

STATE OF MISSISSIPPI HAZARDOUS WASTE MANAGEMENT PERMIT

THIS CERTIFIES THAT

Koppers, Inc. / Beazer East Inc.

1 Koppers Drive

Tie Plant, MS

Grenada County

MSD 007 027 543

is hereby authorized to conduct post closure care for a closed surface impoundment

This permit is issued under the authority of the Mississippi Solid Wastes Disposal Law, and particularly Section 17-17-27 thereof, and rules adopted and promulgated thereunder, all of which authorize the Department of Environmental Quality to enforce all applicable requirements, under the Mississippi Hazardous Waste Management Regulations, and associated conditions included therein.

Permit Issued: FEB 10 2010

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.: HW-88-543-01

Expires: January 31, 2020

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MODULE I - GENERAL PERMIT CONDITIONS

I.A EFFECT OF PERMIT

The Permittee is required to conduct post-closure activities for a hazardous waste surface impoundment in accordance with the conditions of this Permit. Subject to Mississippi Hazardous Waste Management Regulation (MHWMR) 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with Mississippi Solid Waste Disposal Law (MSWDL) of 1974, as amended. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, any infringement of state or local law or regulations, or preclude compliance with any other Federal, State, and/or local laws and/or regulations governing the treatment and handling of explosives. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment. [MHWMR 270.4, 270.30(g)]

I.B PERMIT ACTIONS

I.B.1 Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in MHWMR 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition. [MHWMR 270.4(a) and 270.30(f)]

Permit Renewal

This Permit may be renewed as specified in MHWMR 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [MHWMR 270.30(b)]

I.C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [MHWMR 124.16(a)]

I.D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in MHWMR Parts 124, 260, 264, 266, 268, and 270, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

I.D.1 "Director" means the Executive Director of the Mississippi Department of Environmental Quality, or his designee or authorized representative.

I.D.2 A "hazardous constituent" for purposes of this permit are those substances listed in MHWMR Part 261 Appendix VIII and Part 264 Appendix IX.

I.D.3 A "release" for purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.

I.D.4 "Corrective Action" for the purposes of this permit, may include "corrective action" as provided in MHWMR 264.100.

I.E. DUTIES AND REQUIREMENTS

I.E.1 Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of Mississippi Solid Waste Disposal Law, Sections 17-17-1, et seq., Mississippi Code Annotated and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [MHWMR 270.30(a)]

I.E.2 Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new permit at least 180 days prior to Permit expiration. [MHWMR 270.10(h), 270.30(b)]

I.E.3 Permit Expiration

Pursuant to MHWMR 270.50, this Permit shall be effective for a fixed term not to exceed ten (10) years. As long as MDEQ is the Permit-issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see MHWMR 270.10, 270.13 through 270.29) and, through no fault of the Permittee, the Director has not issued a new Permit, as set forth in MHWMR 270.51.

I.E.4 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit. [MHWMR 270.30(c)]

I.E.5 Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment. [MHWMR 270.30(d)]

I.E.6 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [MHWMR 270.30(e)]

I.E.7 Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. [MHWMR 264.74(a), 270.30(h)]

I.E.8 Inspection and Entry

Pursuant to MHWMR 270.30(i), the Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

- I.E.8.a Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- I.E.8.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- I.E.8.c Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- I.E.8.d Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by MSWDL, any substances or parameters at any location.

I.E.9 Monitoring and Records

The Director may require such testing by the Permittee, and may make such modifications to this permit, deemed necessary to ensure implementation of new regulations or requirements, or to ensure protection of human health and the environment.

- I.E.9.a Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample to be analyzed must be the

appropriate method from the Sampling and Analysis Plan (Attachment B) or an equivalent method approved by the Director. Laboratory methods must be those specified in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846*, *Standard Methods of Wastewater Analysis*, or an equivalent method, as specified in the Sampling and Analysis Plan (See Permit Attachment B). [MHWMR 270.30(j)(1)]

I.E.9.b The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by MHWMR 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. [MHWMR 264.74(b) and 270.30(j)(2)]

I.E.9.c Pursuant to MHWMR 270.30(j)(3), records of monitoring information shall specify:

I.E.9.c.i The dates, exact place, and times of sampling or measurements;

I.E.9.c.ii The individuals who performed the sampling or measurements;

I.E.9.c.iii The dates analyses were performed;

I.E.9.c.iv The individuals who performed the analyses;

I.E.9.c.v The analytical techniques or methods used; and

I.E.9.c.vi The results of such analyses.

I.E.10 Reporting Planned Changes

The Permittee shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the Permitted facility. [MHWMR 270.30(l)(1)]

I.E.11 Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [MHWMR 270.30(l)(2)]

I.E.12 Transfer of Permits

This Permit is not transferable to any person, except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit pursuant to MHWMR 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of MHWMR Parts 264 and 270 and this Permit. [MHWMR 270.30(l)(3), 264.12(c)]

I.E.13 Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

I.E.14 Twenty-Four Hour Reporting

I.E.14.a The Permittee shall report to the Director any noncompliance which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

I.E.14.a.i Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

I.E.14.a.ii Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility.

I.E.14.b The description of the occurrence and its cause shall include:

- I.E.14.b.i Name, address, and telephone number of the owner or operator;
- I.E.14.b.ii Name, address, and telephone number of the facility;
- I.E.14.b.iii Date, time, and type of incident;
- I.E.14.b.iv Name and quantity of materials involved;
- I.E.14.b.v The extent of injuries, if any;
- I.E.14.b.vi An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
- I.E.14.b.vii Estimated quantity and disposition of recovered material that resulted from the incident.

I.E.14.c A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Director may waive the five-day written notice requirement in favor of a written report within 15 days. [MHWMR 270.30(l)(6)]

I.E.15 Other Non-compliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.10-I.E.15., at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E.14 [MHWMR 270.30(l)(10)]

I.E.16 Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Director, the Permittee shall promptly submit such facts or information.
[MHWMR 270.30(l)(11)]

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Director, his designee, or authorized representative, shall be signed and certified by the party submitting the documents in accordance with MHWMR 270.11 and 270.30(k).

I.G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DIRECTOR

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Director should be sent by certified mail or given to:

Environmental Permits Division, Chief
Mississippi Office of Pollution Control
P. O. Box 2261
Jackson, Mississippi 39225

I.H. CONFIDENTIAL INFORMATION

In accordance with MHWMR 270.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I.I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until post-closure is completed and certify by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

- I.I.1 Inspection schedules, as required by MHWMR 264.15(b)(2) and this Permit.
- I.I.2 Operating Record, as required by MHWMR 264.73 and this Permit.
- I.I.3 Post- Closure Plan, as required by MHWMR 264.118(a) and this Permit.
- I.I.4 A copy of the financial assurance mechanism for the facility post-closure care, as required by MHWMR 264.142(d) and 264.144(d).

MODULE II- GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

The Permittee shall construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by MHWMR 264.31.

II.B. SECURITY

The Permittee shall comply with the security provisions of MHWMR 264.14(b)(2) and (c) and the Post-Closure Plan, Permit Attachment D.

II.C. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in the Post-Closure Plan, Permit Attachment D. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by MHWMR 264.15(c). Records of inspection shall be kept, as required by MHWMR 264.15(d).

II.D. LOCATION STANDARDS

The Permittee's regulated unit (closed RCRA SI) that is subject of this permit does not lie in the 100 year flood plain.

II.D.1 RECORD KEEPING AND REPORTING

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

II.D.1.a Operating Record

The Permittee shall maintain a written operating record at the facility, in accordance with MHWMR 264.73.

II.E. GENERAL POST-CLOSURE REQUIREMENTS

II.E.1 Post-Closure Care Period

The Permittee shall begin post-closure care for each surface impoundment after completion of closure of the unit and continue for 30 years after that date. Post-closure care shall be in accordance with MHWMR 264.117 and the Post-Closure Plan, Permit Attachment D.

II.E.2 Post-Closure Security

The Permittee shall maintain security at the facility during the post-closure care period, in accordance with the Post-Closure Plan, Permit Attachment D, and MHWMR 264.117(b).

II.E.3 Amendment to Post-Closure Plan

The Permittee shall amend the Post-Closure Plan in accordance with MHWMR 264.118(d), whenever necessary.

II.E.4 Post-Closure Notices

The Permittee shall request and obtain a Permit modification prior to post-closure removal of hazardous wastes, hazardous waste residues, liners, or contaminated soils, in accordance with MHWMR 264.119(c).

II.E.5 Certification of Completion of Post-Closure Care

The Permittee shall certify that the post-closure care period was performed in accordance with the specifications in the Post-Closure Plan, as required by MHWMR 264.120.

II.E.5.a No later than 60 days after certification of closure of each hazardous waste disposal unit, the Permittee shall submit records of the type, location, and quantity of hazardous waste disposed within each cell or disposal unit, in accordance with MHWMR 264.119(a).

II.E.5.b Within 60 days of certification of closure of the first hazardous waste disposal unit and the last hazardous waste disposal unit, the Permittee shall do the following:

II.E.5.b.i Record a notation on the deed to the facility property, in accordance with MHWMR 264.119(b)(1).

II.E.5.b.ii Submit a certification that a notation, in accordance with MHWMR 264.119(b)(2), has been recorded.

II.F. COST ESTIMATE FOR FACILITY POST-CLOSURE

II.F.1 The Permittee's most recent post-closure cost estimate, prepared in accordance with MHWMR 264.144 is specified in Permit Attachment E.

II.F.2 The Permittee must revise the post-closure cost estimate whenever there is a change in the facility's Post-Closure Plan, as required by MHWMR 264.144(c).

II.F.3 The Permittee must keep at the facility the latest post-closure cost estimate as required by MHWMR 264.144(d).

II.G. FINANCIAL ASSURANCE FOR FACILITY POST-CLOSURE

The Permittee shall demonstrate continuous compliance with MHWMR 264.145 by providing documentation of financial assurance, as required by MHWMR 264.151 or 264.149, in at least the amount of the cost estimates required by Permit Condition II.F. Changes in financial assurance mechanisms must be approved by the Director pursuant to MHWMR 264.145 or 264.149.

II.H. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with MHWMR 264.148, whenever necessary.

MODULE III - GROUND WATER DETECTION MONITORING

III.A. MODULE HIGHLIGHTS

The Permittee is required by this module to maintain a groundwater detection monitoring system for the closed surface storage impoundment that was used in the treatment of wastewater from the wood preserving process. The groundwater detection monitoring system consists of eight wells, two up-gradient or background wells and six down-gradient wells. Monitoring wells R-1R and R-10- are the background wells. Monitoring well R-1R is 29.5 feet deep and R-10 is 27.0 feet deep. Monitoring wells R-7, R-8, R-8B, R-9, R-9C, and R-9D are down-gradient wells and are 31.0, 31.0, 46.0, 31.0, 60.5, and 87.2 feet deep, respectively. The locations of the wells are shown in Figure 6.

III.B. WELL LOCATION, INSTALLATION AND CONSTRUCTION

The Permittee shall install and maintain a ground-water monitoring system as specified below:
[MHWMR 264.97]

- III.B.1 The Permittee shall maintain ground-water monitoring wells at the locations specified in Figure 6 and in conformance with the following list:
 - III.B.1.a Monitoring well R-1R and R-10 shall be maintained as a background monitoring wells.
 - III.B.1.b Monitoring wells R-7, R-8, R-8B, R-9, R-9C, and R-9D shall be maintained as detection-monitoring wells for the unit identified in Permit Condition IV.B.
- III.B.2 The Permittee shall maintain the monitoring wells identified in Permit Condition III.B.1, in accordance with the detailed plans and specifications presented in Permit Attachment C, Section 5.5.
- III.B.3 Should the Permittee determine during an inspection or sampling event that any well identified in Condition III.B has been damaged such that it no longer meets the requirements of MHWMR 264.97(a) and (c), the Permittee shall notify the Executive Director in writing within seven (7) days of making such a determination and replace or repair the damaged well within thirty (30) days. Replacement wells should be constructed to the same specifications as the well being replaced.
- III.B.4 All wells deleted from the monitoring program shall be plugged and

abandoned in accordance with the Mississippi Office of Land and Water regulations. Well plugging and abandonment methods and certification shall be submitted to the Director within thirty (30) days from the date the wells are removed from the monitoring program.

III.C. INDICATOR PARAMETERS AND MONITORING CONSTITUENTS

The Permittee shall monitor R-1R, R-10, R-7, R-8, R-8B, R-9, R-9C, and R-9D as described in Permit Condition III.B, for the following parameters and constituents: [MHWMR 264.98(a)]

Parameter or Constituent	Established Background Concentrations
naphthalene	MDL, SW-846 Method 8270
fluoranthene	MDL, SW-846 Method 8270
acenaphthylene	MDL, SW-846 Method 8270
pentachlorophenol	MDL, SW-846 Method 8270
2,4-dinitrophenol	MDL, SW-846 Method 8270

III.D. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the ground-water monitoring wells described in Permit Condition III.B: [MHWMR 264.97(d) and (e)]

III.D.1 Samples shall be collected using the techniques described in the Groundwater Sampling and Analysis Plan, Permit Attachment B.

III.D.2 Samples shall be preserved and shipped, in accordance with the procedures specified in the Groundwater Sampling and Analysis Plan, Permit Attachment B.

III.D.3 Samples shall be analyzed in accordance with the procedures specified in the Groundwater Sampling and Analysis Plan, Permit Attachment B.

III.D.4 Samples shall be tracked and controlled using the chain-of-custody procedures

specified in the Groundwater Sampling and Analysis Plan, Permit Attachment B.

III.E. ELEVATION OF THE GROUND-WATER SURFACE

III.E.1 The Permittee shall determine the elevation of the ground-water surface at each well each time the ground-water is sampled, in accordance with Permit Condition III.G.2. [MHWMR 264.97(f)]

III.E.2 The Permittee shall record the surveyed elevation of the monitoring well(s) when installed (with as-built drawings).

III.F. SIGNIFICANT EVIDENCE OF A RELEASE

Historical sampling results at the facility have shown the background levels for the constituents listed in Permit Condition III.C to be below method detection limits. When evaluating the monitoring results in accordance with Permit Condition III.G., the Permittee shall use the following procedures:

III.F.1 For compounds that are not naturally occurring and/or those compounds not detected in background samples, the following conditions will constitute significant evidence of a release (subject to QA/QC checks and confirmation by retesting).

III.F.1.a A compound is detected above a PQL in a down-gradient well.

III.F.1.b More than one compound is detected in a well above the MDL but below the PQL in a single sampling event.

III.F.1.c One compound is detected in a well above the MDL but below the PQL twice or more in a twelve-month period.

III.F.1.d A compound (or compounds) is detected above the MDL but below the PQL, either in a single well or in multiple wells, and a review of data shows trends or indications that a release may have occurred. Such a review of available data, including graphical and spatial analyses, must be documented by the facility owner/operator either at the next scheduled monitoring event or as otherwise required by permit condition, regulation or law.

III.F.1.e Laboratory methods must be those specified in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846*, *Standard Methods of Wastewater Analysis*, or an equivalent method, as specified in the Sampling and Analysis Plan (See Permit Attachment B). The Permittee will employ SW-846 Method 8270D, Selective Ion Monitoring (SIM) for the detection (up to 0.2µg/l) of benzo(a)pyrene or an equivalent method approved by the Director. [MHWMR 270.30(j)(1)]

III.F.2 The Permittee may choose to retest when there has been significant evidence of a release identified under Permit Condition III.F.1. A retest shall consist of analyzing two additional samples. Such samples must be collected in separate events (i.e., after re-purging the wells prior to sampling). It will not be necessary to obtain an independent sample with respect to the interval of time between subsequent samples. Confirmation of a detect will occur if analysis of either sample collected during the retest detects the compounds found in the original sample. If additional or different compounds are found in a retest, further sampling will be necessary to determine if a release of the additional constituents has occurred.

III.G. MONITORING PROGRAM AND DATA EVALUATION

III.G.1 The Permittee shall collect, preserve, and analyze samples pursuant to Permit Condition III.D.

III.G.2 The Permittee shall determine ground-water quality at each monitoring well at the compliance point during the active life of a regulated unit, including the closure period (and post-closure care period for land disposal units which do not clean close). [MHWMR 264.98(d)] The Permittee shall express the ground-water quality at each monitoring well in a form necessary for the determination of statistically significant increases (i.e., means and variances).

III.G.3 The Permittee shall determine the ground-water flow rate and direction in the uppermost aquifer at least annually. [MHWMR 264.98(e)]

III.G.4 The Permittee shall determine whether there is significant evidence of a release for each parameter identified in Permit Condition III.C each time ground-water quality is determined at the compliance point using the procedures specified in Permit Condition III.F.

III.G.5 The Permittee shall perform the evaluations described in Permit Condition III.G.4 within ninety (90) days after completion of sampling. [MHWMR 264.98(g)(2)]

III.H. RECORD KEEPING AND REPORTING

III.H.1 The Permittee shall enter all monitoring, testing, and analytical data obtained in accordance with Permit Condition III.G in the operating record. [MHWMR 264.73(b)(6)]

III.H.2 The Permittee shall submit the analytical results required by Permit Conditions III.G.2 and III.G.3 and the results of the initial statistical analyses required by Permit Condition III.G.4, in accordance with the following schedule:

Samples To Be Collected During the Preceding Months of	Results Due To The Executive Director
January – December	April 15

III.H.3 If the Permittee determines, pursuant to Permit Condition III.G, there is a statistically significant increase for any indicator parameter specified in Permit Condition III.C, the Permittee shall:

III.H.3.a Notify the Agency in writing within seven days. [MHWMR 264.98(h)(1)]

III.H.3.b Immediately sample the ground-water in all wells and determine the concentration of all constituents identified in Appendix IX of MHWMR 261. [MHWMR 264.98(h)(2)]

III.H.3.c Establish the background values for each Appendix IX constituent found in the ground-water. [MHWMR 264.98(h)(3)]

III.H.3.d Within 90 days, submit to the Agency an application for a permit modification to establish a compliance monitoring program. [MHWMR 264.98(h)(4)] The application must include the following information:

III.H.3.d.i An identification of the concentration of each Appendix

IX constituent found in the ground-water at each monitoring well at the compliance point. [MHWMR 264.98(4)(i)]

III.H.3.d.ii Any proposed changes to the ground- water monitoring system at the facility necessary to meet the requirements of compliance monitoring as described in MHWMR 264.99. [MHWMR 264.98(h)(4)(ii)]

III.H.3.d.iii Any proposed changes to the monitoring frequency, sampling and analysis procedures, or methods or statistical procedures used at the facility necessary to meet the requirements of compliance monitoring as described in MHWMR 264.99. [MHWMR 264.98(h)(4)(iii)]

III.H.3.d.iv For each hazardous constituent found at the compliance point, a proposed concentration limit, or a notice of intent to seek an alternate concentration limit for a hazardous constituent. [MHWMR 264.98(h)(4)(iv)]

III.H.3.e Submit a corrective action feasibility plan to the Agency within 180 days. [MHWMR 264.98(h)(5)]

III.H.4 If the Permittee determines, pursuant to Permit Condition III.G, there is a statistically significant increase above the background values for the parameters specified in Permit Condition III.C, a demonstration may be made that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In such cases, the Permittee shall:

III.H.4.a Notify the Director in writing within seven (7) days of the intention to make a demonstration. [MHWMR 264.98(i)(1)]

III.H.4.b Within 90 days, submit a report to the Director which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. [MHWMR 264.98(i)(2)]

III.H.4.c Within 90 days, submit to the Director an application for a permit

modification to make any appropriate changes to the detection monitoring program at the facility. [MHWMR 264.98(i)(3)]

III.H.4.d Continue to monitor in accordance with the detection monitoring program at the facility. [MHWMR 264.98(i)(4)]

III.I REQUEST FOR PERMIT MODIFICATION

If the Permittee or the Director determines the detection monitoring program no longer satisfies the requirements of the regulations, the Permittee must, within 90 days of the determination, submit an application for a permit modification to make any appropriate changes to the program which will satisfy the regulations. [MHWMR 264.98(j)]

MODULE IV - POST-CLOSURE CARE

IV.A. MODULE HIGHLIGHTS

This module covers the post-closure care activities for the Permittee's closed surface impoundment. The closed surface impoundment was used in the treatment of wastewater from the wood preserving process. The sediment and sludge that accumulated in the impoundment met the K001 RCRA hazardous waste listing. In the summer of 1988, all sludge and visible contaminated soils were removed from the surface impoundment and shipped to a permitted off-site disposal facility. Closure activities for the surface impoundment were initiated in July 1989 which included removal of accumulated rainwater, placement of clean soil fill, construction of a soil-bentonite cap and cover system. Closure activities for the surface impoundment were completed by the end of October 1989. The closure construction documentation and closure certification for the surface impoundment were submitted to the MDEQ in January 1990. Module III of this permit covers the requirements for detection monitoring that the facility is required to conduct during the post-closure care period.

IV.B. UNIT IDENTIFICATION

The Permittee shall provide post-closure care for the following hazardous waste management units, subject to the terms and conditions of this permit, and as described as follows:

Type of Waste Unit	Description of Wastes Contained	Hazardous Waste No.
Waste Storage Impoundment	Bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	K001

IV.C. POST-CLOSURE PROCEDURES AND USE OF PROPERTY

IV.C.1 The Permittee shall conduct post-closure care for each hazardous waste management unit listed in Permit Condition IV.B. above, to begin after completion of closure of the unit and continue for 30 years after that date, except that the 30-year post-closure care period may be shortened upon application and demonstration approved by MDEQ that the facility is secure,

or may be extended by MDEQ if the Director finds this is necessary to protect human health and the environment. [MHWMR 264.117(a)]

- IV.C.2 The Permittee shall maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of MHWMR Part 264 Subpart F during the post-closure period. [MHWMR 264.117(a)(1)]
- IV.C.3 The Permittee shall comply with the requirements for surface impoundments as follows: [MHWMR 264.228(b)(1) and (3)]
 - IV.C.3.a Maintain the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, and other events;
 - IV.C.3.b Prevent run-on and run-off from eroding or otherwise damaging the final cover.
 - IV.C.3.c Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of MHWMR Subpart F;
 - IV.C.3.d Protect and maintain surveyed benchmarks used in complying with the surveying and record keeping requirements of MHWMR 264.309.
- IV.C.4 The Permittee shall comply with all security requirements, as specified in the Post-Closure Plan, Permit Attachment D. [MHWMR 264.117(b)]
- IV.C.5 The Permittee shall not allow any use of the units designated in Permit Condition IV.B, which will disturb the integrity of the final cover, liners, any components of the containment system, or the function of the facility's monitoring systems during the post-closure care period. [MHWMR 264.117(c)]
- IV.C.6 The Permittee shall implement the Post-Closure Plan, Permit Attachment D. All post-closure care activities must be conducted in accordance with the provisions of the Post-Closure Plan. [MHWMR 264.117(d) and 264.118(b)]

IV.D. INSPECTIONS

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the schedule contained in the Post-Closure Plan, Permit Attachment D. [MHWMR 264.117(a)(1)(ii)]

IV.E. NOTICES AND CERTIFICATION

- IV.E.1 No later than 60 days after certification of closure of each permitted hazardous waste disposal unit, the Permittee shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the Permittee shall identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept. [MHWMR 264.119(a)]
- IV.E.2 If the Permittee or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located, wishes to remove hazardous wastes and hazardous waste residues, the liner, if any; or contaminated soils, then they shall request a modification to this post closure permit in accordance with the applicable requirements in MHWMR Parts 124 and 270. The Permittee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of MHWMR 264.117(c). [MHWMR 264.119(c)]
- IV.E.3 No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall submit to the Director, by registered mail, a certification that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Post-Closure Plan. The certification must be signed by the Permittee and an independent, registered professional engineer. Documentation supporting the independent, registered professional engineer's certification must be furnished to the Director upon request until the Director releases the Permittee from the financial assurance requirements for post-closure care under MHWMR 264.145(1). [MHWMR 264.120]

IV.F. FINANCIAL ASSURANCE

- IV.F.1 The Permittee shall maintain financial assurance during the post-closure period and comply with all applicable requirements of MHWMR Part 264 Subpart H. [MHWMR 264.145]
- IV.F.2 The Permittee shall demonstrate to the Director that the value of the financial assurance mechanism exceeds the remaining cost of post-closure care, in order for the Director to approve a release of funds. [MHWMR 264.145(a)(10)]
- IV.F.3 The Permittee shall submit itemized bills to the Director when requesting reimbursement for post-closure care. [MHWMR 264.145(a)(11)]

IV.G. POST-CLOSURE PERMIT MODIFICATIONS

The Permittee must request a permit modification to authorize a change in the approved Post-Closure Plan. This request must be in accordance with applicable requirements of MHWMR Parts 124 and 270, and must include a copy of the proposed amended Post-Closure Plan for approval by the Director. The Permittee shall request a permit modification whenever changes in operating plans or facility design affect the approved Post-Closure Plan, there is a change in the expected year of final closure, or other events occur during the active life of the facility that affect the approved Post-Closure Plan. The Permittee must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the Post-Closure Plan. [MHWMR 264.118(d)]

MODULE V -WASTE MINIMIZATION

V.A. APPLICABILITY

In the event that the Permittee treats, stores, or disposes of hazardous wastes onsite where such wastes were generated, then the Permittee must comply with MHWMR §264.73(b)(9), and Section 3005(h) of RCRA (42 U.S.C. 6925(h)), and the Permittee must certify, no less often than annually, that:

- V.A.1 The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and
- V.A.2 The proposed method of treatment, storage or disposal is the most practical method available to the Permittee which minimizes the present and future threat to human health and the environment.

V.B. WASTE MINIMIZATION CERTIFICATION OBJECTIVES

Any future waste minimization program under Permit Condition V.A should include the following elements:

V.B.1 Top Management Support

- V.B.1.a Dated and signed policy describing management support for waste minimization and for implementation of a waste minimizing plan.
- V.B.1.b Description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.
- V.B.1.c Description of how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations and maintenance.

V.B.2 Characterization of Waste Generation

Identification of types, amounts and hazardous constituents of waste streams

with the source and date of generation.

V.B.3 Periodic Waste Minimization Assessments

V.B.3.a Identification of all points in a process where materials can be prevented from becoming a waste, or can be recycled.

V.B.3.b Identification of potential waste reduction and recycling techniques applicable to each waste, with a cost estimate for capital investment and implementation.

V.B.3.c Specify performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the generator

V.B.4 Cost Allocation System

Identification of waste management costs for each waste, factoring in liability, transportation, recordkeeping, personnel, pollution control, treatment, disposal, compliance and oversight to the extent feasible.

V.B.4.a Description of how departments are held accountable for the wastes they generate.

V.B.4.b Comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste.

V.B.5 Technology Transfer

Description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade associations, technical assistance programs, and professional consultants.

V.B.6 Program Evaluation

V.B.6.a Description of types and amounts of hazardous waste reduced or recycled.

- V.B.6.b Analysis quantification of progress made relative to each performance goal established and each reduction technique to be implemented.
- V.B.6.c Amendments to waste minimization plan and explanation.
- V.B.6.d Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.
- V.B.6.e Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility.

V.C. RECORDKEEPING AND REPORTING

- V.C.1 Annually, the Permittee shall submit a certification report of the types and quantities of waste generated, and the types and quantities of waste reduced/minimized. This certified report shall include a narrative study explaining the waste generated and minimization data, a description of goals and progress made in reducing/minimizing the generation of wastes, and a description of any impediment to the reduction and minimization of waste.
- V.C.2 The Permittee shall maintain copies of this certification in the facility operating record as required by MHWMR 264.73.

MODULE VI -LAND DISPOSAL RESTRICTIONS

VI.A GENERAL RESTRICTIONS

MHWMR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of MHWMR Part 268. Where the Permittee has applied for an extension, waiver or variance under MHWMR Part 268, the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

VI.B LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

- VI.B.1 A restricted waste identified in MHWMR Part 268 Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of MHWMR Part 268 Subparts C and/or D are met.
- VI.B.2 The storage of hazardous wastes restricted from land disposal under MHWMR Part 268 is prohibited unless the requirements of MHWMR Part 268 Subpart E are met.

MODULE VII-ORGANIC AIR EMISSION REQUIREMENTS FOR PROCESS VENTS AND EQUIPMENT LEAKS

VII.A GENERAL INTRODUCTION

In the June 21, 1990 Federal Register, EPA published the final rule for Phase I Organic Air Emission Standards (MHWMR Parts 264 and 265, Subparts AA and BB) for hazardous waste treatment, storage, and disposal facilities. Subpart AA contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight. Subpart BB contains emission standards that address leaks from specific equipment (i.e., pumps, valves, compressors, etc.) That contains or contacts hazardous waste that has an organic concentration of at least ten (10) percent by weight.

VII.B ORGANIC AIR EMISSION STANDARDS

Prior to constructing any equipment with process vents subject to the requirements of MHWMR 264, Subpart AA or installing any additional equipment subject to the requirements of MHWMR 264, Subpart BB, the Permittee shall supply the specific Part B information required pursuant to MHWMR 270.24 and 270.25, as applicable.

MODULE VIII - PHASE II RCRA ORGANIC AIR EMISSION REQUIREMENTS

VIII.A GENERAL INTRODUCTION

On December 6, 1994, EPA published the final rule for Phase II Organic Air Emissions Standards (40 CFR Parts 264 and 265, Subpart CC) for hazardous waste treatment, storage, and disposal facilities, including certain hazardous waste generators accumulating waste on-site in RCRA permit-exempt (90-day) tanks and containers. In general, under these standards air emissions controls must be used for tanks, surface impoundments, containers and miscellaneous units which contact hazardous waste containing an average organic concentration greater than 500 ppmw at the point of origination determined by the procedures outlined in 40 CFR § 264.1083(a), except as specifically exempted under 40 CFR § 264.1080 and § 264.1082.

VIII.B ORGANIC AIR EMISSION STANDARDS

Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, or modifying an existing process, waste handling or tank or container such that the unit(s) will become subject to 40 CFR Part 264 Subpart CC, the Permittee shall apply for a permit modification under § 270.42, and provide specific Part B application information required under 40 CFR §§ 270.14-17 and § 270.27, as applicable, with the modification request.

ATTACHMENT A

(RCRA Part A Application)

ATTACHMENT B

Sampling and Analysis Plan

(RCRA Part B Application, Appendix H)

ATTACHMENT C

Groundwater Protection

(RCRA Part B Application, Section 5)

ATTACHMENT D

Closure And Post Closure Requirements

(RCRA Part B Application, Section 7)

ATTACHMENT E

Post-Closure Care Cost Estimate

(RCRA Part B Application, Table 4)

ATTACHMENT F

Monitoring Well Construction Diagrams and Well Specifications

(RCRA Part B Application, Appendix E)

ATTACHMENT G

Financial Assurance Mechanism for Post-Closure

(RCRA Part B Application, Appendix K)

Figure 1

(Site Location Map)

Figure 2

(Site Topographic Map)

Figure 3

(Facility Topographic Map)

Figure 4

(Flood Hazard Boundary Map)

Figure 5

(Photograph of Closed Surface Impoundment)

Figure 6

(Detection Monitoring System Well Locations Map)

Figure 7

(Groundwater Contours Upper Most Aquifer Map)