

Crystal Environmental



Odor Control

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The Nose



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In a Land Far, Far Away... There's No Smell



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The Nose



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Odor Control Bible for Liquid Waste Processors:



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Technique	Cost Factors	Advantages	Disadvantages
Wet Scrubber	Moderate Capital and operating costs	Effective and Reliable	High Chemical Use, and spent chemical to dispose
Activated Carbon Absorber	Cost depends on frequency of carbon use	Simple, few moving parts, effective	Only applicable for dilute streams
Biofilters	Low capital and O&M costs	Simple, minimum O&M	Design criteria not well established, large land area
Odor Counteractants	Cost dependent upon chemical usage	Low Capital cost	Limited odor removal efficiency

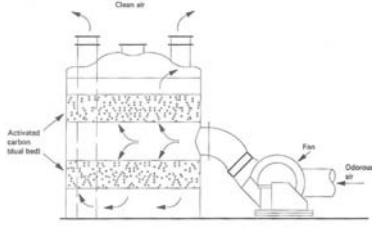
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Wet Scrubber



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Activated Carbon



Activated Carbon Absorber for Odor Control

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Activated Carbon



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Typical Design Criteria for Biofilters	
Parameter	Value
Hydraulic Loading	2-10 cfm/sq ft
Detention Time	20-60 seconds
Media Depth	3-5 ft
Media pH	6-8
Pore Volume	40-50%
Moisture Content	50-60%
Media Constituents	Bark Mulch, hardwood chips, biosolids or leaf compost
Humidity of inlet air	80-100%
Recommend air changes	6 volume changes/hour

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Bio-Filter

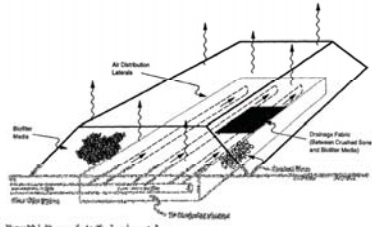


Figure 10-1. Types of a biofilter for odor control.

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Odor Control



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Bio-Filter

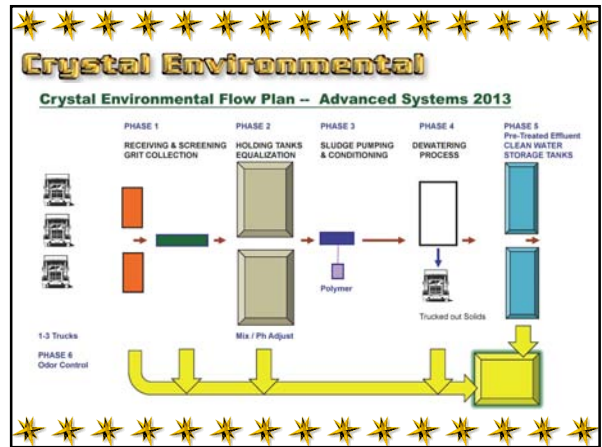


Big Fish

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Manufactured or Custom Designed



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Bio-Filter



Manufactured or Custom Designed

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Stoneybrook Sanitation,, Inc.

Filling Bio-Filter



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Odor Control for Grit Containers



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Odor Control for Equalization Tanks



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Odor Control – System



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Odor Control: Dewatering & Distribution

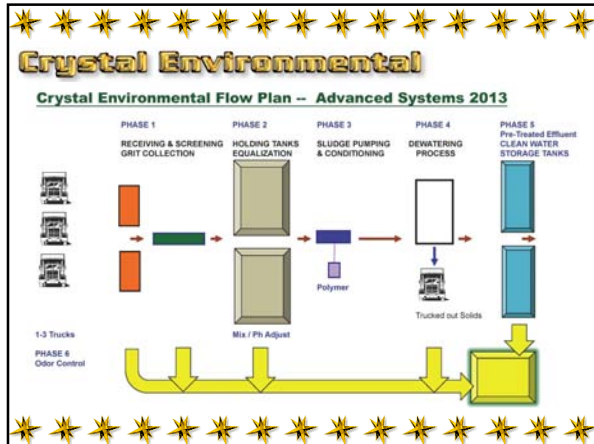


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Bio-Filter



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Bio-Filter





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Odor Counteractants / Masking Agents



The image shows a blue plastic barrel on the left, which is part of a dispensing system. To the right, four black applicator nozzles are lined up on a surface. Each nozzle has a white cap and a small white label.

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Spraying Outdoor Areas



The image shows a large outdoor area, possibly a parking lot or industrial site, with a mist or spray being applied. The mist is visible as a white cloud in the air. In the background, there are trees and a building.

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The Nose



The image is a cartoon illustration of a young boy with a red baseball cap, a blue and white striped shirt, and green pants. He is standing with his hand to his chin, looking thoughtful.

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No Neighbors are Offended!



The image shows a white tanker truck parked in a grassy field. In the background, there is a large white building with a curved roof, possibly a warehouse or a large garage.

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Thank You!



The image is a business card for Crystal Environmental. It features the company logo, name, address, phone numbers, and website. The card is placed on a dark surface.

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