

## **MONTHLY CHLORINE INJECTOR SWITCHING**

### **NORMAL OPERATION: STARTUP/SHUTDOWN**

#### **ONLY TRAINED PERSONNEL CAN PERFORM THIS PROCEDURE**

Communicate with Operator prior to beginning Monthly Switch Over

1. Two maintenance personnel are required to perform changeover. One at CB Injectors, other at CL2 Feeders.
2. Close Inlet Gas Line Valve on Injector being placed **Out-Of-Service**.
3. Establish Service Water Flow through Injector being placed **In-Service**.
4. Stop Service Water Flow through Injector being placed **Out-Of-Service**.
5. Open isolation valve on vacuum gauge on Injector being placed **In-Service**.
6. Verify Vacuum is present and has stabilized (-20" to -29").
7. **Slowly** Open Inlet Gas Line Valve for Injector being placed **In-Service**.
8. After gas valve has been opened, observe vacuum gauge readings. Verify vacuum is present and has stabilized (-20" to -29").
9. Confirm Vacuum Level (-10" to -22") and CL2 flow through Chlorinator Rotameter.
10. Change Inject Selector Switch to indicate the **In-Service Injector**.
11. Verify with Operator that proper Injector is identified and CL2 Flow is Re-established to proper rate.

**Note: It's been determined that having both Gas Line Valves Open at the same time. Allows water suction from One Injector to the other, causing crystallization of CL2 Gas and inhibiting Gas Flow.**

**COD:** Due diligence is key to assuring that each process is done safely. The consequence of deviation can result in loss of chemical feed and no disinfection of the treatment process.

#### **Valve Schedule:**

Injector #1; Inlet Gas Line Valve # 59, Service Water Valve #354

Injector # 2; Inlet Gas Line Valve # 60, Service Water Valve #355