

GILES CHEMICAL CORPORATION		
COMPANY PROCEDURE		
Standard Operating Procedure	Page : 1 of 2	Revision : Date : 01/05/08
Author: Maintenance	Title: Electrical Hot Work	

Safety: *All safety glasses and appropriate safety apparel is to be worn at all times while performing any operation in the facility. **Please note that if at all possible and only in the most extreme circumstances should hot work on electrical equipment be performed.***

Purpose or Objective: *The purpose of this procedure is to define the process required to work electrical equipment hot at Giles Chemical.*

AREAS FOR HOT WORK PROCEDURES

There are many situations in which maintenance is required to perform hot electrical work. If the employee(s) are making a hot tap that is extremely dangerous or working with a high voltage, hot conductor situation where extreme care is needed. These will be custom situations that will need to comply with the safety rules that require the lead maintenance employee to get in touch with **THE SAFETY OFFICE** to establish procedures for that specific task. However, in routine day to day electrical work there are many cases that we will need to do hot electrical work. Examples are as follows:

1. Trouble shooting 120 volt circuitry, i.e. switches, receptacles, home runs etc.,
2. Troubleshooting a control panel.
3. Trouble shooting PLC, inputs and outputs.
4. Trouble shooting motor starters.
5. Installing breakers in an existing load center.
6. Installing breakers in an existing bolt in panel.

Personnel protective equipment such as **safety glasses, hard hat and hot (electrical shock preventive) gloves** should be used at all times in these examples and any other situation where live electrical issues are involved in case there is a problem with the insulation or the shield and there is a short circuit and a flash. After you test with a non contact voltage test then test with a probe through the insulation to the conductor, then ground the conductor and proceed with cutting with cable cutters. Still maintaining the high level of insulation and protective measures you have taken thus far. For non shielded cable or when working inside or around open switches take all the same precautions except for the initial cutting of the outer jacket to check through the shield.

When de-energizing any circuitry prior to a lock out tag out situation attempt to "try" the de-energization of the equipment by observing equipment or having test equipment in place so that when the switch is opened you can actually observe the test equipment going from the energized to a de-energized indication. Always make sure that you check each phase on occasions, disconnect switches that are circuit breakers have three poles and will open two poles which will result in the equipment shutting down but one pole may stick in the closed position and remain energized even when the switch or circuit breaker is open.

Anytime you are working within six feet of energized conductors or equipment operating at over 600 volts you need to have the area barricaded off so that no one other than qualified personnel can get within six feet of that equipment. You need to be wearing hard hats, safety glasses, face shields, high voltage insulating gloves and be insulated and isolated from any ground objects and avoid contact with the high voltage at all times. When testing circuitry or equipment rated at over 600 volts always be sure that your test equipment is rated for the applied voltage you are attempting to test. **IF THERE IS ANY POSSIBILITY HIGH VOLTAGE QUALIFIED ELECTRICIANS (UNLIMITED LICENSE) SHOULD BE USED!**

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TRAINING DOCUMENTATION

	EMPLOYEE	TITLE	SIGNATURE	DATE
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