

ILLINOIS POLLUTION CONTROL BOARD
March 21, 2013

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO CLEAN) R12-9 (B)
CONSTRUCTION OR DEMOLITION) (Rulemaking - Land)
DEBRIS FILL OPERATIONS (CCDD):)
PROPOSED AMENDMENTS TO 35 Ill.)
Adm. Code 1100)

ORDER OF THE BOARD (by D. Glosser):

On July 29, 2011, the Illinois Environmental Protection Agency (IEPA) filed a proposal pursuant to Sections 22.51 and 22.51a of the Environmental Protection Act (Act) (415 ILCS 5/22.51 and 22.51a (2010)). The proposal amended the Board's rules for Clean Construction or Demolition Debris Fill Operations to allow for use of uncontaminated clean construction or demolition debris (CCDD) and uncontaminated soil to be used as fill at quarries, mines and other excavations. The Board held four days of hearings in this matter and adopted the proposal with amendments suggested by participants at second notice. The Board adopted the final rule, making changes recommended by the Joint Committee on Administrative Rules (JCAR) and opened Subdocket B at JCAR's recommendation.

At second notice, the Joint Committee on Administrative Rules recommended that the Board:

give further consideration to whether groundwater monitoring should be required for these facilities. This would give the Board the opportunity to receive further comment from parties who may not have submitted their supportive views when groundwater monitoring was an element of this proposal and who may have opinions and information to offer in light of the Board' decision to remove the requirement before going to 1st Notice on this rulemaking.

On September 21, 2012, a hearing officer order sought comment from any interested person on whether or not the Board should require groundwater monitoring at CCDD and uncontaminated soil fill facilities. The hearing officer allowed for comments to be filed until December 1, 2012.

The Board reviewed those comments and believes that additional hearings are necessary on the issue of groundwater monitoring. While the comments provided some suggestions that the Board will explore at hearing, many question regarding groundwater monitoring remain. The Board directs the hearing officer to schedule hearings and provide participants with questions to be addressed by participants at hearing.

As a basis for additional comments regarding groundwater monitoring and how such a program might be implemented, the Board provides the language for groundwater monitoring proposed by the IEPA below.

PROPOSED RULE LANGUAGE

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE J: CLEAN CONSTRUCTION OR DEMOLITION DEBRIS
CHAPTER I: POLLUTION CONTROL BOARD

PART 1100
CLEAN CONSTRUCTION OR DEMOLITION DEBRIS FILL OPERATIONS AND
UNCONTAMINATED SOIL FILL OPERATIONS

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<u>1100.750</u>	<u>Alternate Non-Compliance Response Program</u>
<u>1100.755</u>	<u>Corrective Action Program</u>
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AUTHORITY: Implementing Sections 5, 3.160, 22.51, and 22.51a and authorized by Sections 3.160, 22.51, 22.51a, and 27 of the Environmental Protection Act [415 ILCS 5/5, 22.51, 22.51a, and 27].

SOURCE: Adopted in R06-19 at 30 Ill. Reg.14534, effective August 24, 2006; amended in R12-9 at 36 Ill. Reg. 13892, effective August 27, 2012; amended in R12-9(b) at 37 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 1100.103 Definitions

Except as stated in this Section, or unless a different meaning of a word or term is clear from the context, the definition of words or terms in this Part will be the same as that applied to the same words or terms in the Environmental Protection Act [415 ILCS 5]:

“10-year, 24-hour precipitation event” means a precipitation event of 24-hour duration with a probable recurrence interval of once in 10 years.

“100-year, 24-hour precipitation event” means a precipitation event of 24-hour duration with a probable recurrence interval of once in 100 years.

“Acceptable Detection Limit” or “ADL” means the detectable concentration of a substance that is equal to the lowest appropriate Practical Quantitation Limit (PQL) as defined in this Section.

“Act” means the Environmental Protection Act [415 ILCS 5].

“Agency” is the *Illinois Environmental Protection Agency established by the Act.* [415 ILCS 5/3.105]

“Applicant” means the person submitting an application to the Agency for a permit for a CCDD fill operation.

“Aquifer” means saturated (with groundwater) soils and geologic materials which are sufficiently permeable to readily yield economically useful quantities of water to wells, springs, or streams under ordinary hydraulic gradients and whose boundaries can be identified and mapped from hydrogeologic data. (Section 3 of the Illinois Groundwater Protection Act [415 ILCS 55/3])

“Background groundwater quality” means groundwater unaffected by fill site activities as measured by the analytical results of groundwater samples collected from areas of the site or adjacent to the site.

“Board” is the Pollution Control Board established by the Act. [415 ILCS 5/3.105]

“CCDD” means clean construction or demolition debris.

“CCDD fill operation” means a current or former quarry, mine, or other excavation where clean construction or demolition debris is used as fill material. [415 ILCS 5/22.51(e)(3)].

“Clean construction or demolition debris” means uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities. For purposes of this Part, CCDD may include uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, or reclaimed or other asphalt pavement that has been painted (painted CCDD) if the painted CCDD is used as fill material at a CCDD fill operation in accordance with Section 1100. 212. Clean construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads provided the uncontaminated soil is not commingled with any clean construction or demolition debris or other waste. For purposes of this Part, uncontaminated soil may include incidental amounts of stone, rock, gravel, roots, and other vegetation. [415 ILCS 5/3.160(b)]

“Compliance boundary” means a line at the land’s surface that surrounds a CCDD fill operation or uncontaminated soil fill operation and that extends vertically from the ground surface to the bottom of the uppermost aquifer. The distance between the compliance boundary and the edge of the fill operation can be no more than 100 feet or the distance between the property boundary and the edge of the fill operation, whichever is less.

“Compliance point” means a point on or within the compliance boundary at which the concentration of constituents from the fill operation may not cause the groundwater to exceed the Class I groundwater quality standards at 35 Ill. Adm. Code 620.410.

“Cone of depression” means the drawdown of the water table or potentiometric

surface at a fill operation or unit where well pumping alters the groundwater flow such that representative groundwater conditions do not exist.

“Dewatering” means removing water from a fill operation or unit such that a cone of depression is created.

“Documentation” means items, in any tangible form, whether directly legible or legible with the aid of any machine or device, including but not limited to affidavits, certificates, deeds, leases, contracts or other binding agreements, licenses, permits, photographs, audio or video recordings, maps, geographic surveys, chemical and mathematical formulas or equations, mathematical and statistical calculations and assumptions, research papers, technical reports, technical designs and design drawings, stocks, bonds, and financial records, that are used to support facts or hypotheses.

“Facility” means the areas of a site and all equipment and fixtures on a site used for a CCDD fill operation or uncontaminated soil fill operation. A facility consists of an entire fill operation. All structures used in connection with or to facilitate the fill operation will be considered a part of the facility.

“Filled area” means areas within a unit where CCDD or uncontaminated soil has been placed as fill material.

“Fill operation” means a CCDD fill operation or an uncontaminated soil fill operation, as the context requires.

“Mine” means an excavation created for the purpose of extracting ore or minerals, including, but not limited to, coal.

“National Pollutant Discharge Elimination System” or “NPDES” means the program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements under the Clean Water Act (33 USC 1251 et seq.), Section 12(f) of the Act, Subpart A of 35 Ill. Adm. Code 309, and 35 Ill. Adm. Code 310.

“NPDES permit” means a permit issued under the NPDES program.

“Operator” means a person responsible for the operation and maintenance of a fill operation. [415 ILCS 5/22.51(e)(1)]

“Other excavation” means a pit other than a quarry or mine created primarily for the purpose of extracting resources, including , but not limited to, clay or other soil and does not include holes, trenches, or similar earth removal created as part of normal construction, removal, or maintenance of a structure, utility, or transportation infrastructure.

“Owner” means a person who has any direct or indirect interest in a fill operation or in land on which a person operates and maintains a fill operation. A “direct or indirect interest” does not include the ownership of publicly traded stock. The “owner” is the “operator” if there is no other person who is operating and maintaining a fill operation. [415 ILCS 5/22.51(e)(2)]

“Person” is 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. [415 ILCS 5/3.115]

“Potentially impacted property” means property on which a historical or current use, or contaminant migration from a proximate site, increases the presence or potential presence of contamination at the source site.

“Potentially impacted property” is intended to identify soil that is more likely to be contaminated and in need of professional evaluation and certification before placement in a fill site. Source site owners are encouraged to coordinate with the receiving facility on soil certifications. The following should be considered when determining whether property is “potentially impacted property”: the current use of the property, the prior uses of the property, and the prior and current uses of adjoining property. For example, for transportation rights of way or utility easements, the current use of the property as a right of way or easement, the prior and current uses of the property prior to its use as a right of way or easement, and the uses of adjoining property should be considered. One or more of the following environmental site assessment standards or policies, which are incorporated by reference at Section 1100.104, may be used for determining whether a property is “potentially impacted property”:

ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, approved November 1, 2005.

ASTM E 1528-06 Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process, approved February 1, 2006.

Illinois Department of Transportation, Bureau of Design and Environment Manual, Part III Environmental Procedures, Chapter 27 Environmental Surveys, February 2011.

Illinois Department of Transportation, Local Roads and Street Manual, Chapter 20.

Illinois Department of Transportation, “A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of

Transportation Infrastructure Projects”, Second Edition.

Illinois State Toll Highway Authority, “Environmental Studies Manual”, Section F, July 2001.

“Practical Quantitation Limit” or “PQL” means the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions in accordance with “Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods”, EPA Publication No. SW-846, incorporated by reference in Section 1100.104 of this Part.

“Professional engineer” or “PE” means a person who has registered and obtained a seal pursuant to the Professional Engineering Practice Act of 1989 [225 ILCS 325].

“Professional Geologist” or “PG” means a person licensed to practice as a professional geologist pursuant to the Professional Geologist Licensing Act [225 ILCS 745].

“Representative groundwater conditions” means conditions under which the groundwater at a fill operation can be sampled (i) upgradient from the fill operation to obtain samples that represent background groundwater quality and (ii) downgradient from the fill operation to obtain representative samples of groundwater that is potentially affected by the fill operation.

“Quarry” means an open surface excavation or pit created for the purpose of extracting stone, rock, sand and gravel.

“Runoff” means water resulting from precipitation that flows overland before it enters a defined stream channel, any portion of such overland flow that infiltrates into the ground before it reaches the stream channel, and any precipitation that falls directly into a stream channel.

“Salvaging” means the return of CCDD to use other than use as fill at a CCDD fill operation.

“Setback zone” means a geographic area, designated pursuant to the Act, containing a potable water supply well or a potential source or potential route, having a continuous boundary, and within which certain prohibitions or regulations are applicable in order to protect groundwaters. [415 ILCS 5/3.450]

“Site of origin” means the site where the CCDD or uncontaminated soil was generated from construction or demolition activities.

“Source site operator” means a person responsible for the operation of the site of

origin of the CCDD or uncontaminated soil.

“Source site owner” means a person having an ownership interest in the site of origin of the CCDD or uncontaminated soil.

“Uncontaminated soil” means soil generated during construction, remodeling, repair or demolition of utilities, structures and roads that does not contain contaminants in concentrations that pose a threat to human health and safety and the environment. [415 ILCS 5/3.160(c)] Subpart F of this Part establishes standards for soil that is considered uncontaminated for purposes of this Part.

“Uncontaminated soil fill operation” means a current or former quarry, mine, or other excavation where uncontaminated soil is used as fill material but does not include a clean construction or demolition debris fill operation. [415 ILCS 5/22.51a(a)(2)].

“Unit” means a contiguous area within a facility where CCDD or uncontaminated soil is placed as fill material.

“Uppermost aquifer” means the geologic formation nearest the natural ground surface that is an aquifer as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility’s property boundary.

“Working face” means any part of a unit where CCDD or uncontaminated soil is being placed as fill.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

Section 1100.104 Incorporations by Reference

a) The Board incorporates the following material by reference:

ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. (610) 832-9585

ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, approved November 1, 2005.

ASTM E 1528-06 Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process, approved February 1, 2006.

Illinois Department of Transportation, 2300 S. Dirksen Parkway, Springfield IL 62764. (217)782-7820

Bureau of Design and Environment Manual, Part III Environmental Procedures, Chapter 27 Environmental Surveys, September 2010. (Available online at <http://www.dot.il.gov/desenv/Illinois%20BDE%20Manual.pdf>).

Bureau of Local Roads and Street Manual, Chapter 20, Fifth Edition. (Available online at <http://www.dot.il.gov/blr/manuals/Cover.pdf>).

“A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects”, Second Edition, 2012.

Illinois State Toll Highway Authority, 2700 Ogden Avenue, Downers Grove IL 60515. (630) 241-6800. “Environmental Studies Manual”, Chapter VI, Section F, July 2001. (Available online at http://www.illinoistollway.com/documents/10157/30214/PPM_ENVIRONMENTAL+MANUAL_07012001.PDF)

“Human Health Toxicity Values in Superfund Risk Assessments (2003)”. U. S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC, OSWER Directive 9285.7-53, 2003. (Available online at <http://www.epa.gov/oswer/riskassessment/pdf/hhmemo.pdf>.)

IRIS. Integrated Risk Information System, National Center for Environmental Assessment, United States Environmental Protection Agency, 26 West Martin Luther King Drive, MS-190, Cincinnati, OH 45268, (513) 569-7254.

“Reference Dose (RfD): Description and Use in Health Risk Assessments”, Background Document IA (March 15, 1993).

“Guidelines for Carcinogen Risk Assessment (2005)”. U. S. Environmental Protection Agency, Washington, DC, EPA Publication No. EPA/630/P-03/001F, 2005. (Available online at http://www.epa.gov/ttn/atw/cancer_guidelines_final_3-25-05.pdf.)

NTIS. National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (800) 553-6847:

Test Methods for Evaluating Solid Waste, Physical/Chemical methods, EPA Publication SW-846 (Third Edition, 1986 as amended by Updates I, II, IIA, IIB, III, IIIA, IIIB, IVA and IVB).

“RCRA Ground-Water Monitoring: Draft Technical Guidance (1992)”. U. S. Environmental Protection Agency, Washington, DC, EPA Publication No. EPA 530-R-93-001, 1992. (Available online at http://www.epa.gov/osw/hazard/correctiveaction/resources/guidance/sitechar/gwmonitr/rcra_gw.pdf).

“Statistical Analysis of Groundwater Data at RCRA Facilities—Unified Guidance (2009)”. U. S. Environmental Protection Agency, Washington, DC, EPA Publication No. EPA 530/R-09-007, 2009. (Available online at <http://www.epa.gov/waste/hazard/correctiveaction/resources/guidance/sitechar/gwstats/unified-guid.pdf>).

- b) This incorporation includes no later amendments or editions.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

SUBPART D: PROCEDURAL REQUIREMENTS FOR PERMITTING CCDD FILL OPERATIONS

Section 1100.412 Procedures for Closure and Postclosure Maintenance

- a) Notification of Closure

The owner or operator must provide written notification of closure to the Agency within 30 days after the date the owner or operator is deemed to have completed filling under Section 1100.208(a).

- b) Certification of Closure

- 1) When the closure of the facility is complete, the owner or operator must submit to the Agency:
 - A) Documentation concerning closure of the facility, including, but not limited to, plans or diagrams of the facility as closed and the date closure was completed.
 - B) An affidavit by the owner or operator and the seal of a PE or PG that the facility has been closed in accordance with the closure plan and the closure requirements of this Part.
- 2) When the Agency determines, pursuant to the information received pursuant to subsection (b)(1) of this Section and any Agency site inspection, that the facility has been closed in accordance with the specifications of the closure plan and the closure requirements of this Part,

the Agency must:

- A) Issue a certificate of closure; and
- B) Specify the date the postclosure maintenance period begins, based on the date closure was completed.

c) Termination of the Permit

- 1) At the end of the postclosure maintenance period, the owner or operator may submit to the Agency an application for termination of the permit. The application must be submitted in a format prescribed by the Agency and must include, at a minimum, the certification of a PE or PG and the affidavit of the owner or operator demonstrating that, due to compliance with the postclosure maintenance plan and the postclosure maintenance requirements of this Part, postclosure maintenance is no longer necessary because:
 - A) Vegetation has been established on all nonpaved areas;
 - B) The surface has stabilized sufficiently with respect to settling and erosion so that further stabilization measures, pursuant to the postclosure maintenance plan, are no longer necessary; and
 - C) The owner or operator has completed all requirements of the postclosure maintenance plan-; and
 - D) Based on the groundwater monitoring program required under Subpart G of this Part, the fill operation has not contributed to an exceedance of the Class I groundwater quality standards or the background groundwater quality, whichever is higher, during the preceding three years under representative groundwater conditions. Pursuant to subsection 1100.700(b) of this Part, this subsection (D) does not apply to fill operations that (i) have closed and certified closure in accordance with subsection 1100.412(b)(1) of this Part within one year after the effective date of amendments establishing Subpart G and (ii) do not subsequently accept CCDD or uncontaminated soil for use as fill.
- 2) Within 90 days after receiving the certification required by subsection (c)(1), the Agency must notify the owner or operator in writing that the permit is terminated, unless the Agency determines, pursuant to the information received pursuant to subsection (c)(1) and any Agency site inspection, that continued postclosure maintenance is required pursuant to the postclosure maintenance plan and this Part.

- 3) For purposes of appeal pursuant to Section 40(d) of the Act and the appeal provisions of this Part, Agency action pursuant to subsection (c)(2) of this Section is deemed a denial or grant of permit with conditions.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

SUBPART E: UNCONTAMINATED SOIL FILL OPERATIONS

Section 1100.530 Termination of Postclosure Maintenance

At the end of the postclosure maintenance period, the owner or operator must submit a certification by a PE or PG and an affidavit by the owner or operator demonstrating that, due to compliance with the postclosure maintenance plan and the postclosure maintenance requirements of this Part, postclosure maintenance is no longer necessary because:

- a) Vegetation has been established on all nonpaved areas;
- b) The surface has stabilized sufficiently with respect to settling and erosion so that further stabilization measures required by the postclosure maintenance plan are no longer necessary; and
- c) The owner or operator has completed all requirements of the postclosure maintenance plan.; and
- d) Based on the groundwater monitoring program required under Subpart G of this Part, the fill operation has not contributed to an exceedance of the Class I groundwater quality standards or the background groundwater quality, whichever is higher, during the preceding three years under representative groundwater conditions. Pursuant to subsection 1100.700(b) of this Part, this subsection (d) does not apply to fill operations that (i) have closed and certified closure in accordance with subsection 1100.525(b) of this Part within one year after the effective date of amendments establishing Subpart G and (ii) do not subsequently accept uncontaminated soil for use as fill.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

SUBPART G: GROUNDWATER MONITORING

Section 1100.700 Purpose and Applicability

- a) This Subpart contains the procedures of groundwater monitoring to be followed by all owners and operators of CCDD fill operations required to be permitted by Section 22.51 of the Act and by all owners and operators of uncontaminated soil fill operations required to be registered by Section 22.51a of the Act.

- b) This Subpart G does not apply to fill operations that have closed and certified closure in accordance with subsection 1100.412(b)(1) or 1100.525(b) of this Part within one year after the effective date of amendments establishing this Subpart G; provided that Subpart G shall apply to closed fill operations that subsequently accept CCDD or uncontaminated soil for use as fill

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.705 Recordkeeping

Documentation required by this Subpart must be kept at the facility or in some alternative location approved by the Agency until postclosure maintenance is terminated in accordance with Section 1100.412 or Section 1100.530 of this Part. Documentation relating to an appeal, litigation or other disputed claim must be maintained until at least 3 years after the date of the final disposition of the appeal, litigation, or other disputed claim. The owner or operator must make the documents available for inspection and copying by the Agency and by units of local government upon request during normal business hours.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.710 Professional Engineer Supervision

All systems, programs, plans, notifications and reports designed or prepared to comply with this Subpart must be designed or prepared under the supervision of a professional engineer. The professional engineer must affix to all designs, plans, notifications and reports the name of the engineer, date of preparation, registration number, professional seal, and a statement attesting to the accuracy of the information.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.715 Compliance Period

For purposes of this Subpart G, the compliance period is the active life of the fill operation, including the closure and postclosure maintenance periods specified in Subpart B and Subpart E of this Part.

- a) The active life begins when the fill operation first begins operation or one year after the effective date of this Subpart, whichever occurs later.
- b) The active life ends when the postclosure maintenance period ends.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.720 Compliance with Groundwater Quality Standards

The owner or operator must ensure that the fill operation does not cause an exceedence of the

Class I groundwater quality standards at 35 Ill. Adm. Code 620.410. For purposes of the groundwater monitoring required under this Part, the Class I groundwater quality standards shall apply to all fill sites.

- a) The owner or operator must install a groundwater monitoring system in accordance with Section 1100.725 of this Part.
- b) Except as provided Section 1100.760, throughout the compliance period as defined in Section 1100.715, the owner or operator must measure compliance with the Class I groundwater quality standards at the compliance point, or compliance points if more than one such point exists.
- c) The compliance point(s) for each fill operation must be situated on or within the compliance boundary, must be representative of groundwater conditions at the fill operation, and must be determined as part of the design and development of the groundwater monitoring system required pursuant to this Part.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.725 Groundwater Monitoring System

- a) A groundwater monitoring system must be installed in order to monitor groundwater conditions at the fill operation. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths, to yield:
 - 1) Samples that represent the background groundwater quality; and
 - 2) Samples that represent the quality of groundwater that is downgradient from the fill operation or unit with respect to groundwater flow, including both horizontal and vertical directions, and that may be affected by constituents from the fill operation or unit.
- b) If the fill operation contains more than one unit, separate groundwater monitoring systems are not required for each unit, provided that provisions for sampling the groundwater will enable detection and measurement of constituents that have entered the groundwater from each unit.
- c) At a minimum, all monitoring well construction must satisfy the following requirements:
 - 1) Construction must be done in a manner that will enable the collection of groundwater samples;
 - 2) Casings and screens must be made from durable material that is resistant to expected chemical or physical degradation and that does not interfere with

the quality of groundwater samples being collected; and

- 3) The annular space opposite the screened section of the well (i.e., the space between the bore hole and well screen) must be filled with gravel or sand if necessary to collect groundwater samples. The annular space above and below the well screen must be sealed to prevent migration of water from overlying adjacent formations and the surface to the sampled depth.
- d) Monitoring wells designed and constructed as part of the monitoring program shall be maintained along with records that include, but are not limited to, exact well location, well size, type of well, the design and construction practice used in its installation and well and screen depths. Monitoring well construction diagrams must be completed and maintained for each monitoring well on forms prescribed and provided by the Agency.
- e) Monitoring wells that are no longer necessary to the operation of the site must be sealed in accordance with 77 Ill. Adm. Code 920.120.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.730 Groundwater Monitoring Program

The owner or operator must develop a groundwater monitoring program that consists of:

- a) Sampling and analysis procedures to ensure monitoring results that provide a reliable indication of groundwater quality at the site. At a minimum the program must include procedures and techniques for:
 - 1) Sample collection;
 - 2) Sample preservation and shipment;
 - 3) Analytical procedures; and
 - 4) Chain of custody control.
- b) Sampling and analytical methods that are appropriate for groundwater monitoring and that allow for detection and quantification of monitoring parameters specified in Section 1100.735, and that are consistent with the sampling and analytical methods specified in 35 Ill. Adm. Code 620.
- c) A determination of the groundwater head elevation each time groundwater is sampled.
- d) A determination at least annually of the groundwater flow rate and direction.

- e) If the owner or operator determines that the groundwater monitoring program no longer satisfies the requirements of this Section, the owner or operator must, within 90 days, make appropriate changes to the program. Conditions under which a groundwater monitoring program no longer satisfies the requirements of this Section include, but are not limited to, a determination that groundwater flow conditions, conducted pursuant to subsection (d), have changed a well(s) upgradient /downgradient status.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.735 Monitoring Parameters

Except for the parameters listed in Part 1100, Appendix A, the owner or operator must monitor for all parameters for which there is a Class I groundwater quality standard at 35 Ill. Adm. Code 620.410.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.740 Sampling Frequency

At least annually throughout the compliance period the owner or operator must collect samples from all groundwater monitoring wells, analyze the samples for all parameters described in Section 1100.735, determine whether Class I groundwater quality standards have been exceeded, and maintain a report of the results.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.745 Non-Compliance Response Program

If monitoring results collected pursuant to Sections 1100.735 and 1100.740 show that a Class I groundwater quality standard has been exceeded, the owner or operator must:

- a) Within 60 days of the date the groundwater sample was collected, notify the Agency in writing of the exceedance. The notification must indicate which Class I groundwater quality standards have been exceeded, include the analytical results showing the exceedance, and identify the groundwater monitoring well where the exceedance has occurred.
- b) Within 60 days of the date the groundwater sample was collected, resample the groundwater in all monitoring wells where a Class I groundwater quality standard has been exceeded and measure the concentration of each parameter required pursuant to Section 1100.735. Where a Class I groundwater quality standard has been exceeded a report of the results should be prepared and submitted to the Agency within 60 days of the date of the re-sampling.

- c) Prepare a corrective action program designed to achieve the requirements of Section 1100.755. This plan must be submitted to the Agency in writing within 120 days of the date on which the re-sampling results were submitted to the Agency pursuant to subsection (b), unless the owner or operator makes a demonstration pursuant to Section 1100.750.
- d) Begin implementation of the corrective action program specified in subsection (c) within 120 days of the date on which the re-sampling results were submitted to the Agency pursuant to subsection (b), unless the owner or operator makes a demonstration pursuant to Section 1100.750.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.750 Alternate Non-Compliance Response Program

If the groundwater sampling required pursuant to Section 1100.740 shows that a Class I groundwater quality standard has been exceeded, the owner or operator may demonstrate that the exceedance resulted from i) natural phenomena, sampling or analysis errors, or an offsite source, ii) that the exceedance is not statistically significant over background groundwater quality, or iii) that none of the parameters identified under subsection 1100.745(b) exceed the Class I groundwater quality standards. In making such demonstration the owner or operator must:

- a) Submit a report to the Agency that demonstrates i) that the Class I groundwater quality standard was exceeded due to natural phenomena, sampling or analysis errors, or an offsite source, ii), that the exceedance is not statistically significant over background groundwater quality, or iii) that none of the parameters identified under subsection 1100.745(b) exceed the Class I groundwater quality standards. The report must be submitted to the Agency in writing within 180 days of the date on which the Agency was notified in writing of the exceedance pursuant to Section 1100.745(a); and
- b) Continue to monitor in accordance with the groundwater monitoring program established pursuant to Sections 1100.730, 1100.735, and 1100.740.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.755 Corrective Action Program

Owners and operators required to conduct a corrective action program pursuant to this Subpart must:

- a) Begin corrective action pursuant to Section 1100.745(d) within 120 days of the date on which the re-sampling results were submitted to the Agency pursuant to Section 1100.745(b);
- b) Take corrective action that results in a demonstration at the compliance point(s)

that the fill operation does not contribute to an exceedance of the Class I groundwater quality standards or the background groundwater quality, whichever is higher;

- c) Establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program, including, but not limited to, quarterly groundwater sampling and analysis;
- d) Take corrective action that achieves compliance with 35 Ill. Adm. Code 620 beyond the fill operation's property boundary unless the owner or operator is unable to obtain access to the off-site property to undertake such action. The inability to obtain access to take corrective action beyond the fill operation's property boundary does not relieve the owner or operator of liability for corrective action required beyond the fill operation's property boundary to achieve compliance with 35 Ill. Adm. Code 620;
- e) Continue corrective action measures until the owner or operator can demonstrate to the Agency, based on data from the groundwater monitoring program under subsection (c), that for a period of three consecutive years the fill operation has not caused an exceedance of the Class I groundwater quality standards or the background groundwater quality, whichever is higher;
- f) Report in writing to the Agency on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually beginning 90 days after corrective action commences pursuant to Section 1100.745(d); and
- g) If the owner or operator of the fill operation determines that the corrective action program no longer satisfies the requirements of this Section, the owner or operator must, within 90 days, make appropriate changes to the program and report the changes to the Agency.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100.760 Dewatering Fill Operations

- a) A CCDD fill operation or uncontaminated soil fill operation that is dewatering may delay compliance with Sections 1100.715 through 1100.755 provided the owner or operator:
 - 1) Demonstrates in a report that a cone of depression has been established at the fill operation; and
 - 2) Sends a notification by January 30 of each year to the Illinois EPA that the cone of depression at the fill operation has been maintained for the preceding year or since the cone of depression was established, and is

intended to be maintained for the next 12 months.

- b) One year after dewatering ceases, the owner or operator must be in compliance with the groundwater monitoring requirements of 1100.715 through 1100.755.

(Source: Added at 37 Ill. Reg. _____, effective _____)

Section 1100. Appendix A: List of parameters for which groundwater samples collected for Part 1100, Subpart G groundwater monitoring. do not need to be routinely analyzed:

Radium-226

Radium-228

Tritium

Strontium-90

1,3-Dinitrobenzene

2,4-Dinitrotoluene

2,6-Dinitrotoluene

HMX (High Melting Explosive, Octogen)

Nitrobenzene

RDX (Royal Demolition Explosive, Cyclonite)

1,3,5-Trinitrobenzene

2,4,6-Trinitrotoluene (TNT)

(Source: Added at 37 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

Board Member J. A. Burke abstains.

Board Member C.K. Zalewski abstains.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on March 21, 2013, by a vote of 3-0.



John T. Therriault, Assistant Clerk
Illinois Pollution Control Board