

# STATE OF MISSISSIPPI HAZARDOUS WASTE MANAGEMENT PERMIT

## THIS CERTIFIES THAT

**Fernwood Industries, LLC  
1047 Fernwood Road  
Fernwood, MS  
Pike County  
MSD 008 183 519**

is hereby authorized to conduct post-closure care and corrective action for four closed surface impoundments.

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.

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Permit Issued: August 27, 2012**

**Modified: March 6, 2019**

**Expires: July 31, 2022**

**Permit No.: HW-008-813-519**

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## MODULE 1 – GENERAL PERMIT CONDITIONS

### I.A. EFFECT OF PERMIT

The Permittee is required to conduct post-closure activities for the four closed hazardous waste surface impoundments (i.e., Surface Impoundment #1, Surface Impoundment #2, the Condenser Cooling Water Pond, and the Sand Filter Bed) and to conduct corrective action for contaminated groundwater resulting from releases from these regulated units in accordance with the conditions of this permit. Subject to MHWMR 270.4, compliance with this permit constitutes compliance, for purposes of enforcement, with Subtitle C of the Resource Conservation and Recovery Act (RCRA). Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, and invasion of other private rights, or any infringement of state or local law or regulations or preclude compliance with any other Federal, State, and/or local laws. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3008(a), Section 3008 (h), Section 3013, of Section 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 Part 270.41, 270.42, 270.43, and 270.50(d). 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 conditions. [MHWMR 270.4(a) and 270.30(f)]

#### I.B.2 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 provisions 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, 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 or the generally accepted scientific or industrial meaning to the term. “Executive Director” means the Executive Director of MDEQ, or his designated or authorized representative.

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 RCRA and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or 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 Part 270.50, this permit shall be effective for a fixed term not to exceed ten (10) years. 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 and, through no fault of the Permittee, the Executive Director has not issued a new permit, as set forth in MHWMR 270.51. [MHWMR 270.50(a), MHWMR 270.51(d)]

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 the 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 staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. [MHWMR 270.30(e)]

I.E.7. Duty to Provide Information

The Permittee shall furnish to the Executive Director, within a reasonable time, any relevant information which the Executive 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 the Executive 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 Executive 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 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 facility, 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 RCRA, any substances or parameters at any location.

I.E.9. Monitoring and Records

The Executive 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 of the wastes to be analyzed must be the appropriate method from Appendix I of MHWMR Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (SOP) (most recent version), or an equivalent method approved by the Executive Director. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods for the Examination of Water and Wastewater, or an equivalent method approved by the Executive Director and specified herein. [MHWMR 270.30(j)(1)]
- I.E.9.b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, records of all data used to prepare documents required by this permit, 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. This period may be extended by the Executive Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall also maintain records for all groundwater monitoring wells and associated groundwater surface elevations for the duration of the post-closure care period. All records required by this condition shall be



maintained at the Fernwood Industries, LLC central file located in the office at the Fernwood site and shall be made available upon request. [MHWMR 264.74(b) and 270.30(j)(2)]

I.E.9.c. Records of monitoring information shall specify:

- i. The date(s), exact place, and time(s) of sampling or measurements;
- ii. The individual(s) who performed the sampling or measurements;
- iii. The date(s) the analyses were performed;
- iv. The individual(s) who performed the analyses;
- v. The analytical techniques or methods used, including any method detection limits for said technique; and
- vi. The results of such analyses.

I.E.10. Reporting Planned Changes

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

I.E.11. Anticipated Noncompliance

The Permittee shall give advance notice to the Executive 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 Executive Director. The Executive Director may require modification or revocation and reissuance of the permit pursuant to MHWMR 270.40. Before transferring ownership or operation of the facility, the Permittee shall notify the new owner or operator in writing of the requirements of MHWMR Parts 264 and 270 and of this permit. [MHWMR 270.30(l)(3), 264.12(c)]

I.E.13. Twenty-Four Hour Reporting

- I.E.13.a. The Permittee shall report to the Executive Director any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported

orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:

- i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
- 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.13.b. The description of the occurrence and its cause shall include:

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

I.E.13.c. A written submission shall also be provided within five (5) 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 Executive Director may waive the five-day written notice requirement in favor of a written report within 15 days. [MHWMR 270.30(1)(6)]

I.E.14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above at the time monitoring reports are submitted. The reports shall contain the information listed in condition I.E.13. of this Permit. [MHWMR 270.30(1)(10)]

I.E.15. Obligation for Corrective Action

The Permittee is required to continue this permit for any period necessary to comply with the corrective action requirements of this permit.

I.E.16. Other Information

Whenever the Permittee becomes aware that it failed to submit relevant facts in the permit application or submitted incorrect information in a permit application or any report to the Executive Director, the Permittee shall promptly submit such facts or information. [MHWMR 270.30(1)(11)]

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Executive Director shall be signed and certified in accordance with MHWMR 270.11 and 270.30(k).

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

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

Waste Division, Chief  
MDEQ, Office of Pollution Control  
P.O. Box 2261  
Jackson, MS 39225

I.H. CONFIDENTIAL INFORMATION

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

## **MODULE II – GENERAL FACILITY CONDITIONS**

### **II.A. FACILITY DESCRIPTION**

This permit is issued to Fernwood Industries, LLC for their closed wood treating facility in Fernwood, Pike County, Mississippi (MSD 008 813 519), as described in the permit renewal application submitted on May 4, 2009, including all subsequently submitted supplementary information and modifications; and hereinafter referred to as “the application.” This permit authorizes the Permittee to conduct post-closure care for the four closed hazardous waste surface impoundments, which include Surface Impoundment #1, Surface Impoundment #2, the Condenser Cooling Water Pond, and the Sand Filter Bed; and to perform corrective action for the contaminated groundwater beneath these units.

### **II.B. DESIGN AND OPERATION OF FACILITY**

The Permittee shall maintain and operate the facility to minimize the possibility of 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.C. SECURITY**

The Permittee shall comply with the security provisions of MHWMR Section 264.14(b)(2) and (c) as described in Section 2.4 of Attachment A and maintained per the Post-Closure Plan in Attachment B.

### **II.D. GENERAL INSPECTION REQUIREMENTS**

The Permittee shall comply with the inspection requirements of MHWMR Section 264.15 as described in the Post-Closure Plan (Attachment B). The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by MHWMR 264.15(c). Records of inspections shall be kept as required by MHWMR 264.15(d).

### **II.E. LOCATION STANDARDS**

The facility is not located in an area described by MHWMR 264.18(a). A small portion of the facility is located within a 100-year floodplain. However, the closed surface impoundments are not within the floodplain and are designed such that flooding should not result in a washout.

## II.F. GENERAL POST-CLOSURE REQUIREMENTS

### II.F.1. Post-Closure Care Period

The Permittee shall conduct post-closure care for the closed surface impoundments for 30 years following the date of completion of closure, except as otherwise provided in Module III. Post-closure care of the units shall be in accordance with MHWMR 264.117 and the Post-Closure Plan required by MHWMR 264.118.

### II.F.2. Amendment to Post-Closure Plan

The Permittee shall request a permit modification and amend the Post-Closure Plan, whenever necessary, in accordance with MHWMR Section 264.118(d).

### II.F.3. Post-Closure Notices

- II.F.3.a. The Permittee has submitted 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.F.3.b. Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the Permittee performed the following:
  - i. Recorded a notation on the deed to the facility property, in accordance with MHWMR 264.119(b)(1).
  - ii. Submitted a certification that the notation required by MHWMR 264.119(b)(1) has been recorded, in accordance with MHWMR 264.119(b)(2).
- II.F.3.c. The Permittee shall request and obtain a permit modification prior to the post-closure removal of hazardous wastes, hazardous waste residues, liners, or contaminated soils in accordance with MHWMR 264.119(c).

### II.F.4. Certification of Completion of Post-Closure Care

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

## II.G. COST ESTIMATE FOR POST-CLOSURE CARE

- II.G.1. The Permittee must have a detailed written estimate of the cost of providing post-closure care of the facility, prepared in accordance with MHWMR 264.144(a).
- II.G.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 Section 264.144(c).
- II.G.3. The Permittee must keep the latest post-closure cost estimate, as required by MHWMR Section 264.144(d), at the facility.

## II.H. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

The Permittee shall demonstrate continuous compliance with MHWMR 264.145 by providing documentation of financial assurance, as required by MHWMR 264.151, in at least the amount of the cost estimate required by Condition II.G. of this permit. Changes in financial assurance mechanisms must be approved by the Executive Director pursuant to MHWMR Section 264.145. The Permittee may request adjustments to and/or reimbursements from the financial mechanism in accordance with the procedures in MWHMR 264.145.

## II.I. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with MHWMR 264.148 whenever necessary.

## II.J OPERATING RECORD

Pursuant to MHWMR Part 264.73(a), the Permittee must keep a written operating record of post-closure care activities and those activities specified in MHWMR Part 264.73(b)(5) and (6), as well as post-closure cost estimates required by MHWMR 264.73(b)(8). These records shall be maintained at the facility.

## II.K. SPECIAL CONDITIONS

- II.K.1. Where a discrepancy exists between the wording of an item in the application and this permit, the permit requirements take precedence over the application.
- II.K.2. Where a discrepancy exists between the wording of an item in an attachment and wording in the permit module, the module requirements take precedence over the attachment.

## **MODULE III – POST-CLOSURE CARE**

### **III.A. APPLICABILITY**

The Permittee shall provide post-closure care for the four closed surface impoundments, which include Surface Impoundment #1, Surface Impoundment #2, the Condenser Cooling Water Pond, and the Sand Filter Bed, as described in Section 1.1 of Attachment A and depicted in Figure 1 of Attachment C, in accordance with MHWMR 264.110(b). The closed surface impoundments were used in the treatment of wastewater and wastewater sludge from the wood preserving process. The sediment and sludge that accumulated in the impoundments met the K001 RCRA hazardous waste listing.

### **III.B. POST-CLOSURE CARE AND USE OF PROPERTY**

- III.B.1. Post-closure care for the surface impoundments shall continue throughout the effective period of this permit. The 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 Executive Director or his authorized representative finds this is necessary to protect human health and the environment. [MHWMR 264.117(a)]
- III.B.2. The Permittee shall perform maintenance, monitoring, and reporting for the groundwater monitoring program in accordance with the applicable requirements of Subpart F of MHWMR Part 264 and Module IV of this permit during the post-closure period. [MHWMR 264.117(a)(1)]
- III.B.3. For the closed surface impoundments, the permittee shall comply with the post-closure care requirements for surface impoundments in MHWMR Part 264, Subpart K, as follows [MHWMR 264.117(a)(1) and MHWMR 264.228(b)]:
  - III.B.4.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, or other events [MHWMR 264.228(b)(1)];
  - III.B.3.b. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of MHWMR Part 264, Subpart F [MHWMR 264.228(b)(3)]; and

III.B.3.c. Prevent run-on and run-off from eroding or otherwise damaging the final cover. [MHWMR 264.228(b)(4)]

III.B.4. The Permittee shall maintain the security measures specified in Section 2.4 of Attachment A and maintained per the Post-Closure Plan in Attachment B. [MHWMR 264.117(b)]

III.B.5. Post-closure use of property in which hazardous wastes remain after final closure must never be allowed to disturb the integrity of the final cover or the function of the facility's monitoring systems, unless allowed by the Executive Director under MHWMR 264.117(c)(1)-(2). [MHWMR 264.117(c)]

III.B.6. The Permittee shall implement the Post-Closure Plan found in Attachment B. All post-closure care activities must be conducted in accordance with the provisions of the Post-Closure Plan. [MHWMR 264.117(d)]

### III.C. POST-CLOSURE INSPECTIONS

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the Post-Closure Plan found in Attachment B. The Permittee shall also comply with the General Inspection Requirement in Condition II.D.

### III.D. POST-CLOSURE NOTICES

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 or contaminated soils, he 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)]

### III.E. CERTIFICATION OF COMPLETION OF POST-CLOSURE CARE

No later than sixty (60) days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall submit to the Executive 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 a qualified engineer registered in the State of Mississippi. Documentation supporting the professional engineer's certification must be furnished to the Executive Director upon request until the Executive Director releases the Permittee from the financial assurance requirements for post-closure care under MHWMR 264.145(i). [MHWMR 264.120]



### III.F. FINANCIAL ASSURANCE

- III.F.1. The Permittee shall maintain financial assurance during the post-closure period and comply with all applicable requirements of MHWMR 264, Subpart H. [MHWMR 264.145]
- III.F.2. The Permittee shall demonstrate to the Executive Director that the value of the financial assurance mechanism exceeds the remaining cost of post-closure care, in order for the Executive Director to approve a release of funds. [MHWMR 264.145(a)(10)]
- III.F.3. The Permittee shall submit itemized bills to the Executive Director when requesting reimbursement for post-closure care. [MHWMR 264.145(a)(11)]
- III.F.4. The Permittee shall maintain the existing Corrective Action Cost Estimate and Financial Assurance for Corrective Action and Post-Closure Care for the duration of the permit cycle unless a reduction is authorized by the Executive Director.

### III.G. RETENTION OF POST-CLOSURE PLAN

The person designated as the facility contact in the Post-Closure Plan (Attachment B) must keep the updated Post-Closure Plan during the remainder of the post-closure period. [MHWMR 264.118(c)]

### III.H. POST-CLOSURE PERMIT MODIFICATIONS

The Permittee must submit a written request for a permit modification to authorize a change in the approved Post-Closure Plan. This request must be made in accordance with applicable requirements of MHWMR Parts 124 and 270 and must include a copy of the amended Post-Closure Plan for approval by the Executive 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 sixty (60) days prior to the proposed change in facility design or operation, or no later than sixty (60) days after an unexpected event has occurred which has affected the Post-Closure Plan. The Executive Director will approve, disapprove, or modify this plan in accordance with the procedures in MHWMR Parts 124 and 270. [MHWMR 264.118(d)]

## **MODULE IV – GROUNDWATER MONITORING PROGRAM**

### **IV.A. APPLICABILITY**

The conditions of this module apply to the four closed surface impoundments, which include Surface Impoundment #1, Surface Impoundment #2, the Condenser Cooling Water Pond, and the Sand Filter Bed, as described in Section 1.1 of Attachment A and depicted in Figure 1 of Attachment C.

### **IV.B. GROUNDWATER MONITORING PROGRAM**

The Permittee shall conduct a corrective action groundwater monitoring program as required by MHWMR 264.91(a)(3). When the concentrations of hazardous constituents in Condition IV.D. have not exceeded the groundwater protection standards under Condition IV.C. for a period of three consecutive years, then the Permittee may petition the Executive Director for a permit modification to conduct a compliance monitoring program per MHWMR 264.99.

### **IV.C. GROUNDWATER PROTECTION STANDARDS**

The groundwater protection standards under MHWMR 264.92 shall be equal to the concentration limits under Condition IV.D. during the corrective action compliance period. These groundwater protection standards are based on the Maximum Contaminant Limits (MCLs) as established in the National Primary Drinking Water Regulations under the Safe Drinking Water Act (SDWA). In cases where MCLs have not been promulgated, the standard shall be the tapwater screening level from the “Regional Screening Levels for Chemical Contaminants at Superfund Sites” or, if no such levels have been established or these screening levels are below the Method Detection Limit (MDL), the standard shall be no detection of the constituent. The MDL for the test method used shall be at or below the Limit of Quantitation (LOQ) (or Practical Quantitation Limit, PQL) specified in the appropriate EPA Test Method. The Permittee may petition the Executive Director for a permit modification during the compliance period to establish additional groundwater protection standards based on alternate concentration limits (ACLs) under MHWMR 264.94(b). [MHWMR 264.100(a)]

### **IV.D. HAZARDOUS CONSTITUENTS AND CONCENTRATION LIMITS**

The following constituents are present in the groundwater beneath the closed surface impoundments depicted in Attachment C. The groundwater protection standards of Condition IV.C. shall be based on the indicated concentration limits as required by MHWMR 264.94. The Permittee shall continue to implement a compliance monitoring program to ensure that the corrective action program is effectively reducing these hazardous constituents beneath regulated units to achieve compliance with the groundwater protection standards. The following

hazardous constituents and their concentration limits comprise the groundwater protection standards [MHWMR 264.100(a)(1)-(2)]:

Constituents	Concentration Limit (µg/L) <sup>1</sup>	Basis
Acenaphthene	400	SL <sup>3</sup>
<u>Acenaphthylene</u>	< MDL	MDL <sup>2</sup>
Acetophenone	1,500	SL <sup>3</sup>
Anthracene	1,300	SL <sup>3</sup>
Benz(a)anthracene	< MDL	SL <sup>4</sup>
Benzene	5.0	MCL
<u>Benzo(a)pyrene</u>	0.2	MCL <sup>4</sup>
Benzo(b)fluoranthene	< MDL	SL <sup>4</sup>
Benzo(k)fluoranthene	< MDL	SL <sup>4</sup>
Benzo(g,h,i)perylene	< MDL	MDL <sup>2</sup>
Chrysene	< MDL	MDL <sup>2</sup>
m-Cresol	< MDL	MDL <sup>2</sup>
o-Cresol	< MDL	MDL <sup>2</sup>
p-Cresol	< MDL	MDL <sup>2</sup>
Dibenz(a,j)acridine	< MDL	MDL <sup>2</sup>
Dibenz(a,h)anthracene	< MDL	SL <sup>4</sup>
3,3'-Dichlorobenzidine	< MDL	SL <sup>4</sup>
<u>2,4-Dimethylphenol</u>	< MDL	MDL <sup>2</sup>
2,4-Dichlorophenol	35	SL <sup>3</sup>
<u>Fluoranthene</u>	630	SL <sup>3</sup>
Fluorene	220	SL <sup>3</sup>
Indeno(1,2,3-c,d)pyrene	< MDL	MDL <sup>2</sup>
Methyl Chloride (Chloromethane)	190	SL <sup>3</sup>
<u>Naphthalene</u>	< MDL	SL <sup>4</sup>
<u>Pentachlorophenol</u>	1	MCL
Phenanthrene	< MDL	MDL <sup>2</sup>
Phenol	4,500	SL <sup>3</sup>

Constituents	Concentration Limit (µg/L) <sup>1</sup>	Basis
Pyrene	87	SL <sup>3</sup>
2,3,4,5-Tetrachlorophenol	< MDL	MDL <sup>2</sup>
2,3,4,6-Tetrachlorophenol	170	SL <sup>3</sup>
2,4,5-Trichlorophenol	890	SL <sup>3</sup>
2,4,6-Trichlorophenol	< MDL	SL <sup>4</sup>
Toluene	1,000	MCL

<sup>1</sup>Per the analytical methods in the Groundwater, Surface Water, and sediment Sampling Plan found in Attachment D (i.e., EPA's methods found in SW-846).

<sup>2</sup> The groundwater protection standard shall be less than the MDL (i.e., a Non-Detect result). The MDL should be less than or equal to the LOQ, which is the lower limit of quantitation from Method 8270D of EPA's SW-846 (generally 10 µg/L).

<sup>3</sup> SL = Tapwater screening level from "Regional Screening Levels for Chemical Contaminants at Superfund Sites" as of November 2011.

<sup>4</sup> If the SL is lower than the MDL, the MDL is specified as the groundwater protection standard. A sample result of "Non-Detect" shall indicate compliance with the groundwater protection standards, assuming appropriate test methods and QA/QC procedures are used.

#### IV.E. POINT OF COMPLIANCE

The point of compliance for the closed waste management areas (i.e., the four closed Surface Impoundments) shall be the vertical surface located at the hydraulically downgradient limit of the waste management areas that extends down into the uppermost aquifer underlying the waste management areas. For so long as active groundwater remediation is suspended, the downstream location of the Little Tangipahoa River at the southern property boundary of the site is added as a point of compliance. [MHWMR 264.100(a)(3)]

#### IV.F. COMPLIANCE PERIOD

The compliance period shall continue until the groundwater protection standards for all constituents specified in Condition IV.D. has not been exceeded in any compliance or effectiveness monitoring well for a period of three consecutive years. [MHWMR 264.100(a)(4)]

#### IV.G. WELL LOCATION, INSTALLATION AND CONSTRUCTION

The Permittee shall install and maintain a groundwater monitoring system as specified below and depicted in Figure 1 of Attachment C [MHWMR 264.100(d)]:

##### IV.G.1. Compliance Point Monitoring Wells

For the purposes of this permit, wells MW-7, MW-8, MW-9, and MW-10 shall be designated the Compliance Point Monitoring Wells.

- IV.G.2. Effectiveness Monitoring Wells  
For the purposes of this permit, wells MW-11, MW-12, MW-22, MW-25, MW-27A, and MW-31 shall be designated as Effectiveness Monitoring Wells used to determine the effectiveness of the corrective action program.
- IV.G.3. Boundary Control Monitoring Wells  
For the purposes of this permit, wells MW-17, MW-18, MW-24, and MW-28, shall be designated Boundary Control Monitoring Wells.
- IV.G.4. Background Monitoring Well  
For the purposes of this permit, well MW-4 shall be designated as the Background Monitoring Well.
- IV.G.5. Additional Monitoring Wells  
Due to changes that may occur in groundwater flow direction under the groundwater monitoring program; construction, redesignation, or deletion of wells from the monitoring program may be required. Any proposed addition, deletion, or change in designation of monitoring wells by the Permittee must first be approved by the Executive Director or his representative.
- IV.G.6. Monitoring Well Inspection  
The Permittee shall inspect the monitoring wells identified in Conditions IV.G.1-5 in accordance with the Post-Closure Plan included in Attachment B.
- IV.G.7. Replacement Procedures  
Should the Permittee determine during an inspection or sampling event that any well identified in Conditions IV.G.1-5 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. The replacement well should be constructed to the same specifications as the well being replaced.
- IV.G.8. Deletion Procedure  
Any well deleted from the monitoring program shall be plugged and abandoned in accordance with the "Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells," US EPA 600/4-89/034, and the Mississippi Office of Land and Water regulations. Well plugging and abandonment methods and certification shall be submitted to the Executive Director within thirty (30) days from the date the well is removed from the monitoring program.

#### IV.H. GROUNDWATER MONITORING REQUIREMENTS

The Permittee shall monitor the effectiveness of the corrective action program on groundwater quality and on groundwater flow across the entire extent of the contaminant plume beneath the closed Surface Impoundments, as depicted in Figure 1 of Attachment C. [MHWMR 264.100(d)]

##### IV.H.1. Monitoring Parameters and Frequencies

The Permittee shall sample the Compliance Point, Effectiveness, and Boundary Control Monitoring Wells, in Condition IV.G. for the hazardous constituents underlined in Condition IV.D. above on a semiannual basis. No two sampling events used to comply with this condition shall occur within four months of each other.

##### IV.H.2. Additional Monitoring Requirements

IV.H.2.a. During the corrective action monitoring period, a compliance point monitoring well shall be sampled and analyzed twice during the permit term for all of the hazardous constituents (33 total) listed in Condition IV.D. One sampling event shall be conducted within the first five (5) years of the permit term and one shall be conducted during the last five (5) years of the permit term. The compliance point monitoring well shall be selected on a rotating basis.

IV.H.2.b. Sampling shall not be required in any well found to contain free product during the sampling event, provided that the condition of the well is noted in the sampling log.

IV.H.2.c. Within ninety (90) days after meeting the groundwater protection standards in Condition IV.D. for all of the Compliance Point and Effectiveness Monitoring Wells, the Permittee shall sample each Compliance Point and Effectiveness Monitoring Well for all MWHMR Part 264 Appendix IX constituents.

##### IV.H.3. Additional Parameters

IV.H.3.a. If additional Appendix IX constituents are found in the compliance point monitoring well, the Permittee shall resample the affected well(s) within thirty (30) days and repeat the Appendix IX analysis for the detected constituents.

IV.H.3.b. If the presence of Appendix IX constituents is confirmed, the Permittee shall report the concentrations of these additional constituents to the Executive Director within seven days after completion of the analysis and add these constituents to the monitoring list in Condition IV.D.

IV.H.3.c. The Permittee may elect to forego the requirements of Condition IV.H.3.a. and add the constituents to the monitoring list as required in Condition IV.H.3.b.

#### IV.I. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from groundwater monitoring wells described in Condition IV.G. [MHWMR 264.100(d)]:

- IV.I.1. Samples shall be collected using the techniques in the Groundwater, Surface Water, and Sediment Sampling and Analysis Plan (Attachment D).
- IV.I.2. Samples shall be preserved and shipped in accordance with the procedures specified in the Groundwater, Surface Water, and Sediment Sampling and Analysis Plan (Attachment D).
- IV.I.3. Samples shall be analyzed in accordance with the procedures specified in the Groundwater, Surface Water, and Sediment Sampling and Analysis Plan (Attachment D).
- IV.I.4. Samples shall be tracked and controlled using the chain-of-custody procedures specified in the Groundwater, Surface Water, and Sediment Sampling and Analysis Plan (Attachment D).
- IV.I.5. Appropriate QA/QC measures shall be used, including equipment, field, and trip blanks, as specified in the Groundwater, Surface Water, and Sediment Sampling and Analysis Plan (Attachment D).

#### IV.J. ELEVATION OF THE GROUNDWATER SURFACE

- IV.J.1. The Permittee shall determine the elevation of the groundwater surface at each well each time the groundwater is sampled per Condition IV.H.1.
- IV.J.2. The Permittee shall determine and record the surveyed elevation of any future monitoring well when installed. [MHWMR 264.100(d)]

#### IV.K. GROUNDWATER FLOW AND DIRECTION

The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually. [MHWMR 264.100(d)]

#### IV.L. RECORDKEEPING AND REPORTING

- IV.L.1. The Permittee shall enter all monitoring, testing, and analytical data obtained in the operating record.
- IV.L.2. The Permittee shall submit the analytical results required by Conditions IV.H., as well as the information required by IV.J. and IV.K., annually to the Executive Director no later than March 31 of the following year. [MHWMR 264.100(d)]

#### IV.M. REQUEST FOR PERMIT MODIFICATION

If the Permittee or the Executive Director determines the corrective action groundwater 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 264.100(d)]



## **MODULE V – CORRECTIVE ACTION PROGRAM FOR REGULATED UNITS**

### **V.A. APPLICABILITY**

The conditions of this module apply to the four closed surface impoundments, which include Surface Impoundment #1, Surface Impoundment #2, the Condenser Cooling Water Pond, and the Sand Filter Bed, as described in Section 1.1 of Attachment A and depicted in Figure 1 of Attachment C.

### **V.B. CORRECTIVE ACTION PLAN**

The Permittee shall implement the corrective action measures described in Section 2.20.6 of the Facility Description (Attachment A).

The Permittee shall maintain the operational readiness of the groundwater extraction and treatment system for the duration of this permit cycle and will perform all of the activities detailed in the revised Section 2.20.6 of Attachment A.

[MHWMR 264.100(b)]

### **V.C. CORRECTIVE ACTION PERIOD**

V.C.1 The Permittee shall conduct the corrective action measures specified in this permit until the concentration of hazardous constituents specified in Condition IV.D. have been reduced to levels below their respective groundwater protection standards. [MHWMR 264.100(e)(4)]

V.C.2. The Permittee shall conduct corrective measures to the extent necessary to ensure that the groundwater protection standards are not exceeded. The Permittee may terminate corrective action measures if he can demonstrate, based on data from the groundwater monitoring program in Module IV, that the groundwater protection standards have not been exceeded for a period of three consecutive years. [MHWMR 264.100(f)]

V.C.3. Upon termination of the corrective action measures, the Permittee shall perform a complete MHWMR Part 264 Appendix IX analysis on all compliance point and effectiveness monitoring wells, designated in Conditions IV.G.1. and IV.G.2., to confirm that no hazardous constituents are present.

V.C.4. If corrective action procedures are terminated in accordance with Condition V.C.1., they shall be reinstated if at any time during the post-closure care period the groundwater protection standards are exceeded for any hazardous constituent at the point of compliance.

V.D. CORRECTIVE ACTION IMPLEMENTATION

All corrective action measures described in the application (Attachment A) have already been implemented. [MHWMR 264.100(c) and (e)(3)]

V.E. GROUNDWATER MONITORING PROGRAM

The permittee shall maintain and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. The requirements of the groundwater monitoring program are included as Module IV of this permit. [MHWMR 264.100(d)]

V.F. CORRECTION ACTION TO PROPERTY BOUNDARY

The Permittee shall monitor and remediate contaminated groundwater from the point of compliance to the property boundary. [MHWMR 264.100(e)(1)]

V.G. REPORTS

The Permittee shall submit reports of the effectiveness of the corrective action program on an annual basis for each calendar year. These reports shall be submitted no later than March 31 of the following year and shall contain the following information, at a minimum [MHWMR 264.100(g)]:

- V.G.1. Groundwater elevations measured in all monitoring wells;
- V.G.2. A potentiometric map showing groundwater flow direction;
- V.G.3. The results of all groundwater analyses;
- V.G.4. A determination of the groundwater flow rate;
- V.G.5. Isoconcentration maps showing plumes for each monitored constituent and a composite map indicating the total extent of groundwater contamination; and
- V.G.6. Results of all surface water and sediment sampling results from samples taken during the reporting period with comparisons to published screening values.

V.H. MODIFICATIONS

If the Permittee or the Executive Director determines that the corrective action 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 264.100(h)]

V.I. SPECIAL CONDITIONS

Construction and use of additional extraction wells, monitoring wells, and/or other components installed as a part of the corrective action measures shall not require a permit modification. However, the Permittee shall notify the Executive Director of such activities and obtain approval from the Executive Director or his representative before proceeding.

## **MODULE VI – LAND DISPOSAL RESTRICTIONS**

### **VI.A. GENERAL RESTRICTIONS**

MHWMR 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances which an otherwise prohibited waste may continue to be land disposed. The Permittee shall maintain compliance with the requirements of MHWMR 268. Where the Permittee has applied for an extension, waiver or variance under MHWMR 268, the Permittee shall comply with all restrictions on land disposal under this Module 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 268, Subparts C and/or D are met.
- VI.B.2. The storage of hazardous wastes restricted from land disposal under MHWMR 268 is prohibited unless the requirements of MHWMR 268, Subpart E, are met.

## MODULE VII – WASTE MINIMIZATION

### VII.A. APPLICABILITY

No less than one year from the date of the future generation of hazardous waste and pursuant to MHWMR 264.73(b)(9); Section 3005(h) of RCRA, 42 U.S.C. 6925(h); and Section 49-31-1 et seq., Mississippi Code of 1972; the Permittee must certify, no less often than annually, that:

- VII.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
- VII.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.

### VII.B. WASTE MINIMIZATION CERTIFICATION OBJECTIVES

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

#### VII.B.1. Top Management Support

- VIII.B.1.a. Dated and signed policy describing management support for waste minimization and for implementation of a waste minimizing plan.
- VIII.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.
- VIII.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.

#### VII.B.2. Characterization of Waste Generation

Identification of types, amounts and hazardous constituents of waste streams with the source and date of generation.

VII.B.3. Periodic Waste Minimization Assessments

- VIII.B.3.a. Identification of all points in a process where materials can be prevented from becoming a waste, or can be recycled.
- VIII.B.3.b. Identification of potential waste reduction and recycling techniques applicable to each waste, with a cost estimate for capital investment and implementation.
- VIII.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.

VII.B.4. Cost Allocation System

- VIII.B.4.a. 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.
- VIII.B.4.b. Description of how departments are held accountable for the wastes they generate.
- VIII.B.4.c. Comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste.

VII.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.

VII.B.6. Program Evaluation

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

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

VII.C. RECORDKEEPING AND REPORTING

- VII.C.1. Annually, by July 31, 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.
- VII.C.2. The Permittee shall maintain copies of this certification in the facility operating record as required by MHWMR 264.73.

**ATTACHMENT A**  
**FACILITY DESCRIPTION**



**ATTACHMENT B**  
**POST-CLOSURE PLAN**

**ATTACHMENT C**

**FIGURES**

**ATTACHMENT D**

**GROUNDWATER, SURFACE WATER, AND SEDIMENT  
SAMPLING AND ANALYSIS PLAN**