



September 8, 2014

Mr. Marty Hartzell
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Re: Comments on Tentative Waste Discharge Requirements and Monitoring and Reporting Program

Musco Family Olive Company (Musco) appreciates the hard work that went into drafting this permit and appreciates Water Board staff working with us to make some site-specific changes set forth in Musco's July 18, 2014 letter, hereby incorporated by reference. However, Musco has several comments concerning the tentative Waste Discharge Requirements (WDR) and Monitoring and Reporting Program (MRP) for the Musco Family Olive Company and the Studley Company Class II Surface Impoundments, San Joaquin County.

Comments on Finding 54:

Finding 54

On 15 June 2005, the Discharger submitted a cost estimate of \$67,000 for reasonably foreseeable release from Ponds A and B and estimated cost of \$254,832 for clean closure of Ponds A and B. The Discharger proposed using the "Letter of Credit" mechanism to provide financial assurances.

Musco actually proposed using the Financial Means Test to provide financial assurances, and submitted the necessary information to the Board on October 11, 2005.

Comments on Finding 59:

Finding 59

On 21 May 2014, the Discharger provided a revised clean closure plan for Ponds B, C, and D. The estimate for clean closure of the three ponds was \$2,333,700. However financial assurances for all four ponds must be provided at the time of adoption of this Order. Therefore, Board staff used the estimate of \$943,900 for clean closure of Pond B, similar in construction to Pond A, and applied it towards estimating the clean closure of Pond A. Board staff estimated a cost of \$3.28 million in 2014 dollars to clean close all four Class II surface impoundments. This Order requires the Discharger to provide and maintain financial assurances for the eventual clean closure of all four Class II surface impoundments at the facility as provided under Title 27 section 22228.

The revised clean closure plan referenced in Finding 59 copied above was for closure of the impoundments, including the disposal of accumulated solids, at the end of the impoundments' operating life. The cost of closing the impoundments, especially Ponds C and D will be considerably less in the near term and it is unnecessarily burdensome for Musco to fund the full amount immediately. For this reason, Musco proposes to change the language of Finding 59 to:

“On 21 May 2014, the Discharger provided a revised clean closure plan for Ponds C and D at the end of their estimated operational lifespan. However, financial assurances for all four ponds must be provided at the time of adoption of this Order. Therefore, the Discharger shall submit a revised preliminary closure costs by 17 April 2015 reflecting the current cost of closure for all surface impoundments. This Order requires the Discharger to provide and maintain financial assurances for the eventual clean closure of all four Class II surface impoundments at the facility as provided under Title 27 section 22228.

Comments on Finding 98:

Finding 98

The Discharger operates an unsaturated zone monitoring system below Ponds A and B through 38 suction type lysimeters placed at either 5 feet or 10 feet below the secondary clay liner as shown in Attachment D, which is incorporated herein and made part of this Order by reference. The Discharger operates two lysimeters (BG-5 and BG-10) as background lysimeters located adjacent to a field identified as pasture land approximately 1600 feet northwest of Ponds A and B. *Due to monitoring and reporting irregularities (See 1st Semi-Annual Report 2013), the distant location of these lysimeters, and their*

proximity to land where waste containing COCs is/was applied, the use of these lysimeters to establish background concentrations of COCs in the unsaturated zone below Ponds A and B is inappropriate. These WDRs in Provisions H.12.b.2 require the Discharger to establish representative background water quality characteristics for the unsaturated zone underlying Ponds A and B.

The background lysimeters referenced in the italicized portion of Finding 98 were installed in accordance with a work plan and at a location approved by Regional Board staff. Musco can state unequivocally there is not currently, nor has there ever been, any land application of liquid or solids in this location and as discussed with Regional Board staff prior to their installation, this is an appropriate location for background lysimeters. The phrase “representative background water quality characteristics” should be changed to “compliance assessment procedures.” Given the experience and extensive studies at the site, the determination of background soil water quality may not be technically feasible.

Comments on Finding 99:

Finding 99

The Discharger has *intermittently reported* soil pore water in their suction lysimeters below Ponds A and B.

The phrase “intermittently reported” should be changed to “intermittently detected” to clarify the intermittent recovery of water, not intermittent reporting. Musco regularly reports soil pore water results in compliance with the current MRP. The lysimeters only intermittently have water recovered from them, but all data is always reported.

Comments on Finding 100:

Finding 100

The Discharger operates an unsaturated zone monitoring system below Ponds C and D through one pan-type lysimeter placed directly below each pond LCRS sump (See Attachment D). The pan lysimeter monitors any leakage through the pond's secondary liner in the LCRS sump area. The LCRS sump area is considered the most likely area that a release from the Class II surface impoundment containment system *will* occur since the secondary liner in the sump area will experience the greatest head pressure (up to 1 foot) *due to any leakage through the primary liner. Any free liquid discovered in a pan lysimeters PL-C and PL-D monitoring the unsaturated zone below Ponds C and D is considered significant evidence of a release from the containment system and requires the Discharger to respond in accordance with Title 27 requirements.* MRP No. R5-2014-XXXX incorporates pan lysimeters PL-C and PL-D for compliance monitoring of the unsaturated zone beneath Ponds C and D.

This finding states that the secondary liner will experience up to one foot of head pressure due to leakage through the primary liner. The phrase “will experience” should be changed to “could experience” because, as written, the finding assumes there is or will be a leak. Finding 100 also states that “any free liquid discovered in a pan lysimeter...is considered significant evidence of a release...”. Regional Board staff and Musco have had several conversations of scenarios where free liquid in the pan lysimeter could actually be from rain water or condensation, so this finding is inappropriate. Musco agrees that an immediate evaluation must be performed to determine if any free liquid in the pan lysimeter is because of a release, but the simple presence of water does not necessarily indicate a release.

Comments on Finding 113:

Finding 113

Title 27 section 20370(a) and section 21750(f)(5) requires Class II units to be designed to withstand the maximum credible earthquake (MCE) without damage to the foundation, final slopes, and containment structures including *but not limited to* structures that control leachate, surface drainage, or erosion, or gas.

The first sentence in Finding 113 is factually incorrect. Neither of the referenced sections contain the phrase “but not limited to”, which should therefore be removed from the finding.

Comments on Finding 117:

Finding 117

Therefore, it is appropriate for this Order to not include a wastewater flow limitation, but to require frequent flow and freeboard monitoring, *as well as detailed reporting of any off-site disposal of excess wastewater.*

These Waste Discharge Requirements control the discharge to land of designated waste at the specific sites identified in Finding 3. There is no regulatory basis for the WDR’s requirement to report any other form of treatment, temporary storage, or transport to an off-site disposal site. The phrase “as well as detailed reporting of any off-site disposal of excess wastewater” should be removed.

Comments on Finding 122:

Finding 122

The PCP includes an itemized cost estimate for third party costs to clean-close the surface impoundments. The total of the estimate to clean close the four surface impoundments is \$3.28 million in 2014 dollars. This cost estimate is approved by the adoption of these WDRs. Pursuant to Title 27 Section 22207(a), this Order requires the Discharger to establish financial assurances for closure of the Class II

surface impoundments in accordance with the approved cost estimate naming the Central Valley Water Board as the beneficiary.

The costs presented in Musco's initial Preliminary Closure Plan (PCP) were associated with closing Ponds C and D at the end of their operational lifespan and, therefore, greatly overestimate the necessary costs for near-term closure. Thus, Finding 122 should be amended read:

"The discharger proposes to provide an updated cost of closure for each of the four surface impoundments by 17 April 2015. Pursuant to Title 27 Section 22207(a), this Order requires the Discharger to establish financial assurances for closure of the Class II surface impoundments in accordance with the approved cost estimate, naming the Central Valley Water Board as the beneficiary as applicable.

Comments on Provision C.12:

Facility Specifications - C.12

The Discharger shall distribute wastewater to the class II surface impoundments as shown in Attachment E, the Discharger's wastewater distribution diagram, which is incorporated herein and made part of this Order by reference.

As written, this newly added specification would require the Discharger to appear before the Regional Board in order to make minor modifications to its distribution system. To avoid this situation, we suggest the language be changed so that the Attachment is not incorporated and included by reference. However, any modifications must still be submitted to the Executive Officer for approval, as specified in the following language:

The Discharger shall distribute wastewater to the class II surface impoundments according to the Discharger's wastewater distribution diagram, a current version of which is included herein as Attachment E. *Any modification to the diagram contained in Attachment E should be submitted to the Executive Officer for approval.*

Comments on Provision E.1:

Closure and post-closure maintenance specifications - E.1

In the case of clean closure, all precipitates, settled solids, and liner materials contaminated by wastes, and adjacent natural geologic materials contaminated by wastes shall be completely removed for disposal to an approved Unit.

As written, this specification seems to preclude the recycling of accumulated minerals and organic matter for animal feed or other beneficial use. To avoid this interpretation, this sentence should be modified to read:

In the case of clean closure, all precipitates, settled solids, and liner materials contaminated by wastes, and adjacent natural geologic materials contaminated by wastes shall be completely removed for disposal to an approved Unit *or may be handled using an alternate method approved by the Executive Officer.*

Comments on Provision E.2:

Closure and post-closure maintenance specifications - E.2

“...The plan shall include any applicable closure/post-closure elements proposed in the ROWD, and shall meet the requirements of this Order.”

As written, this specification limits Musco’s Final Closure and Post-Closure Maintenance Plan to information presented in Musco’s ROWD, and thus precludes the use of any technology that may develop during the life time of the surface impoundments in the ultimate closure. This sentence should be removed entirely since the prior sentence requires that the Plan meet the requirements of Title 27.

Comments on Provisions F.1. and F.2:

Financial Assurance - F.1.

By 17 April 2015, pursuant to Title 27 Section 22207, the Discharger shall submit a report showing that it has established an irrevocable **\$3.28 million closure fund** with the Central Valley Water Board named as beneficiary to ensure closure of all Class II surface impoundments in accordance with the cost estimate in the Closure Plan dated 21 May 2014 submitted as an ROWD addendum. The financial assurances mechanism shall be one or a combination of the eligible mechanisms approved for closure listed in Title 27 Section 22228 for which the Discharger is eligible. For financial assurance mechanisms eligible for closure costs requiring funding, the Discharger shall either fully fund the mechanism by **17 April 2015** or may propose a payment schedule. If the Discharger proposes a payment schedule to fund the mechanism, it shall submit a report by **1 June 2015** showing that the mechanism is fully funded. For financial assurance mechanisms eligible for closure costs not requiring funding, the Discharger shall submit a report showing the mechanism is in place by **1 June 2015**.

This specification is contradictory, based on faulty assumptions, and contains unreasonable provisions. The first sentence of the specification requires Musco to establish an irrevocable fund by April 17, 2015, but the subsequent sentences allow Musco to propose any of the mechanisms allowed by Title 27. The fund amount of \$3.28 million was based on Musco’s Preliminary Closure Plan (PCP) dated May 21, 2014.

The cost presented in the PCP represented an initial estimate of the cost of closure, including the cost of disposal of the mineral and organic solids, for Ponds C and D at the end of their expected operational lifespan. It is appropriate for Musco to submit a new closure cost estimate by April 17, 2015 that reflects the current cost of closure and to submit annual updates to reflect inflation, solids accumulation, and changes in technology that impact the cost of closure. Finally, this specification states that Musco must fully fund the mechanism by April 17, 2015 or may propose a payment schedule, in which case the mechanism must be fully funded by June 1, 2015. Musco assumes this is a typographical error and points out that Title 27 Section 22225(a)(3) states that the closure fund does not need to be fully funded until the delivery of the last shipment of waste. Additionally, it is unclear as to which State agency (i.e. Regional Board vs. CalRecycle) is responsible for approving a financial means mechanism proposed by Musco. For this reason, Musco cannot assume responsibility for having a mechanism in place by a date certain, but can only commit to proposing a mechanism for approval.

For these reasons, Musco requests that Financial Assurance Specification F.1 be re-drafted as follows:

“By 17 April 2015, pursuant to Title 27 Section 22207, the discharger shall submit for approval by the Executive Officer, an update of the Closure Plan dated 21 May 2014 with detailed cost estimates and a proposal for a financial mechanism(s) to ensure closure for each of the four surface impoundments. The financial assurances mechanism(s) shall be listed in Title 27 Section 22228 for which the Discharger is eligible. For financial assurance mechanisms requiring funding, the Discharger shall either fully fund the mechanism(s) by **1 June 2015**, if the mechanism(s) has been approved in writing, or may propose a payment schedule for approval by the Executive Officer. If the Discharger proposes a payment schedule to fund the mechanism(s), it shall submit annual funding reports yearly by June 1 in accordance with Title 27 Section 22225(a)(2) and a final report at the end of discharge to any given impoundment showing that the mechanism is fully funded in accordance with Title 27 Section 22225(a)(3). For financial assurance mechanisms not requiring funding, such as a Guarantee of Financial Means Test, the Discharger shall submit a report showing the mechanism is in place by **1 June 2015**. The discharger shall update the closure cost estimate yearly by June 1 to reflect inflation, accumulation of solids, or other factors that impact the cost of closure.”

Financial Assurances Specification F.2 contains many of the same flaws as F.1. Musco therefore requests that F.2. be re-drafted as follows:

“By 1 June 2015, the Discharger shall submit a report showing that it has established an irrevocable **corrective action fund mechanism** with the Central Valley Water Board named as beneficiary to ensure funds are available to address a known or reasonably foreseeable release from all Class II surface impoundments. The financial

assurances mechanism shall be one listed in Title 27 Section 22228 for which the Discharger is eligible. For financial assurance mechanisms requiring funding, the Discharger shall either fully fund the mechanisms by **1 June 2015** if the mechanism has been approved, or may propose a payment schedule for approval by the Executive Officer. If the Discharger proposes a payment schedule to fund the mechanism, it shall submit a report by **1 June 2020** showing that the mechanism has been funded in accordance with Title 27 Section 22226. For financial assurance mechanisms not requiring funding, such as a Guarantee of Financial Means Test, the Discharger shall submit a report showing the mechanism is in place by **1 June 2015.**”

Comments on Provision H.11:

Provision H.11.d, e, and f:

<u>Task</u>	<u>Compliance</u>
<u>Date</u>	
<u>d. Drain Pond A. A maximum of 20 months for evaporation and 1-month for solids/sludge removal is granted. Title 27 section 21400(a) requires removal of all free liquid remaining in Pond A at the time of closure. This order grants this extended period for removal of free liquid upon closure as long as Pond A does not show evidence of a release from the Unit.</u>	<u>1 September 2016</u>

This provision grants a total of 21 months from the date of the order. Because Musco cannot control how much time will be taken for the Regional Board’s approval of the Final Construction Quality Assurance (CQA) document, and needs a full 20 months for evaporation of the residual liquid, Musco requests that the compliance date be the same as in H.11.b, running from the Board staff’s approval of the CQA document for Ponds C and D. The provision in H.11.e should then be amended to state that the confirmation report is due 1 month after the removal of solids (which relies on the approval of the CQA document) rather than by a specific date. Similarly, the final closure report required under H.11.f should be six (6) months after submittal of the confirmation report in H.11.e to ensure a logical and achievable schedule.

Comments on Provision H.12:

Provision H.12: This provision requires that nine (9) separate reports be submitted on the same day, five days after the end of the Christmas holiday season. Musco requests a revision of the due dates as follows:

12. The following reports shall be submitted pursuant to Section 13267 of the California Water Code and shall be prepared in accordance with Provisions H.10:

<u>Task</u>	<u>Compliance Date</u>
a. Submit the following incomplete ROWD Information:	
1. Revised Well Information: Submit surrounding well information that complies with Title 27 section 21750(h), and as described in Finding 80.	9 January 2015
2. Revised Sampling and Analysis Plan: Submit a Sampling and Analysis Plan that complies with Title 27 section 20415(e)(4-5) and the MRP	9 January 2015
3. WQPS: Submit a proposed Water Quality Protection Standards that complies with Title 27 section 20390 for groundwater and unsaturated zone for Ponds B, C, and D using a minimum of 8 samples. The WQPS shall establish background water quality for the purposes of anti-degradation analysis and for establishing concentration limits at each monitoring point and point of compliance.	9 January 2015
4. Plans and Specifications (LCRS Sumps): Submit final plans and specifications (stamped) for LCRS sump for Ponds C and D monitoring system (see all Construction Specifications in Section D above, and Section F of the SPRRs.)	9 January 2015
5. Plans and Specifications (Wastewater Distribution): Submit final plans and specifications (stamped) for process water piping and distributions system to all Class II surface impoundments (see all Construction Specifications in Section D above, and Section F of the SPRRs.)	9 January 2015
6. Corrective Action Financial Assurance Estimate: Submit updated financial assurances estimate that complies with Title 27 section 22222 for corrective action for known or reasonably foreseeable releases from all class II surface impoundments.	17 April 2015
7. Monitoring System Certification: Submit certification per Title 27 Section 20415(e)(1) that the Class II surface impoundment monitoring system complies with Title 27 requirements.	9 January 2015

8. Revised Operations and Maintenance (O&M) Plan: 1 February 2015
Submit an O&M Plan that complies Title 27 section sections 20375 and 21760(b) as well as describes how freeboard violations will be prevented during the wet season(see Finding 117 and Facility Specification C.15)

9. Financial Assurances: Submit financial assurance demonstrations for closure and corrective action, as described in Specifications F.1 and F.2. 17 April 2015

b. Submit the following plans and reports:

~~1. **Pond B Unsaturated Zone Monitoring System Report:** Submit a technical report and schedule describing how suction lysimeters surrounding Pond B and the two background lysimeters will be repaired/replaced to re-establish functionality of unsaturated zone monitoring system that complies with Title 27. The technical report shall also insure that subsequent submittals of monitoring reports include revised historical data that indicates lysimeter operational status and results during each sampling event.~~ Suggest removal of requirement

~~2. **Unsaturated Zone Background Concentration Report:** Submit a technical report for establishing background concentrations in the unsaturated zone below Ponds A and B that is representative of soil pore water quality prior to the discharge of waste at the facility.~~ Suggest removal of requirement

~~3. **Well Screen Interval Work Plan:** Submit a work plan and schedule for reporting results from evaluating current screened intervals in order to determine which wells need modifications/replacement to intercept declining groundwater elevations such as but not limited to monitoring wells MW-10, MW-11, MW-12, MW-17, MW-22 and W-2.~~ Suggest removal of requirement

4. Pond D Compliance Well Placement: Submit a technical report that certifies that compliance point MW-35R is placed downgradient of Pond D sump and the two associated piezometers (constructed as monitoring wells) have been located such that they comply with Title 27 requirements for a groundwater 2 March 2015

monitoring system.

Regarding H.12.b.1, Musco has already replaced the background lysimeters and submitted the required reports, as noted in our comments under finding 98. Furthermore, it is neither technically nor economically feasible to repair or replace a suction/vacuum lysimeter under a surface impoundment although Musco does routinely service the lysimeter system to repair components as necessary and feasible. Section 13267 b.1 of the California Water Code states “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.” Musco requests that the requirement for this report be removed.

Regarding H.12.b.2, the requirement is contradictory, technically infeasible, and not in accordance with Water Code Section 13267 b.1. In finding 98 staff claims that the existing background location, previously approved by staff, is inappropriate due to its proximity to the Land Application Areas. However, there are no other areas on Musco property that are not part of, or in close proximity to the LAA. Furthermore, land application of process water has been ongoing for 27 years. It is impossible at this point to determine what background might have been prior to discharge at this site. Additionally, 27 years of unsaturated zone monitoring have shown that recovery of soil pore moisture is usually not possible. It is clear that if there were to be a release from the surface impoundments that the moisture recovered would to a large degree have a similar chemical signature as the contained waste. Any additional reports attempting to establish background at this point provide no additional protection to the waters of the State. This requirement should be removed.

Regarding H.12.b.3, Musco acknowledges that declining shallow groundwater at the site has impacted several monitoring wells. However, there are 47 monitoring wells on site, including 11 wells that have been deepened due to declining groundwater tables. Title 27 requires that the upper-most aquifer be monitored, and defines an aquifer as “a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs”. Thus, even the monitoring wells that no longer produce water still monitor the upper most aquifer and the ongoing requirement to install new wells at ever increasing depths is economically burdensome and does nothing to improve the protection of groundwater because the newer deep wells located beneath the first encountered aquifer are too deep to provide meaningful detection of a release. Musco notes that as recently as 1992 when Pond B was constructed, Board staff only required monitoring wells to extend 100 feet below the ground surface, recognizing that anything deeper did not provide a timely or meaningful indication of a release. This requirement should be removed.

Regarding the requirement for additional technical reports in general, especially for Ponds A and B, Musco would like to bring to staff's attention that Musco has expended over \$2.5 million during the past 10 years for scientific and technical studies related to

site geology, hydrology, and soils, resulting in more than 300 pages of reports. With even a simple technical report costing on the order of \$75-100,000, it is unlikely that any request for additional information can meet the requirements of Section 13267 b.1.

In addition to its comments on the Waste Discharge Requirements, Musco also has the following comments on the tentative Monitoring and Reporting Program.

Comments on MRP Section 7. d. Facility Monitoring:

Section 7.d.

Water Balance- Waste Exportation

Any designated waste not discharged to the Class II surface impoundments or removed from the Class II surface impoundments shall be accounted for and reported accordingly. The Discharger shall account for the final deposition of the wastewater by providing documentation that the waste was disposed of in an approved waste management unit including date of removal, gallons removed, and the location of disposal. A copy of each hauling receipt shall be included in the semiannual report.

These WDRs and the accompanying MRP regulate discharges to land of designated waste at the location specified in Finding 3 of the WDR. The WDR and MRP do not regulate temporary storage or treatment of designated waste, nor do they regulate the disposal of designated waste at another location(s). Because Section 7.d. appears to apply to all designated waste, it may be read to require Musco to account for evaporative losses from any temporary tank storage and from the surface impoundments as well as volume reduction achieved in any treatment system. This requirement would not only be technically infeasible, it would be extremely costly and unnecessarily burdensome without providing additional protection to the waters of the State, and thus would be contrary to the requirements of Water Code section 13267(b) and 13225(c). Musco manages and disposes of its waste, liquid and solid, in accordance with all federal, state, and local regulations, and these proposed additional restrictions are unwarranted.

Comments on MRP Section B.

Section B. Reporting requirements:

“...In addition, the Discharger shall enter all monitoring data and monitoring reports into the online Geotracker database as required by Division 3 of Title 27.”

Despite this language, Division 3 of Title 27 does not require the use of the online Geotracker database. Division 3 of Title 27 consists solely of data dictionaries. The requirements for the use of Geotracker are found in Division 3, Chapter 30 of Title 23, which states that the use of Geotracker is required only to report data gathered during subsurface investigations or remediation, i.e. data gathered as part of an evaluation monitoring program or a corrective action program. Routine monitoring is not required

to be reported through Geotracker and Musco would ask that this provision be removed as legally inaccurate and unnecessary.

In closing, thank you for your attention to Musco's comments. We welcome the opportunity to discuss our comments in more detail with Board staff in Ranch Cordova, as well as to come to a fuller understanding of staff's concerns. It is my understanding that Musco's principals have requested a meeting with RWQCB senior management to clarify certain issues. I suggest that the technical staff from Musco and RWQCB meet shortly thereafter to craft mutually agreeable WDR and MRP documents.

Sincerely,

A handwritten signature in cursive script that reads "Benjamin J. Hall".

Benjamin J. Hall
Director
Environmental Services and Programs
Musco Family Olive Co.