

## Omya's North American Tailings Management Operations

PLANT LOCATION	FLOTATION PROCESS?	TAILINGS MANAGEMENT	COMMENTS
Alabama	Yes	<ul style="list-style-type: none"> <li>▪ Dewatered on-site in clay-lined settling ponds. Decant water returned to plant process. Tailings transported to the plant's nearby active quarry to construct landforms as part of progressive quarry reclamation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ None.</li> </ul>
Arizona	Yes (See Comment 1)	<ul style="list-style-type: none"> <li>▪ Dewatered on-site in concrete settling cells. Decant water discharged to the local POTW. Tailings "disposed of in a state approved facility" (off-site private landfill) pursuant to Aquifer Protection Permit.</li> <li>▪ New provisions are being finalized to incorporate the tailings into certain of the plant's industrial grade products, which will eliminate the need for the current dewatering/management and off-site disposal.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment 1 -- Flotation is used only for a single, special grade of product of relatively low volume production. All other plant operations/products are fully "dry". Amount of tailings generated is miniscule compared to Vermont plant.</li> <li>▪ Arizona Revised Statutes 49-701.01(C) provides a petition process "to exempt a substance as solid waste". although Omya never pursued due to low volume/cost of historical tailings management.</li> </ul>
California	No	<ul style="list-style-type: none"> <li>▪ No tailings generated; exclusively a "dry" plant.</li> </ul>	<ul style="list-style-type: none"> <li>▪ None.</li> </ul>

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PLANT LOCATION	FLOTATION PROCESS?	TAILINGS MANAGEMENT	COMMENT
Ontario	Yes (See Comment 2)	<ul style="list-style-type: none"> <li>▪ Dewatered on-site using a thickener and filter press. Decant water returned to plant process. Dewatered tailings deposited in a dedicated area at Omya's nearby active quarry to construct landforms. Not regulated as waste pursuant to Ministry of the Environment determination.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment 2 -- Flotation is used only for "wet-ground" slurry products. All other plant operations/products are fully "dry".</li> <li>▪ In addition to other beneficial use possibilities being pursued for all North American tailings, Ontario is specifically pursuing use as landfill liner/final cover due to somewhat finer particle size (hydraulic conductivity as low as <math>7.0 \times 10^{-6}</math> cm/sec and approximately only 7% finer than 0.002 mm).</li> </ul>
Quebec	No	<ul style="list-style-type: none"> <li>▪ No tailings generated; exclusively a "dry" plant.</li> </ul>	<ul style="list-style-type: none"> <li>▪ None.</li> </ul>
Vermont	Yes	<ul style="list-style-type: none"> <li>▪ Dewatered in on-site primary settling cells, with secondary dewatering/final deposition in on-site Tailings Management Areas consisting of former quarries. Decant water returned to plant process.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Act 250 permit application has been submitted for a thickener and filter press to eliminate use of primary settling cells and enhance handling characteristics for future management including anticipated beneficial uses.</li> </ul>

### Examples of Omya tailings beneficial uses currently being investigated:

- Mineral aggregate in cementitious building products.
- Soil amendment for agriculture.
- Soil amendment for acid mine drainage remediation/revegetation.
- Additive/amendment for commercial compost.
- Landfill cover material.