

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 9-10 October 2014**

**Response to Written Comments for Musco Family Olive Company
Class II Surface Impoundments
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 9 and 10 October 2014, the Regional Water Quality Control Board, Central Valley Region ("Central Valley Water Board") will consider adoption of Waste Discharge Requirements ("WDRs") that will regulate discharges from the Musco Family Olive Company Class II Surface Impoundments.

This document contains responses to written comments received from Musco Family Olive Company regarding the tentative WDRs. Written comments from all interested parties were required by public notice to be received by the Central Valley Water Board by close of business on 8 September 2014 to receive full consideration. Comments were only received from Musco Family Olive Company.

Musco Family Olive Company's comments are summarized below, followed by the responses of Central Valley Water Board staff. Based on the comments, Central Valley Water Board staff made multiple changes to the tentative WDRs. Central Valley Water Board staff also made some changes to correct typographical errors and to improve clarity.

MUSCO FAMILY OLIVE COMPANY COMMENTS

On 8 September 2014, Musco Family Olive Company (Musco) submitted written comments regarding the tentative WDRs. These comments identified some issues and requested multiple revisions to the tentative WDRs. Some of the requested changes were made as appropriate.

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

RESPONSE: Comment noted. Finding 54 refers to an initial 15 June 2005 cost estimate provided by Discharger, and Finding 57 refers to the Discharger's 11 October 2005 Financial Means Test submittal. As stated in Finding 57, the submittal did not include the necessary information required in section 22246(h) that supports the Financial Means Test.

- 2. 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.”

Musco Comments: 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.”*

RESPONSE: Comment noted. Water Board accepted the 17 April 2015 date to submit a revised cost estimate in our 31 July 2014 letter. Finding 59 is rewritten to read:

"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 at the end of their useful life 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 at the end of its useful life, 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 at the end of their useful life. The majority of the final cost estimate is for disposal of solids accumulation in the surface impoundments over their useful life. If a third party were required to clean close the surface impoundments prematurely, the total cost estimate at the time of closure would be reduced. These WDRs allow the Discharger to provide prorated financial assurances based on estimated solids accumulation over their useful life. These WDRs require the Discharger to provide an updated cost for closure based on solids accumulation for each surface impoundment by 17 April 2015. This Order requires the Discharger to provide and maintain financial assurances on a prorated basis for the eventual clean closure of all four Class II surface impoundments at the facility as provided under Title 27 section 22228.”

- 3. 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.”*

Musco Comments: 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.

RESPONSE: Comment noted. The finding as written does not state or imply that designated waste was applied in the field where background lysimeters were installed. It only states that irregularities in the reporting at these background lysimeters (Electrical Conductivity ranging from 14,320 to 22,450 and TDS ranging from 10,200 to 18,000 mg/L) make these lysimeters not appropriate for establishing background concentrations in the unsaturated zone. Finding #98 will be rewritten to state that these background lysimeters may not be appropriate for establishing background, but the provisions to evaluate the current unsaturated zone monitoring system in order to bring the site into compliance with Title 27 requirements. Finding 98 rewritten to read:

"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 high EC and TDS reported in the 2013 1st semi-annual report from these background lysimeters may not be appropriate for establishing background concentrations for Pond A and B. These WDRs in Provisions H.12.b.1 require the Discharger to evaluate the current unsaturated zone monitoring system in order to bring the site into compliance with Title 27 requirements for detection monitoring within the unsaturated zone."

4. **Finding 99:** *"The Discharger has intermittently detected soil pore water in their suction lysimeters below Ponds A and B. Most recently the Discharger reported soil pore water in Lysimeters# 1, 4, 18, and 23. The monitoring results are shown below:...."*

Musco Comments: 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.

RESPONSE: Comment noted. Tentative Orders posted on 8 August 2014 incorporated this proposed change.

5. **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.”

Musco Comments: 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.

RESPONSE: Comment noted. The wording in the finding will be changed from "will experience" to "could experience". Secondly, condensation water in the pan lysimeter will be minimal, and the possibility of rain water entering the pan lysimeter is low due to the physical placement of the pan, the depth to ground water, and the horizontal and vertical distance away from the unlined surface impoundment. Finding 98 rewritten to read:

“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 could experience the greatest head pressure (up to 1 foot) due to any leakage through the primary liner. Significant free liquid discovered in pan lysimeters PL-C and PL-D monitoring the unsaturated zone below Ponds C and D is considered 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.”

6. **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....”*

Musco Comments: 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.

RESPONSE: Comment noted. Finding 113 rewritten to read:

“Title 27 section 20370(a) and section 21750(f)(5) requires Class II units to be designed under both static and dynamic conditions to withstand the maximum credible earthquake (MCE) without damage to the Unit, including the foundation, final slopes, and containment structures including structures that control leachate, surface drainage, or erosion, or gas throughout the Unit's life, closure period, and postclosure maintenance period....”

7. **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. It is also appropriate to require the Discharger to prepare an approved operations and maintenance plan that amongst other things dictates how they will prevent violating the minimum freeboard requirement during the wet season.”*

Musco Comments: 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.

RESPONSE: Comment noted. Title 27 section 20375 (d) requires that there shall be no discharge from a surface impoundment except as authorized by WDRs. In the Discharger's revised water balance they proposed exportation of waste in order to maintain freeboard during high rainfall events. Thus monitoring of the exportation and ultimate disposal of waste is appropriate.

8. **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.”*

Musco Comments: 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.”

RESPONSE: Comment noted. Finding 122 rewritten to read:

“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 at the end of their useful life is \$3.28 million in 2014 dollars. This final cost estimate is approved by the adoption of these WDRs. The majority of the cost estimate is for disposal of solids accumulation in the surface impoundments over their useful life. If a third party were required the clean close the surface impoundments prematurely the total cost estimate would be reduced. These WDRs allow the Discharger to provide prorated financial assurances based on estimated solids accumulation. These WDRs require the Discharger to provide an updated cost for closure based on solids accumulation for each surface impoundment by 17 April 2015. Pursuant to Title 27 Section 22207(a), this Order requires the Discharger to establish financial assurances on a prorated basis for closure of the Class II surface impoundments in accordance with the approved final cost estimate naming the

Central Valley Water Board as the beneficiary.”

- 9. Provision 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.”*

Musco Comments: 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.”*

RESPONSE: Comment noted. Provision C.12 rewritten to read:

“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. Any modification to the Discharger’s wastewater distribution diagram contained in Attachment E shall be submitted to the Executive Officer for prior approval as modifications to the Discharger’s operations plans per Title 27 sections 20375(b) and 21760(b).”

- 10. Provision 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...”*

Musco Comments: 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.”*

RESPONSE: Comment noted. Provision H.11.c. states that the Discharger shall “Provide a final closure plan and detailed schedule describing the clean closure of Pond A in compliance with these WDRs and Title 27.” Therefore, Provision E.1. will be rewritten 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 in accordance with an approved Pond A final closure plan and detailed schedule as required in Provision H.11.c.....”

- 11. Provision E.2:** *“...The plan shall include any applicable closure/post-closure elements proposed in the ROWD, and shall meet the requirements of this Order.”*

Musco Comments: 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.

RESPONSE: Comment noted. The Provision uses the term "applicable" to only require items in the preliminary closure plan submitted as part of the ROWD that are applicable at the time of closure. The Discharger at the time of closure submits a Final Closure Plan (21769(c)) that can change the closure means from what was initially proposed in the ROWD (see 21769(c)(2)(E) and (F)). Therefore, the provision remains unchanged.

12. Provision 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.**"*

Musco Comments: 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."

RESPONSE: Comment noted. Provision F.1 rewritten to read:

*"By **17 April 2015**, pursuant to Title 27 Section 22207, the Discharger shall submit a report showing that it has established an irrevocable **closure fund** financial assurance with the Central Valley Water Board named as beneficiary to ensure final closure of all Class II surface impoundments with the closure fund balance increasing proportional to estimated solids accumulation in the surface impoundments. The initial irrevocable fund financial assurances balance shall be established based on initial closure costs of all four surface impoundments as of **17 April 2015** and shall increase on a prorated basis to the final closure cost submitted by the Discharger 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** for estimated closure costs as of 17 April 2015 or may propose a payment schedule. If the Discharger proposes a payment schedule to fund the mechanism, they shall submit a report by **1 June 2015** showing the means and the schedule by which 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**."*

- 13. Provision F.2:** *"By **17 April 2015**, pursuant to Title 27 Section 22222, the Discharger shall submit a report showing that it has established an irrevocable **corrective action fund** 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 or a combination of the eligible mechanisms approved for corrective action listed in Title 27 Section 22228 for which the Discharger is eligible. For financial assurance mechanisms eligible for corrective action 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 corrective action costs not requiring funding, the Discharger shall submit a report showing the mechanism is in place by **1 June 2015**."*

Musco Comments: 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."

RESPONSE: Comment noted. Provision F.2 rewritten to read:

*"By **17 April 2015**, pursuant to Title 27 Section 22222, the Discharger shall submit a report showing that it has established an irrevocable **corrective action fund** financial assurance 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 or a combination of the eligible mechanisms approved for corrective action listed in Title 27 Section 22228 for which the Discharger is eligible. For financial assurance mechanisms eligible for corrective action 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 the means and the schedule by which the mechanism is fully funded. For financial assurance mechanisms eligible for corrective action costs not requiring funding, the Discharger shall submit a report showing the mechanism is in place by **1 June 2015**."*

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

Task	Compliance Date
<i>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.</i>	1 September 2016
<i>e. Submit confirmation report documenting that Pond A liquid and solids have been removed.</i>	1 October 2016.
<i>f. Submit final closure report documenting clean closure of Pond A.</i>	1 January 2017

Musco Comments: 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 staffs 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.

RESPONSE: Comment noted. Water Board staff anticipates that they will be able to review and approve a Title 27 compliant CQA document within 30 days. Therefore, the 20-month calendar to drain Pond A will start on 1 January 2015 and conclude on 1 September 2016. Provision H.11.e. requests the Discharger to submit a confirmation report on 1 October 2016 documenting that Pond A liquids and solids have been removed. We propose to revise this language to request that the confirmation letter report with photo documentation is submitted on 15 September 2016 to report that Pond A was drained. The final closure report will address full closure including removal of liquids and solids. Provision H.11.f. requests the Discharger to submit a final closure report documenting clean closure of Pond A by 1 January 2017, which is four months after Pond A is to be drained. To allow for necessary report preparation time, we will extend the compliance date two months to 15 March 2017.

15. Provision H.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> (As Written)	<u>Compliance Date</u> (Revised)
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	No Change
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	No Change
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	9 January 2015	20 March 2015

establishing concentration limits at each monitoring point and point of compliance.		
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	No Change
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	No Change
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.	9 January 2015	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. <u>This task can be submitted in conjunction with Task H.12.b.1 as part of the Detection Monitoring Program evaluation.</u>	9 January 2015	20 March 2015
8. Revised Operations and Maintenance (O&M) Plan: 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)	1 February 2015	No Change
9. Financial Assurances: Submit	17 April 2015	No change

financial assurance demonstrations for closure and corrective action, as described in Specifications F.1 and F.2.		
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Musco Comments: 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.

RESPONSE: Comment noted. The revised due dates are shown in the rightmost column of the table above per Musco's written comments dated 8 September 2014 and a follow-on phone conversation with Musco representative Mr. Dennis Leikam and Mr. Marty Hartzell on 17 September 2014. Also, additional text was added to H.12.a.7 to indicate that the monitoring system certification can be submitted in conjunction with provision H.12.b.1.

16. Provision H.12.b.1, b.2, and b.3:

b. Submit the following plans and reports:	<u>Compliance Date</u>
<p>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.</p>	9 January 2015
<p>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.</p>	9 January 2015
<p>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.</p>	1 February 2015

Musco Comments: 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.

RESPONSE:

In regards to the unsaturated zone monitoring, historical MRP reporting has shown that the unsaturated zone monitoring system is not fully operative. Lysimeters 33 through 38, located on the east side of Pond B, were not reported in the 1st semi-annual 2013 report, and lysimeters 30 through 32 yield an insufficient sample for analysis. Title 27 section 20415 requires monitoring of the unsaturated zone, and establishment of background water quality and water quality protection standards, and based on this information, the unsaturated zone monitoring system may not comply with Title 27 requirements.

In regards to the groundwater monitoring network, the MRP historical groundwater monitoring data shows a gradual decline of groundwater elevation in MW-10, MW-11, MW-12, MW-17, MW-22 and W-2 and a few of these wells are now dry. A few wells have been replaced; however, based on the reduction of monitoring wells completed in the uppermost aquifer, the groundwater monitoring system may not comply with title 27 requirements.

Following a discussion with Musco staff, it was determined that a full Detection Monitoring Program evaluation must be completed to determine if the unsaturated and saturated zones are adequately being monitored to provide the earliest detection of a release from the surface impoundment units.

Therefore, Provisions H.12.b.2 and H.12.b.3 will be combined into Provision H.12.b.1, which will be rewritten to read as follows:

“Title 27 section 20415 identifies that a sufficient number of monitoring points must be installed at appropriate locations and depths to yield soil pore and groundwater samples. Due to inoperative suction lysimeters at Pond B and declining groundwater levels across the Musco site, the Discharger shall complete a full Detection Monitoring Program evaluation to determine if the unsaturated and saturated zones are adequately being monitored to provide the earliest detection of a release from the surface impoundment units. By 20 March 2015, the Discharger shall submit the results of the unsaturated and saturated Detection Monitoring Program evaluation with a work plan as necessary to bring the site into compliance with Title 27 requirements.”

17. Provision H.12.b General Comment:

Musco Comments: 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.

RESPONSE: Comment noted.

18. MRP 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.”

Musco Comments: 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.

RESPONSE: Comment noted. MRP 7.d requires that the Discharger accounts for disposal/storage of designated waste to ensure that WDR Prohibitions A.2 and A.3 are met. Furthermore, the accounting of designated waste is necessary since the Discharger has

proposed exportation of waste as means of complying with Title 27 section 20375. Also see the response to comment for Finding 117. Thus, MRP 7.d remains unchanged.

19. MRP Section B: "...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...."

Musco Comments: 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.

RESPONSE: Comment noted. Title 27, Division 3 provides the electronic submittal of information (data dictionaries), and Title 23, Division 3, Chapter 30, Article 2, Section 3892 states, in part, "...reports are required for the purpose of subsurface investigation or remediation of: ... (3) a discharge of waste to land subject to Division 2 of Title 27..." In addition, it is a Water Board practice to include this requirement in the WDRs at renewal. This section of MRP Section B will be rewritten as follows:

"...In addition, the Discharger shall enter all monitoring data, monitoring reports, and technical reports into the online Geotracker database as required by Division 3 of Title 23...."