

**STAFF REPORT  
CONSIDERATION OF  
CEASE AND DESIST ORDER  
AND  
STIPULATION FOR ENTRY OF ADMINISTRATIVE CIVIL LIABILITY  
AND PENALTY ORDER  
FOR  
MUSCO FAMILY OLIVE COMPANY AND THE STUDLEY COMPANY  
WASTEWATER TREATMENT AND LAND DISPOSAL FACILITY**

## **Introduction**

Staff of the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) is presenting two Orders for the Musco Family Olive Company for consideration by the Regional Water Board. The first item is a Cease and Desist Order (CDO) that addresses a number of compliance issues at the site. The proposed CDO consolidates the Regional Water Board's previous requests and requirements for data and other information into a single document. Staff has worked extensively with the Discharger on the requirements of the CDO, and at this time the CDO is not contested.

The second item is a Stipulation for Entry of Administrative Civil Liability and Penalty Order (Stipulated Order). This Stipulated Order resolves Administrative Civil Liability (ACL) Complaint Order No. R5-2004-0534 and subsequent violations, which was issued by the Executive Officer in August 2004. As part of the settlement, financial assurance requirements are imposed on the Discharger. Musco and the Executive Officer have reached agreement on the terms of the Stipulated Order and are seeking Regional Water Board approval of the Stipulated Order.

## **Background**

The Musco Family Olive Company operates an olive brining and packaging plant south of Tracy, near Patterson Pass Road. Musco operates the facility on land leased from the Studley Company. The Studley Company is a limited liability partnership owned by the Musco family. Musco Family Olive Company and the Studley Company are referred to jointly as "Discharger".

Olive processing wastewater is collected throughout the Musco facility and is piped to a central collection area from which it is either directed to the two Class II surface impoundments or is pumped to a 200,000-gallon surge tank. This surge tank is a recent replacement for the 1-million gallon pond described in the previous Orders. Wastewater is pumped from the surge tank to an unlined, 84-million gallon storage reservoir prior to land application. The reservoir is equipped with aerators to reduce odors and provide some reduction in the organic content of the wastewater. From the storage reservoir, wastewater is applied to approximately 200 acres of land application fields. The principle constituents in the wastewater are nitrogen compounds, BOD, iron, and total dissolved solids (TDS), which includes inorganic salts such as sodium and chloride.

Wastewater disposal at the facility is currently regulated by two separate Waste Discharge Requirements (WDRs). WDRs Order No. R5-2005-0024 regulates the discharge of brine waste to two Class II surface impoundments under Division 2, Title 27, California Code of Regulations (Title 27). These brines are classified as designated wastes pursuant to Title 27, and are disposed of by evaporation. WDRs Order No. R5-2002-0148 regulates the discharge of less concentrated wastewaters that are applied to land.

The Discharger's operation has grown significantly over the past 20 years. The Regional Water Board first adopted WDRs for land application of process wastewater at the Musco facility in 1987. The first WDRs authorized the discharge of approximately 10,000 gallons per day (gpd) to 4.5 acres of land. The Discharger subsequently increased its processing, and began discharging wastewater at a rate far in excess of its flow limit. In 1997, the Regional Water Board adopted revised WDRs that authorized the discharge of 500,000 gpd to 200 acres of land.

In 2002, the Regional Water Board adopted WDRs Order No. R5-2002-0148 to allow an increased flow rate of 800,000 gpd of olive processing wastewater to be applied to the same 200 acres of land. WDRs Order No. R5-2002-0148 included limitations to minimize pond odors, effluent limitations to limit salt loading rates to the land disposal areas, specifications to ensure the proper operation and maintenance of the land disposal areas, provisions requiring the performance of certain tasks and submittal of certain technical reports, and monitoring and reporting requirements.

Due to the complex hydrogeology at the site and incomplete background groundwater quality data, the Regional Water Board established interim effluent limitations for TDS, sodium, and chloride in WDRs Order No. R5-2002-0148. These interim effluent limits were set above the presumed background groundwater concentrations, and it was unknown whether they would result in complete protection of the underlying groundwater. The Order required the Discharger to (a) complete a *Background Groundwater Quality Study*, and (b) propose final background groundwater concentrations and final effluent limitations within two years. The Order stated that the final effluent limitations were expected to be more restrictive than the interim effluent limitations. These tasks have not yet been completed.

### **Previous Enforcement**

The Regional Water Board has a lengthy history of enforcement against this Discharger. On 17 November 2000, the Executive Officer issued Cleanup and Abatement Order (CAO) No. 5-00-717 in response to wastewater spills to surface waters and surface water drainage courses. Although the Discharger submitted most of the technical reports required by the CAO, the treatment system improvements were not constructed.

Due to the lack of compliance with the CAO, the Regional Water Board adopted Time Schedule Order (TSO) No. R5-2002-0014 in January 2002. The TSO allowed greater flow and

increased effluent limits for dissolved inorganic solids (DIS) from April 2002 through 6 September 2002, and required control of nuisance odors, installation of groundwater monitoring wells, submittal of the delinquent reports required by the WDRs and CAO, and compliance with Revised MRP No. 97-037. The TSO specified civil penalties ranging from \$2,500 to \$5,000 for violations of the requirements in the TSO.

On 6 June 2002, the Regional Water Board revised the terms of the time schedule by adopting TSO No. R5-2002-0014-R01. It authorized greater flow, application of wastewater as dust control in disturbed areas of the impoundment construction area, and an additional month to complete construction of the 84 million gallon reservoir.

On 9 April 2002, the Executive Officer issued Administrative Civil Liability (ACL) Complaint No. R5-2002-0502 in the amount of \$150,000, which addressed civil liabilities for failure to comply with the CAO from the date of the CAO issuance through issuance of TSO No. R5-2002-0014. The Discharger paid the liability in full.

On 6 September 2002, the Regional Water Board adopted WDRs Order No. R5-2002-0148 and CAO No. R5-2002-0149. Because the Discharger could not immediately comply with the interim effluent limits contained in the new WDRs, the CAO contained a two-year schedule to attain compliance. The CAO required the Discharger to achieve full compliance with WDRs by 6 September 2004.

### **ACL Complaint No. R5-2004-0534 and Subsequent Violations**

On 6 August 2004, the Executive Officer issued ACL Complaint No. R5-2004-0534 in the amount of \$493,500 for violations of revised TSO No. R5-2002-0014-R01 through 31 May 2004. The ACL Complaint alleged that the Discharger was in violation of certain TSO tasks during 795 days from 1 February 2002 through 31 May 2004. Attachment A to the Stipulated Order contains a day-by-day summary of violations that occurred during this time period.

The Discharger has proposed to settle the ACL Complaint through a Stipulated Order. The settlement would cover the violations listed in the ACL Complaint, as well as all violations amassed through 20 June 2007. To prepare for the settlement, Regional Water Board staff reviewed the case record, and found that since adoption of the most recent WDRs in September 2002, the Discharger has accrued more than 7,000 violations of WDR No. R5-2002-0148, CAO No. R5-2002-0149, and TSO No. R5-2002-0014 (for the period September 2002 through June 2007). To summarize, the Discharger has violated limits for freeboard, pH, dissolved oxygen, and dissolved sulfide in the pond and reservoir. The Discharger also violated specifications for maintenance and operation of wastewater storage and disposal systems. The Discharger has violated pH, organic, and nutrient loading rates to the land treatment units. In addition, the Discharger has violated interim effluent limitations for salts, prohibitions and specifications for maintaining wastewater and stormwater on-site, provisions requiring certain studies and technical reports, and monitoring and reporting

requirements. These violations are described in more detail in Attachment B to the proposed Stipulated Order.

In the two decades that the Discharger's land application of olive processing wastewater has been regulated by the Regional Water Board, Regional Water Board staff has conducted at least 20 site inspections. More than a dozen Notices of Violation have been issued by Regional Water Board staff since mid-2001. As described above, the Discharger has been issued two Cleanup and Abatement Orders, two CWC Section 13308 Time Schedule Orders, and an Administrative Civil Liability Complaint since late 2000. The record indicates that the Regional Water Board and its staff have clearly and consistently communicated compliance expectations and consequences to the Discharger.

## **CEASE AND DESIST ORDER**

The proposed CDO consolidates the Regional Water Board's previous requests and requirements for data and other information into a single document. Because the Discharger cannot comply with the interim effluent limits in its WDRs, the CDO allows higher effluent limits for a 2-1/2 year period. The CDO also requires various studies leading up to the submittal of a Report of Waste Discharge (RWD) in March 2009. Through the RWD, the Discharger would describe how it plans to modify its treatment and disposal system to comply with the Basin Plan and Title 27. The CDO would also implement the financial assurance requirements agreed to in the Stipulated Order. Selected items in the CDO are discussed in more detail below.

### **Revised Interim Effluent Limitations**

WDRs Order No. R5-2002-0148 contains limitations on the concentration of TDS, sodium, and chloride in the effluent discharged to the pond and hence the land application area. The effluent limitations are 2,047 mg/l for TDS, 597 mg/l for sodium, and 601 mg/l for chloride. The Discharger is unable to comply with the TDS and sodium effluent limits. The intent of the CDO is to allow higher, performance-based effluent limits for a limited period, while Musco completes the studies needed to determine a final solution to protect water quality.

Regional Water Board staff has had several discussions with the Discharger about the appropriate values for the revised interim effluent limits. Staff had intended to set the limits to match the current effluent quality, as it was our understanding that Musco's salinity source reduction measures and water conservation measures had resulted in improved effluent quality. However, recent discussions have shown that effluent concentrations are also highly dependent upon the volume of olives processed. For example, Musco has stated that the effluent quality data for the first six months of 2007 is not reflective of the effluent that will be generated when the facility returns to full operation in October 2007, simply because relatively few olives were processed in early 2007, while the plant will be operating at almost full capacity when the olive harvest begins this fall.

Musco has requested that the limitations not be expressed as concentrations (i.e., in mg/l), but be expressed as a load (i.e., pounds/day). They believe that this is necessary to reflect the

water conservation measures. The revised tentative CDO contained interim revised effluent limits based on both the near-maximum concentrations and mass loading values reported by Musco for the first half of 2007. Musco's comments to the revised tentative CDO requested that the mass loading values be substantially increased to "reflect the full capacity production rate, the proposed concentration limits, and the highest average monthly water use for the January-June 2007 period." Regional Water Board staff has made the requested increases, but caution that these values are interim only and have not been reviewed in relation to potential water quality impacts. It is anticipated that these revised interim effluent limits will have no bearing on the effluent limits that will be developed as a result of the water quality studies required by the proposed CDO.

The proposed CDO requires the Discharger to comply with the following revised Interim Effluent Limitations for the wastewater discharged from the surge tank to the reservoir. These revised limits would expire on 31 March 2010, at which time the Discharger would be required to comply with the Interim Effluent Limitations found in WDRs Order No. R5-2002-0148, or as otherwise ordered by the Regional Water Board. The 2010 date was selected because revised WDRs based on the March 2009 RWD are expected to be in place by that time.

<u>Constituent</u>	<u>Monthly Average</u>	
	<u>Concentration (mg/l)</u>	<u>Mass Load (lb/day)</u>
Total Dissolved Solids	3,200	14,900
Fixed Dissolved Solids	2,200	10,300
Sodium	700	3,300

### **Other Requirements of the CDO**

Due to the Discharger's history of wastewater management issues, the proposed CDO addresses discharge to surface water, runoff capacity, and wastewater storage capacity. The proposed CDO prohibits the use of the surface water drainage course crossing the Musco property to convey wastewater. It also prohibits the discharge of stormwater that has contacted any processing, treatment, storage, or disposal area at the Musco facility to any off-site location or surface water drainage course.

To ensure that wastewater, tailwater, and stormwater remain onsite, Musco would be required to submit a *Stormwater and Tailwater Capacity Evaluation Report*, evaluating whether pumps, sumps, tailwater ditches, and berms are adequately sized to prevent off-site discharges or discharges to the on-site surface water drainage. If the *Stormwater and Tailwater Capacity Evaluation Report* shows that improvements are required, then the Discharger is required to submit a report showing that specific improvements have been completed.

A significant volume of sediment has flowed into the 84-million gallon reservoir, and Regional Water Board staff is concerned about whether the Discharger has enough storage capacity to comply with the WDRs. Therefore, the proposed CDO requires the Discharger to submit an updated *Wastewater Treatment Facility Capacity Evaluation Report*. The report would include

a monthly water balance and would evaluate whether the entire treatment, storage, and disposal system has sufficient capacity to comply with the WDRs for the permitted flow rate during the 100-year annual wet season and if not, what facility and/or operational improvements are necessary. If improvements are needed, the report would provide an estimate of the time required for those improvements, and would describe the emergency measures to be taken to prevent any overflows from the reservoir or the fields.

The proposed CDO requires the Discharger to submit a *Final Report on Assimilative Capacity Study*. This report would include measurements of soil and crop assimilative capacity, and an assessment of percolation quantity and quality. The report would also contain a salt loading balance. The report would assess management practices needed to improve constituent assimilation, prevent salt buildup in soil, and provide complete breakdown of volatile dissolved solids in soil. In addition, the report would assess the impacts and potential impacts of current and proposed waste application rates in the land disposal areas on groundwater quality. The report is an important link in establishing waste management strategies that protect groundwater.

The proposed CDO requires the Discharger to submit a *Report on the Phase I Groundwater Investigation* and a *Work Plan for the Phase II Groundwater Investigation*. The first report would include results from the hydrogeologic investigations and monitoring conducted in 2007. The report would assess the remaining information necessary to complete a Water Quality Protection Standard Report, including background water quality, and identify work necessary to obtain that information.

The *Phase II Groundwater Investigation Work Plan* will describe the work needed to conduct groundwater investigations to the east-northeast of the Musco site, to the north-northeast of the 84-million gallon reservoir, and to the north of MW-8 and west of Field 18 North, as well as any additional work necessary to develop Water Quality Protection Standards.

The proposed CDO would, in the event that the Executive Officer determines that groundwater has been impacted by wastewater in the 84-million gallon reservoir, require that the Discharger to submit a *Groundwater Impact Abatement Workplan*, including a proposed implementation schedule, identifying its preferred alternative to comply with the groundwater limitations. Within two years of any such determination by the Executive Officer, the Discharger would be required to complete implementation of its selected alternative.

The proposed CDO requires the Discharger to submit a revised Report of Waste Discharge (RWD) by 31 March 2009. The RWD would include the results of all tasks required by the CDO and include an updated *Water Quality Protection Standard (WQPS) Report* in compliance with Title 27. The WQPS report would establish background groundwater concentrations, an important factor in determining effluent limits to protect groundwater. The RWD would assess methods to reduce effluent concentrations as necessary. The RWD would also demonstrate how any proposed modifications would lead to compliance with the Basin Plan and Title 27.

The RWD would also include a schedule to implement the improvements.

Finally, the proposed CDO would require the Discharger to implement, maintain, and fully fund the financial assurances required by the Stipulated Order and to provide an annual update to the cost estimate for each of the four financial assurance items listed therein. The financial assurance requirements provide funding for certain actions in the event the Discharger is unable to perform them. One requirement is aimed at preventing surface water runoff from the site toward the California Aqueduct or the valley floor by providing site maintenance and pumping runoff up to the reservoir. Financial assurance requirements are also established to ensure funding for site cleanup and closure if necessary, site monitoring, and corrective action for any releases from the site that threaten water quality.

### **PUBLIC COMMENTS ABOUT THE CDO**

The draft CDO was transmitted for public review on 20 June 2007 and on 17 September 2007. Comments on the CDO were received from the Discharger and the California Department of Water Resources (DWR). The comments were received within the specified comment period. Copies of the comment letters are provided as Attachments A and B to this staff report.

#### **Discharger's Comments**

Staff accommodated the Discharger's requests for changes to the draft CDO.

#### **Department of Water Resources Comments**

The DWR letter reminds staff that the California Aqueduct is downslope of the Musco property, and that this conveyance supplies water for over 20,000,000 people and 750,000 acres of farmland. On 20 April 2006, a Department of Fish and Game warden filed a report confirming that wastewater had discharged off of the Musco property and appeared to have discharged into the Aqueduct through a stormwater pipe. DWR staff made their own inspection and "confirmed that significant amounts of Musco wastewater have discharged into the Aqueduct."

DWR wants to ensure that Musco take all necessary actions to prevent any future discharges of wastewater into the Aqueduct, and expressed strong support for many of the provisions of the Order. Regional Water Board staff share the concern that wastewater not leave the site, which is why the CDO includes requirements to ensure that the 84-million gallon reservoir has sufficient capacity, and that all stormwater and tailwater conveyance structures are adequately sized to prevent off-site discharges of waste. In addition, the Discharger is required to inspect the entire facility prior to each rainy season and make any necessary repairs to the stormwater runoff control systems by 31 October each year. Finally, the financial assurances will provide funds to continue operating the stormwater conveyance structures to prevent off-site discharges of saline stormwater, should the Discharger become financially unable to perform these tasks.

Regional Water Board staff believe the proposed CDO and Stipulation for Entry of Administrative Civil Liability and Penalty address DWR's stated concerns. In addition, the Enforcement Team will continue to work with the District Attorney's office with respect to surface water issues, as appropriate.

### **STIPULATION FOR ENTRY OF ADMINISTRATIVE CIVIL LIABILITY AND PENALTY ORDER**

As noted above, the Executive Officer issued an ACL complaint in the amount of \$493,500 to the Discharger on 6 August 2004 for failure to comply with the revised TSO through 31 May 2004. The Discharger subsequently violated the TSO and the CAO. After settlement discussions, the Executive Officer and the Discharger are proposing to settle the matter by payment of an administrative civil liability/penalty and establishment of financial assurances for the site.

The Stipulated Order requires the Discharger to pay an administrative civil liability/penalty in the amount of \$493,500. This payment settles all violations of the WDRs, CAO, and TSO through 30 June 2007, except for potential violations relating to installation of a wastewater storage reservoir liner and surface water discharges. The Discharger would pay the administrative civil liability/penalty amount in four installments over two years. Pursuant to Water Code section 13323(d), full payment is due within thirty days of adoption of the Order by the Regional Water Board. However, the Executive Officer has agreed in the Stipulated Order not to initiate any collection actions to collect the full payment so long as timely payments are made as scheduled.

The Stipulated Order also requires the Discharger to obtain financial assurances for site maintenance, closure, monitoring, and remediation, as described above and in the Order. The Stipulated Order specifies administrative civil liability amounts if the Discharger fails to submit the required technical or financial assurance reports as scheduled.

Regional Water Board approval of the proposed *Stipulation for Entry of Administrative Civil Liability and Penalty Order* (Stipulated Order) would settle this matter.

### **PUBLIC COMMENTS ABOUT THE STIPULATION**

Staff has not received public comments on the Stipulated Order as of the date of preparation of this document. The due date for comments on this item is 15 October 2007. If any comments are received after the Agenda Package is prepared, then staff will discuss the comments during the Board hearing.

### **STAFF RECOMMENDATION**

The Enforcement Team, headed by the Executive Officer, recommends that the Regional Water Board adopt the CDO and the Stipulated Order as proposed. The Discharger has had

Cease and Desist Order and Stipulation for Entry of Administrative Civil Liability and Penalty Order  
Musco Family Olive Company and the Studley Company  
San Joaquin County

significant numbers of violations of the TSO and CAO, but many of the violations were of low gravity. The Stipulated Order would recover a substantial penalty for violations of these Orders. The Stipulated Order would resolve the violations of the TSO and CAO and the CDO would focus the Discharger on achieving compliance with its WDRs. The Orders are unusual in that they require the Discharger to obtain and maintain financial assurances that would address environmental concerns in the event the Discharger is unable to continue in business.

Adopt the *Stipulation for Entry of Administrative Civil Liability and Penalty Order* and *Cease and Desist Order* as proposed.

Attachment A: Comment letter from Musco Family Olive Company and the Studley Company  
Attachment B: Comment letter from the California Department of Water Resources

MRH/SER/WSW: 9-Oct-07