

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2005-0167

CEASE AND DESIST ORDER
REQUIRING
SACRAMENTO RENDERING COMPANIES
RANCHO CORDOVA RENDERING PLANT
SACRAMENTO COUNTY

TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The Regional Water Quality Control Board, Central Valley Region, (hereafter referred to as “Regional Board”) finds that:

1. Sacramento Rendering Companies (hereafter known as Discharger) owns and operates a rendering plant in Rancho Cordova, Sacramento County. Treated process wastewater is discharged to land to irrigate livestock pasture.
2. Waste Discharge Requirements (WDRs) Order No. 5-00-244, adopted by the Regional Board on 27 October 2000, prescribes requirements for the discharge of animal rendering process wastewater to land to irrigate livestock pasture. The Discharger submitted a Report of Waste Discharge (RWD) dated 5 March 2005 to apply for revised WDRs that would allow increased flows resulting from operational changes and new air emissions control equipment. The Regional Board subsequently adopted WDRs Order No. R5-2005-0166 on 29 November 2005.

Background

3. The Discharger’s rendering plant processes livestock carcasses, meat and poultry processing by-products, and grease from restaurants and other food service businesses. Approximately 750,000 pounds per day of carcasses and meat processing by-products are rendered.
4. Wastewater generated by the rendering plant consists of moisture from animal by-products, water separated from grease, condensate from the cookers, contact water from the Venturi scrubber and Scrubbers 1 through 4, plant sanitation wastewater, water softener reject, boiler blowdown, and storm water runoff from some of the roof drains and the exterior part of the processing plant’s front loading area.
5. Daily wastewater flows are variable, ranging from 70,000 to over 100,000 gallons per day (gpd). The combined wastewater stream from all sources contains high concentrations of BOD, total dissolved solids and nitrogen (primarily in the form of ammonia).
6. Process wastewater is pre-treated to remove excess oil and grease, and is then discharged to the facility’s wastewater pond system, which consists of eight small lagoons (known as the finger lagoons), two winter storage ponds and two mixing lagoons. The wastewater is used to irrigate approximately 74.8 acres of pastureland owned by the Discharger during the dry season only.

Land Application Compliance Issues

7. Based on data provided in the RWD, the estimated maximum nitrogen loading rate to the irrigated pasture was approximately 2,400 pounds per acre per year. Although most of the nitrogen is present as relatively volatile ammonia, it is likely that nitrogen has historically been applied at rates far in excess of agronomic rates for the crops grown in the pasture in violation of the previous WDRs. The requirement not to exceed the agronomic loading rate is incorporated into Order No. R5-2005-0166. However, the Discharger will not be able to comply with this requirement unless and until the wastewater is either treated to reduce nitrogen concentrations or additional land application areas are brought into service.

Storm Water Compliance Issues

8. Currently, storm water runoff from the plant area and part of the land application pasture area drains directly to Frye Creek. The remaining land application pasture areas drain to a pond that is used to capture the first flush of storm water from those fields. Prior to 2004, the pond captured all runoff from the back pasture and was allowed to overflow into Frye Creek. However, because the Discharger was ostensibly diluting wastewater with fresh water at a ratio of 20 to 1 for irrigation and cleaning out the pond before the rainy season each year, such releases were not specifically prohibited by Order No. 5-00-244.
9. On 20 January 2004, the Sacramento County Department of Water Resources investigated a complaint from a neighboring landowner and found dark-colored, odorous water in Frye Creek that was traced back to the Discharger's storm water detention pond. County staff suspected that the Discharger had released wastewater from the pond into the creek and issued a Notice of Violation to the Discharger.
10. In response to the County's complaint investigation, Regional Board staff issued a Notice of Violation (NOV) to the Discharger on 10 February 2004. The NOV required that the Discharger submit a technical report documenting its investigation into the source of the discharge to Frye Creek. The Discharger's response to the NOV was inadequate. Therefore, on 8 April 2004, the Executive Officer issued an order for technical reports pursuant to Section 13267 of the California Water Code. The order required that the Discharger submit an adequate response to the NOV as well as a wastewater, tailwater, and storm water management plan for the facility. The Discharger was also required to document the completion of improvements proposed in that plan by 15 October 2004.

The Discharger submitted a revised response to the NOV on 15 April 2004, and the wastewater, tailwater, and storm water management plan on 15 June 2004 in response to the order for technical reports. Staff met with the Discharger on 22 June 2004 to discuss the plan and expressed concern about using wastewater storage ponds to capture and subsequently release storm water from the pasture to surface water. The Discharger subsequently submitted a conceptual improvements plan on 30 August 2004. The plan was approved and the Discharger completed several improvements proposed in the plan in fall 2004.

11. On 12 January 2005, a United States Environmental Protection Agency (USEPA) contractor inspected storm water discharges from the facility. Among other violations, the inspector observed stained and turbid water discharging from the plant area storm drain outfall into Frye Creek. Staff issued an NOV that required the Discharger to address all of the violations and submit an updated Storm Water Pollution Prevention Plan.
12. On 28 February 2005, Regional Board staff inspected the land application fields and ponds to assess whether runoff from the fields might be the source of the discolored runoff observed by the USEPA contractor. Dark-colored water was observed ponding at the base of some of the fields. Likewise, stained water was observed discharging from the fields and into Frye Creek. In addition, Fields 5 and 6 did not have adequate runoff controls to prevent tailwater or storm water from leaving the site through other drainage courses. Staff requested that the Discharger complete a storm water quality study to assess the chemical character of storm water at several points within the field drainage system and Frye Creek.
13. On 22 April 2005, the Discharger submitted a storm water monitoring report as requested. A single sample of runoff or ponded storm water was obtained from each sampling location on 4 March 2005 during a light rain that reportedly generated low to medium runoff. Runoff from three of the six fields showed waste constituents concentrations significantly greater than background runoff. The report proposed specific improvements to reduce storm water ponding, improve storm water conveyance system reliability, and prevent uncontrolled runoff to other drainage courses.
14. The storm water samples obtained in March 2005 are representative of late-season runoff. Further monitoring is needed to determine whether the Discharger's current field storm water retention program is adequate to protect surface water quality during the entire rainy season. Additional improvements may be needed to reduce the concentration of waste constituents in runoff and/or provide additional storm water detention.
15. Order No. R5-2005-0166 prohibits the discharge of storm water from the land application areas to Frye Creek unless sufficient runoff has been captured and stored such that waste constituent concentrations in any runoff discharged to surface waters do not exceed those of runoff from adjacent pastureland not irrigated with wastewater. Additional rainy season monitoring is needed to assess whether additional improvements are required to ensure compliance with this requirement. Therefore, the Discharger may not be able to immediately comply with this requirement.

Waste Character and Waste Management Unit Classification

16. Water Code Section 13173 defines "designated waste" to include "[n]on hazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations that exceed applicable water quality objectives or that could reasonably be expected to affect beneficial uses of waters of the state as contained in the appropriate state water quality control plan."

17. Based on the waste characterization data summarized in Finding Nos. 12 and 14 of Order No. R5-2005-0166 the combined waste stream discharged from the pretreatment system to the wastewater pond system is a designated waste due to concentrations of dissolved solids, ammonia, sodium, and/or chloride that exceed the applicable water quality limits.
18. The unlined wastewater treatment and storage ponds are used to treat and store liquid designated waste. However, pursuant to California Code of Regulations Title 27, Section 20210, such waste can only be discharged to a Class I or Class II surface impoundment equipped with engineered lining and leachate collection and recovery systems. Therefore, continued discharge to the wastewater ponds is a violation of Order No. R5-2005-0166. However, the Discharger cannot immediately cease the discharge of designated waste in violation of Order No. R5-2005-0166.

Groundwater Degradation

19. Groundwater is generally encountered at approximately 140 feet below the ground surface, and the groundwater gradient is generally towards the southwest. Four monitoring wells monitor beneath the wastewater ponds, and one well monitors the irrigated pasture. Additional monitoring wells are needed to monitor the ponds and pasture areas to define the extent of groundwater degradation.
20. Groundwater monitoring data obtained since November 2003 indicate that the ponds have caused increases in concentrations of TDS, sodium, chloride, and magnesium in groundwater. Therefore, it appears that the Discharger cannot immediately comply with the Groundwater Limitations of Order No. R5-2005-0166.

Regulatory Considerations

21. As a result of the events and activities described in this Order, the Regional Board finds that the Discharger has discharged waste in violation of the previous WDRs, and will not be able to fully comply with Order No. R5-2005-0166 until certain technical studies and facility improvements are completed. It is appropriate to impose a reasonable schedule for compliance with all requirements of Order No. R5-2005-0166.
22. The Regional Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) designates beneficial uses, includes water quality objectives to protect the beneficial uses, and includes implementation plans to implement the water quality objectives.
23. Surface water drainage is to Frye Creek, which is tributary to Laguna Creek and the Sacramento River within the legal boundaries of the Sacramento-San Joaquin River Delta. The Basin Plan designates the beneficial uses of the Sacramento-San Joaquin River Delta as municipal and domestic supply; agricultural supply; industrial supply; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; wildlife habitat, and navigation.
24. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

25. Section 13301 of the California Water Code states in part: *“When a Regional Board finds that a discharge of waste is taking place or threatening to take place in violation of the requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”*
26. Section 13267(b) of the California Water Code states: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*
27. The required technical reports are necessary to assure compliance with WDRs Order No. R5-2005-0166 and this Order, and to assure protection of public health and safety. The Discharger owns and operates the facility that discharges the waste subject to this Order.
28. The issuance of this Order is an enforcement action by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act, pursuant to Section 15321(a)(2), Title 14, California Code of Regulations.
29. On 29 November 2005, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order.
30. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with Section 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, CA, 95812-0100, within 30 days of the date on which the Regional Board action took place. Copies of the law and regulations applicable to filing petitions are available at www.waterboards.ca.gov/water_laws/index.html and also will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Sections 13301 and 13267 of the California Water Code, Sacramento Rendering Companies, its agents, successors, and assigns, shall in accordance with the following tasks and time schedule, implement the following measures and identify and implement all

improvements required to ensure long-term compliance with WDRs Order No. R5-2005-0166 or any superceding permits or orders issued by the Regional Board.

Any person signing a document submitted under this Order shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

1. **Effective immediately**, the Discharger shall comply with all requirements set forth in WDRs Order No. R5-2005-0166, with the exception of Discharge Prohibition A.1 and the Groundwater Limitations. Compliance with Discharge Prohibition A.1 and Groundwater Limitations shall commence no later than **30 August 2009**.
2. By **30 April 2006**, the Discharger shall submit a *Land Application Assessment Workplan* that describes a complete scope of work for assessing the fate of nitrogen applied to the irrigated pasture, conducting vadose zone monitoring, evaluating irrigation practices, and evaluating soil buffering capacity. The primary purpose of the study is to identify a facility-specific method for determining plant available nitrogen (PAN) based on waste character and site-specific physical and climactic conditions. The study shall be designed to assess ammonia volatilization rates, actual crop uptake, and denitrification rates within the vadose zone. The workplan shall describe all investigative methods, analytical testing, data analysis, and modeling required to determine a method for calculating PAN. Additionally, the workplan shall propose a specific scope of study to measure current rates and assess methods for minimizing percolation of waste constituents below the root zone and exceeding the soil buffering capacity within the land application areas.
3. By **30 October 2006**, the Discharger shall submit a *Wastewater Survey and Effluent Quality Improvement Feasibility Study* that includes a full characterization of each wastewater stream and an analysis of methods to recycle, reduce, and/or minimize various waste streams. These waste streams include, but are not limited to: water softener and boiler blow down reject, odor control chemicals, sanitation practices, and grease processing water. The report shall provide a proposed timeline for rapidly implementing any feasible procedure that will result in improved effluent quality.
4. By **30 June each year**, the Discharger shall submit a *Storm Water Monitoring Report* that documents monthly monitoring and analysis of storm water samples during the previous rainy season (15 October through 15 April). To the maximum practical extent storm water samples shall be obtained during the first flush of the first runoff-generating storm event each month. Sampling locations shall include one location for each of the land application fields, one background pasture area, both storm drain outfalls to Frye Creek, and Frye Creek downstream of the outfalls. Analyses shall be completed for the constituents and parameters listed in the Monitoring and Reporting Program. Based on the analytical results, the report shall present conclusions regarding the need for additional best management practices to prevent the release of waste constituents to Frye Creek via storm water runoff. If appropriate, the report shall include a *Storm Water Management*

Improvements Plan that specifies physical and/or operational improvements to be fully implemented no later than **30 November that year** to ensure that contaminated storm water is retained on-site and recycled for irrigation the following year.

5. If requested by the Executive Officer, by **30 December each year**, the Discharger shall submit a *Storm Water Management Improvements Completion Report* that documents completion of all improvements described in the approved *Storm Water Management Improvements Plan*.
6. By **30 March 2007**, the Discharger shall submit a *Land Application Assessment Report* that documents full implementation of the approved workplan, provides the results of the study completed pursuant to Task 2 above, and proposes a method of calculating PAN for future wastewater applications. If the study results show that nitrogen has been applied in excess of the agronomic rate, the report shall include a *Land Application Mitigation Plan* that describes all operational and/or physical improvements required to ensure compliance with Order No. R5-2005-0166. The time schedule for design and construction of the improvements shall not extend beyond **30 August 2009**.
7. By **30 April 2007**, the Discharger shall submit a *Title 27 Compliance Report* that describes a specific scope and schedule for either:
 - a. Planning, design and construction of Class II surface impoundments to replace the finger lagoons and Winter Storage Ponds by **30 August 2009**, or
 - b. Source control, treatment, and/or waste segregation such that pond discharge either (a) does not result in groundwater degradation or b) otherwise complies with State Board Resolution No. 68-16 by **30 August 2009**.

The report shall document all wastewater characterization, treatability, and feasibility studies performed as pre-design work.

8. By **30 September 2007**, the Discharger shall submit a *Background Groundwater Quality and Groundwater Degradation Assessment Report*. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of all monitoring data (including data obtained prior to adoption of this Order) and calculation of the concentration in background monitoring well(s). This determination of background groundwater quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least 12 consecutive groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare the measured concentration in each compliance monitoring well with the proposed background concentration.
9. By **30 November 2007**, the Discharger shall submit a *Report of Waste Discharge* that includes either a) a design for Class II surface impoundments to replace the finger lagoons and Winter Storage Ponds that complies with Title 27, or b) a design for wastewater source control, treatment, and or segregation that will eliminate the discharge of designated waste and comply with State

Board Resolution No. 68-16. If the latter is selected, the Report of Waste Discharge shall demonstrate that such compliance will be achieved.

10. If requested by the Executive Officer, by **30 August 2009**, the Discharger shall submit a *Land Application Mitigation Completion Report* that documents completion of all improvements described in the approved *Land Application Mitigation Plan*.
11. **Beginning 1 February 2006**, and by the first day of the second month following each calendar quarter (**i.e., by 1 February, 1 May, 1 August, and 1 November each year**), the Discharger shall submit a progress report describing the work completed to date regarding each of the reporting requirements described above.

The following tasks are required only if the Discharger or the Executive Officer determines that the *Background Groundwater Quality and Groundwater Degradation Assessment Report* shows that the discharge of waste to land has caused a violation of the Groundwater Limitations of Order No. R5-2005-0166. The scope and content of the technical reports described below shall conform to the requirements set forth in Attachment A.

12. Within **120 days** of approval of the *Background Groundwater Quality and Groundwater Degradation Assessment Report*, the Discharger shall submit a *Site Investigation Workplan* to determine the nature and extent of soil and groundwater contamination.
13. Within **180 days** of approval of the *Site Investigation Workplan*, the Discharger shall submit a *Preliminary Investigation and Evaluation Report*.
14. Within **120 days** of approval of the *Preliminary Investigation and Evaluation Report* and any supplemental investigation reports, the Discharger shall submit a *Problem Assessment Report*.
15. Within **150 days** of approval of the *Problem Assessment Report*, the Discharger shall submit a *Feasibility Study Report*.
16. Unless the “no action” alternative is approved pursuant to the *Feasibility Study Report*, the Discharger shall submit a *Final Remediation Plan* for the selected remedial action alternative within **150 days** of approval of the *Feasibility Study Report*.

In addition to the above, the Discharger shall comply with all applicable provisions of the California Water Code that are not specifically referred to in this Order.

All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Failure to comply with this Order may result in the assessment of an Administrative Civil Liability up to \$1,000 or up to \$10,000 per day of violation, depending on the violation, pursuant to the California Water Code, including sections 13268, 13350, and 13385. The Regional Board reserves its right to take any enforcement actions authorized by law.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 29 November 2005.

THOMAS R. PINKOS, Executive Officer

ALO: 11/29/05

AMENDED