

SYSTEM MAINTENANCE

NEUTRALIZING ACID LEAKS AND SPILLS

Any acid, which has accumulated in a containment vessel or chemical feed room, should be neutralized so that corrosive acid vapor is not continuously released into the room. Acid drips from piping and pumps should be neutralized with baking soda slurry and rinsed with water.

Lime is the neutralizing material of choice in almost all applications and is readily available at most hardware stores. Lime can be used to neutralize larger spills that accumulate in containment vessels and larger spills. To make slurry, add water to lime to slow down the reaction before adding the lime to the acid. Add the lime slurry from the side; do not stand over the acid spill. When lime reacts with fluorosilicic acid, calcium fluoride and sand are formed. These materials can be sent to most landfills as non-hazardous chemicals. Either litmus paper or ph test paper should be used to verify that the ph of the spilled material is neutral before the material is removed for disposal.

Mixing Chart to Neutralize Fluorosilicic Acid

| Pounds of Lime | Percent of Acid | Amount Treated |
|--------------------------|-----------------|----------------|
| 50.0 lbs per bag | 23% - 25% | 12.8 gallons |
| 0.39 lbs (about one cup) | 23% - 25% | 12 oz |

Protective gear should ALWAYS be worn while neutralizing acid and handling the resulting wastes. Lime should be kept in a bucket at chemical feed sites in case it is needed.