

GILES CHEMICAL CORPORATION		
COMPANY PROCEDURE		
Standard Operating Procedure	Page : 1 of 4	Revision : Date : 2/6/2006
Author: Patrick Owen	Title: (00)Acid Unloading	

Green-Raw Mat-01

Personnel responsible:

1. Material Handler

Safety:

Before approaching the Tank Car or Truck containing Sulfuric Acid put on the following Personal Protective Equipment: Safety Goggles, Face Shield, Rain Suit, and Rubber Gloves

When on top of a railcar, you must wear a safety harness that is attached to a point strong enough to hold you.

The warning sign (blue) must be in place during unloading.

Summary:

This section provides specific directions for unloading Sulfuric Acid, a hazardous chemical. Employees are carefully trained prior to proceeding with any unloading tasks. Do not unload acid unless there is room in the tank for it.

Procedure:

Prepare the Storage Tanks for Unloading and Refilling

1. Make sure that the storage tank to receive the acid shipment can accommodate the contents of the rail car.
2. Turn off both dump valves and supply valves.
3. Turn off the air supply to the storage tank to be filled.
4. Close the bleed off valve and open the vent valves to equalize the air pressure.
5. When the air stops moving, close the vent valve on the tank not being filled.
6. Open the bleed off valve to fully depressurize the tank being filled.
7. Turn on the air supply to the tank not being filled.
8. Open the dump valve to the storage tank to be filled and open the supply valve from the tank not being filled.
9. Inspect all ports on the storage tanks to make sure they are secure.

Prepare the Car for Unloading

1. Check the unloading hose and fittings for damage or wear.
2. Remove the plug from the discharge hose.
3. Check the gaskets on the quick-coupling on the discharge hose. Replace if necessary.
4. Connect the unloading hose to the discharge port on the tank.
5. Coat the threads of the air inlet pipe with Teflon paste.
6. Connect the air supply hose to the tank car air inlet port

Transfer Acid to the Storage Tank

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1. Check the acid transfer line at the storage tanks to assure that the acid will go to the proper storage tank.
2. Open the valve on the air supply line to pressurize the car.

WARNING: Do not pressurize the car to more than 30 psi

Attend the Unloading

Continuously check the acid transfer line for leaks.

If a leak occurs – **immediately do the following.**

1. Close the rail car acid valve
2. Close the valve on the air supply line
3. Carefully open the vent valve on the top of the rail car and slowly depressurize the car.
4. Notify the Plant Manager
5. Neutralize the spill(s) with lime.
6. If only a small spill, large quantities of water may be used, but only at the direction of the Plant Manager.
7. After the leak has been repaired check the entire system, as above, before resuming the unloading.

Complete the Unloading

A sudden drop in pressure, accompanied by the sound of rushing air in the acid line indicates that the acid is out of the car.

1. Leave the air on for a few minutes to clear the lines of remaining acid.
2. Close the air supply valve
3. Close the acid outlet valve on the tank.
4. Depressurize the tank car by opening the vent valve on the top of the tank.
5. Disconnect the air supply hose.
6. Replace the plugs in the acid unloading hose and the air supply hose.

Prepare the Acid Rail Car for Release to the Railroad

1. Inspect the hatch cover gasket for damage and replace it if necessary.
2. Replace the eductor pipe cap and tighten it with the chain in place.
3. Replace the air inlet plug and tighten it with the chain in place.
4. Confirm that the rupture disk assembly is intact.
5. Store all hoses and couplings on **the storage racks**, clear of the siding and rail cars.
6. Check the general condition of the rail car, (ladders, hand rails, platforms, etc.), and report any problems to the Plant Manager.
7. Remove the wheel chocks and the warning sign.
8. Notify the Plant Manager that the car is ready for release.

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REVISION HISTORY

<u>Revision Date</u>	<u>Revision Number</u>	<u>Revision Description</u>
2/6/06	0	New Document

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TRAINING DOCUMENTATION

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