I. Purpose – The purpose of this plan is to ensure protection of all Giles Employees, the public, and environment from hazardous spills and contamination.

II. Spill Prevention.

Sulfuric Acid is transported via rail cars or tanker trucks and off loaded using a pump. The acid is transferred via a closed system to storage tanks

A.) **Transport System**- Acid is off loaded using a magnetically coupled seal-less pump. Acid is transferred through a 2" diameter plastic lined pipe which is located inside a 6" fiberglass pipe. The acid transfer line is continuously checked by a Material Handler (Giles Employee) for leaks. The pump is designed for acid service and has a remote shut off in case of a spill. All intake piping is made of 316 stainless steel. All flanges are covered with Teflon spray shields.

B.) Acid Unloading Procedure: See Documentation System

C.) Acid Storage Tanks

The 2 storage tanks are ½" thick, 12' x 31', and hold 31,000 gallons each. The tanks are constructed of carbon steel and are electro-statically tested yearly. These two tanks sit within a diked containment area. This diked area is a concrete foundation with outer floor area coated with and asphalted urethane product the walls are coated with mastic asphaltic product. Both products are resistant to erosion from sulfuric acid. The diked area is large enough to contain one full storage tank of acid if one tank ruptures.

D.) Acid Delivery Pipe to Digester

Acid is pumped using a magnetically coupled seal-less pump from storage tanks through plastic lined carbon steel piping. The pump is designed for acid service and has a remote shut off in case of a spill. Material Handlers perform visual checks to ensure there are no leaks in system. Drip Pans are in place under acid control valves that drain back into digester. All flanges are protected with Teflon spray shields.

E.) Digesters

Digesters are made of alloy 20 material. They overflow into secondary digesters and spillage drains into city sewer. City sewer outlet is monitored with a pH meter that alarms if pH goes below 3.0. City is notified is spill occurs and lime is kept on site to neutralize spills.

III. Containment

a). Lubricants – Lubricants are stored inside on containment pallets that hold four 55 gallon drums.

b). Ethylene Glycol and Cleaning Solutions – Placed on containment pallets stored inside main plant in specified locations.

c). Boiler Treatment – Full drums are stored inside boiler room with absorbent drip pans under valves. Empty drums are sealed with bungs and picked up by local drum recycler. Boiler Blow Down goes straight into sewer drain.

d). Product Waste Filtrate "Mud" - Mud is a nonhazardous waste product. It is conveyed to mud storage shed equipped with Doctor blades that scrape off mud before conveyor belt returns.

e). Liquid Product Loading Station - Continuously manned to prevent overflowing.

f). Flammable – Flammable liquids are stored in flammable storage cabinet outside maintenance bay doors.

g). MgO (Magnesium Oxide) – Stored in MgO house in Silos which contain sock filters to filter out dust.

TRAINING DOCUMENTATION

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REVISION HISTORY

Revision Date	Revision Number	Revision Description