VIBRA SCREW

CASE HISTORY

C-147

How Vibra Screw Equipment Helped Electro-Phos Solve an Ecology Problem.

Customer
Electro-Phos Corporation of Pierce, Florida — manufacturers of elemental phosphorous — is recycling its water on an automated basis.

The Problem:
To assure successful operation of a new chemical storage and feeding facility by providing positive, controlled and uninterrupted flow of crushed lime from storage bins.

The need arose when Electro-Phos decided to recycle the water used in the production of elemental phosphorous. Continually using fresh water became too costly, both economically and ecologically.

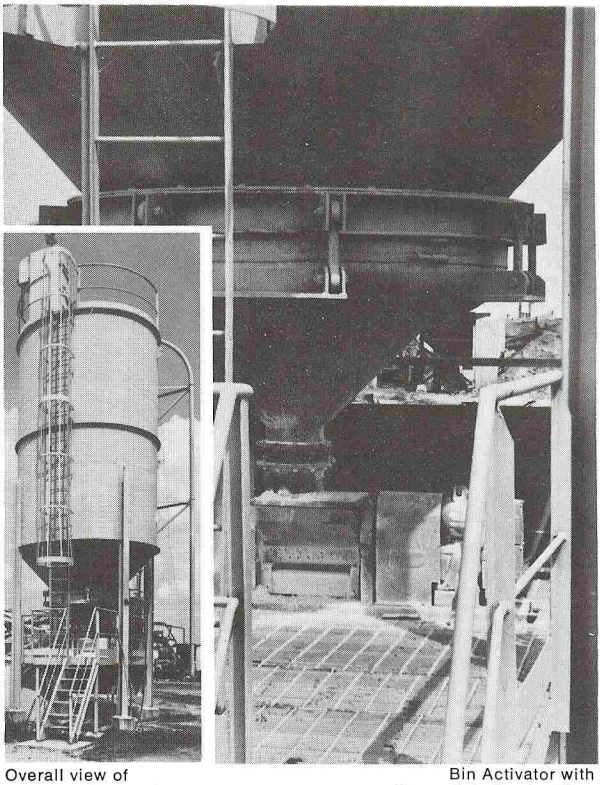
The crushed lime, used to control the pH, is minus 12 mesh and considered a difficult material to handle. It has a tendency to bridge, thus causing an unreliable discharge.

The plant produces approximately 50 TPD (tons per day) of elemental phosphorous, and uses about one TPD of crushed lime. A positive discharge on demand is essential in properly treating water.

Vibra Screw Equipment:
One Bin Activator, One Heavy Duty Screw Feeder.

The Solution:
To provide a steady flow of crushed lime, a Vibra Screw Bin Activator was installed. Material withdrawn by the Bin Activator flows directly into the Vibra Screw Heavy Duty Feeder. The feeder then meters a precise amount of lime into the mixing tank which contains the raw water. The mixture of water and lime flows into a sump. The overflow then goes to a settling pond, and the treated water is re-used.

The Results:
The vibratory action of the Vibra Screw Bin Activator provides consistent flow of crushed lime, and the Heavy Duty Feeder accurately meters the proper amount. As a result, the virtually maintenance free system provides an overall dollar savings on production costs. Electro-Phos doesn't have to over-lime their water like other purification systems, plus the recirculated water eliminates costly water bills, and any ecological problems caused by untreated water.



Overall view of water treating system

Bin Activator with Heavy Duty Feeder Flow