

WELL #2 CHLORINATION SYSTEM

TOWN OF MANCHESTER, VERMONT



Chemical Feed Pump



Chemical Tank

The Well #2 Chlorination System project was required by the State of Vermont through a 2011 Sanitary Survey. Well #2 is a backup water supply and is rarely used. The purpose of the project was to install a permanent stand-by chlorine feed system on the discharge piping of Well #2 to provide the capability for continuous disinfection.

The project included a manually adjustable chemical feed pump, chemical feed accessories and all associated piping, tubing, fittings and valves. The chemical feed equipment was installed in the pump house. Access to the discharge piping from Well #2 was available in a nearby meter vault, which required trenching to install conduits for the chemical feed tubing. A four function valve was also retrofitted on the existing chemical feed pump for Well #1 to provide siphon control, as required by the State.

The static pressure at the pump house is 180 psi. The water system operator has also seen pressure spikes due to water hammer or surge of up to 300 psi. All chemical feed equipment, tubing, valves and fittings needed to be capable of withstanding 300 psi. DG worked with a chemical feed equipment supplier to identify the proper pump model. Teflon tubing was used due to the high pressures.

KEY FEATURES:

- Chemical feed system designed to handle system pressures of 300 psi.
- Existing day tank retrofitted to connect to two chemical feed pumps to prevent chemical expiration for the Well #2 pump.
- Minor improvements designed for existing meter vault including electrical service, sump pump and spare conduit for future telemetry connection.