STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CLEANUP AND ABATEMENT ORDER NO. R2-2010-0092

BROWNING-FERRIS INDUSTRIES (BFI)

FOR THE PROPERTY LOCATED AT:
CORINDA LOS TRANCOS (OX MOUNTAIN) LANDFILL
12310 SAN MATEO ROAD
HALF MOON BAY, CA 94019
SAN MATEO COUNTY

This Order is issued to Browning-Ferris Industries (BFI) (hereafter Discharger), based on provisions of California Water Code (CWC) sections 13304 and 13267, which authorize the Assistant Executive Officer of the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) to issue a Cleanup and Abatement Order (Order) and to require the submittal of technical and monitoring reports.

The Assistant Executive Officer of the Regional Water Board finds, with respect to the Discharger's acts, or failure to act, the following:

1. **Purpose of Order:** This Order requires the Discharger to abate the impacts of waste discharged in violation of Regional Water Board Order No. R2-2007-0062 effluent limits for Whole Effluent Acute Toxicity (Acute Toxicity), by delineating the impacts on receiving waters and completing all necessary cleanup and/or restoration to those receiving waters. In addition, this Order requires the Discharger to eliminate the threat of future discharges creating a condition of pollution or nuisance by developing and implementing a work plan and schedule to consistently reduce toxicity of the discharge and achieve compliance with Order No. R2-2007-0062.

2. **Facility Description:** The Discharger owns and operates Corinda Los Trancos (Ox Mountain) Landfill located at 12310 San Mateo Road, Half Moon Bay, CA 94019, San Mateo County (Site). This landfill is a Class III municipal refuse disposal site, generating several types of wastewater, including leachate, truck/equipment wash water, storm water, and polluted groundwater. Order No. R2-2007-0062 addresses only extraction, treatment, and discharge of groundwater that has been polluted by the landfill. To control the migration of polluted groundwater the Discharger has installed a groundwater extraction, treatment, and discharge facility (Facility). Treated groundwater is discharged to the Corinda Los Trancos Creek, a water of the State and of the United States and tributary to Pilarcitos Creek, through a sedimentation basin. The beneficial uses of Pilarcitos Creek include cold and warm freshwater habitat, fish migration, and municipal and domestic supply.

3. **Applicable Acute Toxicity Effluent Limits**: Order No. R2-2007-0062 includes the following effluent limits for Whole Effluent Acute Toxicity (Order No. R2-2007-0062, IV.A.1.c.):

   (1) Representative samples of the effluent shall meet the following limits for acute toxicity: Bioassays shall be conducted in compliance with Section V.A of the Monitoring and Reporting Program (MRP, Attachment E).
   (2) The survival of organisms in undiluted combined effluent shall be a three (3) sample median value of not less than 90 percent survival, and a single sample value of not less than 70 percent survival.
   (3) These acute toxicity limitations are further defined as follows.
   (4) 3 sample median: A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if one or more of the past three or less bioassay tests show less than 90 percent survival.

4. **Discharges in Violation of Acute Toxicity Effluent Limits:** In a letter dated November 24, 2009, the Regional Water Board issued a Notice of Violation (NOV) to the Discharger that identified several acute toxicity effluent limits violations during the period from May 2008 through August 2009, as well as finding that the Discharger failed to comply with accelerated monitoring and reporting requirements intended to assist the Discharger in determining and correcting the cause of the effluent limit violations. Since issuance of the NOV, the Discharger has reported over 24 additional violations of the acute toxicity effluent limits (Table 1).

Table 1. Violations of Acute Toxicity Effluent Limit Since November 2009 NOV

Date	Effluent Acute Toxicity Test Result (percent survival)	Effluent Acute Toxicity 3-sample median (percent survival)
12/8/2009	40% - violation	40% - violation
12/14/2009	0% - violation	0% - violation
12/21/2009	5% - violation	5% - violation
12/29/2009	50% - violation	5% - violation
1/5/2010	85%	50% - violation
1/12/2010	0% - violation	50% - violation
1/15/2010	90%	85% - violation
1/20/2010	80%	80% - violation
1/28/2010	0% - violation	80% - violation
2/15/2010	0% - violation	0% - violation
3/10/2010	0% - violation	0% - violation
3/16-18/2010	0% - violation	0% - violation
3/23-25/2010	95%	0% - violation
3/30-4/1/2010	0% - violation	0% - violation

5. **Basis of this Order:** CWC section 13304 contains the cleanup and abatement authority of the Regional Water Board. CWC section 13304 requires a person to clean up waste or

abate the effects of the waste discharge if so ordered by a regional board in the event there has been a discharge in violation of waste discharge requirements, or if a person has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State and creates or threatens to create a condition of pollution or nuisance. Therefore based on the above findings, the Regional Water Board is authorized to order the Discharger to cleanup and abate the effects of the discharges in violation of the acute toxicity effluent limits.

6. **Basis for Requiring Reports:** CWC section 13267 provides that the Regional Water Board may require a discharger, past discharger, or suspected discharger to furnish those technical or monitoring reports as the Regional Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

7. **Need for Technical and Monitoring Reports:** The reports and technical information required herein are necessary to determine if there is any adverse impact on the Corinda Los Trancos and Pilarcitos creeks benthic communities and to ensure compliance with this Order. The burden, including costs, of the reports required by this Order bear a reasonable relationship to the need for the reports and the benefits obtained therefrom. Accordingly, CWC section 13267 authorizes the Regional Water Board to require dischargers to submit technical and monitoring reports.

8. **Compliance with Acute Toxicity Effluent Limits is Feasible:** The Discharger has conducted a number of Toxicity Identification Evaluation (TIE) studies and found that the survival rate for rainbow trout was significantly improved (from 0 to 100%) when the effluent was filtered with one micron glass microfiber ultra-filter. The Discharger has claimed in the past that this filtration method is not economically feasible (BFI June 2009 Monitoring Report dated July 27, 2009). The Discharger has not, however, provided any cost data for different types and sizes of filter that may also be effective in addressing the Site's toxicity issues. In another November 2009 TIE, the Discharger found that the toxicity was completely removed when the effluent was adjusted to pH 3 and either extracted by C18 solid phase extraction or aerated with laboratory air (BFI February 2010 Monitoring Report dated March 25, 2010). The Discharger did not install additional treatment unit(s) such as a pH adjustment or aeration unit consistent with the above findings. Instead, the Discharger upgraded the treatment system granular activated carbon filters in January 2010. This upgrade did not provide full compliance with the acute toxicity effluent limitations requirements, and the Discharger continues to have acute toxicity violations.

9. **CEQA:** This enforcement action is being undertaken by a regulatory agency to enforce a water quality law. Such action is categorically exempt from provisions of the California Environmental Quality Act ("CEQA") according to Guidelines section 15321 in Article 19, Division 3, Title 14 of the California Code of Regulations.

DIRECTIVES

IT IS HEREBY ORDERED, pursuant to CWC sections 13304 and 13267 that the Discharger (or its agents, successors, or assigns) shall comply with the following requirements to abate the effects described in the above findings as follows:

A. CLEANUP AND ABATE DISCHARGES

Discharger shall take all correction actions[1] necessary to:

1. Investigate, cleanup waste, and abate the effect of the discharges in violation of the acute toxicity effluent limits to Corinda Los Trancos Creek; and

2. Prevent future discharges of waste that could cause a condition of pollution or nuisance by achieving consistent compliance with Order No. R2-2007-0062 acute toxicity effluent limits.

B. CORRECTIVE ACTIONS

1. Investigation, Assessment, and Cleanup

a. By October 15, 2010, the Discharger shall submit a work plan and schedule to conduct benthic macroinvertebrate bioassessment in the Corinda Los Trancos and Pilarcitos creeks to investigate and determine the effects of past discharges in violation of acute toxicity effluent limitations. The work plan shall be consistent with the California Surface Water Ambient Monitoring Program (SWAMP) and include identification and assessment of appropriate reference monitoring location(s) (using reference monitoring location(s) in similar watersheds as Corinda Los Trancos are acceptable) and adhere to Standard Operating Procedures (SOP), as well as, comply with the following implementation schedule:

   i. The field work completed during the appropriate index period of April 2011 through June 2011 depending on rainfall, and
   ii. The monitoring results data available before end of 2011.

   The SWAMP SOP can be found at the following link http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/standard-operating-procedures.

b. By February 28, 2012, the Discharger shall prepare and submit a bioassessment report containing the testing results and conclusions reached through the implementation of the bioassessment work plan.

[1] Corrective actions include all the phases of cleanup and abatement described in Directives B.1. and 2. of this Order.

c. If the bioassessment report concludes that the discharges have had negative impacts to Corinda Los Trancos Creek, then the Discharger shall prepare a corrective action plan designed to restore the creek to its condition prior to the Discharger's Acute Toxicity violations. The Corrective Action Plan shall include a schedule for completing each task and all associated subtasks, including a listing of proposed completion dates and shall be submitted to the Regional Water Board for approval no later than January 14, 2013.

3. Prevent Future Waste Discharge

a. By August 16, 2010, the Discharger shall submit a work plan and implementation schedule to assure future compliance with Order No. R2-1007-0062 acute toxicity requirements. The work plan shall identify and evaluate options for improvements/modifications to the existing treatment plant to ensure a consistent reduction of toxicity in the effluent, and for containment of wastewater for 100% reuse and cessation of discharge, as well as, identify the recommended course of action to achieve compliance. The implementation schedule shall show milestones for implementing the recommended course of action to achieve compliance as soon as practicable, but full compliance with the acute toxicity limits or cessation of discharge must be achieved no later than October 29, 2010.

b. During any pilot projects for improving/modifying the treatment system with the goal of eliminating effluent toxicity, the Discharger shall conduct weekly acute toxicity testing while retaining samples of influent and effluent. If any bioassay survival rate is less that 70%, the Discharger shall perform a TIE on the retained samples of influent and effluent. The Discharger shall also monitor the flow rate and volume of water discharged from the basin that initially receives the treatment plant effluent prior to discharge to Corinda Los Trancos. The Discharger shall report monthly the results of these acute toxicity test, any TIEs, and basin discharge data as a supplement to its self-monitoring reports required by the Monitoring and Reporting Program of Order No. R2-2007-0062. All such acute toxicity testing will count towards compliance with the requirements of Order No. R2-2007-0062.

C. PROVISIONS

1. **Good Operation and Maintenance:** The Discharger shall maintain in good working order and operate as efficiently as possible any treatment facility or control system installed to achieve compliance with the requirements of this Order.

2. **Cost Recovery:** Water Code §13304 allows the Regional Water Board to recover reasonable expenses for overseeing the investigation and cleanup of illegal discharges adversely affecting or threatening to adversely affect the State's waters. To assure that sufficient Regional Water Board staff resources are available to conduct the necessary reviews and approvals, this Facility will be included in the Cost Recovery Program. The

Discharger has received the Regional Water Board letter dated June 2, 2010, which fully described the Reimbursement Process for Regulatory Oversight.

3. **Qualified Professionals**: The Discharger's reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals.

4. **Reporting of Changed Owner or Operator:** The Discharger shall file a written report on any changes in the Site's occupancy or ownership associated with the Site described in this Order. This report shall be filed with the Regional Water Board within 30 days following a change in Site occupancy or ownership.

5. **Delayed Compliance:** If the Discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified in this Order, the Discharger shall promptly notify the Regional Water Board Assistant Executive Officer in writing with recommended revised completion dates. The Regional Water Board may consider revisions to this Order.

6. **Enforcement:** If, in the opinion of the Assistant Executive Officer, the Discharger fails to comply with the provisions of this Order, the Assistant Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issues a complaint for administrative civil liability. Failure to comply with this Order may result in the assessment of an administrative civil liability up to $10,000 per violation per day, pursuant to CWC sections 13268, 13350, and/or 13385. The Regional Water Board reserves its right to take any enforcement actions authorized by law.

7. **Evidentiary Hearing before the Regional Water Board:** Any person affected by this action of the Regional Water Board may request an evidentiary hearing before the Regional Water Board. The Regional Water Board's Executive Officer may elect to hold an informal hearing or a "paper hearing" in lieu of scheduling a hearing before the Regional Water Board itself. If the Discharger decides to request an evidentiary hearing, that Discharger shall send the request to the San Francisco Bay Regional Board Executive Officer, 1515 Clay Street, Suite 1400, Oakland CA 94612, with a copy to Farhad Azimzadeh, 1515 Clay Street, Suite 1400, Oakland CA 94612. The following provisions shall be carefully considered:

    a. The Regional Water Board must receive the Discharger's request within **30 calendar days** of the date of this Order.

    b. The Discharger's request must include all comments, technical analysis, documents, reports, and other evidence that the Discharger does wish to submit for the evidentiary hearing. However, it should be noted that the administrative record will

include all materials the Regional Water Board has previously received regarding this Site. The Discharger is not required to submit documents that are already in the record.

c. The Executive Officer or Regional Water Board may deny your request for a hearing after reviewing the evidence.

d. If the Discharger does not request an evidentiary hearing, the State Water Board may prevent the Discharger from submitting new evidence in support of a State Water Board petition.

e. The request for an evidentiary hearing, if the Discharger submits one, does not stay the effective date of the Order, whether or not a hearing is scheduled.

f. A request for a hearing does not extend the 30-day period to file a petition with the State Water Board (as explained below). However, the Regional Water Board staff suggest that the Discharger asks the State Water Board to hold the petition in abeyance while the Discharger's request for a hearing is pending. (CCR Title 23 section 2050.5(d)). Additional information regarding the State Water Board petition process is provided below.

8. **State Water Board Petition:** Any person aggrieved by this action may petition the State Water Board to review the action in accordance with CWC section 13320 and Title 23, California Code of Regulations, section 2050 et al. The State Water Board, Office of Chief Counsel, must receive the petition by 5:00 p.m. 30 days after the date this Order becomes final (if the thirtieth day falls on a weekend or state holiday, the petition must be received by the next business day). Instructions for petitioning will be provided upon request or may be viewed at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml. This Order is effective upon the date of signature.

9. **Periodic Cleanup and Abatement Order Review**: The Regional Water Board may review this Order periodically and may revise it when necessary.

Dyan C. Whyte

Dyan C. Whyte
Assistant Executive Officer

July 13, 2010
Date