OHIO E.P.A.
OCT 31 2011
ENTERED DIRECTOR'S JOURNAL

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Waste Management of Ohio, Inc.:
P.O. Box 13506:
Dayton, OH 45413
Respondent

Director's Final Findings and Orders

Facility:

Seriff Road Landfill
1136 Seriff Road
Lima, OH 45805

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By Doug Lasster Date: 10-31-11

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are hereby issued to Waste Management of Ohio, Inc. (Respondent) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Sections 3734.02(G), 3734.13 and 3745.01 of the Ohio Revised Code (ORC).

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondent, its assigns, and successors in interest. No changes in ownership relating to the Seriff Road Landfill will in any way alter the Respondent's responsibilities under these Orders. Respondent shall provide a copy of these Orders to all contractors, subcontractors, laboratories and consultants retained as appropriate. Respondent shall ensure that all contractors, subcontractors, laboratories and consultants retained comply with the provisions contained herein. Respondent's obligations under these Orders may be altered only by written approval of the Director of Ohio EPA.

III. DEFINITIONS

Unless otherwise expressly stated herein, all terms in these Orders have the same meaning

as used in ORC Chapter 3734 and the rules promulgated there under.

IV. FINDINGS OF FACT

The Director of Ohio EPA makes the following findings:

1. Respondent is the owner and operator of the Seriff Road Landfill Facility, located at 1136 Seriff Road, Lima, Allen County, Ohio (Facility), which is identified in Deed Record Volume 581, Page 409, in the Allen County Recorder's Official Records.

2. The Facility is a "sanitary landfill facility" as defined in Ohio Administrative Code (OAC) Rule 3745-27-01(T) effective July 29, 1976.

3. The Facility began accepting waste for disposal as the City of Lima Dump in the 1940's. Terminal Service company of Cincinnati (TSCC operated the site as a landfill from 1963 until it went bankrupt in 1976 (a bank retained ownership). Plan approval for operation of the landfill was issued to TSCC on November 20, 1969, by the Ohio Department of Health. Astro Disposal Company a successor to TSCC operated the site for the bank for two months in 1976. The site was inactive from May of 1976 until SCA reopened the site in July 1984. Ohio Waste Systems, Inc. (OWS) a division of WMNA acquired the landfill in 1984 as part of the SCA acquisition. OWS operated the site until its closure.

4. Pursuant to OAC Rule 3745-27-10(A)(2), as that rule was effective on July 29, 1976, the Facility was deemed closed on December 31, 1986. Closure activities included installation of an in-waste active landfill gas control system. Except for ground water and explosive gas monitoring, post-closure care activities for the facility ended on December 31, 1989.

5. Respondent was notified by a letter from Ohio EPA on December 21, 1988, that the Facility was impacting the ground water beneath the site.

6. Respondent was notified by letter from Ohio EPA dated December 6, 1989, that the monitoring period, pursuant to OAC 3745-27-10(H)(3), as effective on July 29, 1976, was being extended beyond the three year period established by OAC Rule 3745-27-10(G), as effective on July 29, 1976.

7. An out-of-waste landfill gas control system was installed at the Facility in 1990. The system was comprised of seven active landfill gas control wells.

8. In September 1990, Respondent collected ground-water samples from wells at 10 residences on Seriff Road and Springview Drive. Analytical results from the residential samples were submitted to Ohio EPA on December 26, 1990.

9. In a letter to Respondent dated February 19, 1991, Ohio EPA concurred that the sampling results indicated that the ground-water quality of residential wells downgradient of the facility had not been affected by the facility.

10. A contaminant migration assessment report, dated February 1992, was submitted to Ohio EPA which documented the rate, extent, and concentration of contamination in the ground water. According to the Respondent's report, the contaminated ground water extended approximately 75 feet east of the site, beneath residential properties, and the ground water flow rate was calculated to be 40 feet per year toward the northeast.

11. On June 30, 1993, Director's Final Findings and Orders (June 30, 1993, Orders) were issued, ordering Respondent to submit a corrective measures study (CMS) within 180 days of the effective date of the orders due to the Director's determination that the Facility was impacting the underlying ground water. The June 30, 1993, Orders also required Respondent to achieve compliance with OAC Rule 3745-27-10, as the rule was effective March 1, 1990. Pursuant to the Director's June 30, 1993 Final Findings and Orders, Respondent submitted a CMS to Ohio EPA on December 23, 1993.

12. In October 1996, the seven out-of-waste gas control wells and nine in-waste landfill gas extraction wells were decommissioned. Nine new in-waste gas extraction wells were installed.

13. The final version (Revision 2) of the CMS was received by Ohio EPA on July 16, 1997. On March 20, 1998, Ohio EPA approved the CMS, which included the requirement to continue compliance monitoring with the following conditions set forth on page one of the Director's approval letter:

    a. "The owner/operator shall perform an Appendix II sampling event for all affected and upgradient wells in the ground water monitoring network. If any Appendix II parameters are detected from this event at any downgradient wells at concentrations greater than those at upgradient wells, the owner/operator shall re-implement ground water assessment monitoring activities in accordance with OAC 3745-27-10(E) for the well(s) of concern. If no Appendix II parameters are detected from this event at any downgradient wells at concentrations greater than those at upgradient wells, the owner/operator shall continue to perform the semi-annual and annual sampling events for the parameters noted in Revision 2 of the CMS."

    b. "The owner/operator shall perform compliance monitoring in accordance with the parameter list and schedule in Revision 2 of the CMS (dated July 1997). If the concentration levels shown on Table 6 of Revision 2 of the CMS are exceeded in two consecutive confirmed events, an Appendix II sampling shall be performed at that well. If a confirmed MCL or health-based risk is determined in two successive sampling events, then the ground-water conditions shall be reevaluated to determine if a specific remedial procedure(s) shall be implemented."

14. Respondent requested and Ohio EPA terminated the June 30, 1993, Orders as documented in correspondence from Ohio EPA to Respondent dated July 17, 1998.

15. In 1993, Respondent provided connections to the municipal water supply at

13 residences on Seriff Road and Springview Drive downgradient of the Facility. Wells at eight of the residences were decommissioned in 1998. Two of the eight residences had two wells on their respective properties so 10 residential wells were decommissioned in 1998. A "Residential Well Sealing Report" dated December 1998 was submitted to Ohio EPA by Respondent. One additional residential well was decommissioned in 1999. A Residential Well Abandonment Report was submitted to OEPA by the Respondent in November 1999.

16. In August and September 1999, five unused monitoring wells and two piezometers at the Facility were decommissioned. Decommissioning procedures were documented by the Respondent in the "Piezometer and Monitoring Well Decommissioning Report" (Eagon & Associates, Inc., February 2, 2000). Respondent represents that the residential well at 795 Seriff Road also was decommissioned in 2001.

17. A revision to the CMS to revise Proposed Concentration Levels was submitted by Respondent and approved by Ohio EPA on February 2, 2001.

18. The maximum contaminant level (MCL) for barium was exceeded at monitoring well SRD-04 during the October 16, 2001 semi-annual sampling event (4.4mg/L) and confirmed during the December 17, 2001 resampling event (3.6 mg/L). This represented the first sampling event during which an MCL was exceeded at the Facility.

19. The MCL for barium was again exceeded at monitoring well SRD-04 during the April 10, 2002, semi-annual sampling event (3.2 mg/L) and confirmed during the May 23, 2002, resampling event (4.4 mg/L). This represented the second successive sampling event during which an MCL was exceeded at the Facility.

20. Pursuant to the CMS, Respondent submitted a re-evaluation of the corrective measures to Ohio EPA on August 30, 2002.

21. In a letter dated December 6, 2002, Ohio EPA notified Respondent of Ohio EPA's determination that the barium concentration increases at SRD-04 indicated a new leachate release.

22. In January to March 2003, Respondent performed an investigation of the extent of elevated barium levels downgradient of SRD-04 including installation of two new monitoring wells, completion of six Geoprobe borings, and collection and analysis of 19 ground-water samples from the Geoprobe borings and four ground-water samples from monitoring wells. A "Barium Investigation" report documenting the Respondent's sampling activities and results of the investigation was submitted by Respondent to Ohio EPA on May 5, 2003.

23. In May and June 2003, 10 passive gas vents were installed between the landfill and Seriff Road. Installation of the gas vents was documented by Respondent in a "Gas Vent Installation" report dated August 6, 2003.

24. On June 11, 2003, Director's Final Findings and Orders (June 11, 2003, Orders) were issued in accordance with OAC Rule 3745-27-10(F)(4), as effective on March 1, 1990. The June 11, 2003, Orders required Respondent to complete interim measures including verifying the status of residential well use, collecting samples from identified residential wells downgradient of the contamination (pending well owner permission) and notifying the well owners of the contamination and the results of the sampling. The June 11, 2003, Orders addressed Ohio EPA's ongoing concerns regarding the continued detections of barium above MCLs in monitoring well SRD-04 and the resulting threat to human health or the environment due to the potential off-site migration of barium contamination and the identification of downgradient groundwater wells in proximity of the Facility. Pursuant to the Director's Final Findings and Orders, Respondent submitted a report (Residential Water Use and Water Quality, Eagon & Associates, Inc., August 25, 2003) documenting the results of residential water use investigations and water-quality analyses and demonstrating compliance with the June 11, 2003 Orders.

25. Respondent requested and Ohio EPA terminated the June 11, 2003, Orders as documented in correspondence from Ohio EPA to Respondent dated July 28, 2004.

26. In July and August 2004, Respondent performed additional field investigations of the extent of elevated barium levels downgradient of SRD-04. This investigation included completion of five Geoprobe borings; three on site and two off-site east of Seriff Road. The results of the Respondent's investigations were documented in a "2004 Addendum to Barium Investigation" report submitted to Ohio EPA in October 2004.

27. In September 2004, two passive gas vents were installed between the landfill and Seriff Road.

28. Respondent submitted a revised CMS to Ohio EPA for approval on December 21, 2004, pursuant to OAC Rule 3745-27-10, as effective March 1, 1990.

29. An observed gradual increasing trend for ammonia at MW-101, screened in the lower sand zone was documented in a letter from Ohio EPA to Respondent dated December 22, 2004.

30. Ohio EPA notified Respondent in a letter dated January 27, 2005, that Respondent had been in violation of OAC Rule 3745-27-10(F)(1)(c), as effective March 1, 1990, for twenty-five (25) months, for failing to revise the corrective measures program at the site in a manner that will control the source of the release of contaminants.

31. Respondent submitted a proposed revision to the CMS to Ohio EPA in March 2005.

32. Respondent met with Ohio EPA in April 2006 to discuss water quality at the Facility, the regulatory status of the Facility, and the proposed CMS revision.

33. OAC Rule 3745-27-10, as effective March 1, 1990, was subsequently amended on June 1, 1994.

34. Thereafter, OAC Rule 3745-27-10, as effective June 1, 1994, was subsequently amended on August 15, 2003.

35. Ohio EPA and Respondent desire to continue regulating compliance at the Facility in accordance with OAC Rule 3745-27-10, as effective March 1, 1990, in light of the previously issued June 30, 1993 Orders, the June 11, 2003 Orders, and the existing CMS, all of which were issued under the 1990 ground water monitoring regulations.

36. A copy of OAC Rule 3745-27-10, as effective March 1, 1990, is attached to this order as Exhibit A and incorporated as if fully written.

37. Ohio EPA has determined that compliance with OAC Rule 3745-27-10, as effective March 1, 1990, is protective of human health and safety and the environment, and appropriate for continued use at this Facility.

38. Respondent represents that the residential well at 3355 Springview Drive was decommissioned when the residence was demolished by Allen County as part of the Eastown Road Extension project.

39. In June 2003, Eagon & Associates investigated water use at residences within 1000 feet downgradient of the Landfill. A survey to determine the status of the residential wells was performed in October 2010. The residential well at 1145 Seriff Road is still in place and is not in use. The property owner will not grant respondent access to abandon the well. The residence is connected to the municipal water supply. The residential well at 3438 Springview Drive was abandoned in September 2011.

40. Respondent has prepared a revised corrective measures study dated October 2011 ("October 2011 CMS") including ground water monitoring pursuant to OAC 3745-27-10, effective March 1, 1990. The October 2011 CMS is attached to these Orders as Exhibit B. Table 1 of the October 2011 CMS includes the results of October 2010 survey of the residential water wells located within 1000 feet downgradient of the Landfill.

41. In June, 2009 Respondent installed three (3) passive gas vents in close proximity to ground water monitoring well SRD-04 pursuant to the plans and specifications provided for in the October 2011 CMS.

42. On January 8, 2010, Respondent submitted to Ohio EPA and to the Allen County Health Department a certification report regarding the installation of the three (3) passive gas vents pursuant to the October 2011 CMS.

43. Respondent initiated the annual sampling of all the off-site downgradient wells within 1000 feet of the facility in October 2010.

44. Pursuant to ORC Section 3745.02(G), Ohio EPA has determined that granting Respondent an exemption from the ground water monitoring procedures as required in OAC Rule 3745-27-10, as effective August 15, 2003, and allowing the Facility to continue ground water monitoring procedures in accordance with OAC Rule 3745-27-10, as effective March 1, 1990, and the October 2011 CMS (Exhibit B) is unlikely to adversely affect the public health or safety or the environment.

V. ORDERS

The Director hereby issues the following Orders:

1. Pursuant to ORC Section 3745.02(G), an exemption is granted to the Respondent from the requirements of OAC Rule 3745-27-10, as effective August 15, 2003 for the Facility.

2. The revised Corrective Measures Study dated October, 2011 ("October 2011 CMS") and submitted to Ohio EPA by Respondent is attached as Exhibit B to these Findings and Orders and is hereby approved. Respondent shall continue to implement the approved October 2011 CMS pursuant to these Orders.

3. Respondent shall comply with the requirements of OAC Rule 3745-27-10, as effective March 1, 1990, and the approved October 2011 CMS for the Facility. A complete copy of OAC Rule 3745-27-10, as effective March 1, 1990, is attached as Exhibit A and incorporated herein as if fully written. No other provision of the Ohio Solid Waste regulations effective March 1, 1990 applies to the facility.

4. Respondent shall measure the success of the approved October 2011 CMS identified in Order No. 2 on a semi-annual basis beginning on the third anniversary of the date of these Orders.

5. Any proposed revisions to the October 2011 CMS attached as Exhibit B shall be submitted to Ohio EPA, NWDO for review and approval. Ohio EPA may approve the proposed revisions to the October 2011 CMS or may send Respondent a notice of deficiency indicating where the proposed revisions to the October 2011 CMS are deficient. Upon receipt of a notice of deficiency to the proposed revisions to the October 2011 CMS, Respondent may further revise the October 2011 CMS to address all identified deficiencies and resubmit the revised October 2011 CMS to Ohio EPA for approval.

6. Unless otherwise specified herein, Respondent shall submit all documents or notifications required by these Orders to be submitted to Ohio EPA, to the following address:

Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
ATTN: DMWM Inspector Supervisor

7. Unless otherwise specified herein, Respondent shall submit all documents or notifications required by these Orders to be submitted to the Allen County Health Department, to the following address:

Allen County Health Department
PO Box 1503
219 East Market Street
Lima, Ohio 45802-1503
ATTN: Environmental Health Director

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of the Enforcement Coordinator for Ohio EPA's Division of Materials and Waste Management that all obligations under these Orders have been performed and the Ohio EPA approves the certification in writing. Satisfaction of the Ohio EPA is achieved once Respondent has demonstrated on a semiannual basis for a period of five years that the designated PCL's have not been exceeded per OAC 3745-27-10(F)(8), effective March 1, 1990.

The certification shall contain the following attestation from Respondent: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent.

VI. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, Respondent or the Facility unless specifically identified.

VII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent or the Facility.

Nothing in these Orders shall be construed to authorize any waiver from the requirements of applicable state solid waste laws or regulations. This authorization shall not be interpreted to release Respondent or others from responsibility under ORC Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants from the facility to the environment.

VIII. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

IX. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against Respondent for noncompliance with these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require Respondent to perform additional activities pursuant to ORC Chapter 3734. or any other applicable law in the future. Nothing herein shall restrict the right of Respondent to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of Respondent. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

X. WAIVER

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated, or modified.

XI. EFFECTIVE DATE

The effective date of the Orders is the date these Orders are entered into the Ohio EPA Director's Journal.

XII. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

ORDERED AND AGREED:

Ohio Environmental Protection Agency

Scott J. Nally, Director

AGREED:

Waste Management of Ohio, Inc.

Signature

20 Oct 2011
Date

James Feeney
Printed or Typed Name

Area Director - CSMG
Title

Exhibit A

OAC Rule 3745-27-10 (effective March 1, 1990)

3745-27-10 GROUND WATER MONITORING PROGRAM.

(A) ALL NEW SANITARY LANDFILL FACILITIES, ALL LATERAL AND VERTICAL EXPANSIONS OF SANITARY LANDFILL FACILITIES, AND ALL SANITARY LANDFILL FACILITIES UNDERGOING CLOSURE ACCORDING TO RULE 3745-27-11 OF THE ADMINISTRATIVE CODE, SHALL IMPLEMENT A PROGRAM CAPABLE OF DETERMINING THE IMPACT OF THE SANITARY LANDFILL FACILITY ON THE QUALITY OF GROUND WATER OCCURRING WITHIN THE UPPERMOST AQUIFER SYSTEM AND ALL SIGNIFICANT ZONES OF SATURATION ABOVE THE UPPERMOST AQUIFER SYSTEM UNDERLYING THE SANITARY LANDFILL FACILITY. THE GROUND-WATER MONITORING PROGRAM SHALL COMPLY WITH PARAGRAPHS (B) TO (F) OF THIS RULE. ALL FACILITIES WHICH ARE, OR WILL BE, SUBJECT TO PARAGRAPH (L) OF RULE 3745-27-11 OF THE ADMINISTRATIVE CODE SHALL IMPLEMENT A GROUND WATER MONITORING PROGRAM NO LATER THAN SEPTEMBER 30, 1991.

(B) (1) A GROUND-WATER MONITORING SYSTEM SHALL CONSIST OF A SUFFICIENT NUMBER OF WELLS, INSTALLED AT APPROPRIATE LOCATIONS AND DEPTHS, TO YIELD GROUND-WATER SAMPLES FROM BOTH THE UPPERMOST AQUIFER SYSTEM AND ANY SIGNIFICANT ZONES OF SATURATION THAT EXIST ABOVE THE UPPERMOST AQUIFER SYSTEM THAT:

(a) REPRESENT THE QUALITY OF THE GROUND WATER THAT HAS NOT BEEN AFFECTED BY PAST OR PRESENT OPERATIONS AT THE SANITARY LANDFILL FACILITY; AND

(b) REPRESENT THE QUALITY OF THE GROUND WATER PASSING DIRECTLY DOWNGRADIENT OF THE LIMITS OF SOLID WASTE PLACEMENT.

(2) WHERE THE UPPERMOST AQUIFER SYSTEM EXISTS MORE THAN ONE HUNDRED FIFTY FEET BENEATH THE RECOMPACTED CLAY LINER OF THE SANITARY LANDFILL FACILITY, THE GROUND-WATER MONITORING SYSTEM SHALL CONSIST OF A SUFFICIENT NUMBER OF

WELLS, INSTALLED AT APPROPRIATE LOCATIONS AND DEPTHS, TO YIELD GROUND-WATER SAMPLES FROM AN ADEQUATE NUMBER OF SIGNIFICANT ZONES OF SATURATION, IN ACCORDANCE WITH PARAGRAPHS (B)(1)(a) AND (B)(1)(b) OF THIS RULE, TO ENSURE DETECTION OF ANY CONTAMINANT RELEASE FROM THE FACILITY.

(3) ALL MONITORING WELLS SHALL BE DESIGNED, INSTALLED, AND DEVELOPED IN A MANNER THAT ALLOWS THE COLLECTION OF GROUND-WATER SAMPLES THAT ARE REPRESENTATIVE OF GROUND-WATER QUALITY IN THE GEOLOGIC UNIT BEING MONITORED. AT A MINIMUM:

(a) MONITORING WELLS SHALL BE CASED IN A MANNER THAT MAINTAINS THE INTEGRITY OF THE MONITORING WELL BOREHOLES; AND

(b) THE ANNULAR SPACE (I.E., THE SPACE BETWEEN THE BOREHOLE AND THE WELL CASING) ABOVE THE SAMPLING DEPTH SHALL BE SEALED TO PREVENT THE CONTAMINATION OF THE SAMPLES AND THE GROUND WATER; AND

(c) THE CASING SHALL BE SCREENED OR PERFORATED AND SURROUNDED BY SAND OR GRAVEL IN SUCH A WAY THAT ALLOWS:

(i) FOR THE MINIMIZATION OF THE PASSAGE OF FORMATION MATERIALS INTO THE WELL; AND

(ii) FOR THE MONITORING OF DISCRETE PORTIONS OF THE UPPERMOST AQUIFER SYSTEM OR ANY SIGNIFICANT ZONES OF SATURATION ABOVE THE UPPERMOST AQUIFER SYSTEM; AND

(d) THE DESIGN, INSTALLATION, DEVELOPMENT, AND ABANDONMENT OF ANY MONITORING WELLS, PIEZOMETERS, AND OTHER MEASUREMENT, SAMPLING, AND ANALYTICAL DEVICES SHALL BE DOCUMENTED IN THE OPERATING RECORD; AND

(e) THE MONITORING WELLS, PIEZOMETERS, AND OTHER MEASUREMENT, SAMPLING, AND ANALYTICAL DEVICES SHALL BE OPERATED AND MAINTAINED TO PERFORM TO DESIGN SPECIFICATIONS THROUGHOUT THE LIFE OF THE MONITORING PROGRAM.

(4) THE NUMBER, SPACING, AND DEPTH OF GROUND-WATER MONITORING WELLS SHALL BE:

(a) BASED ON SITE SPECIFIC HYDROGEOLOGIC INFORMATION; AND

(b) CAPABLE OF DETECTING A RELEASE FROM THE SANITARY LANDFILL FACILITY TO THE GROUND WATER AT THE CLOSEST PRACTICABLE LOCATION TO THE LIMITS OF SOLID WASTE PLACEMENT.

(5) UNLESS THE GROUND WATER IS MONITORED TO SATISFY THE REQUIREMENTS OF PARAGRAPHS (E) AND (F) OF THIS RULE, THE PERMITTEE SHALL, AT LEAST ANNUALLY, EVALUATE THE GROUND-WATER SURFACE ELEVATION DATA OBTAINED IN ACCORDANCE WITH PARAGRAPH (C)(2) OF THIS RULE TO DETERMINE WHETHER THE REQUIREMENTS OF PARAGRAPH (B) OF THIS RULE FOR LOCATING THE MONITORING WELLS CONTINUE TO BE SATISFIED. THE RESULTS OF THIS EVALUATION SHALL BE INCLUDED IN THE REPORT REQUIRED IN ACCORDANCE WITH PARAGRAPH (X) OF RULE 3745-27-09 OF THE

ADMINISTRATIVE CODE. IF THE EVALUATION SHOWS THAT PARAGRAPH (B) OF THIS RULE IS NO LONGER SATISFIED, THE PERMITTEE SHALL IMMEDIATELY MODIFY THE NUMBER, LOCATION, AND/OR DEPTH OF THE MONITORING WELLS TO BRING THE GROUND-WATER MONITORING SYSTEM INTO COMPLIANCE WITH THIS REQUIREMENT.

(C) (1) THE GROUND-WATER MONITORING PROGRAM SHALL INCLUDE CONSISTENT SAMPLING AND ANALYSIS PROCEDURES THAT ARE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT AND THAT ARE DESIGNED TO ENSURE MONITORING RESULTS THAT PROVIDE AN ACCURATE REPRESENTATION OF GROUND-WATER QUALITY AT THE BACKGROUND AND DOWNGRADIENT WELLS INSTALLED IN ACCORDANCE WITH PARAGRAPH (B) OF THIS RULE. SAMPLING AND ANALYSIS PROCEDURES EMPLOYED IN THE GROUND-WATER MONITORING PROGRAM SHALL BE DOCUMENTED IN A WRITTEN PLAN WHICH SHALL BE AVAILABLE FOR INSPECTION AT THE SANITARY LANDFILL FACILITY. THIS PLAN SHALL, AT A MINIMUM, INCLUDE A DETAILED DESCRIPTION OF THE EQUIPMENT, PROCEDURES, AND TECHNIQUES TO BE USED FOR:

(a) MEASUREMENT OF GROUND-WATER ELEVATIONS; AND

(b) DETECTION OF IMMISCIBLE LAYERS; AND

(c) COLLECTION OF GROUND-WATER SAMPLES, INCLUDING:

(i) WELL EVACUATION; AND

(ii) SAMPLE WITHDRAWAL; AND

(iii) SAMPLE CONTAINERS AND HANDLING; AND

(iv) SAMPLE PRESERVATION; AND

(d) PERFORMANCE OF FIELD ANALYSIS, INCLUDING:

(i) PROCEDURES AND FORMS FOR RECORDING RAW DATA AND THE EXACT LOCATION, TIME, AND FACILITY-SPECIFIC CONDITIONS ASSOCIATED WITH THE DATA ACQUISITION; AND

(ii) CALIBRATION OF FIELD DEVICES; AND

(e) DECONTAMINATION OF EQUIPMENT; AND

(f) ANALYSIS OF GROUND-WATER SAMPLES; AND

(g) CHAIN OF CUSTODY CONTROL, INCLUDING:

(i) STANDARDIZED FIELD TRACKING REPORTING FORMS TO RECORD SAMPLE CUSTODY IN THE FIELD PRIOR TO AND DURING SHIPMENT; AND

(ii) SAMPLE LABELS CONTAINING ALL INFORMATION NECESSARY FOR EFFECTIVE SAMPLE TRACKING; AND

(h) FIELD AND LABORATORY QUALITY ASSURANCE AND QUALITY CONTROL, INCLUDING:

(i) COLLECTION OF REPLICATE SAMPLES; AND

(ii) SUBMISSION OF FIELD-BIAS BLANKS; AND

(iii) POTENTIAL INTERFERENCES.

(2) GROUND-WATER ELEVATIONS SHALL BE MEASURED IN EACH WELL IMMEDIATELY PRIOR TO PURGING AND SAMPLING. THE PERMITTEE SHALL DETERMINE, FOR THE UPPERMOST AQUIFER SYSTEM AND FOR ALL SIGNIFICANT ZONES OF SATURATION MONITORED, THE DIRECTION OF GROUND-WATER FLOW EACH TIME GROUND-WATER ELEVATION MEASUREMENTS ARE PERFORMED.

(3) THE PERMITTEE SHALL ESTABLISH BACKGROUND GROUND-WATER QUALITY, UNLESS THE EXCEPTION IN PARAGRAPH (C)(4) OF THIS RULE APPLIES, BY ANALYZING GROUND-WATER SAMPLES COLLECTED FROM HYDRAULICALLY UPGRADIENT WELLS(S) FOR EACH OF THE MONITORING PARAMETERS OR CONSTITUENTS REQUIRED IN THE PARTICULAR GROUND-WATER MONITORING PROGRAM THAT APPLIES TO THE SANITARY LANDFILL FACILITY AS DETERMINED BY PARAGRAPHS (D), (E), OR (F) OF THIS RULE.

(4) BACKGROUND GROUND-WATER QUALITY AT EXISTING SANITARY LANDFILL FACILITIES MAY BE BASED ON SAMPLING OF WELLS THAT ARE NOT HYDRAULICALLY UPGRADIENT WHERE:

(a) HYDROGEOLOGIC CONDITIONS DO NOT ALLOW THE PERMITTEE TO DETERMINE WHICH WELLS ARE UPGRADIENT; AND

(b) SAMPLING OF OTHER WELLS WILL PROVIDE AN INDICATION OF BACKGROUND GROUND-WATER QUALITY THAT IS AS REPRESENTATIVE OR MORE REPRESENTATIVE THAN THAT PROVIDED BY UPGRADIENT WELLS.

(5) THE PERMITTEE SHALL SPECIFY ONE OF THE FOLLOWING STATISTICAL METHODS TO BE USED, FOLLOWING THE APPROVAL OF THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE, IN EVALUATING GROUND-WATER MONITORING DATA. THE STATISTICAL METHOD CHOSEN SHALL BE CONDUCTED SEPARATELY FOR EACH OF THE PARAMETERS REQUIRED TO BE STATISTICALLY EVALUATED IN PARAGRAPH (D)(4) OF THIS RULE. IF THE PERMITTEE CHOOSES TO USE PRACTICAL QUANTIFICATION LIMITS (PQL'S) IN ANY OF THE FOLLOWING STATISTICAL PROCEDURES IN ORDER TO COMPLY WITH PARAGRAPH (C)(6) OF THIS RULE, THE PERMITTEE SHALL USE THE PQL'S AS PROVIDED FOR THE VOLATILE ORGANIC COMPOUNDS (VOCS) LISTED IN APPENDIX I OF THIS RULE. IF THE PERMITTEE CAN DEMONSTRATE THAT ANY ALTERNATE PQL IS MORE APPROPRIATE FOR THE VOCS LISTED IN APPENDIX I OF THIS RULE, OR IF THE PERMITTEE CHOOSES TO USE PQL'S FOR ANOTHER CONSTITUENT NOT LISTED IN APPENDIX I OF THIS RULE, THEN THE PQL MUST BE PROPOSED BY THE PERMITTEE AND APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE BEFORE THE PQL CAN BE USED. THE STATISTICAL METHOD SPECIFIED SHALL ENSURE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT AND SHALL COMPLY WITH THE PERFORMANCE STANDARDS OUTLINED IN PARAGRAPH (C)(6) OF THIS RULE. THE STATISTICAL METHOD SPECIFIED SHALL BE SELECTED FROM THE FOLLOWING:

(a) A PARAMETRIC ANALYSIS OF VARIANCE ("ANOVA") FOLLOWED BY MULTIPLE COMPARISONS PROCEDURES TO IDENTIFY STATISTICALLY SIGNIFICANT EVIDENCE OF CONTAMINATION. THIS SHALL INCLUDE ESTIMATION AND TESTING OF THE CONTRASTS BETWEEN EACH MONITORING WELL'S MEAN AND THE BACKGROUND MEAN LEVELS FOR EACH CONSTITUENT; OR

(b) AN ANALYSIS OF VARIANCE ("ANOVA") BASED ON RANKS FOLLOWED BY MULTIPLE COMPARISONS PROCEDURES TO IDENTIFY STATISTICALLY SIGNIFICANT EVIDENCE OF CONTAMINATION. THIS SHALL INCLUDE ESTIMATION AND TESTING OF THE CONTRASTS BETWEEN EACH MONITORING WELL'S MEDIAN AND THE BACKGROUND MEDIAN LEVELS FOR EACH CONSTITUENT; OR

(c) A TOLERANCE OR PREDICTION INTERVAL PROCEDURE IN WHICH AN INTERVAL FOR EACH CONSTITUENT IS ESTABLISHED FROM THE DISTRIBUTION OF THE BACKGROUND DATA, AND THE LEVEL OF EACH CONSTITUENT IN EACH MONITORING WELL IS COMPARED TO THE UPPER TOLERANCE OR PREDICTION LIMIT; OR

(d) A CONTROL CHART APPROACH THAT GIVES CONTROL LIMITS FOR EACH CONSTITUENT; OR

(e) ANOTHER STATISTICAL TEST METHOD SUBMITTED BY THE PERMITTEE AND APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE.

(6) ANY STATISTICAL METHOD CHOSEN IN ACCORDANCE WITH PARAGRAPH (C)(5) OF THIS RULE SHALL COMPLY WITH THE FOLLOWING PERFORMANCE STANDARDS AS APPROPRIATE:

(a) THE STATISTICAL METHOD USED TO EVALUATE GROUND-WATER MONITORING DATA SHALL BE APPROPRIATE FOR THE DISTRIBUTION OF CHEMICAL PARAMETERS OR LEACHATE AND LEACHATE-DERIVED CONSTITUENTS. IF THE DISTRIBUTION OF THE CHEMICAL PARAMETERS OR LEACHATE AND LEACHATE-DERIVED CONSTITUENTS IS SHOWN BY THE PERMITTEE TO

BE INAPPROPRIATE FOR A NORMAL THEORY TEST, THEN THE DATA SHOULD BE TRANSFORMED OR A DISTRIBUTION FREE THEORY TEST SHOULD BE USED. IF THE DISTRIBUTIONS FOR THE CONSTITUENTS DIFFER, MORE THAN ONE STATISTICAL METHOD MAY BE NEEDED; AND

(b) IF AN INDIVIDUAL WELL COMPARISON PROCEDURE IS USED TO COMPARE AN INDIVIDUAL MONITORING WELL CONSTITUENT CONCENTRATION WITH BACKGROUND CONSTITUENT CONCENTRATIONS OR A GROUND-WATER CONCENTRATION LEVEL, THE TEST SHALL BE CONDUCTED AT A TYPE I ERROR LEVEL NOT LESS THAN 0.01 FOR EACH TESTING PERIOD. IF MULTIPLE COMPARISONS PROCEDURES ARE USED, THE TYPE I EXPERIMENTWISE ERROR RATE FOR EACH TESTING PERIOD SHALL BE NOT LESS THAN 0.05; HOWEVER, THE TYPE I ERROR RATE OF NOT LESS THAN 0.01 FOR INDIVIDUAL MONITORING WELL COMPARISONS SHALL BE MAINTAINED. THIS PERFORMANCE STANDARD DOES NOT APPLY FOR TOLERANCE INTERVALS, PREDICTION INTERVALS, OR CONTROL CHARTS; OR

(c) IF A CONTROL CHART APPROACH IS USED TO EVALUATE GROUND-WATER MONITORING DATA, THE SPECIFIC TYPE OF CONTROL CHART AND ITS ASSOCIATED PARAMETER VALUES SHALL BE PROPOSED BY THE PERMITTEE AND APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE; OR

(d) IF A TOLERANCE INTERVAL OR A PREDICTION INTERVAL IS USED TO EVALUATE GROUND-WATER MONITORING DATA, THE LEVELS OF CONFIDENCE, AND FOR TOLERANCE INTERVALS, THE PERCENTAGE OF THE POPULATION THAT THE

INTERVAL MUST CONTAIN, SHALL BE PROPOSED BY THE PERMITTEE AND APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE. THESE PARAMETERS SHALL BE DETERMINED AFTER CONSIDERING THE NUMBER OF SAMPLES IN THE BACKGROUND DATA BASE, THE DATA DISTRIBUTION, AND THE RANGE OF THE CONCENTRATION VALUES FOR EACH CONSTITUENT OF CONCERN; AND

(e) THE STATISTICAL METHOD SHALL ACCOUNT FOR DATA BELOW THE LIMIT OF DETECTION WITH ONE OR MORE STATISTICAL PROCEDURES THAT ENSURE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT. ANY PRACTICAL QUANTIFICATION LIMIT (PQL) APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE IN ACCORDANCE WITH PARAGRAPH (C)(5) OF THIS RULE THAT IS USED IN THE STATISTICAL METHOD SHALL BE THE LOWEST CONCENTRATION LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS THAT ARE AVAILABLE TO THE FACILITY; AND

(f) IF NECESSARY, THE STATISTICAL METHOD SHALL INCLUDE PROCEDURES TO CONTROL OR CORRECT FOR SEASONAL AND SPATIAL VARIABILITY AS WELL AS TEMPORAL CORRELATION IN THE DATA.

(7) THE PERMITTEE SHALL DETERMINE WHETHER OR NOT THERE IS A STATISTICALLY SIGNIFICANT INCREASE (OR DECREASE IN THE CASE OF PH) FROM BACKGROUND VALUES FOR EACH PARAMETER OR CONSTITUENT REQUIRED IN THE PARTICULAR GROUND-WATER MONITORING PROGRAM THAT APPLIES TO THE SANITARY LANDFILL FACILITY, AS DETERMINED IN ACCORDANCE WITH PARAGRAPH (D), (E), OR (F) OF

THIS RULE. THE PERMITTEE SHALL MAKE THIS DETERMINATION EACH TIME HE ASSESSES GROUND-WATER QUALITY. TO DETERMINE WHETHER A STATISTICALLY-SIGNIFICANT INCREASE OR DECREASE HAS OCCURRED, THE PERMITTEE SHALL COMPARE THE GROUND-WATER QUALITY OF EACH PARAMETER OR CONSTITUENT AT EACH DOWNGRADIENT GROUND-WATER MONITORING WELL TO THE BACKGROUND VALUE OF THAT PARAMETER OR CONSTITUENT ACCORDING TO THE STATISTICAL PROCEDURES SPECIFIED IN PARAGRAPHS (C)(5) AND (C)(6) OF THIS RULE.

(8) THE PERMITTEE SHALL PREPARE AN OUTLINE FOR A GROUND-WATER QUALITY ASSESSMENT PROGRAM WHICH SHALL BE AVAILABLE FOR INSPECTION AT THE SANITARY LANDFILL FACILITY. THE OUTLINE SHALL DESCRIBE A COMPREHENSIVE GROUND-WATER MONITORING PROGRAM CAPABLE OF DETERMINING:

(a) WHETHER LEACHATE OR LEACHATE-DERIVED CONSTITUENTS HAVE ENTERED THE GROUND WATER; AND

(b) THE RATE AND EXTENT OF MIGRATION OF LEACHATE OR LEACHATE-DERIVED WASTE CONSTITUENTS IN THE GROUND WATER; AND

(c) THE CONCENTRATIONS OF LEACHATE OR LEACHATE-DERIVED WASTE CONSTITUENTS IN THE GROUND WATER.

(D) (1) THE PERMITTEE SHALL DETERMINE THE CONCENTRATION OR VALUE OF THE FOLLOWING PARAMETERS IN GROUND WATER IN ACCORDANCE WITH PARAGRAPHS (D)(3) TO (D)(6) OF THIS RULE:

(a) TEMPERATURE; AND

(b) PH; AND

(c) SPECIFIC CONDUCTANCE; AND

(d) TOTAL ORGANIC CARBON; AND

(e) TOTAL DISSOLVED SOLIDS; AND

(f) CHEMICAL OXYGEN DEMAND; AND

(g) TOTAL ALKALINITY; AND

(h) AMMONIA; AND

(i) NITRATE-NITRITE; AND

(j) CHLORIDE; AND

(k) SODIUM; AND

(l) SULFATE; AND

(m) MAGNESIUM; AND

(n) CALCIUM; AND

(o) POTASSIUM; AND

(p) PHOSPHORUS; AND

(q) PHENOLS; AND

(r) CYANIDE; AND

(s) TURBIDITY; AND

(t) ZINC; AND

(u) COPPER; AND

(v) NICKEL; AND

(w) BARIUM; AND

(x) CADMIUM; AND

(y) CHROMIUM; AND

(z) LEAD; AND

(aa) MERCURY; AND

(bb) SELENIUM; AND

(cc) SILVER; AND

(dd) IRON; AND

(ee) MANGANESE; AND

(ff) ARSENIC; AND

(gg) THE VOLATILE ORGANIC COMPOUNDS (VOCS) LISTED IN APPENDIX I OF THIS RULE.

(2) THE PERMITTEE OF A SANITARY LANDFILL FACILITY, EXCLUSIVELY USED TO DISPOSE OF SOLID WASTES RESULTING FROM INDUSTRIAL OPERATIONS OR PUBLICLY-OWNED INCINERATORS, MAY PROPOSE AN ALTERNATE LIST OF PARAMETERS TO BE USED TO MEET THE REQUIREMENTS OF PARAGRAPHS (D)(3) TO (D)(6) OF THIS RULE. THE LIST OF ALTERNATE PARAMETERS SHALL BE SUBMITTED BY THE PERMITTEE AND APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE PRIOR TO USE. THE ALTERNATE PARAMETER LIST SHALL BE INDICATIVE OF THE WASTE STREAM(S) DEPOSITED AT THE SANITARY LANDFILL FACILITY AND SHALL BE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT. IN PROPOSING THE ALTERNATE PARAMETER LIST, THE PERMITTEE SHALL, AT A MINIMUM, SPECIFY:

(a) WHICH PARAMETERS SHALL BE ANALYZED IN THE GROUND-WATER SAMPLES DURING THE INITIAL YEAR OF GROUND-WATER MONITORING IN ACCORDANCE WITH PARAGRAPH (D)(3) OF THIS RULE; AND

(b) WHICH PARAMETERS SHALL BE ANALYZED IN THE GROUND-WATER SAMPLES AT LEAST SEMIANNUALLY IN ACCORDANCE WITH PARAGRAPH (D)(4) OF THIS RULE; AND

(c) WHICH PARAMETERS SHALL BE ANALYZED IN THE GROUND-WATER SAMPLES AT LEAST ANNUALLY AFTER THE INITIAL YEAR IN ACCORDANCE WITH PARAGRAPH (D)(5) OF THIS RULE; AND

(d) WHICH OF THE PARAMETERS SPECIFIED IN PARAGRAPH (D)(2)(b) OF THIS RULE SHALL HAVE THEIR ANALYTICAL RESULTS STATISTICALLY EVALUATED IN ACCORDANCE WITH PARAGRAPH (D)(4) OF THIS RULE; AND

(e) THE CHEMICAL COMPOSITION OF THE SOLID WASTE(S) WHICH HAVE BEEN, AND ARE TO BE, DEPOSITED AT THE SANITARY LANDFILL FACILITY; AND

(f) THE CHEMICAL COMPOSITION OF LEACHATE, IF AVAILABLE, FROM AN EXISTING SANITARY LANDFILL FACILITY BEING USED TO DISPOSE OF A SIMILAR SOLID WASTE(S); AND

(g) ANY OTHER RELEVANT INFORMATION THAT THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE DEEMS NECESSARY.

(3) DURING THE INITIAL YEAR OF GROUND-WATER MONITORING, WHICH SHALL COMMENCE PRIOR TO WASTE PLACEMENT FOR NEWLY PERMITTED SANITARY LANDFILL FACILITIES, THE INITIAL BACKGROUND CONCENTRATIONS OR VALUES SHALL BE ESTABLISHED FOR ALL PARAMETES LISTED IN PARAGRAPH (D)(1) OF THIS RULE. THE SAMPLING FREQUENCY SHALL BE AT LEAST QUARTERLY FOR THE INITIAL YEAR OF GROUND-WATER MONITORING. THE MINIMUM FREQUENCY OF SAMPLING USED TO ESTABLISH BACKGROUND GROUND-WATER QUALITY FOR THE PARAMETERS SPECIFIED IN PARAGRAPH (D)(1)(b), (c), (d), (e), AND (gg) OF THIS RULE SHALL BE CONSISTENT WITH THE APPROPRIATE STATISTICAL PROCEDURES DETERMINED PURSUANT TO PARAGRAPHS (C)(5) and (C)(6) OF THIS RULE.

(4) AFTER THE INITIAL YEAR, ALL MONITORING WELLS SHALL BE SAMPLED AT LEAST SEMI-ANNUALLY AND THE SAMPLES ANALYZED FOR THE PARAMETERS SPECIFIED IN PARAGRAPHS (D)(1)(b), (c), (d), (e), AND (gg) OF THIS RULE. THE PERMITTEE SHALL STATISTICALLY ANALYZE THE RESULTS FOR THOSE PARAMETERS IN ACCORDANCE WITH PARAGRAPHS (C)(5) AND (C)(6) OF THIS RULE. THE MINIMUM FREQUENCY OF SAMPLING USED SHALL BE CONSISTENT WITH THE STATISTICAL METHOD USED TO ANALYZE THE DATA AND SHALL BE AS OFTEN AS NECESSARY TO ENSURE, WITH REASONABLE CONFIDENCE, THAT A CONTAMINANT RELEASE TO THE GROUND WATER FROM THE FACILITY WILL BE DETECTED.

(5) AFTER THE INITIAL YEAR, ALL MONITORING WELLS SHALL BE SAMPLED AT LEAST ANNUALLY AND THE SAMPLES ANALYZED FOR PARAMETERS SPECIFIED IN PARAGRAPHS (D)(1)(f) TO (D)(1)(ff) OF THIS RULE.

(6) THE PERMITTEE SHALL FIELD ANALYZE GROUND-WATER SAMPLES FOR THE PARAMETERS SPECIFIED IN PARAGRAPHS (D)(1)(a), (b), AND (c) OF THIS RULE WHENEVER THE PERMITTEE WITHDRAWS A SAMPLE FROM A MONITORING WELL.

(7) ALL GROUND-WATER ANALYSIS AND STATISTICAL ANALYSIS RESULTS GENERATED IN ACCORDANCE WITH PARAGRAPHS (D)(3) TO (D)(6) AND PARAGRAPH (C)(2) OF THIS RULE SHALL BE SUBMITTED TO THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE NOT LATER THAN SIXTY DAYS AFTER SAMPLING THE WELL OR NOT LATER THAN FIFTEEN DAYS AFTER RECEIVING THE ANALYSIS RESULTS, WHICHEVER IS SOONER. ALL GROUND-WATER DATA AND AN ACCOMPANYING TEXT SHALL BE SUBMITTED TO THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE IN A FORM SPECIFIED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE.

(8) IF, AT ANY MONITORING WELL, THE PERMITTEE DETERMINES THAT THERE HAS BEEN A STATISTICALLY SIGNIFICANT INCREASE (OR DECREASE IN THE CASE OF PH) FROM BACKGROUND VALUES FOR ANY PARAMETER SPECIFIED IN PARAGRAPHS (D)(1)(b), (c), (d), (e), OR (gg) OF THIS RULE, ACCORDING TO THE STATISTICAL METHOD SPECIFIED BY THE PERMITTEE PURSUANT TO PARAGRAPHS (C)(5) and (C)(6) OF THIS RULE, THE PERMITTEE:

(a) SHALL NOTIFY THE DIRECTOR NOT LATER THAN FIFTEEN DAYS AFTER RECEIVING THE STATISTICAL OR ANALYTICAL RESULTS INDICATING A STATISTICALLY SIGNIFICANT CHANGE. THE NOTIFICATION MUST INDICATE WHICH PARAMETERS HAVE SHOWN A STATISTICALLY SIGNIFICANT CHANGE FROM BACKGROUND LEVELS; AND

(b) SHALL RESAMPLE, NOT LATER THAN FIFTEEN DAYS AFTER NOTIFYING THE DIRECTOR, THE AFFECTED MONITORING WELL(S) FOR THOSE CONSTITUENTS DEMONSTRATING A SIGNIFICANT CHANGE IN CONCENTRATION OR LEVEL. THE PERMITTEE SHALL NOTIFY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE OF THE TIME OF RESAMPLING PRIOR TO RESAMPLING; AND

(c) SHALL, NOT LATER THAN SIXTY DAYS AFTER THE RESAMPLING REQUIRED IN PARAGRAPH (D)(8)(b) OF THIS RULE, CONFIRM OR REJECT THE ORIGINAL DETERMINATION OF A SIGNIFICANT CHANGE IN A WRITTEN NOTIFICATION TO THE DIRECTOR BASED ON THE RESULTS OF THE RESAMPLING.

(E) (1) THE PERMITTEE SHALL, WITHIN FIFTEEN DAYS OF CONFIRMING A SIGNIFICANT CHANGE IN ACCORDANCE WITH PARAGRAPH (D)(8)(c) OF THIS RULE, SUBMIT TO THE DIRECTOR A SPECIFIC PLAN, BASED ON THE OUTLINE REQUIRED IN PARAGRAPH (C)(8) OF THIS RULE, FOR A GROUND-WATER QUALITY ASSESSMENT PROGRAM AT THE SANITARY LANDFILL FACILITY.

(2) THE PLAN REQUIRED IN PARAGRAPH (E)(1) OF THIS RULE SHALL INCLUDE PROVISIONS:

(a) FOR SAMPLING THE AFFECTED AND BACKGROUND WELLS NOT LATER THAN FIFTEEN DAYS AFTER SUBMITTING THE PLAN AND ANALYZING THOSE SAMPLES FOR ALL LEACHATE OR LEACHATE DERIVED CONSTITUENTS, INCLUDING ALL CONSTITUENTS LISTED IN APPENDIX II OF THIS RULE; AND

(b) FOR SAMPLING ALL MONITORING WELLS NOT SAMPLED UNDER THE PROVISIONS OF PARAGRAPH (E)(2)(a) OF THIS RULE. THESE SAMPLES SHALL BE ANALYZED FOR THOSE LEACHATE OR LEACHATE-DERIVED CONSTITUENTS FOUND TO BE ABOVE BACKGROUND LEVELS IN THE AFFECTED MONITORING WELLS SAMPLED UNDER PARAGRAPH (E)(2)(a) OF THIS RULE; AND

(c) TO SUBMIT TO THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE NOT LATER THAN SIXTY DAYS AFTER SAMPLING THE WELL OR NOT LATER THAN FIFTEEN DAYS AFTER RECEIVING THE ANALYSIS RESULTS, WHICHEVER IS SOONER THE ANALYTICAL RESULTS GENERATED IN ACCORDANCE WITH PARAGRAPH (E) OF THIS RULE. ALL GROUND-WATER DATA AND AN ACCOMPANYING TEXT SHALL BE SUBMITTED TO THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE IN A FORM SPECIFIED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE.

(3) THE PLAN TO BE SUBMITTED IN ACCORDANCE WITH PARAGRAPH (E)(1) OF THIS RULE SHALL INCLUDE, AT A MINIMUM, DETAILED DESCRIPTIONS OF THE FOLLOWING:

(a) HYDROGEOLOGIC CONDITIONS AT THE SANITARY LANDFILL FACILITY; AND

(b) THE DETECTION MONITORING PROGRAM IMPLEMENTED BY THE SANITARY LANDFILL FACILITY, INCLUDING:

(i) THE NUMBER, LOCATION, DEPTH, AND CONSTRUCTION OF DETECTION MONITORING WELLS WITH DOCUMENTATION; AND

(ii) A SUMMARY OF DETECTION MONITORING GROUND-WATER ANALYTICAL DATA WITH WRITTEN DOCUMENTATION OF THE RESULTS; AND

(iii) A SUMMARY OF STATISTICAL ANALYSES APPLIED TO THE DATA; AND

(c) THE INVESTIGATORY APPROACH TO BE FOLLOWED DURING THE ASSESSMENT, INCLUDING BUT NOT LIMITED TO:

(i) THE PROPOSED NUMBER, LOCATION, DEPTH, INSTALLATION METHOD, AND CONSTRUCTION OF ASSESSMENT MONITORING WELLS; AND

(ii) THE PROPOSED METHOD(S) FOR GATHERING ADDITIONAL HYDROGEOLOGIC INFORMATION; AND

(iii) THE PLANNED USE OF SUPPORTING METHODOLOGY (I.E., SOIL GAS OR GEOPHYSICAL SURVEYS); AND

(d) THE TECHNIQUES, PROCEDURES, AND ANALYTICAL EQUIPMENT TO BE USED FOR GROUND-WATER SAMPLING DURING THE ASSESSMENT, INCLUDING BUT NOT LIMITED TO:

(i) MEASUREMENT OF GROUND-WATER ELEVATIONS; AND

(ii) DETECTION OF IMMISCIBLE LAYERS; AND

(iii) COLLECTION OF GROUND-WATER SAMPLES, INCLUDING:

(a) WELL EVACUATION; AND

(b) SAMPLE WITHDRAWAL; AND

(c) SAMPLE CONTAINERS AND HANDLING; AND

(d) SAMPLE PRESERVATION; AND

(iv) PERFORMANCE OF FIELD ANALYSIS, INCLUDING:

(a) PROCEDURES AND FORMS FOR RECORDING DATA AND THE EXACT LOCATION, TIME, AND FACILITY-SPECIFIC CONDITIONS ASSOCIATED WITH THE DATA ACQUISITION; AND

(b) CALIBRATION OF FIELD DEVICES; AND

(v) DECONTAMINATION OF EQUIPMENT; AND

(vi) METHODS FOR GROUND-WATER SAMPLE ANALYSIS FOR ALL LEACHATE OR LEACHATE-DERIVED CONSTITUENTS, INCLUDING ALL CONSTITUENTS LISTED IN APPENDIX II OF THIS RULE; AND

(vii) CHAIN OF CUSTODY CONTROL INCLUDING:

(a) STANDARDIZED FIELD TRACKING REPORTING FORMS TO RECORD SAMPLE CUSTODY IN THE FIELD PRIOR TO AND DURING SHIPMENT; AND

(b) PREPREPARED SAMPLE LABELS CONTAINING ALL INFORMATION NECESSARY FOR EFFECTIVE SAMPLE TRACKING; AND

(viii) FIELD AND LABORATORY QUALITY ASSURANCE AND QUALITY CONTROL INCLUDING:

(a) COLLECTION OF REPLICATE SAMPLES; AND

(b) SUBMISSION OF FIELD-BIAS BLANKS; AND

(c) POTENTIAL INTERFERENCES; AND

(e) DATA EVALUATION PROCEDURES, INCLUDING BUT NOT LIMITED TO:

(i) PLANNED USE OF STATISTICAL DATA EVALUATION; AND

(ii) PLANNED USE OF COMPUTER MODELS; AND

(iii) PLANNED USE OF PREVIOUSLY GATHERED INFORMATION; AND

(iv) CRITERIA WHICH WILL BE UTILIZED TO DETERMINE IF ADDITIONAL ASSESSMENT ACTIVITIES ARE WARRANTED; AND

(f) A SCHEDULE OF IMPLEMENTATION.

(4) THE PERMITTEE SHALL IMPLEMENT THE GROUND-WATER QUALITY ASSESSMENT PLAN WHICH SATISFIES THE REQUIREMENTS OF PARAGRAPHS (E)(2) AND (E)(3) OF THIS RULE AND, AT A MINIMUM, DETERMINE:

(a) THE RATE AND EXTENT OF MIGRATION OF THE LEACHATE OR LEACHATE-DERIVED CONSTITUENTS IN THE GROUND WATER; AND

(b) THE CONCENTRATIONS OF THE LEACHATE OR LEACHATE-DERIVED CONSTITUENTS IN THE GROUND WATER.

(5) ALL MONITORING WELLS NOT AFFECTED BY THE GROUND-WATER QUALITY ASSESSMENT PROGRAM REQUIRED BY PARAGRAPH (E) OF THIS RULE SHALL BE MONITORED IN ACCORDANCE WITH PARAGRAPHS (C) AND (D) OF THIS RULE.

(6) THE PERMITTEE SHALL MAKE A FIRST DETERMINATION ACCORDING TO PARAGRAPH (E)(4) OF THIS RULE WITHIN THE TIME FRAME SPECIFIED IN THE SUBMITTED GROUND-WATER QUALITY ASSESSMENT PLAN. THE PERMITTEE SHALL SUBMIT TO THE DIRECTOR, NOT LATER THAN FIFTEEN DAYS AFTER MAKING A FIRST DETERMINATION, A WRITTEN REPORT CONTAINING AN ASSESSMENT OF THE GROUND-WATER QUALITY INCLUDING ALL DATA GENERATED AS PART OF IMPLEMENTATION OF THE GROUND-WATER QUALITY ASSESSMENT PLAN.

(7) IF THE PERMITTEE DETERMINES, BASED ON THE RESULTS OF THE FIRST DETERMINATION MADE ACCORDING TO PARAGRAPH (E)(4) OF THIS RULE, THAT NO LEACHATE OR LEACHATE-DERIVED CONSTITUENTS FROM THE FACILITY HAVE ENTERED THE GROUND WATER, THEN THE PERMITTEE SHALL REQUEST THAT THE DIRECTOR APPROVE REINSTATEMENT OF THE INDICATOR EVALUATION PROGRAM DESCRIBED IN PARAGRAPHS (C) AND (D) OF THIS RULE. UNTIL THE DIRECTOR APPROVES REINSTATEMENT OF THE INDICATOR EVALUATION PROGRAM, THE PERMITTEE SHALL COMPLY WITH PARAGRAPHS (E)(8) AND (F) OF THIS RULE.

(8) IF THE PERMITTEE DETERMINES, BASED ON THE FIRST DETERMINATION MADE ACCORDING TO PARAGRAPH (E)(4) OF THIS RULE, THAT LEACHATE OR LEACHATE-DERIVED CONSTITUENTS FROM THE FACILITY HAVE ENTERED THE GROUND WATER, THEN THE PERMITTEE SHALL CONTINUE TO MAKE THE DETERMINATION REQUIRED IN ACCORDANCE WITH PARAGRAPH (E)(4) OF THIS RULE ON A QUARTERLY BASIS UNTIL RELEASED FROM THIS OBLIGATION BY THE DIRECTOR OR UNLESS AN ALTERNATE TIME INTERVAL IS ESTABLISHED BY THE DIRECTOR.

(F) (1) UNLESS EXCUSED IN ACCORDANCE WITH PARAGRAPH (E)(7) OF THIS RULE, THE PERMITTEE SHALL SUBMIT A CORRECTIVE MEASURES STUDY TO THE DIRECTOR NOT LATER THAN ONE HUNDRED EIGHTY DAYS AFTER MAKING A FIRST DETERMINATION IN ACCORDANCE WITH PARAGRAPH (E)(4) OF THIS RULE. THIS STUDY SHALL EVALUATE ALL PRACTICABLE REMEDIATION PROCEDURES WHICH ARE AVAILABLE FOR REMEDIATING ANY CONTAMINATION DISCOVERED DURING THE GROUND-WATER QUALITY ASSESSMENT. THE EVALUATED REMEDIATION PROCEDURES SHALL, AT A MINIMUM:

(a) BE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT; AND

(b) ATTAIN THE PROPOSED GROUND-WATER CONCENTRATION LEVELS SPECIFIED IN ACCORDANCE WITH PARAGRAPH (F)(5) OF THIS RULE; AND

(c) CONTROL THE SOURCE(S) OF RELEASES TO REDUCE OR ELIMINATE, TO THE MAXIMUM EXTENT PRACTICABLE, FURTHER RELEASES OF LEACHATE OR LEACHATE-DERIVED CONSTITUENTS INTO THE ENVIRONMENT; AND

(d) COMPLY WITH STANDARDS FOR MANAGEMENT OF WASTES AS SPECIFIED IN PARAGRAPH (F)(12) OF THIS RULE.

(2) THE PERMITTEE SHALL EVALUATE EACH PROPOSED REMEDIATION PROCEDURE WITHIN THE CORRECTIVE MEASURES STUDY. THIS EVALUATION SHALL, AT A MINIMUM, CONSIDER:

(a) ANY POTENTIAL REMEDIATION PROCEDURE, WHICH SHALL BE ASSESSED FOR THE LONG-TERM AND SHORT-TERM EFFECTIVENESS AND THE PROTECTION IT AFFORDS. THIS SHALL INCLUDE THE DEGREE OF CERTAINTY THAT THE REMEDIATION PROCEDURE WILL PROVE SUCCESSFUL. FACTORS TO BE CONSIDERED INCLUDE:

(i) MAGNITUDE OF REDUCTION OF EXISTING RISKS; AND

(ii) MAGNITUDE OF RESIDUAL RISKS IN TERMS OF LIKELIHOOD OF FURTHER RELEASES DUE TO WASTE REMAINING FOLLOWING IMPLEMENTATION OF A REMEDIATION PROCEDURE; AND

(iii) THE TYPE AND DEGREE OF LONG-TERM MANAGEMENT REQUIRED, INCLUDING MONITORING, OPERATION, AND MAINTENANCE; AND

(iv) SHORT-TERM RISKS THAT MAY AFFECT THE COMMUNITY, WORKERS, OR THE ENVIRONMENT DURING IMPLEMENTATION OF SUCH A REMEDIATION PROCEDURE, INCLUDING POTENTIAL THREATS TO HUMAN HEALTH AND THE ENVIRONMENT ASSOCIATED WITH EXCAVATION, TRANSPORTATION, REDISPOSAL, OR CONTAINMENT; AND

(v) POTENTIAL FOR HUMAN AND ENVIRONMENTAL RECEPTOR EXPOSURE TO REMAINING WASTES, CONSIDERING THE POTENTIAL THREAT TO HUMAN HEALTH AND THE ENVIRONMENT ASSOCIATED WITH EXCAVATION, TRANSPORTATION, REDISPOSAL, OR CONTAINMENT; AND

(vi) LONG-TERM RELIABILITY OF THE ENGINEERING AND INSTITUTIONAL CONTROLS; AND

(vii) POTENTIAL NEED FOR REPLACEMENT OF THE REMEDIATION PROCEDURE; AND

(b) THE EFFECTIVENESS OF THE REMEDIATION PROCEDURE IN CONTROLLING THE SOURCE IN ORDER TO REDUCE FURTHER RELEASES, INCLUDING:

(i) THE EXTENT TO WHICH CONTAINMENT PRACTICES WILL REDUCE FURTHER RELEASES; AND

(ii) THE EXTENT TO WHICH TREATMENT TECHNOLOGIES MAY BE USED; AND

(c) THE NEED TO COORDINATE WITH, AND OBTAIN NECESSARY APPROVALS AND PERMITS FROM, OTHER AGENCIES; AND

(d) THE AVAILABLE CAPACITY AND LOCATION OF NEEDED TREATMENT, STORAGE, AND DISPOSAL SERVICES; AND

(e) THE PERFORMANCE, RELIABILITY, EASE OF IMPLEMENTATION, AND POTENTIAL IMPACTS OF THE POTENTIAL REMEDIATION PROCEDURES, INCLUDING SAFETY IMPACTS, CROSS-MEDIA IMPACTS, AND CONTROL OF EXPOSURE TO ANY RESIDUAL CONTAMINATION; AND

(f) A SCHEDULE FOR INITIATING AND COMPLETING EACH REMEDIATION PROCEDURE DISCUSSED IN THE STUDY. IN ESTABLISHING THIS SCHEDULE, THE PERMITTEE SHALL CONSIDER:

(i) THE EXTENT AND NATURE OF ANY CONTAMINATION; AND

(ii) THE PRACTICAL CAPABILITY OF REMEDIAL TECHNOLOGIES TO ACHIEVE COMPLIANCE WITH GROUND-WATER CONCENTRATION LEVELS ESTABLISHED IN ACCORDANCE WITH PARAGRAPH (F)(5) OF THIS RULE AND OTHER OBJECTIVES OF THE REMEDIATION PROCEDURE; AND

(iii) THE AVAILABILITY OF TREATMENT OR DISPOSAL CAPACITY FOR WASTES MANAGED DURING IMPLEMENTATION OF THE REMEDIATON PROCEDURE; AND

(iv) THE DESIRABILITY OF UTILIZING TECHNOLOGIES THAT ARE NOT CURRENTLY AVAILABLE, BUT WHICH MAY OFFER SIGNIFICANT ADVANTAGES OVER CURRENTLY AVAILABLE TECHNOLOGIES IN TERMS OF PROTECTION, RELIABILITY, SAFETY, OR THE ABILITY TO ACHIEVE REMEDIAL OBJECTIVES; AND

(v) POTENTIAL RISKS TO HUMAN HEALTH AND THE ENVIRONMENT FROM CONTAMINANT EXPOSURE PRIOR TO COMPLETION OF THE REMEDIATION PROCEDURE; AND

(vi) PRACTICABLE CAPABILITY OF THE PERMITTEE; AND

(vii) OTHER RELEVANT FACTORS; AND

(g) RESOURCE VALUE OF THE AQUIFER SYSTEM, INCLUDING:

(i) CURRENT AND FUTURE USES; AND

(ii) PROXIMITY AND WITHDRAWAL RATE OF USERS; AND

(iii) GROUND-WATER QUANTITY AND QUALITY; AND

(iv) THE POTENTIAL DAMAGE TO WILDLIFE, CROPS, VEGETATION, AND PHYSICAL STRUCTURES RESULTING FROM EXPOSURE TO WASTE CONSTITUENTS; AND

(v) THE HYDROGEOLOGIC CHARACTERISTICS OF THE FACILITY AND SURROUNDING AREA; AND

(vi) GROUND-WATER REMOVAL AND TREATMENT COSTS; AND

(vii) THE COST AND AVAILABILITY OF ALTERNATE WATER SUPPLIES.

(3) THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE MAY REQUIRE THE PERMITTEE TO EVALUATE, AS PART OF THE CORRECTIVE MEASURES STUDY, ONE OR MORE SPECIFIC POTENTIAL REMEDIATION PROCEDURE(S).

(4) IF, AT ANY TIME DURING THE ASSESSMENT DESCRIBED IN PARAGRAPHS (E) AND (F) OF THIS RULE, THE DIRECTOR DETERMINES THAT THE FACILITY THREATENS HUMAN HEALTH OR THE ENVIRONMENT, THE DIRECTOR MAY REQUIRE THE PERMITTEE TO IMPLEMENT THE FOLLOWING MEASURES:

(a) NOTIFY ALL PERSONS, VIA CERTIFIED MAIL, WHO OWN THE LAND OR RESIDE ON THE LAND THAT DIRECTLY OVERLIES OR LIES ADJACENT TO ANY PART OF THE PLUME OF CONTAMINATION; AND

(b) TAKE ANY INTERIM MEASURES DEEMED NECESSARY BY THE DIRECTOR TO ENSURE THE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT. INTERIM MEASURES SHOULD, TO THE EXTENT PRACTICABLE, BE CONSISTENT WITH THE OBJECTIVES OF AND CONTRIBUTE TO THE PERFORMANCE OF ANY REMEDIATION PROCEDURE THAT MAY BE REQUIRED PURSUANT TO PARAGRAPHS (F)(1), (F)(2), AND (F)(5) OF THIS RULE. THE FOLLOWING FACTORS MAY BE CONSIDERED BY THE DIRECTOR IN DETERMINING WHETHER INTERIM MEASURES ARE NECESSARY:

(i) THE AMOUNT OF TIME REQUIRED TO DEVELOP AND IMPLEMENT A FINAL REMEDIATION PROCEDURE; AND

(ii) ACTUAL OR POTENTIAL EXPOSURE OF NEARBY POPULATIONS OR ENVIRONMENTAL RECEPTORS TO LEACHATE OR LEACHATE-DERIVED CONSTITUENTS; AND

(iii) ANY FURTHER DEGRADATION OF THE GROUND WATER THAT MAY OCCUR IF REMEDIAL ACTION IS NOT INITIATED EXPEDITIOUSLY; AND

(iv) WEATHER CONDITIONS THAT MAY CAUSE LEACHATE OR LEACHATE-DERIVED CONSTITUENTS TO MIGRATE OR BE RELEASED; AND

(v) RISKS OF FIRE, EXPLOSION, OR POTENTIAL FOR EXPOSURE TO LEACHATE OR LEACHATE-DERIVED CONSTITUENTS AS A RESULT OF AN ACCIDENT OR FAILURE OF A CONTAINER OR HANDLING SYSTEM; AND

(vi) OTHER SITUATIONS THAT THREATEN HUMAN HEALTH AND THE ENVIRONMENT.

(5) THE CORRECTIVE MEASURES STUDY SHALL PROPOSE A CONCENTRATION LEVEL FOR EACH LEACHATE OR LEACHATE-DERIVED CONSTITUENT WHICH HAS BEEN DETECTED IN THE GROUND WATER AT A STATISTICALLY SIGNIFICANT LEVEL. THESE SHALL BE ESTABLISHED AS FOLLOWS:

(a) THE PROPOSED CONCENTRATION LEVELS IN THE GROUND WATER SHALL BE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT; AND

(b) UNLESS AN ALTERNATE LEVEL IS DEEMED NECESSARY TO PROTECT ENVIRONMENTAL RECEPTORS, THEN:

(i) FOR KNOWN OR SUSPECTED CARCINOGENS, THE PROPOSED CONCENTRATION LEVELS SHALL BE ESTABLISHED AT CONCENTRATION LEVELS BELOW THOSE THAT REPRESENT A CUMULATIVE EXCESS UPPER-BOUND LIFETIME RISK TO AN INDIVIDUAL OF 1×10^{-6}; AND

(ii) FOR NONCARCINOGENS, THE PROPOSED CONCENTRATION LEVELS SHALL BE REDUCED TO LEVELS TO WHICH THE HUMAN POPULATION (INCLUDING SENSITIVE SUBGROUPS) COULD BE EXPOSED ON A DAILY BASIS WITHOUT APPRECIABLE RISK OF DELETERIOUS EFFECTS DURING A LIFETIME; AND

(c) IN ESTABLISHING THE PROPOSED CONCENTRATION LEVELS THAT MEET THE REQUIREMENTS OF PARAGRAPH (F)(5)(b) OF THIS RULE, THE PERMITTEE SHALL CONSIDER THE FOLLOWING:

(i) MULTIPLE CONTAMINANTS IN THE GROUND WATER; AND

(ii) EXPOSURE THREAT TO SENSITIVE ENVIRONMENTAL RECEPTORS; AND

(iii) OTHER SITE-SPECIFIC EXPOSURE OR POTENTIAL EXPOSURE TO GROUND WATER; AND

(iv) THE RELIABILITY, EFFECTIVENESS, PRACTICABILITY, AND OTHER RELEVANT FACTORS OF THE REMEDIATION PROCEDURE; AND

(d) FOR GROUND WATER THAT IS A CURRENT OR POTENTIAL SOURCE OF DRINKING WATER, THE PERMITTEE SHALL CONSIDER THE FEDERAL SAFE DRINKING WATER ACT MAXIMUM CONTAMINANT LEVELS; AND

(e) IF THE PERMITTEE CAN DEMONSTRATE TO THE DIRECTOR THAT A LEACHATE OR LEACHATE-DERIVED CONSTITUENT IS ALREADY PRESENT IN THE GROUND WATER AT A BACKGROUND LEVEL, THEN THE PROPOSED CONCENTRATION LEVELS SHALL NOT BE SET BELOW BACKGROUND LEVELS UNLESS THE DIRECTOR DETERMINES THAT:

(i) CLEANUP TO LEVELS BELOW BACKGROUND LEVELS IS NECESSARY TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT; AND

(ii) SUCH CLEANUP IS IN CONNECTION WITH AN AREA-WIDE REMEDIAL ACTION UNDER OTHER AUTHORITIES.

(6) THE DIRECTOR SHALL SELECT FROM THE CORRECTIVE MEASURES REPORT, OR DESIGNATE ACCORDING TO PARAGRAPH (F)(3) OF THIS RULE, THE CORRECTIVE MEASURE WHICH BEST MEETS THE CRITERIA LISTED IN PARAGRAPHS (F)(1), (F)(2) and (F)(5) OF THIS RULE. THE PERMITTEE SHALL IMPLEMENT THE CORRECTIVE MEASURE DESIGNATED BY THE DIRECTOR IN ACCORDANCE WITH THE SCHEDULE OF IMPLEMENTATION SELECTED BY THE DIRECTOR.

(7) IN IMPLEMENTING THE REMEDIATION PROCEDURE APPROVED BY THE DIRECTOR IN ACCORDANCE WITH PARAGRAPH (F)(6) OF THIS RULE, THE PERMITTEE SHALL ACHIEVE THE DESIGNATED CONCENTRATION LEVELS, AS DETERMINED BY PARAGRAPH (F)(5) OF THIS RULE, AT ALL POINTS WITHIN THE PLUME OF CONTAMINATION THAT LIE BEYOND THE LIMITS OF SOLID WASTE PLACEMENT.

(8) UPON COMPLETION OF THE CORRECTIVE MEASURE ACTIVITY, WHEN THE GROUND-WATER QUALITY MEETS THE DESIGNATED CONCENTRATION LEVELS AS SPECIFIED IN PARAGRAPHS (F)(5) AND (F)(7) OF THIS RULE, THE PERMITTEE SHALL DEMONSTRATE ON A SEMIANNUAL BASIS FOR A PERIOD OF FIVE YEARS OR UNTIL THE SANITARY LANDFILL FACILITY'S POST-CLOSURE CARE PERIOD ENDS, WHICHEVER IS LONGER, THAT THE DESIGNATED CONCENTRATION LEVELS HAVE NOT BEEN EXCEEDED AS PROVIDED IN PARAGRAPH (F)(7) OF THIS RULE BEFORE BEING RELEASED FROM COMPLIANCE WITH THE GROUND-WATER MONITORING REQUIREMENTS.

(9) IF THE CONCENTRATIONS OF THE CONSTITUENTS MONITORED IN ACCORDANCE WITH PARAGRAPH (F)(8) OF THIS RULE EXCEED THE CONCENTRATION LEVELS DETERMINED IN ACCORDANCE WITH PARAGRAPH (F)(5) OF THIS RULE, THE PERMITTEE SHALL REIMPLEMENT THE DESIGNATED CORRECTIVE MEASURE OR SUBMIT NEW REMEDIATION PROCEDURES IN ACCORDANCE WITH THE CRITERIA IN PARAGRAPHS (F)(1) AND (F)(2) OF THIS RULE.

(10) THE DIRECTOR MAY DETERMINE, BASED ON INFORMATION DEVELOPED BY THE PERMITTEE AFTER IMPLEMENTATION OF THE REMEDIATION PROCEDURE HAS BEGUN, OR FROM OTHER INFORMATION, THAT COMPLIANCE WITH THE REQUIREMENTS(S) FOR THE REMEDIATION PROCEDURE SELECTED UNDER PARAGRAPHS (F)(1) AND (F)(2) OF THIS RULE IS NOT TECHNICALLY PRACTICABLE. IN MAKING SUCH A DETERMINATION, THE DIRECTOR SHALL CONSIDER:

(a) THE PERMITTEE'S EFFORTS TO ACHIEVE COMPLIANCE WITH THE REQUIREMENT(S); AND

(b) WHETHER OTHER CURRENTLY AVAILABLE OR NEW METHODS OR TECHNIQUES COULD PRACTICABLY ACHIEVE COMPLIANCE WITH THE REQUIREMENTS.

(11) IF THE DIRECTOR DETERMINES THAT COMPLIANCE WITH A REMEDIATION PROCEDURE REQUIREMENT IS NOT TECHNICALLY PRACTICABLE, THEN THE DIRECTOR MAY REQUIRE THAT THE PERMITTEE:

(a) IMPLEMENT ALTERNATE MEASURES TO CONTROL HUMAN OR ENVIRONMENTAL RECEPTOR EXPOSURE TO RESIDUAL CONTAMINATION, AS NECESSARY, TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT; AND

(b) IMPLEMENT ALTERNATE MEASURES FOR CONTROL OF THE SOURCES OF CONTAMINATION, OR FOR REMOVAL OR DECONTAMINATION OF EQUIPMENT, UNITS, DEVICES, OR STRUCTURES REQUIRED TO IMPLEMENT THE REMEDIATION PROCEDURE(S), THAT ARE:

(i) TECHNICALLY PRACTICABLE; AND

(ii) CONSISTENT WITH THE OVERALL OBJECTIVE OF THE REMEDIATION PROCEDURE.

(12) ALL SOLID WASTES THAT ARE MANAGED PURSUANT TO A REMEDIATON PROCEDURE REQUIRED UNDER PARAGRAPH (F)(6) OF THIS RULE, OR AN INTERIM MEASURE REQUIRED UNDER PARAGRAPH (F)(4) OF THIS RULE, SHALL BE MANAGED IN A MANNER:

(a) THAT IS PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT; AND

(b) THAT COMPLIES WITH APPLICABLE LAWS AND REGULATIONS.

(13) REMEDIATION PROCEDURES SELECTED PURSUANT TO PARAGRAPHS (F)(1) AND (F)(2) OF THIS RULE SHALL BE CONSIDERED COMPLETE WHEN THE DIRECTOR DETERMINES THAT COMPLIANCE WITH THE GROUND-WATER CONCENTRATION LEVELS ESTABLISHED UNDER PARAGRAPH (F)(5) OF THIS RULE HAS BEEN ACHIEVED, AND ALL ACTIONS REQUIRED TO COMPLETE THE REMEDIATON PROCEDURE HAVE BEEN SATISFIED.

(14) UPON COMPLETION OF THE REMEDIATON PROCEDURE, THE PERMITTEE SHALL SUBMIT TO THE DIRECTOR CERTIFICATION THAT THE REMEDIATION PROCEDURE HAS BEEN COMPLETED. THE CERTIFICATION MUST BE SIGNED BY THE PERMITTEE AND BY AN INDEPENDENT PROFESSIONAL(S) SKILLED IN THE APPROPRIATE TECHNICAL DISCIPLINE(S).

(15) WHEN, UPON RECEIPT OF THE CERTIFICATION AND IN CONSIDERATION OF ANY OTHER RELEVANT INFORMATION, THE DIRECTOR DETERMINES THAT THE CORRECTIVE ACTION REMEDIATON PROCEDURE HAS BEEN COMPLETED IN ACCORDANCE WITH PARAGRAPH (F)(13) OF THIS RULE, THE DIRECTOR SHALL RELEASE THE PERMITTEE FROM CONTINUING PERFORMANCE OF THE APPROVED REMEDIATON PROCEDURE. THIS APPROVAL SHALL NOT EXEMPT THE PERMITTEE FROM MEETING THE REQUIREMENTS OF PARAGRAPHS (F)(8) AND (F)(9) OF THIS RULE.

(16) THE PERMITTEE SHALL SUBMIT, UPON IMPLEMENTATION OF THE REMEDIATON PROCEDURE CHOSEN UNDER PARAGRAPH (F)(6) OF THIS RULE, A REPORT OF THE ACTIVITIES BEING CONDUCTED AT THE FACILITY AS PART OF IMPLEMENTATION OF THE CHOSEN REMEDIATION PROCEDURE. THIS REPORT SHALL BE SUBMITTED QUARTERLY AND CONTAIN:

(a) A NARRATIVE DESCRIPTION OF ALL REMEDIAL ACTIVITIES THAT HAVE OCCURRED SINCE THE PREVIOUS REPORT; AND

(b) ALL DATA GENERATED AS PART OF THE REMEDIAL ACTIVITIES AT THE FACILITY.

APPENDIX I- VOLATILE ORGANIC COMPOUNDS FOR GROUND-WATER MONITORING

COMPOUND	PRACTICAL QUANTIFICATION LIMITS (UG/L)
ACETONE	100
ACROLEIN	5
ACRYLONITRILE	5
BENZENE	2
BROMODICHLOROMETHANE	1
CIS-1,3-DICHLOROPROPENE	1
TRANS-1,3-DICHLOROPROPENE	5
ETHYLBENZENE	2
ETHYL METHACRYLATE	5
BROMOFORM	2
BROMOMETHANE	10
2-BUTANONE (METHYL ETHYL KETONE)	10
CARBON DISULFIDE	5
CARBON TETRACHLORIDE	1
CHLOROBENZENE	2
CHLOROETHANE	5
2-CHLOROETHYL VINYL ETHER	10
CHLOROFORM	0.5
CHLOROMETHANE	5
DICHLORODIFLUOROMETHANE	5
1,1-DICHLOROETHANE	1
1,2-DICHLOROETHANE	0.5
2-HEXANONE	50
METHYLENE CHLORIDE	5
4-METHYL-2-PENTANONE	50
1,1-DICHLOROETHENE	1
TRANS-1,2-DICHLOROETHENE	1
STYRENE	1
1,1,2,2-TETRACHLOROETHANE	0.5
TOLUENE	2
1,1,1-TRICHLOROETHANE	5
1,1,2-TRICHLOROETHANE	0.2
TRICHLOROETHENE	1
TRICHLOROFLUOROMETHANE	5
1,2,3-TRICHLOROPROPANE	5
VINYL ACETATE	5
VINYL CHLORIDE	2
XYLENE	5

APPENDIX II:

ACENAPHTHYLENE
ACENAPHTHYLENE, 1,2-DIHYDRO-
ACETAMIDE, N-(4-ETHOXYPHENYL)-H
ACETAMIDE, N-9H-GLUOREN-2-YL
ACETIC ACID ETHENYL ESTER
ACETIC ACID, (2,4,5-TRICHLORO-PHENOXY)-
ACETIC ACID, (2,4-DICHLORO-PHENOXY)-
ACETRONITRITE
ALUMINUM
ANTHRACENE
ANTIMONY
AROCLOR 1016
AROCLOR 1221
AROCLOR 1232
AROCLOR 1242
AROCLOR 1248
AROCLOR 1254
AROCLOR 1260
ARSENIC
BARIUM
BENZ[A]ANTHRACENE, 7,12-DIMETHYL-
BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-
BENZ[E]ACEPHENANTHRYLENE
BENZAMIDE, 3,4-DICHLOROR-N-(1,1-DIMETHYL-2-PROPYNL)
BENZAMIDE, 3,4-DICLORO-N-(1,1-DIMETHYL-2-PROPYNYL)-
BENZ(A)ANTHRACENE
BENZENAMINE
BENZENAMINE, 2-METHYL-5-NITRO
BENZENAMINE, 2-NITRO
BENZENAMINE, 3-NITRO
BENZENAMINE, 4-CHLORO
BENZENAMINE, 4-NITRO
BENZENAMINE, 4,4'-METHYLENEBIS[2-CHLORO
BENZENAMINE, N-NITROSO-N-PHENYL
BENZENAMINE, N-PHENYL-
BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)-
BENZENE
BENZENE, 1-BROMO-4-PHENOXY-
BENZENE, 1-CHLORO-4-PHENOXY-
BENZENE, 1-METHYL-2,4-DINITRO-

APPENDIX II:

BENZENE, 1,1'-(2,2,2-TRICHLORO-ETHYLIDENE)BIS[4-CHLORO-
BENZENE, 1,1'-(2,2,2-TRICHLORO-ETHYLIDENE)BIS[4-
METHOXY-BENZENE,1,1'-(2,2-DICHLORO-ETHYLIDENE)BIS[4-
CHLORO-
BENZENE, 1,1'-(2,2-DICHLORO-ETHENYLIDENE)BIS[4-CHLORO-
BENZENE, 1,2-DICHLORO-
BENZENE, 1,2,4-TRICHLORO
BENZENE, 1,3-DICHLORO
BENZENE, 1,4-DICHLORO
BENZENE, 1,4-DINITRO
BENZENE, 2-METHYL-1,3-DINITRO-
BENZENE, CHLORO
BENZENE, DIMETHYL-
BENZENE, ETHENYL-
BENZENE, ETHYL-
BENZENE-HEXACHLORO-
BENZENE, METHYL
BENZENE, NITRO-
BENZENE, PENTACHLORO-
BENZENE, PENTACHLORONITRO-
BENZENEACETIC ACID, 4-CHLORO-A-(4-CHLOROPHENYL)-A-
HYDROXY-,ETHYL ESTER
1,2-BENZENEDICARBOXYLIC ACID, BIS (2-ETHYLHEXYL) ESTER
1,2-BENZENEDICARBOXYLIC ACID, BUTYL PHENYLMETHYL ESTER
1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER
1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER
1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER
1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER
1,3-BENZENEDIOL
BENZENEETHANAMINE, A, A-DIMETHYL-
BENZENEMETHANOL
BENZENETHIOL
1,3-BENZODIOXOLE, 5-(1-PROPENYL)-
1,3-BENZODIOXOLE, 5-(2-PROPENYL)-
BENZO[K]FLUORANTHENE
BENZOIC ACID
BENZO[RST]PENTAPHENE
BENZO[GHI]PERYLENE
BENZO[A]PYRENE
BERYLLIUM
1,1'-BIPHEN[YL]-4,4'-DIAMINE, 3,3'-DICHLORO-

APPENDIX II:

1,1'-BIPHEN[YL]-4,4'-DIAMINE, 4,4'-DIMETHOXY-
1,1'-BIPHEN[YL]-4,4'-DIAMINE, 3,3'-DIMETHYL-
1,1'-BIPENYL[-4-AMINE
1,1'-BIPENY[-4-DIAMINE
1,3--BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-
1,3-BUTADIENE, 2-CHLORO-
1-BUTANAMINE, N-BUTYL-N-NITROSO-
2-BUTANONE
2-BUTENE, 1,3-DICHLORO-,(E)
CADMIUM
CALCIUM
CARBON DISULFIDE
CHROMIUM
CHRYSENE
COBALT
COPPER
CYANIDE
2,5-CYCLOHEXADIENE-1,4-DIONE
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1A,2A,3B,4A,
5B,6B)-
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1A,2B,3A,4B,
5A,6B)-
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1A,2A,3A,4B,
5A,6B)-
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1A,2A,3B,4A,
5A,6B)-2-
CYCLOHEXENE-1-ONE,3,5,5-TRIMETHYL
1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-
DIBENZ[A,H]ANTHRACENE
DIBENZO[B,E][1,4]DIOXIN, 2,3,7,8-TETRACHLORO-
DIBENZO[B,DEF]CHRYSENE
DIBENZOFURAN
2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-
HEXACHLORO-1A,2,2A,3,6,6A,7,7A-
OCTAHYDRO-,LAA,2B,2AA,3A,6A,6AB,7B,7AA)-
1,4:5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXACHLORO-
1,4,4A,5,8,8A-HEXAHYDRO-, 1AA,4A,4AB,5B,8A,8AB)-
1,4-DIOXANE
ETHANAMINE, N-ETHYL-N-NITROSO-
ETHANAMINE, N-METHYL-N-NITROSO-
ETHANE, 1,1,-DICHLORO-

APPENDIX II:

ETHANE, 1,1'-[METHYLENEABIS(OXY)]BIS[2-CHLORO-
ETHANE, 1,1'-OXYBIS[2-CHLORO-
ETHANE, 1,1'THRICHLORO-
ETHANE, 1,1,1,2-TETRACHLORO-
ETHANE, 1,1,2-TRICHLORO-
ETHANE, 1,1,2,2-TETRACHLORO-
ETHANE, 1,2-DIBROMO-
ETHANE, 1,2-DICHLORO-
ETHANE, CHLORO-
ETHANE, HEXACHLORO-
ETHANE, PENTACHLORO-
1,2-ETHANEDIAMINE, N,N-DIMETHYL-N'-'-2-PYRIDINYL-N'-(2-THIENYLMETHYL)-
ETHANONE, 1-PHENYL-
ETHENE, (2-CHLOROETHOXY)-
ETHENE, 1,1-DICHLORO-
ETHENE, 1,2-DICHLORO-,(E)-
ETHENE, CHLORO-
ETHENE, TETRACHLORO-
ETHENE, TRICHLORO-
FLUORANTHENE
FLUORIDE
9H-FLUORENE
2-HEXANONE
HYDRAZINE, 1,2-DIPHENYL-
INDENO[1,2,3-CD]PYRENE
IRON
LEAD
MAGNESIUM
MANGANESE
MERCURY
METHANAMINE, N-METHYL-N-NITROSO-
METHANE, BROMO-
METHANE, BROMODICHLORO-
METHANE, CHLORO-
METHANE, DIBROMO-
METHANE, DIBROMOCHLORO-
METHANE, DICHLORO
METHANE, DICHLORODIFLUORO-
METHANE, IODO-
METHANE, TETRACHLORO-
METHANE, TRIBROMO-

APPENDIX II:

METHANE, TRICHLORO-
METHANE, TRICHLOROFLUORO-
METHANESULFORIC ACID, METHYL ESTER
METHANETHIOL, TRICHLORO
4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTOACHLORO-2,3,3A,4,7,7A-HEXAHYDRO
4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-3A,4,7,7A-HEXAHYDRO
2,5-METHANO-2H-IDENO[1,2-B]OXIRENE,2,3,4,5,6,7,7-HEPTACHLORO-1A,1B,5,5A,6,6A HEXAHYDRO-, (1AA,1BB,2A 5A,5AB,6B,6AA)
6,9-METHENO-2,4,3-BENZO-DIOXATHIEPIN 6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-3-OXIDE, (3A,5AB,6A,9A,9AB)
6,9-METHANO-2,4,3-BENZO-DIOXATHIEPIN 6,7,8,9,10,10-HEXACHLORO, 1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE, (3A,5AA,6B,9B,9AA) 1,3,4-METHANO-2H-CYCLOBUTAL[CD] PENTALENE-2-ONE, 1,1A,3,3A,4,5,5,5A,5B,6-DECACHLORO-OCTAHYDRO-
1,2,4-METHANOCYCLOPENTA[CD]PENTALENE-5-CARBOXALDEHYDE, 2,2A,3,3,4,7-HEXACHLORO-DECAHYDRO-, (1A,2B,2AB,4B,4AB 5B,6AB,6AB,7R)
MORPHOLINE, 4-NITROSO-
1-NAPHTHALENAMINE
2-NAPHTHALENAMINE
NAPHTHALENE
NAPHTHALENE, 2-CHLORO-
NAPHTHALENE, 2-METHYL-
1,4-NAPHTHALENEDIONE
NAPHTHO[1,2,3,4-DEF]CHRYSENE
NICKEL
OSMIUM
OXIRANE
2-PENTANONE, 4-METHYL-
PHENANTHRENE
PHENOL
PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-
PHENOL, 2-CHLORO-
PHENOL, 2-METHYL-
PHENOL, 2-METHYL-4,6-DINITRO

APPENDIX II:

PHENOL, 2-NITRO
PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-
PHENOL, 2,3,4,6-TETRACHLORO-
PHENOL, 2,4-DICHLORO-
PHENOL, 2,4-DIMETHYL
PHENOL, 2,4-DIMETHYL
PHENOL, 2,4-DINITRO
PHENOL, 2,4,5-TRICHLORO
PHENOL, 2,4,6-TRICHLORO
PHENOL, 2,6-DICHLORO-
PHENOL, 4-CHLORO-3-METHYL-
PHENOL, 4-METHYL-
PHENOL, 4-NITRO-
PHENOL, PENTACHLORO-
PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-[(ETHYLTHIO) METHYL] ESTER
PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-[2-(ETHYLTHIO) ETHYL] ESTER
PHOSPHOROTHIOIC ACID, 0-[4[(DIMETHYLAMINO)SULFONYL] PHENYL] 0,0-DIMETHYLESTER
PHOSPHORODITHIORC ACID, O,O-DIETHYLO-(4-NITROPHENYL) ESTER.
PHOSPHORODITHIORIC ACID, O,O-DIETHYL O-PYRAZINYL ESTER
PHOSPHORODITHIORIC ACID O,O-DIETHYL O-(4-NITROPHENYL) ESTER.
PIPERIDINE, 1-NITROSO-
POTASSIUM
1-PROPANAMINE, N-NITROSO-N-PROPYL-
PROPANE, 1,2-DIBROMO-3-CHLORO
PROPANE, 1,2-DICHLORO-
PROPANE, 1,2,3-TRICHLORO-
PROPANE, 2,2'-OXYBIS[1-CHLORO-
PROPANEDINITRITE
PROPANENITRITE
PROPANENITRITE, 3-CHLORO-
PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-
1-PROPANOL, 2,3-DIBROMO-PHOSPHATE(3:1)
1-PROPANOL, 2-METHYL-
2-PROPANONE
2-PROPENOL

APPENDIX II:

1-PROPENE, 1,1,2,3,3,3-HEXACHLORO-
1-PROPENE, 1,3-DICHLORO-,(E)
1-PROPENE, 1,3-DICHLORO-,(Z)
1-PROPENE, 1,3-CHLORO-
2-PROPENENITRLE, 2-METHYL-
2-PROPENENITRLE
2-PROPENOIC ACID, 2-METHYL-,ETHYL ESTER
2-PROPENOIC ACID, 2-METHYL-,METHYL ESTER
2-PROPEN-1-OL
2-PROPYN-1-OL
PYRENE
PYRIDINE
PYRIDINE, 2-METHYL-
PYRIDINE, 2-NITROSO
SELENIUM
SILVER
SODIUM
SULFIDE
SULFUROUS ACID, 2-CHLOROETHYL 2-[4-(1,1-DIMETHYLETHYL) PHENOXY]-1-METHYLETHYL ESTER
THALLIUM
THIODIPHOSPHORIC ACID ([HO]2P(S)]2O), TETRAETHYL ESTER
TIN
TOXAPHENE
VANADUIM
ZINC

Effective: MAR 0 1 1990

Certification: Richard L. Shank

FEB 1 2 1990
(Date)

Promulgated under R.C. Ch. 119
Rule amplifies ORC Section 3734.02
Prior effective date: New Rule

Exhibit B

October 2011 Corrective Measures Study

EAGON & ASSOCIATES, INC.
Consulting Geologists

100 Old Wilson Bridge Road, Suite 115 / Worthington, Ohio 43085 / (614) 888-5760 / FAX (614) 888-5763

October 20, 2011

Mr. Jeremy Scoles
Division of Materials and Waste Management
Ohio EPA, Northwest District Office
347 Dunbridge Road
Bowling Green, OH 43402

RE: Closed Seriff Road Landfill, Lima, Allen County, Ohio
CMS Revision 3

Dear Mr. Scoles:

On behalf of Waste Management of Ohio, Eagon & Associates, Inc. is submitting the enclosed approved Corrective Measure Study, Revision 3, October 2011 (5 copies) for the closed Seriff Road Landfill. A copy of the CMS will be submitted by Waste Management to Marty Cooper, per her request, at the Ohio EPA Legal Office along with the signed consent Directors Final Findings and Orders.

Please call Robin Jones at (937)318-5342 if you have any questions or comments regarding this submittal.

Sincerely,

Stephen J. Champa, PG
Hydrogeologist

SJC/kj
Encl.

cc: Robin Jones, WMO, w/o encl.
Jim Forney, WM, w/encl.
Lou Bull, WM, w/o encl.
Robert Leininger, WM, w/o encl.
Bill Kelly, Allen Co. Health Dept., w/encl.
Marty Cooper, OEPA, w/o encl.