

The Comments and Concerns listed below may be paraphrased from the original comment documents to capture the substantive issues raised. Complete copies of all written comments are available on the San Diego Water Board’s website at <http://www.waterboards.ca.gov/sandiego/>

Comment No.	Comments and/or Concerns	San Diego Water Board Response
April 21, 2011 letter from U.S. Marine Corps		
1	<p>USMC’s submission of BAS’s memorandum dated June 29, 2010, sent to you by Mr. Brian Shin by email on July 16, 2010, has demonstrated that the protective cover soil can be 1.5-inch minus without risk to the liner system. These comments are supported by the JTD Addendum for the Phase II Design Report (January 28, 2011) and the Supplement to the JTD Addendum for the Phase II Design Report (March 7, 2011). The purpose of the addendum is to allow the geocomposite drainage layer to be the LCRS component on the sideslopes of Phase II rather than the protective cover soil layer which would allow a less stringent permeability (instead of the minimum 2×10^{-3} cm/sec), while still allowing leachate to percolate down to the LCRS components. The LCRS calculations included HELP analyses to demonstrate that minimal head (less than 30 cm) would build up on the Phase II sideslope liner.</p>	<p>In order to allow more flexibility in the design of the various layers of the Landfill liner and leachate collection and removal system (LCRS) on both the base and the sideslopes, language in the Tentative Order has been modified to incorporate performance standards as well as design criteria. These modifications are shown in blue underline/strikeout in the revised Tentative Order. More specifically, Directive Nos. 6 and 12 have been revised to describe the function of the Protective Cover Soil (PCS) layer and provide general parameters that the PCS layer must meet without specifying detailed design specifications. A new Directive No. 11 had been added to assure that the general parameters are adhered to in the Landfill construction. The USMC would now have three alternatives that could be used for the PCS layer. While the USMC proposed even more flexibility in the design specifications for use of PCS, these would not meet the regulatory criteria that require liquid in the waste to percolate through the PCS layer to the underlying leachate collection and removal system. Percolation through the PCS is required to avoid the build-up of hydraulic head in the waste above the liner system. If the hydraulic head builds up, leachate seeps can form on exposed faces, and/or leachate could seep into the adjacent unlined portions of the landfill.</p>

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2	<p>Tentative Order R9-2011-0039, Page 3, Finding I1.c: LEACHATE COLLECTION AND REMOVAL SYSTEM -SIDESLOPES. Please modify as follows:</p> <p>The LCRS on the side slopes will be comprised of either one of the following: <u>1) a geotextile and the 24-inch protective cover soil layer having a permeability of no less than or equal to 1×10^{-5} cm/sec;</u> <u>2) a drainage geocomposite material and the 24-inch protective cover soil layer having a permeability of no less than of 1×10^{-6} cm/sec;</u> or <u>3) an engineered alternative protective cover soil layer that demonstrates it is designed and operated to meet the regulatory requirements of Title 27 CCR Section 20340 and approved by the San Diego RWQCB, to allow the LCRS to function without clogging. The protective cover soil shall be initially placed approximately 8 to 10 feet vertically up the lined sideslopes and placed incrementally 8 to 10 feet up the entire lined sideslopes thereafter. This layer may be constructed of The on-site material graded to 1.5-inch minus having an average permeability as previously specified for the options previously described. of at least 21×10^{-34} cm/sec or greater.</u></p>	<p>See Response to Comment No. 1 above.</p>

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3	<p>Request that the Tentative Order R9-2011-0039 modifies Order R9-2010-0004 Page 4, Finding 12: PROTECTIVE SOIL COVER LAYER. Please modify as follows:</p> <p>The protective soil cover layer is the uppermost layer of the liner system. On the basal and <u>sideslope</u> liner system, this layer will be 24-inches thick, and will serve to protect the underlying liner components from punctures or tears during waste disposal activities <u>and designed and operated to meet the regulatory requirements of Title 27 CCR Section 20340 and approved by the San Diego RWQCB, to allow the LCRS to function without clogging.</u> On the sideslopes, this layer serves as the drainage layer of the sideslope LCRS system and will be placed 8 to 10 feet vertically up the sideslopes initially, incrementally 8 to 10 feet up the entire lined sideslopes thereafter. The protective soil cover is may be composed of <u>on-site materials having a permeability of either one of the following:</u></p> <p><u>1) a 24-inch protective cover soil layer having a permeability of no less than or equal to 1×10^{-5} cm/sec if placed over a geotextile; 2) a 24-mch protective cover soll layer havmq a permeability of no less than of 1×10^{-6} cm/sec if placed over a drainage geocomposite material; or 3) an approved permeability prescribed by an engineered alternative that demonstrates it is designed and operated to meet the regulatory requirements of Title 27 CCR Section 20340 and approved by the San Diego RWQCB, to allow the LCRS to function without clogging.</u></p>	<p>See Response to Comment No. 1 above.</p>

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4	<p>Request that the Tentative Order R9-2011-0039 modifies R9-2010-0004, Page 21, Order E.9.ii.: Request to change the requirement "Be comprised of soil materials <u>composed of having a permeability of either one of the following: 1) a 24-inch protective cover soil layer having a permeability of no less than or equal to 1×10^{-5} cm/sec if placed over a geotextile; 2) a 24-inch protective cover soil layer having a permeability of no less than 1×10^{-6} cm/sec if placed over a drainage geocomposite material; or 3) an approved permeability prescribed by an engineered alternative that demonstrates and is designed and operated to meet the regulatory requirements of Title 27 CCR Section 20340 and approved by the San Diego RWQCB, to allow the LCRS to function without clogging. having a minimum laboratory permeability of 2×10^{-3} cm/sec".</u></p>	<p>See Response to Comment No. 1 above.</p>
<p>April 26, 2011 email from U.S. Marine Corps</p>		
5	<p>The USMC requested some additional minor changes to the Containment Structure language (Finding 11 of Order No. R9-2010-0004) and the Landfill Construction Specifications language (Section E of Order No. R9-2010-0004) to clarify the type and units of liner material used.</p>	<p>These minor changes have been made to the Tentative Order.</p>