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STATE OF ILLINOIS
Pollution Control Board

POLLUTION CONTROL BOARD

James R. Thompson Center 100 W. Randolph St., Ste 11-500
Dorothy Gunn
CHICAGO, IL 60601

Dear Dorothy Gunn

Your rules Listed below met our codification standards and have been published in Volume 31, Issue 31 of the Illinois Register, dated 08/03/2007.

PROPOSED RULES

Water Quality Standards

35 Ill. Adm. Code 302

Point Of Contact:Erin Conley

Page 11028

Standards for New Solid Waste Landfills

35 Ill. Adm. Code 811

Point Of Contact:John T Therriault

Page 11112

Solid Waste Disposal: General Provisions

35 Ill. Adm. Code 810

Point Of Contact:John T Therriault

Page 11107

If you have any questions, you may contact the Administrative Code Division at (217) 782 - 7017.

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NOTICE OF PROPOSED AMENDMENT

- 1) Heading of the Part: Solid Waste Disposal: General Provisions
- 2) Code Citation: 35 Ill. Adm. Code 810
- 3)

<u>Section Number:</u>	<u>Proposed Action:</u>
810.104	Amend
- 4) Statutory Authority: Implementing Sections 7.2, 21, 21.1, 22, 22.17, and 22.40 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 21, 21.1, 22, 22.17, 22.40, and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of amendments, see the Board's July 12, 2007 opinion and order in docket R07-8. This rulemaking proposes amendments to Parts 810 and 811 that are intended to update the Board's solid waste disposal regulations in order to reflect practical experience gained through the implementation of those rules and the expanded technical and scientific knowledge achieved since the Board first adopted these standards in 1990. This rulemaking is based on a proposal that was filed with the Board on July 27, 2006, by the Illinois Chapter of the National Solid Wastes Management Association (NSWMA).

The amendments to Part 810 seek to update materials incorporated by reference.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this proposed rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? Yes
- 10) Are there any other proposed rules pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b) (2004)].
- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking: The Board held hearings on this rulemaking in Chicago on January 29, 2007 and in Springfield on February 28, 2007. The Board will continue to accept written

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public comment on this proposal for 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R07-8 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling the Clerk's office at 312-814-3620, or download from the Board's Web site at www.ipcb.state.il.us.

For more information contact Tim Fox at 312/814-6085 or email at foxt@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: This rulemaking will impact any small businesses, small municipalities and not for profit corporations that own or operate a solid waste disposal facility.
- B) Reporting, bookkeeping or other procedures required for compliance: This rulemaking does not impose any new reporting, bookkeeping or other procedures.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

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NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Standards for New Solid Waste Landfills
- 2) Code Citation: 35 Ill. Adm. Code 811
- 3)

<u>Section Numbers</u> :	<u>Proposed Action</u> :
811.309	Amend
811.315	Amend
811.318	Amend
811.319	Amend
811.320	Amend
811.APPENDIX C	New Section
- 4) Statutory Authority: Implementing Sections 7.2, 21, 21.1, 22, 22.17, and 22.40 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 21, 21.1, 22, 22.17, 22.40, and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of these amendments, see the Board's July 12, 2007 opinion and order in docket R07-8. This rulemaking proposes amendments to Part 811 that are intended to update the Board's solid waste disposal regulations to reflect practical experience gained through the implementation of those rules and expanded technical and scientific knowledge achieved since the Board first adopted these standards in 1990. This rulemaking is based on a proposal that was filed with the Board on July 27, 2006, by the Illinois Chapter of the National Solid Wastes Management Association (NSWMA) with the concurrence of the Illinois Environmental Protection Agency (Agency).

NSWMA proposed substantive changes to the Board's nonhazardous solid waste landfill rules. Those proposed changes pertain to issues including leachate monitoring, hydrogeologic site investigation, groundwater monitoring systems, and groundwater quality standards.

The amendments to the leachate monitoring include adding a list of 202 constituents to be monitored. The Agency developed the list to represent constituents likely to be found in leachate from chemical and putrescible waste landfills. The amendments also propose a minimum number of leachate monitoring locations at landfill units. For the first two years of landfill operation, the proposal changes the frequency of leachate monitoring frequency from quarterly to semi-annual monitoring. The proposal does not change the requirement that, after those first two years, monitoring continues on a semi-annual basis. The proposal also requires sampling from each monitoring location at least once every two years.

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At Section 811.315(e)(1)(G)(i), the Board proposes to replace the reference in the rules to 'public or food processing water supply standard at 35 Ill. Adm. Code 302' with a reference to the groundwater standards found at 35 Ill. Adm. Code 620. This amendment replaces the list of constituents under public or food processing water supply standards with a more comprehensive list of constituents under the Board's groundwater standards.

The amendments to the groundwater monitoring systems address the depth of monitoring wells. Specifically, the proposal requires an operator to measure the depth of groundwater monitoring wells that do not contain dedicated pumps on an annual basis. The amendments would also require that, at groundwater monitoring wells containing dedicated pumps, the operator must measure the depth of the well every five years or when the pump is serviced.

Additional amendments to monitoring requirements include adding a specific list of indicator constituents, adding a specific list of organic chemicals for which groundwater must be monitored, and increasing the frequency of the monitoring for the specified organic parameters. The amendments also propose several changes to the provisions for confirming monitored increases.

Proposed changes to the assessment monitoring provisions under Section 811.319(b) include specifying deadlines for submission and implementation of an assessment monitoring plan. Additionally, the proposed inclusion of constituents listed in 35 Ill. Adm. Code 620.410 makes the Board rules consistent with the federal regulations at 40 C.F.R. Part 258.

The amendments propose a number of changes to the groundwater quality standard provisions under Section 811.320. The proposed changes replace references to public water supply standards with references to groundwater standards, clarify the establishment of background concentrations, and update statistical analysis procedures.

6) Published studies or reports, and sources of underlying data, used to compose this rulemaking:

Aitchison, J. 1955, On the distribution of a positive random variable having a discrete probability mass at the origin: Journal of American Statistical Association, v. 50, pp. 901-908.

Christensen, T.H., Kjeldsen, P., Albrechtsen, H.J., Heron, Gorm, Nielsen, P.H., Bjerg, P.L., and Holm, P.E., 1994, Attenuation of Landfill Leachate Pollutants in

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NOTICE OF PROPOSED AMENDMENTS

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Clark, T.P. and Piskin R., 1977, Chemical Quality and Indicator Parameters for Monitoring Landfill Leachate in Illinois, *Environmental Geology*, v. 1, pp. 329-339.

Cravy, T.D., McIsaac, P., and Gibbons, R.D., 1990, Evaluation of organic indicator parameters using an Appendix VII/IX Database: presented at Waste Tech '90, Landfill Technology: Back to Basics. San Francisco, CA.

Gibbons, R., 1994, *Statistical Methods for Groundwater Monitoring*. New York: John Wiley and Sons.

Gibbons, R. et al., 1999, Statistical Comparison of Leachate from Hazardous, Codisposal, and Municipal Solid Waste Landfills, *Groundwater Monitoring and Remediation*, Fall 1999, pp. 57-72.

Heidlauf, D.T. and Bartlett, T.R., 1993, Effects of monitoring well purge and sample techniques on the concentration of metal analytes in unfiltered groundwater samples: *Proceedings of the NGWA Outdoor Action Conference*, Las Vegas, NV, May 1993, pp. 437-450.

USEPA, 1977, *Solid Waste Monitoring Guidance*. To be completed.

USEPA, 1988, *Summary of Data on Municipal Solid Waste Landfill Leachate Characteristics*. To be completed.

USEPA, *Federal Register*, 1991, Code of Federal Regulations (CFR) Parts 257 and 258: Solid Waste Disposal Facility Criteria; Final Rule.

USEPA, 1992, Addendum to interim final guidance document - Statistical analysis of ground-water monitoring data at RCRA facilities.

USEPA, 1998, *Characterization of municipal solid waste in the United States: 1997 Update*, Report No. EPA 530-R-98-007. Washington, D.C.: U.S. EPA, Office of Solid Waste.

USEPA, 2000, Geosynthetic Research Institute, University of Illinois and Geosyntec Consultants, *Assessment and Recommendations for Optimal*

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NOTICE OF PROPOSED AMENDMENTS

Performance of Waste Containment Systems, Grant number CR-821448-01-0.

Pastor, E. F. and Frick, D. R., 1992 "Considerations in Selecting Indicator Parameters for the Statistical Evaluation of Ground-Water Quality", Current Practices in Ground Water and Vadose Zone Investigations, ASTM STP 1118, David M. Nielsen and Martin N. Sara, Eds., American Society for Testing and Materials, Philadelphia.

Plumb, R.H., 1991. The Occurrence of Appendix IX Organic Constituents in Disposal Site Ground Water, Groundwater Monitoring Review, Spring 1991, pp. 157-164.

Plumb, R.H., 1987, A comparison of groundwater monitoring data from CERCLA and RCRA sites. Groundwater Monitoring Review, v. 8, pp. 94-100.

Puls, R.W., Clark, D.A., Bledsoe, B., Powell, R.M. and Paul, C.J., 1992. Metals in Groundwater: Sampling Artifacts and Reproducibility, Hazardous Wastes and Hazardous Materials, v. 9, No. 2, pp. 149-162.

Puls, R.W., and Powell, R.M., 1992. Acquisition of Representative Groundwater Quality Samples for Metals, Groundwater Monitoring Review, Summer 92, pp. 167-176.

Allen, H.E., Perdue, E.M., and Brown, D., 1993. Metals in Groundwater. Boca Raton, Florida: Lewis Publishers.

Baker, J.A. "Leachate Characteristics of Leachate Recirculation and Bioreactor Landfills," Presentation at USEPA's 2nd Annual Bioreactor Workshop, Feb. 2003.

Bagchi, A., 1987. Natural attenuation mechanisms of landfill leachate and effects of various factors on the mechanisms. Waste Management & Research 5, 453-464.

Barlaz, M.A., et al, "A Critical Evaluation of Factors Required to Terminate Post-Closure Monitoring and Performance of Solid Waste Landfills," Environmental Science and Technology, 2002, 36, 3457.

Bubb, J.M., and Lester, J.N., 1991. The impact of heavy metals on lowland rivers and the implications for man and the environment. The Science of the Total Environment 100, 207-233.

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Christensen, T. H., et al. 2001. Biogeochemistry of Landfill Leachate Plumes. *Applied Geochemistry*, Vol. 16, No. 7, pp. 659-718(60) Elsevier Science, Pub.

Davis, J.A., et al. 1993. Influence of Redox Environment and Aqueous Speciation on Metal Transport in Groundwater: Preliminary Results of Trace Injection Studies, *Metals in Groundwater*, Allen, H.E., et al. editors. Lewis Publishers.

Dragun, J., 1988. *The Soil Chemistry of Hazardous Materials*. Hazardous Materials Control Research Institute, Silver Springs, Maryland.

Gibbons, R.D., and Sara M., 1994. Statistical comparison of Metal Concentrations in Filtered and Unfiltered Ground-water Samples. *Ground Water Sampling - A Workshop Summary*. EPN600/R-94/205

Ham, R.K. & Booker, T.J. (1982) "Decomposition of Solid Waste in Test Lysimeters." *Journal of Environmental Engineering*, 108, pp. 1147-1170.

Hounslow, A.W., 1995. *Water Quality Data, Analysis and Interpretation*. Lewis Publishers.

Kjeldsen, P., Barlaz, M.A., Rooker, A.P., Baun, A. Ledin, A. Christensen; T.H., 2002, "Present and Long-Term Composition of MSW Landfill Leachate: A Review," *Environmental Science and Technology*, 32(4); 297-336.

McLean, J.E. and Bledsoe, B.E., 1992. Behavior of metals in soils. *Ground Water Issues*, USEPA, EPA/540/S-92/018.

Puls, R.W. and Barcelona, M.J., 1989. Filtration of Ground Water Samples for Metals Analysis. *Hazardous Waste & Hazardous Materials*, Vol 6, No. 4. 385-393.

RUST E&I, 1995. *Leachate Characterization Study*.

Suthersan, S.S., 1997. *Remediation Engineering*. Boca Raton, Florida: Lewis Publishers.

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For more information contact Tim Fox at 312/814-6085 or email at foxt@ipcb.state.il.us.

- 13) Initial Regulatory Flexibility Analysis:
 - A) Types of small businesses, small municipalities and not for profit corporations affected: This rulemaking will impact any small businesses, small municipalities and not for profit corporations that own or operate a solid waste disposal facility.
 - B) Reporting, bookkeeping or other procedures required for compliance: This rulemaking updates provisions related to reporting, bookkeeping and other procedures.
 - C) Types of Professional skills necessary for compliance: No professional skills

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beyond those currently required by the existing state regulations applicable to affected sources will be required.

- 14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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