigation in
495 ~~compliance~~~~accordance~~ with Section 506.202 ~~of this Part~~ to determine if aquifer
496 material is present (or not present) within 50 feet of the planned bottom of the
497 lagoon.

498

499 d) The owner or operator ~~must~~~~shall~~, as a part of the lagoon design, include the use of
500 a liner and implement groundwater monitoring ~~according to the~~~~in accordance with~~
501 following conditions:

502

503 1) If the uppermost aquifer material is located above or within 20 feet of the
504 lowest point of the planned lagoon bottom (as measured from the top of
505 any proposed liner), then the lagoon design ~~must~~~~shall~~ include both a liner
506 and groundwater monitoring.

507

508 2) If the uppermost aquifer material is located between 20 to 50 feet from the
509 lowest point of the planned lagoon (as measured from the top of any
510 proposed liner), then the lagoon design ~~must~~~~shall~~ include a liner, but no
511 groundwater monitoring is required.

512

513 3) If no aquifer material is located within 50 feet from the lowest point of the
514 planned lagoon (as measured from the top of any proposed liner), then the
515 lagoon design ~~does not~~~~shall~~ require ~~neither~~ a liner ~~or~~ groundwater
516 monitoring.

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- e) If the owner or operator determines that a liner is required for the lagoon ~~underpursuant to~~ this Section, the design of the lagoon ~~mustshall~~ include an in-situ soil liner, borrowed clay or clay/bentonite mixture, or a synthetic liner ~~in compliance withmeeting the requirements of~~ Section 506.205 ~~of this Part~~.
 - f) If the owner or operator determines that groundwater monitoring is required for the lagoon ~~underpursuant to~~ this Section, the design of the lagoon ~~must~~ ~~implementshall include the implementation of~~ a groundwater monitoring program in ~~complianceaccordance~~ with Section 506.206 ~~of this Part~~ and 8 Ill. Adm. Code 900.Subpart F.
 - g) Any livestock waste lagoon subject to ~~the provisions of~~ this Part ~~mustshall~~ meet or exceed the following:
 - 1) Berm:
 - A) The minimum bermtop width ~~mustshall~~ be 8 feet;
 - B) The berm may contain no outlet piping that extends through the berm unless the piping discharges to another lagoon or is a component of a recirculating flush system;
 - 2) Berm slope:
 - A) Exterior and normally exposed interior (above the liquid level elevation corresponding to the summation of the sludge volumes and minimum design volume) earthen walls ~~mustshall~~ have side slopes not steeper than a 3 to 1 ratio of horizontal to vertical and a vegetative cover ~~mustshall~~ be established on any exposed berm areas and kept mowed or otherwise maintained to eliminate erosion or other berm deterioration;
 - B) Interior berm earthen walls below the liquid level elevation corresponding to the summation of the sludge volumes and minimum design volume ~~mustshall~~ have side slopes not steeper than a 3 to 1 ratio of horizontal to vertical; or a 2 to 1 ratio of horizontal to vertical if designed by a Licensed Professional Engineer and maintained to eliminate berm deterioration;
 - 3) The lagoon's total design volume ~~mustshall~~ be ~~at leastnot less than~~ the volume calculated as the summation of the following:

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- A) A minimum design volume, as calculated ~~underpursuant to~~ subsection 5.4.1.1, ASAE EP403.2, ASAE Standards 1998, pp. 656-659;
 - B) A livestock waste volume, that ~~mustshall~~ be sufficient to store the waste generated by the facility for ~~at leasta period not less than~~ 270 days as determined in ~~accordance with~~ ASAE EP403.2, ASAE Standards 1998, p. 656;
 - C) Runoff and wash down volumes generated during a 270-day period, including all runoff and precipitation from lots, roofs or other surfaces where collected precipitation is directed into the lagoon, plus the volume of any wash down liquids ~~usedutilized~~ within the facility that are also directed into the lagoon. In no case ~~mustshall~~ this volume be less than the precipitation and runoff generated by a 25-year, 24-hour storm event and directed to the lagoon; and
 - D) A sludge accumulation volume, as calculated ~~underpursuant to~~ subsection 5.4.1.4, ASAE EP403.2, ASAE Standards 1998, p. 658;
- 4) In addition to the lagoon's total design volume, a freeboard ~~mustshall~~ be provided as follows:
- A) For lagoons serving a livestock management facility with a maximum design capacity of less than 300 animal units and not collecting runoff from areas other than the exposed surface of the lagoon (including associated interior berm slopes and flat bermtop areas), the top of the settled embankment ~~mustshall~~ be ~~at leastnot less than~~ 1 foot above the fluid surface level of the lagoon total design volume; or
 - B) For all other lagoons, the top of the settled embankment ~~mustshall~~ be ~~at leastnot less than~~ 2 feet above the fluid surface level of the lagoon total design volume;
- 5) Subsurface drainage lines in the immediate area of the livestock waste lagoon ~~mustshall~~ be removed or relocated to provide for a minimum separation distance of ~~at leastnot less than~~ 50 feet between the outermost extent of the lagoon (exterior toe of the berm) and the subsurface drainage line;
- 6) The minimum separation distance between the outermost extent of a

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603 lagoon (exterior toe of the berm) and any potential route of groundwater
604 contamination, as defined in the Illinois Environmental Protection Act
605 [415 ILCS 5] ~~must, shall~~ be ~~at least~~~~not less than~~ 100 feet. In addition, the
606 minimum separation distance between the outermost extent of a lagoon
607 (exterior toe of the berm) and a non-potable well, an abandoned or
608 plugged well, drainage well or injection well ~~must shall~~ be ~~at least~~~~not less~~
609 ~~than~~ 100 feet;

610
611 7) The design and construction of the lagoon ~~must shall~~ include the
612 installation of a lagoon liquid level board or staff gauge within the interior
613 of the liquid storage volume. The liquid level board or staff gauge
614 ~~must shall~~ include a mark at the liquid level elevation corresponding to the
615 summation of the sludge volume and minimum design volume and
616 ~~must shall~~ be designated as the "STOP PUMPING" elevation. The liquid
617 level board or staff gauge ~~must shall~~ also be marked at the liquid level
618 elevation corresponding to the summation of the sludge volume, minimum
619 design volume, runoff and wash down volumes, and livestock waste
620 volume and ~~must shall~~ be designated as the "START PUMPING"
621 elevation;

622
623 8) *The livestock waste supply to a single-stage lagoon must be below the*
624 *minimum design volume level [510 ILCS 77/25(b)(2)]; and*

625
626 9) The location of the lagoon and the associated livestock management
627 facility ~~must comply shall be in compliance~~ with all setback provisions of
628 the Illinois Environmental Protection Act [415 ILCS 5], the Livestock
629 Management Facilities Act [510 ILCS 77], and the rules promulgated
630 thereunder.

631
632 h) *The owner or operator of the earthen livestock lagoon may, upon written request*
633 *and with written approval from the Department, modify or exceed these standards*
634 *in order to meet site specific objectives. [510 ILCS 77/15(a)] The owner or*
635 *operator ~~must shall~~ demonstrate that such modification ~~is shall be~~ at least as*
636 *protective of the groundwater, surface water and the structural integrity of the*
637 *livestock waste management facility as the requirements of this Part.*

638
639 (Source: Amended at 47 Ill. Reg. _____, effective _____)

640

641 **Section 506.205 Liner Standards**

642

643 a) The design of a liner constructed from in-situ soils, borrowed clay or a
644 clay/bentonite mixture, or a synthetic liner ~~underpursuant to~~ Section 506.204(d)
645 ~~must of this Part shall~~ comply with ~~the requirements of~~ this Section.

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- b) A liner constructed using in-situ soil or borrowed clay or clay/bentonite mixtures mustshall meet the following standards:
- 1) The minimum liner thickness mustshall be 2 feet;
 - 2) The liner mustshall be constructed in lifts not to exceed 6 inches in compacted thickness;
 - 3) The liner mustshall be compacted to achieve a hydraulic conductivity equal to or less than 1×10^{-7} centimeters/second; and
 - 4) The construction and compaction of the liner mustshall be carried out to reduce void spaces and allow the liner to support the loadings imposed by the waste disposal operation without settling.
- c) Any synthetic liner used in the construction of a livestock waste lagoon mustshall meet the following standards:
- 1) The liner mustshall be designed to perform equivalent to or better than a liner that conforms to subsection (b) ~~of this Section~~;
 - 2) The liner manufacturer mustshall provide to the owner or operator the liner maintenance guidelines and mustshall certify that the liner is chemically compatible with:
 - A) The livestock waste being stored; and
 - B) The supporting soil materials;
 - 3) The liner mustshall be supported by a compacted base free from sharp objects;
 - 4) The liner mustshall have sufficient strength and durability to function at the site for the design period under the maximum expected loadings imposed by the waste and equipment and stresses imposed by settlement, temperature, construction and operation;
 - 5) The liner seams mustshall be made in the field according to the manufacturer's specifications. All sections mustshall be arranged so that the use of field seams is minimized and seams are oriented in the direction subject to the least amount of stress; and

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- 689 6) The owner or operator ~~must~~shall maintain a copy of the manufacturer's
690 compatibility statement and liner installation and maintenance guidelines
691 at the facility.
692
- 693 d) The design, construction and installation of the liner in ~~compliance~~accordance
694 with this Section ~~must~~shall be conducted under the direction of a Licensed
695 Professional Engineer. Upon completion of construction or installation of the
696 liner, the supervising Licensed Professional Engineer ~~must~~shall certify,
697 ~~underpursuant to~~ 8 Ill. Adm. Code 900.605(a), that the liner ~~complies with~~meets
698 ~~all the applicable requirements of~~ this Section. Such certification ~~must~~shall
699 include all supporting justification and data.
700
- 701 e) The owner or operator of a livestock waste lagoon ~~must~~shall submit to the
702 Department a copy of the Licensed Professional Engineer's Certification
703 ~~beforeprior to~~ placing the lagoon in service in ~~compliance~~accordance with 8 Ill.
704 Adm. Code 900.605.
705
- 706 f) *The owner or operator of the earthen livestock lagoon may, upon written request*
707 *and with written approval from the Department, modify or exceed these standards*
708 *in order to meet site specific objectives. [510 ILCS 77/15(a)] The owner or*
709 *operator shall demonstrate that such modification ~~is~~shall be at least as protective*
710 *of the groundwater, surface water and the structural integrity of the livestock*
711 *waste management facility as the requirements of this Part.*
712

713 (Source: Amended at 47 Ill. Reg. _____, effective _____)
714

715 Section 506.206 Groundwater Monitoring

- 716
- 717 a) The owner or operator of any livestock waste lagoon required to implement
718 groundwater monitoring ~~underpursuant to~~ Section 506.204(d) ~~must of this Part~~
719 ~~shall~~ implement a monitoring program that ~~complies with~~meets the requirements
720 ~~of~~ this Section and 8 Ill. Adm. Code 900.Subpart F.
721
- 722 b) The groundwater monitoring network ~~must~~shall consist of ~~at least a minimum of~~
723 three monitoring wells located within 20 feet of the exterior toe of the berm. At
724 least two of the required wells ~~must~~shall be located down gradient of the lagoon
725 based on local groundwater conditions. ~~The~~For the purposes of groundwater
726 monitoring network design ~~must consider multiple cell lagoons, multiple cell~~
727 ~~lagoons shall be considered~~ as a single lagoon.
728
- 729 c) The monitoring wells ~~must~~shall be installed in ~~compliance~~accordance with the
730 following:
731

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- 732 1) The requirements of the Illinois Water Well Construction Code at 77 Ill.
733 Adm. Code 920.170;
- 734 2) The top of the well screen ~~must~~shall be set at the estimated seasonal low
735 water table elevation;
- 736 3) Monitoring wells ~~must use~~shall utilize a minimum of a five foot screened
737 interval; and
- 738 4) The screen ~~must~~shall be set in a sand pack that extends at least one foot
739 above and one foot below the screened interval.
- 740
- 741 d) The owner or operator ~~must~~shall sample the wells, analyze the samples, and
742 report the results in ~~compliance~~accordance with ~~the requirements of~~ 8 Ill. Adm.
743 Code 900.Subpart F.
- 744 e) *The owner or operator of the earthen livestock lagoon may, upon written request*
745 *and with written approval from the department, modify or exceed these standards*
746 *in order to meet site specific objectives. [510 ILCS 77/15(a)] The owner or*
747 *operator ~~must~~shall demonstrate that such modification ~~must~~shall be at least as*
748 *protective of the groundwater, surface water and the structural integrity of the*
749 *livestock waste management facility ~~in compliance with~~as the requirements of*
750 *this Part.*

751 (Source: Amended at 47 Ill. Reg. _____, effective _____)

752 Section 506.207 Construction in a Karst Area

- 753 a) *A new earthen livestock waste lagoon constructed in a karst area shall be*
754 *designed to prevent seepage of the stored material to groundwater. Owners or*
755 *operators of proposed facilities shall consult with the local soil and water*
756 *conservation district, the University of Illinois cooperative extension service, or*
757 *other local, county, or state resources relative to determining the possible*
758 *presence or absence of such areas. [510 ILCS 77/15/(a-5)(2)]*
- 759 b) Any lagoon subject to ~~the provisions of~~this Subpart, constructed in a karst area,
760 ~~must~~shall be designed and constructed utilizing a rigid material such as concrete
761 or steel.
- 762 c) The owner or operator of the earthen livestock lagoon may, upon written request
763 and with written approval from the Department, modify or exceed the standards
764 of this Section ~~in order~~ to meet site specific objectives. The owner or operator
765 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
766

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775 the groundwater, surface water and the structural integrity of the livestock waste
776 management facility in compliance with ~~as the requirements of~~ this Part.

777
778 (Source: Amended at 47 Ill. Reg. _____, effective _____)

779
780 **Section 506.208 Construction in a Flood Fringe Area**

781
782 *A new earthen livestock waste lagoon may be constructed within the portion of a 100-year*
783 *floodplain that is within the flood fringe and outside the floodway provided that the facility is*
784 *designed and constructed so that livestock waste is not readily removed during flooding and*
785 *meets the requirements set forth in the Rivers, Lakes, and Streams Act [615 ILCS 5], Section 5-*
786 *40001 of the Counties Code [55 ILCS 5/5-40001], and executive order number 4 (1979). [510*
787 *ILCS 77/15(a-5)(1)] The following criteria must~~shall~~ be incorporated into the design of a lagoon*
788 *proposed for construction in the flood fringe of a 100-year floodplain:*

789
790 a) The lagoon berms must~~shall~~ be designed and constructed to withstand the
791 hydrostatic pressures from flood waters that may be exerted on the berms during a
792 flood event.

793
794 b) The elevation of the lowest point on the bermtop must~~shall~~ be at the summation of
795 the elevation of the 100-year flood plus a freeboard. The freeboard height
796 must~~shall~~ be a minimum of two feet.

797
798 c) For lagoons with unequal length and width dimensions, the lagoon must~~shall~~ be
799 oriented with the longest dimension parallel to the expected direction of
800 floodwater flow.

801
802 d) Any monitoring wells installed ~~underpursuant to~~ Section 506.206 must~~of this~~
803 ~~Subpart shall~~ be mounted flush with the surrounding soil surface or otherwise
804 physically protected from the flood waters.

805
806 e) The owner or operator of the livestock waste handling facility may, upon written
807 request and with written approval from the Department, modify or exceed these
808 standards ~~in order~~ to meet site specific objectives. The owner or operator
809 must~~shall~~ demonstrate that such modification will~~shall~~ be at least as protective of
810 the groundwater, surface water, and the structural integrity of the livestock waste
811 handling facility as the requirements of this Part.

812
813 (Source: Amended at 47 Ill. Reg. _____, effective _____)

814
815 **Section 506.210 Secondary Containment**

816
817 *Notwithstanding any other requirement of this subpart or 8 Ill. Adm. Code 900, every earthen*

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818 *livestock waste lagoon constructed pursuant to this subpart shall include the construction of a*
819 *secondary berm, filter strip, grass waterway, or terrace, or any combination of those, outside the*
820 *perimeter of the primary berm if an engineer licensed under the Professional Engineering*
821 *Practice Act of 1989 and retained by the registrant determines, with the concurrence of the*
822 *department, that construction of such a secondary berm or other feature or features is necessary*
823 *in order to ensure against a release of livestock waste from the lagoon that encroaches or is*
824 *reasonably expected to encroach upon land other than the land occupied by the livestock waste*
825 *handling facility of which the lagoon is a part; or that enters or is reasonably expected to enter*
826 *the waters of this state; or that enters or may reasonably be expected to enter a natural depression*
827 *in a karst area and ~~must~~shall be so designed. [510 ILCS 77/15(a)] The following criteria*
828 *~~must~~shall be incorporated into the design of a system ~~used~~utilized for secondary containment:*
829

- 830 a) A grass waterway constructed, installed, or ~~used~~utilized for ~~the purposes of~~ this
831 Section ~~must~~shall meet or exceed the following:
832
- 833 1) A grass waterway ~~must~~shall be designed and constructed to transfer the
834 maximum expected flow rate of livestock waste that may reasonably be
835 expected to be released from the lagoon;
836
 - 837 2) A grass waterway ~~must~~shall direct the flow of livestock waste away from
838 the lagoon berm to a filter strip, secondary berm, terrace, or combination
839 of these; and
840
 - 841 3) Vegetation ~~must~~shall be established and maintained to provide adequate
842 ground cover.
843
- 844 b) A filter strip constructed, installed, or ~~used~~utilized for ~~the purposes of~~ this Section
845 ~~must~~shall meet or exceed the following:
846
- 847 1) A filter strip ~~must~~shall be designed and constructed to function at the
848 maximum expected hydraulic loadings that may reasonably be expected to
849 come from the lagoon; and
850
 - 851 2) Vegetation ~~must~~shall be established and maintained to provide adequate
852 ground cover.
853
- 854 c) A secondary berm constructed, installed, or ~~used~~utilized for ~~the purposes of~~ this
855 Section ~~must~~shall meet or exceed the following:
856
- 857 1) The storage volume created ~~due to as a result of~~ the construction of a
858 secondary berm ~~must~~shall be of sufficient capacity to contain the portion
859 of the lagoon liquid that may reasonably be expected to be released from
860 the lagoon plus any accumulated precipitation; and

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- 861
862 2) A vegetative cover ~~must~~shall be established. The area ~~must~~shall be
863 maintained by periodic mowing, the removal of woody plant species, or
864 other measures to prevent erosion and berm deterioration.
865
866 d) A terrace constructed, installed, or ~~used~~ utilized for ~~the purposes of~~ this Section
867 ~~must~~shall meet or exceed the following:
868
869 1) The terrace ~~must~~shall direct the livestock waste to a filter strip or grass
870 waterway constructed or installed ~~underpursuant to the requirements of~~
871 this Section; and
872
873 2) Vegetation ~~must~~shall be established and maintained to provide adequate
874 ground cover on those portions of the terrace where crops are not grown.
875
876 e) The owner or operator of the earthen livestock lagoon may, upon written request
877 and with written approval from the Department, modify or exceed the standards
878 of this Section ~~in order~~ to meet site specific objectives. The owner or operator
879 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
880 the groundwater, surface water and the structural integrity of the livestock waste
881 management facility as the requirements of this Part.
882

883 (Source: Amended at 47 Ill. Reg. _____, effective _____)
884

885 SUBPART C: STANDARDS FOR THE DESIGN AND CONSTRUCTION OF LIVESTOCK
886 WASTE HANDLING FACILITIES OTHER THAN LAGOONS
887

888 **Section 506.301 Applicability**
889

890 The applicability of this Subpart ~~is~~shall be as follows:
891

- 892 a) Sections 506.302, 506.310, 506.311, and 506.312 of this Subpart ~~shall~~ apply to
893 the newly constructed livestock waste handling components of new livestock
894 waste handling facilities, other than livestock waste lagoons, ~~that the Department~~
895 ~~has not approved the design for before November 15, 2001~~ ~~the design of which~~
896 ~~has not been approved by the Department prior to November 15, 2001.~~
897
898 b) Sections 506.303, 506.304, 506.305, 506.306, 506.307, 506.308, and 506.309 ~~of~~
899 ~~this Subpart shall~~ apply ~~to~~ the newly constructed livestock waste handling
900 components of new or existing livestock waste handling facilities, other than
901 livestock waste lagoons, ~~that the Department has not approved the design for~~
902 ~~before November 15, 2001~~ ~~the design of which has not been approved by the~~
903 ~~Department prior to November 15, 2001.~~

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The standards and specifications for livestock waste handling facility design and construction contained in this Subpart ~~must~~shall be ~~used~~utilized in the design plans and construction of the waste handling facility in ~~compliance~~accordance with ~~the requirements of~~ 8 Ill. Adm. Code 900.Subpart E.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 506.302 Site Investigation

- a) The owner or operator of a livestock waste handling facility ~~must~~shall conduct a site investigation in ~~compliance~~accordance with ~~the requirements of~~ this Section to determine the following:
- 1) Whether aquifer material is considered present (or not present) within 5 feet of the planned bottom of the livestock waste handling facility;
 - 2) Whether the proposed facility is to be located within the floodway or flood fringe of a 100-year floodplain; and
 - 3) Whether the proposed facility is to be located within a karst area or within 400 feet of a natural depression in a karst area.
- b) Except for facilities that are proposed to be located within an area designated as "Sink hole areas" on "Karst Terrains and Carbonate Rocks of Illinois", IDNR-ISGS Illinois Map 8, the owner or operator ~~must~~shall obtain soil samples from within the final livestock waste handling facility area or within 20 feet of the livestock waste handling facility boundaries. The sampling ~~must~~shall be performed to determine the presence of aquifer material or karstified carbonate bedrock as follows:
- 1) The soil sampling ~~must~~shall begin at the soil surface and extend to a depth that includes a minimum of 5 feet below the planned bottom of the livestock waste handling facility native soil or to bedrock;
 - 2) If bedrock is encountered, additional soil samplings may be necessary to verify the presence of aquifer material or karstified carbonate bedrock;
 - 3) Continuous samples ~~must~~shall be recovered from each soil sampling; and
 - 4) Upon completion, any boring used for sampling ~~must~~shall be properly abandoned and sealed ~~under~~pursuant to the Illinois Water Well Construction Code at 77 Ill. Adm. Code 920.120. Any excavation used

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- 947 for sampling that is within the construction boundaries of the livestock
948 management facility or livestock waste handling facility ~~must~~shall be
949 restored by ~~adding the addition of~~ soil compacted in lifts no greater than 6
950 inches.
- 951
- 952 c) If the Department determines that additional soil samplings are necessary to
953 ensure the protection of the groundwater, surface water or the structural integrity
954 of the livestock waste handling facility, the Department ~~must~~shall require
955 additional soil samplings.
- 956
- 957 d) As an alternative to performing the soil sampling required under subsection (b) or
958 (c) ~~of this Section~~, the owner or operator of the livestock waste handling facility
959 may propose to the Department to ~~use~~utilize alternative information
960 ~~sources~~source(s). The Department ~~must~~shall evaluate the proposal; determine
961 whether the alternative information ~~sources~~source(s) will result in a site
962 investigation that will be at least as protective of the groundwater, surface water
963 and the structural integrity of the livestock waste handling facility as would have
964 resulted from data resulting from soil borings; and notify the owner or operator of
965 the Department's finding.
- 966
- 967 e) ~~Despite~~Notwithstanding the other requirements of this Subpart, if aquifer material
968 is located above or within 5 feet of the lowest point of the livestock waste
969 handling facility, the design of the facility ~~must comply with~~shall include the
970 ~~additional requirements of~~ Section 506.310 ~~of this Subpart~~.
- 971
- 972 f) ~~Despite~~Notwithstanding the other requirements of this Subpart, if the site
973 investigation determines that the livestock waste handling facility is to be located
974 in the flood fringe of a 100-year floodplain, the design of the facility ~~must comply~~
975 ~~with~~shall include the ~~additional requirements of~~ Section 506.311 ~~of this Subpart~~.
- 976
- 977 g) If the proposed livestock waste handling facility is to be located within an area
978 designated as "Sink hole areas" on "Karst Terrains and Carbonate Rocks of
979 Illinois", IDNR-ISGS Illinois Map 8 or if the results of the soil sampling
980 conducted ~~under~~pursuant to Section 506.302(b) ~~of this Subpart~~ indicate the
981 proposed livestock waste handling facility is to be located in a karst area, the
982 following requirements ~~must~~shall be met:
- 983
- 984 1) The Department ~~must~~shall conduct a visual inspection of the surrounding
985 area to determine the presence of natural depressions during the pre-
986 construction site inspection as required ~~under~~pursuant to 8 Ill. Adm. Code
987 900.505(a). Construction ~~must~~may not occur within 400 feet of a natural
988 depression in a karst area;
- 989

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- 990 2) The owner or operator ~~must~~shall perform one or more soil borings that
991 ~~must~~shall be located within the final livestock waste handling facility area
992 or within 20 feet of the livestock waste handling facility boundaries to
993 determine the presence of voids. The boring ~~must~~shall begin at the soil
994 surface and extend to a depth that includes a minimum of 20 feet below
995 the planned bottom of the livestock waste handling facility;
996
- 997 3) Continuous samples ~~must~~shall be recovered from each boring;
998
999
- 1000 4) The Licensed Professional Engineer, Licensed Professional Geologist, or
1001 USDA-NRCS representative designated to perform such functions
1002 ~~must~~shall evaluate the results of the soil boring. If a void of 1 foot or
1003 greater in vertical distance is discovered from the soil boring performed
1004 ~~underpursuant to~~ subsection (g)(2)~~-of this Section~~, the following
1005 requirements ~~must~~shall be met:
- 1006 A) The Department may require additional borings to determine the
1007 extent of the void;
1008
- 1009 B) ~~DespiteNotwithstanding~~ the other requirements of this Subpart, the
1010 owner or operator ~~must~~shall submit to the Department a plan for
1011 the design of the facility that ~~must~~shall include the additional
1012 design requirements ~~set forth~~in Section 506.312~~-of this Part~~ and
1013 ~~must~~shall include any additional design requirements~~-deemed~~
1014 necessary by the Licensed Professional Engineer; and
1015
- 1016 C) The Department ~~must~~shall review and approve the plan required
1017 ~~underpursuant to~~ subsection (g)(4)(B) ~~beforeof this Section prior to~~
1018 construction. The Department may also require additional design
1019 criteria before the plan is approved and construction may begin.
1020
- 1021 If, ~~as a result of the soil boring~~, no voids of 1 foot or greater in
1022 vertical distance are discovered ~~from the soil boring performed~~, the
1023 design ~~must~~shall include the additional requirements ~~set forth~~in
1024 Section 506.312~~-of this Subpart~~.
1025
- 1026 5) Upon completion of the ~~borings~~boring(s) required ~~underpursuant to~~
1027 subsection (g)~~-of this Section~~, the ~~borings must~~boring(s) shall be properly
1028 abandoned and sealed ~~underpursuant to~~ the Illinois Water Well
1029 Construction Code at 77 Ill. Adm. Code 920.120.
1030
- 1031 h) The site investigation in ~~compliance~~accordance with subsections (b), (c), (d), (e),
1032 (f), and (g) ~~mustof this Section shall~~ be conducted under the direction of a

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1033 Licensed Professional Engineer, a Licensed Professional Geologist, or a
1034 representative of the USDA-NRCS designated to perform such functions.

1035
1036 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1037

1038 **Section 506.303 Non-lagoon Livestock Waste Storage Volume Requirements**
1039

- 1040 a) Livestock waste handling facilities *that handle waste in a liquid or semi-solid*
1041 *form shall be designed to contain a volume of not less than the amount of waste*
1042 *generated during 150 days of facility operation at design capacity.* [510 ILCS
1043 77/13(a)(1)(B)] In addition, the design and volume of livestock waste storage
1044 structures that handle waste in a liquid or semi-solid form ~~must~~shall include the
1045 following:
- 1046 1) Runoff volumes generated during a 150-day period, including all runoff
1047 and precipitation from lots, roofs and other surfaces where precipitation is
1048 directed into the storage structure. In no case ~~must~~shall this volume be
1049 less than the precipitation and runoff generated by a 25-year, 24-hour
1050 storm event and directed to the livestock waste handling facility;
1051
 - 1052 2) The volume of all wash down liquid generated during the 150-day period
1053 that is directed into the livestock waste handling facility; and
1054
 - 1055 3) A freeboard of 2 feet, except for structures with a cover or otherwise
1056 protected from precipitation.
1057
- 1058
- 1059 b) Livestock waste handling facilities that handle waste in a solid form *shall be sized*
1060 *to store not less than the amount of waste generated during 6 months of facility*
1061 *operation at design capacity.* [510 ILCS 77/14(a)(4)]
1062
- 1063 c) Pump stations, settling tanks, pumps, piping, or other components of a livestock
1064 waste handling facility that temporarily hold or transport waste to a storage
1065 facility sized ~~underpursuant to~~ this Section ~~are~~shall be exempt from the storage
1066 volume requirements of this Section.
1067
- 1068 d) The design of any livestock waste storage structure required to incorporate a
1069 freeboard ~~underpursuant to~~ subsection (a) ~~must of this Section shall~~ include a
1070 liquid level board or staff gauge. The liquid level board or staff gauge ~~must~~shall
1071 include a mark corresponding to the summation of the livestock waste volume and
1072 the additional wash down volume ~~underpursuant to~~ subsection (a) ~~of this Section,~~
1073 and ~~must~~shall be designated as the "START PUMPING" elevation.
1074

1075 (Source: Amended at 47 Ill. Reg. _____, effective _____)

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Section 506.304 General Design and Construction Standards

- a) Livestock waste handling facilities ~~must~~shall be designed and constructed according to the following requirements:
 - 1) Storage and transport surfaces, other than those constructed of concrete, intended to come into contact with livestock waste ~~must~~shall be constructed or installed to achieve a hydraulic conductivity equal to or less than 1×10^{-7} centimeters per second.
 - 2) Storage and transport surfaces constructed of concrete and intended to come into contact with livestock waste ~~must~~shall be constructed or installed to achieve a hydraulic conductivity equal to or less than 1×10^{-6} centimeters per second.
 - 3) ~~Despite~~Notwithstanding subsection (a)(1)~~-of this Section~~, storage and transport surfaces constructed at enclosed livestock waste handling facilities intended to house poultry that come into contact with livestock waste that is in dry or solid form ~~must~~shall be constructed or installed to achieve a hydraulic conductivity equal to or less than 1×10^{-6} centimeters per second.
 - 4) The livestock waste handling facility ~~must~~shall withstand~~, at a minimum,~~ the following loads:
 - A) Lateral loads due to soil and equipment, which ~~must~~shall be obtained from Table 2 of the MidWest Plan Service Concrete Manure Storages Handbook, MWPS-36;
 - B) Lateral loads due to livestock waste scraping and handling equipment;
 - C) Lateral and vertical loads due to the handling and storage of livestock waste;
 - D) Vertical loads on tank tops, slats, and other horizontal surfaces, which ~~must~~shall be obtained from Table 3 of the MidWest Plan Service Concrete Manure Storages Handbook, MWPS-36; and
 - E) Vertical loads due to mobile equipment, stationary equipment, and structures housing the livestock.

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- 1119 5) The construction materials ~~must~~shall be chemically compatible with the
1120 livestock waste being handled and stored and the supporting soil materials.
1121
- 1122 6) The livestock waste handling facility ~~must~~shall be designed and
1123 constructed to prevent erosion and damage resulting from the transport,
1124 handling, and storage of livestock waste.
1125
- 1126 7) Existing subsurface drainage lines in the immediate area of the livestock
1127 waste handling facility ~~must~~shall be removed or relocated to provide for a
1128 minimum separation distance of ~~at least not less than~~ 50 feet between the
1129 outermost extent of the livestock waste handling facility and the
1130 subsurface drainage line.
1131
- 1132 8) The minimum separation distance between the outermost extent of the
1133 livestock waste handling facility and any potential route of groundwater
1134 contamination, as defined in the Illinois Environmental Protection Act
1135 [415 ILCS 5], ~~must~~shall be ~~at least not less than~~ 100 feet. In addition, the
1136 minimum separation distance between the outermost extent of the
1137 livestock waste handling facility and a non-potable well, an abandoned or
1138 plugged well, drainage well, or injection well ~~must~~shall be ~~at least not less~~
1139 ~~than~~ 100 feet.
1140
- 1141 9) The design and construction of livestock waste handling facilities
1142 ~~must~~shall include a backflow prevention device to prevent siphoning or
1143 gravity flow of livestock waste in the opposite direction of intended use.
1144
- 1145 b) In addition to the requirements listed in this Section, livestock waste handling
1146 facilities ~~must~~shall be designed and constructed ~~according pursuant~~ to the
1147 following:
1148
- 1149 1) Concrete livestock waste storage tanks ~~must~~shall be designed and
1150 constructed in ~~compliance~~accordance with MidWest Plan Service
1151 Concrete Manure Storages Handbook, MWPS-36, or, in the case of
1152 circular concrete tanks, Circular Concrete Manure Tanks, MWPS TR-9.
1153
- 1154 2) Components of livestock waste handling facilities that temporarily hold or
1155 transport waste for ~~the purpose of~~ liquid and solid separation, including
1156 ~~but not limited to~~ settling basins and settling tanks, ~~must~~shall be designed
1157 and constructed in ~~compliance~~accordance with MidWest Plan Service
1158 Livestock Waste Facilities Handbook, MWPS-18, or NRCS Waste
1159 Storage Structure, IL313.
1160
- 1161 3) Components of livestock waste handling facilities holding semi-solid

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- 1162 waste, including ~~but not limited to~~ picket dam structures, ~~must~~shall be
1163 designed and constructed in ~~compliance~~accordance with MidWest Plan
1164 Service Livestock Waste Facilities Handbook, MWPS-18, or similar
1165 standards used by the USDA-NRCS.
1166
- 1167 4) Components of livestock waste handling facilities holding solid waste,
1168 including ~~but not limited to~~ temporary manure stacks, ~~must~~shall be
1169 designed and constructed in ~~compliance~~accordance with MidWest Plan
1170 Service Livestock Waste Facilities Handbook, MWPS-18, or similar
1171 standards used by the USDA-NRCS, including ~~but not limited to~~ Waste
1172 Storage Structure, IL313.
1173
- 1174 5) Holding ponds used for the storage of livestock feedlot run-off and waste
1175 storage ponds ~~must~~shall be designed and constructed in
1176 ~~compliance~~accordance with MidWest Plan Service Livestock Waste
1177 Facilities Handbook, MWPS-18, or similar standards used by the USDA-
1178 NRCS, including ~~but not limited to~~ Waste Holding Pond, IL425.
1179
- 1180 c) In areas where the seasonal high water table may encroach upon the bottom of the
1181 livestock waste storage structure, a perimeter foundation drainage tubing
1182 ~~must~~shall be installed as follows:
1183
- 1184 1) The drainage tubing must be located at a horizontal distance that provides
1185 sufficient drainage to maintain the water table elevation below the bottom
1186 of the footings.
1187
- 1188 2) The tubing ~~must~~shall drain freely to a surface water outlet or other
1189 subsurface drainage outlet.
1190
- 1191 3) The tubing must include a sampling port to allow the monitoring,
1192 sampling, and reporting of any discharge from the tubing in
1193 ~~compliance~~accordance with ~~the requirements of~~ 8 Ill. Adm. Code
1194 900.Subpart E.
1195
- 1196 4) The owner or operator ~~must~~shall take necessary measures to divert the
1197 discharge from the drainage tubing, away from surface water, if
1198 monitoring results ~~under~~pursuant to subsection (c)(3)~~of this Section~~
1199 indicate that the tubing is discharging livestock waste. Such measures
1200 ~~must~~shall include, ~~but not be limited to~~, diverting the flow to crop
1201 production area naturally lower in elevation than the livestock facility, or
1202 providing a manhole with a gate valve that could be closed in an
1203 emergency.
1204

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1205 d) The owner or operator of the livestock waste handling facility may, upon written
1206 request and with written approval from the Department, modify or exceed these
1207 standards ~~in order~~ to meet site specific objectives. The owner or operator
1208 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
1209 the groundwater, surface water, and the structural integrity of the livestock waste
1210 handling facility as the requirements of this Part.

1211
1212 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1213

1214 **Section 506.305 Additional Concrete Design and Construction Standards**
1215

1216 a) In addition to the requirements ~~set forth~~ in Section 506.304 ~~of this Subpart~~, the
1217 design and construction of concrete components of livestock waste handling
1218 facilities ~~must~~shall meet the following requirements:
1219

- 1220 1) Construction joints ~~must~~shall be incorporated into the concrete in
1221 ~~compliance~~accordance with the design guidance provided in MidWest
1222 Plan Service Concrete Manure Storages Handbook, MWPS-36, or, in the
1223 case of circular concrete tanks, Circular Concrete Manure Tanks, TR-9;
1224
1225 2) Water stops ~~must~~shall be incorporated into construction joints in
1226 ~~compliance~~accordance with the design guidance provided in MidWest
1227 Plan Service Concrete Manure Storages Handbook, MWPS-36, or, in the
1228 case of circular concrete tanks, Circular Concrete Manure Tanks, TR-9;
1229
1230 3) Concrete minimum compressive strength requirements ~~must~~shall be in
1231 ~~compliance~~accordance with the design guidance provided in Table 28 of
1232 MidWest Plan Service Concrete Manure Storages Handbook, MWPS-36,
1233 or, in the case of circular concrete tanks, Table 1 of Circular Concrete
1234 Manure Tanks, TR-9; and
1235
1236 4) The strength, cover, and bending requirements for concrete reinforcement
1237 ~~must~~shall be in ~~compliance~~accordance with the design guidance provided
1238 in Table 1 of MidWest Plan Service Concrete Manure Storages Handbook,
1239 MWPS-36, or, in the case of circular concrete tanks, Circular Concrete
1240 Manure Tanks, TR-9.
1241

1242 b) The owner or operator of the livestock waste handling facility may, upon written
1243 request and with written approval from the Department, modify or exceed these
1244 standards ~~in order~~ to meet site specific objectives. The owner or operator
1245 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
1246 the groundwater, surface water, and the structural integrity of the livestock waste
1247 handling facility as the requirements of this Part.

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(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 506.306 Additional Metal Design and Construction Standards

- a) In addition to the requirements ~~set forth~~ in Section 506.304 ~~of this Subpart~~, the design and construction of metal components of livestock waste handling facilities mustshall meet the following requirements:
 - 1) All metal surfaces mustshall be protected by a corrosion resistance system;
 - 2) Concrete footings and bases mustshall meet the strength and load requirements ~~set forth~~ in Sections 506.304 and 506.305 ~~of this Subpart~~;
 - 3) The connection of dissimilar metals mustshall be minimized; and
 - 4) Metal components of livestock waste handling facilities mustshall be constructed or installed according to the manufacturer's specifications and guidelines.
- b) The owner or operator of the livestock waste handling facility may, upon written request and with written approval from the Department, modify or exceed the standards of this Section ~~in order~~ to meet site specific objectives. The owner or operator mustshall demonstrate that such modification willshall be at least as protective of the groundwater, surface water, and the structural integrity of the livestock waste handling facility as the requirements of this Part.

(Source: Amended at 47 Ill. Reg. _____, effective _____)

Section 506.307 Additional Earthen Material Design and Construction Standards

- a) In addition to the requirements ~~set forth~~ in Section 506.304 ~~of this Subpart~~, the design and construction of earthen components of livestock waste handling facilities mustshall meet the following requirements:
 - 1) The construction and compaction of the earthen component mustshall be carried out to reduce void spaces and allow the earthen component to support the loadings imposed by the livestock waste without settling;
 - 2) The minimum top width of any berm incorporated into the design of any earthen component mustshall be 8 feet; and
 - 3) Walls incorporated into the design of an earthen component mustshall

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- 1291 have side slopes not steeper than a 2.5 to 1 ratio of horizontal to vertical.
1292
1293 b) The floor of enclosed deep bedded livestock systems and poultry litter systems
1294 that handle waste in dry or solid form, and ~~use~~utilize an earthen base ~~must~~shall be
1295 constructed to achieve a hydraulic conductivity of equal to or less than 1×10^{-6}
1296 centimeters per second.
1297
1298 c) The owner or operator of the livestock waste handling facility may, upon written
1299 request and with written approval from the Department, modify or exceed these
1300 standards ~~in order~~ to meet site specific objectives. The owner or operator
1301 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
1302 the groundwater, surface water, and the structural integrity of the livestock waste
1303 handling facility as the requirements of this Part.
1304

1305 (Source: Amended at 47 Ill. Reg. _____, effective _____)
1306

1307 **Section 506.308 Additional Synthetic Material Design and Construction Standards** 1308

- 1309 a) In addition to the requirements ~~set forth~~ in Section 506.304 ~~of this Subpart~~, the
1310 design and construction of synthetic components of livestock waste handling
1311 facilities ~~must~~shall meet the following requirements:
1312
- 1313 1) The synthetic material ~~must~~shall be supported by a compacted base free
1314 from sharp objects;
 - 1315
1316 2) The use of field seams ~~must~~shall be minimized. All field seams ~~must~~shall
1317 be made according to the manufacturer's specifications and oriented in the
1318 direction subject to the least amount of stress;
 - 1319
1320 3) The synthetic material ~~must~~shall be resistant to or otherwise protected
1321 from damage from construction or operation and degradation by
1322 ultraviolet light;
 - 1323
1324 4) Synthetic components ~~must~~shall be designed for use in livestock waste
1325 handling facilities and ~~must~~shall be installed according to the
1326 manufacturer's specifications and guidelines;
 - 1327
1328 5) The liner ~~must~~shall be chemically compatible with the livestock waste
1329 being handled and stored and the supporting soil materials; and
 - 1330
1331 6) The liner ~~must~~shall have sufficient strength and durability to function at
1332 the site under the maximum expected loadings imposed by the waste and
1333 equipment and stresses imposed by settlement, temperature, construction,

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1334 and operation.

1335

1336 b) The owner or operator of the livestock waste handling facility may, upon written
1337 request and with written approval from the Department, modify or exceed these
1338 standards ~~in order~~ to meet site specific objectives. The owner or operator
1339 mustshall demonstrate that such modification willshall be at least as protective of
1340 the groundwater, surface water, and the structural integrity of the livestock waste
1341 handling facility as the requirements of this Part.

1342

1343 (Source: Amended at 47 Ill. Reg. _____, effective _____)

1344

1345 **Section 506.309 Additional Wooden Material Design and Construction Standards**

1346

1347 a) In addition to the requirements ~~set forth~~ in Section 506.304 ~~of this Subpart~~, the
1348 design and construction of wooden components of livestock waste handling
1349 facilities mustshall meet the following requirements:

1350

1351 1) Wooden materials mustshall be naturally resistant or treated to resist
1352 damage from decay and corrosion; and

1353

1354 2) Construction fasteners mustshall be resistant to corrosion.

1355

1356 b) The owner or operator of the livestock waste handling facility may, upon written
1357 request and with written approval from the Department, modify or exceed these
1358 standards ~~in order~~ to meet site specific objectives. The owner or operator
1359 mustshall demonstrate that such modification willshall be at least as protective of
1360 the groundwater, surface water, and the structural integrity of the livestock waste
1361 handling facility as the requirements of this Part.

1362

1363 (Source: Amended at 47 Ill. Reg. _____, effective _____)

1364

1365 **Section 506.310 Additional Design and Construction Standards for Construction in an**
1366 **Area with Shallow Aquifer Material**

1367

1368 a) In addition to the other requirements of this Subpart, if aquifer material is located
1369 above or within 5 feet of the lowest point of the proposed livestock waste
1370 handling facility as determined under Section 506.302 ~~of this Subpart~~, the design
1371 and construction of the facility mustshall comply with ~~the requirements of~~ this
1372 Section.

1373

1374 b) Livestock waste handling facility components constructed of concrete mustshall
1375 ensure that concrete footings extend below the maximum frost depth.

1376

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- 1377 c) Livestock waste handling facility components constructed of earthen materials
1378 ~~must~~shall include the installation of an earthen or synthetic liner.
1379
- 1380 1) Earthen liners ~~must~~shall meet the following requirements:
1381
- 1382 A) The liner ~~must~~shall consist of in-situ soil, borrowed clay, or
1383 clay/bentonite mixtures;
1384
- 1385 B) The minimum liner thickness ~~must~~shall be 2 feet;
1386
- 1387 C) The liner ~~must~~shall be constructed in lifts not to exceed 6 inches in
1388 compacted thickness; and
1389
- 1390 D) The construction and compaction of the liner ~~must~~shall be carried
1391 out to reduce void spaces and allow the liner to support the
1392 loadings imposed by the waste disposal operation without settling.
1393
- 1394 2) Synthetic liners ~~must~~shall meet the design and construction requirements
1395 ~~set forth~~in Section 506.308 ~~of this Subpart~~ and ~~must~~shall have a minimum
1396 thickness of 40 mil.
1397
- 1398 3) The design, construction, and installation of the liner required
1399 ~~under~~pursuant to this Section ~~must~~shall be conducted under the direction
1400 of a Licensed Professional Engineer. Upon completion of construction or
1401 installation of the liner, the supervising Licensed Professional Engineer
1402 ~~must~~shall certify that the liner meets all the applicable requirements of this
1403 Section. Such certification ~~must~~shall include all supporting justification
1404 and data.
1405
- 1406 4) The owner or operator of the livestock waste handling facility ~~must~~shall
1407 submit to the Department a copy of the Licensed Professional Engineer's
1408 liner certification ~~before~~prior to placing the livestock waste handling
1409 facility in service in ~~compliance~~accordance with 8 Ill. Adm. Code
1410 900.506(a).
1411
- 1412 d) The owner ~~or~~and operator of the livestock waste handling facility may, upon
1413 written request and with written approval from the Department, modify or exceed
1414 these standards ~~in order~~to meet site specific objectives. The owner or operator
1415 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
1416 the groundwater, surface water, and the structural integrity of the livestock waste
1417 handling facility as the requirements of this Part.
1418
- 1419 (Source: Amended at 47 Ill. Reg. _____, effective _____)

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1420

1421 **Section 506.311 Additional Design and Construction Standards for Construction in a**
 1422 **Flood Fringe Area**

1423

1424 *No new non-lagoon livestock management facility or livestock waste handling facility may be*
 1425 *constructed within the floodway of a 100-year floodplain. A new livestock management facility*
 1426 *or livestock waste handling facility may be constructed within the portion of a 100-year*
 1427 *floodplain that is within the flood fringe and outside the floodway provided that the facility is*
 1428 *designed and constructed to be protected from flooding and meets the requirements set forth in*
 1429 *the Rivers, Lakes, and Streams Act [615 ILCS 5], Section 5-40001 of the Counties Code [55*
 1430 *ILCS 5/5-40001], and executive order number 4 (1979). [510 ILCS 77/13(b)(1)]*

1431 ~~Despite~~~~Notwithstanding~~ the other requirements of this Subpart or 8 Ill. Adm. Code 900, the
 1432 following criteria ~~must~~~~shall~~ be incorporated into the design of a non-lagoon livestock
 1433 management facility or livestock waste handling facility proposed for construction in the flood
 1434 fringe of a 100-year floodplain:

1435

1436 a) The berms and walls ~~must~~~~shall~~ be designed and constructed to withstand the
 1437 hydrostatic pressures from flood waters that may be exerted on the berms and
 1438 walls during a flood event;

1439

1440 b) The elevation of the lowest point on the berm top and wall ~~must~~~~shall~~ be at the
 1441 elevation of the 100-year flood plus a minimum of two feet;

1442

1443 c) For facilities with unequal length and width dimensions, the facility ~~must~~~~shall~~ be
 1444 oriented with the longest dimension parallel to the expected direction of
 1445 floodwater flow; and

1446

1447 d) The owner or operator of the livestock waste handling facility may, upon written
 1448 request and with written approval from the Department, modify or exceed these
 1449 standards ~~in order~~ to meet site specific objectives. The owner or operator
 1450 ~~must~~~~shall~~ demonstrate that such modification ~~will~~~~shall~~ be at least as protective of
 1451 the groundwater, surface water, and the structural integrity of the livestock waste
 1452 handling facility as the requirements of this Part.

1453

1454 (Source: Amended at 47 Ill. Reg. _____, effective _____)

1455

1456 **Section 506.312 Additional Design and Construction Standards for Construction in a**
 1457 **Karst Area**

1458

1459 a) *A new non-lagoon livestock waste handling facility constructed in a karst area*
 1460 *shall be designed to prevent seepage of the stored material into groundwater in*
 1461 *accordance with ASAE EP393.2. Owners or operators of proposed facilities*
 1462 *should consult with the local soil and water conservation district, the University*

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1463 *of Illinois cooperative extension service, or other local, county, or state resources*
1464 *relative to determining the possible presence or absence of such areas. [510*
1465 *ILCS 77/13(b)(2)]*
1466

- 1467 b) Any livestock waste handling facility constructed in a karst area ~~must~~shall be
1468 designed and constructed utilizing a rigid material such as concrete or steel.
1469
1470 c) The owner or operator of the livestock waste handling facility may, upon written
1471 request and with written approval from the Department, modify or exceed these
1472 standards ~~in order~~ to meet site specific objectives. The owner or operator
1473 ~~must~~shall demonstrate that such modification ~~will~~shall be at least as protective of
1474 the groundwater, surface water, and the structural integrity of the livestock waste
1475 handling facility as the requirements of this Part.
1476

1477 (Source: Amended at 47 Ill. Reg. _____, effective _____)