Lime treatment of wastewater solids is already Europe’s preferred method of recycling treated sludge. Today, it is quickly being mandated throughout America. Lime stabilization is generally more cost effective than alternative biosolids options. A series of studies comparing lime stabilization to composting, thermal drying and digestion technologies found that lime stabilization has unit costs as much as 60 percent lower than alternatives. Reduced capital cost requirements of lime stabilization are even more dramatic – particularly with communities with limited capital budgets.

As populations rise and environmental standards tighten, the need for better solutions to sludge disposal becomes more critical. Roemix lime post treatment systems can be an economically-smart and ecologically-sound sludge hygienization option.

Seamless Solutions for Biosolids Handling and Treatment.

Whether it’s dewatering, thickening, polymer addition, conveyance or lime stabilization, Charter Machine provides customized and integrated biosolids solutions.

With our in-house staff of design engineers, we have complete control over the design, fabrication and start-up of biosolids systems perfectly suited to your operation. As a result, we can provide seamless total system responsibility – from sludge testing to design assistance to equipment start-up and training.

Occasionally our equipment will need servicing. At Charter Machine Company we maintain a complete inventory of replacement parts ready for immediate shipment. Assistance is a phone call away with help in troubleshooting and problem solving. Technicians are available for on-site visits.

We strive very hard to meet all your biosolids processing needs and would welcome the opportunity to be of service.
Quicklime makes quick work of pathogens.

When it comes to sludge, dryer is better. Roediger Lime Post Treatment Modules further dewater sludge by reducing excessive liquid content and creating a dry, crumbly mixture that will not clog equipment and is easy to haul. Quicklime treatment controls conditions in biosolids that may support the growth of pathogens. It converts sewage sludge into a usable product and is sanctioned by the US Environmental Protection Agency’s biosolids regulations.

- Class A biosolids contain high pathogen concentrations, while Class B biosolids contain lower pathogen concentrations.
- Class B biosolids must receive further time-temperature treatments, such as lime stabilization, to meet Class A performance goals and the degree of treatment.

Wastewater sludge can be more easily and more economically neutralized with elevated temperatures (70oC for 30 minutes) or other EPA-approved time/temperature processes. To meet Class A requirements using lime stabilization, the Class B elevated pH requirements are combined with elevated temperatures (70oC for 30 minutes) or other EPA-approved time/temperature processes.

Because sludge must reach a pH of 12 at temperatures above 50oC to be hygienized sufficiently, quicklime reacts with the remaining water in dry sludge well enough to produce such high temperatures. Hydrated lime alone isn’t as effective.

Roemix® Lime Post Treatment Model RM240

A better way to do the right thing.

When it comes to sludge, dryer is better.

Roediger Lime Post Treatment Modules further dewater sludge creating a dry, crumbly mixture that will not clog equipment and is easy to haul.

Lime Post Treatment Modules can be added to existing equipment at current facilities.

Roemix Lime Storage Hopper and Feed System

HOW IT WORKS

Pulverized quicklime is conveyed by a 3” elevator screw and a 3” horizontal feed screw. The elevator screw is driven by a mechanically variable speed drive, while the horizontal feed screw is driven by an infinitely adjustable SCR drive using a 1 HP DC motor. Speed control of the drives lies in the lime post treatment or belt press control panel. Lime flow is maintained by means of a double elevator system, one of which is an optional loading platform with an electrical vibrator mounted on the hopper body.

SPC (Statistical Process Control)

• Complete with bag shelf and self-supporting lid.
• Comes with loading platform, steps and railings.

LABELS

• All external surfaces are primed coated with two (2) finish coats of two part epoxy at four (4) mil dry film thickness plus two (2) finish coats of two part epoxy at four (4) mil dry film thickness.
• Drives and accessories shall be factory coated in primer and enamel.
• Controls, starters, lights and alarms shall be located in the lime post treatment or belt filter press control panel.

Optional Loading Platform

The optional loading platform and steps are made of carbon steel tread plate. Railings protect both sides of the steps and all of the platform except stair access and bag dump access. Platform height and orientation allows for comfortable access to the bag shelf. All platforms and railings if required will comply with OSHA standards.

Optional Dust Collector

Dust collector is ruggedly mounted to the hopper body, and will return collected dust to process without secondary handling, contamination or waste. Filtered air vents to work area. Cleaning cycle can be automatically controlled by a solenoid timer in a factory mounted NEMA 12 enclosure. The unit has a high press access door for visual inspection of filter bags. The air purge and filter tube are capable of individual removal. Drive is a 1 HP AC. The dust collector will require a minimum of 3/4” air connection.

Find the model that fits your capacity demands and contact Charter Machine Company for more information.

SPECIFICATIONS

Lime Post Treatment Modules can be added to existing equipment at current facilities.

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