1.0 Purpose

The purpose of this procedure is to ensure Giles Chemical is in compliance with North Carolina Department of Environment and Natural Resources permit NCG5500244.

2.0 Scope

This facility's permit requires flow, temperature, and pH monitoring to be done semi-annually.

3.0 Responsibility

Quality Associate is responsible for performing the semi-annual creek check.

4.0 Safety Considerations

Steel toed shoes and safety glasses are required in the Manufacturing area.

Safety is a condition of employment. Employees are not authorized to work in an unsafe manner and are prohibited from harming the environment of the facility or community.

5.0 Materials/Equipment

- Clean, plastic sample bottles with lids
- pH meter
- thermometer

6.0 Procedure

All data collected is to be recorded on the *Monitoring of Creek Water Log (L12-PR-100-F037).*

1. Flow of creek water will be estimated by the process engineer.
2. Obtain 2 sample bottles with lids and thermometer from lab.
3. At the upper bridge (upper bridge is located between Giles main plant and MgO house), collect sample directly from the creek.
4. Immediately check the temperature, with a thermometer. Water temperature should not exceed 29°C.
5. Record the temperature and the location (i.e. upper bridge) on the sample bottle.
6. Fill one sample bottle and place lid on tightly.

7. Go downstream (steps and path have been built outside side door to right of store room in production area) and collect second sample.
8. Immediately check temperature, with a thermometer. The temperature difference between the upper bridge sample and the downstream sample should be no greater than ± 2.8 °C.
9. Record the temperature and the location (i.e. downstream) on the sample container.
10. Transport sample bottles to the QA lab.
11. Using the pH meter, check the pH for both samples. The pH should be no less than 6.0 and no greater than 9.0 for either sample.
12. Record data on *Monitoring of Creek Water Log* (*L12-PR-100-F037).*

7.0 Reference Documents

Monitoring of Creek Water Log (*L12-PR-100-F037)*

8.0 Change Information

Updated procedure using *SOP Template Instructions (Q12-PR-100-004)* and *Document Numbering (Q12-PR-100-003)*