

SECTION 15065CHEMICAL FEED & SAMPLE SYSTEMS TUBINGPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install, support and test all tubing and tube fittings associated with the chemical feed and sample systems of the type(s) and size(s) and in the location(s) shown on the Drawings and specified herein. This includes:
1. Tubing on or within chlorine contact tanks inside pipe conduit, including necessary adapters.
 2. Tubing between buildings and chlorine contact tanks within pipe conduit, including necessary adapters.
 3. Tubing between sodium hypochlorite building and Activated Sludge Pump Gallery within pipe conduit, including necessary adapters.
 4. Tubing associated with sample system.
- B. Related Work Specified Elsewhere:
1. Heat trace and pipe insulation are specified in the appropriate Sections in Division 15.
 2. Section 15052 - Polyvinyl Chloride Pressure Pipe.
 3. Section 11235 - Chemical Feed Pumping System.
- C. Other Trades: Cooperate with all other trades whose work is to be coordinated with tubing work.
- D. Description of Systems:
1. Disinfection System:

The disinfection system consists of eight chemical feed pumps that withdraw liquid sodium hypochlorite from four bulk storage tanks and discharge to the secondary and bypass chlorine contact tanks and to the Return Activated Sludge system located within the Activated Sludge Pump Gallery.

 - a. Chemical feed piping within the Hypochlorite Building shall be hard piped in accordance with the Pipe Schedule in 15050. Piping between the chemical feed pumps and the interior hard piping, and between the building and point of application shall be new tubing within pipe conduit. Tubing shall be as specified herein.
 - b. Delivery of sodium hypochlorite between the Hypochlorite Building and the Activated Sludge Pump Building for the Return Activated Sludge system shall be accomplished through the use of new tubing within pipe conduit to existing injection nozzles. Tubing shall be as specified herein.
 2. Sample System:

The sample system consists of four chlorine analyzers that analyze effluent samples withdrawn from the secondary and bypass chlorine contact tanks via four sample pumps. Each sample pump shall discharge through new tubing within pipe conduit from the Chlorine contact tanks to the Hypochlorite Building.

1.2 SUBMITTALS TO THE ENGINEER

- A. Submit shop drawings in accordance with Section 01340 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that pipe and fittings and other piping appurtenances meet or exceed the requirements of these Specifications.
- C. Submit other documents as specified in the appropriate Sections of this Division.

PART 2 - PRODUCTS

2.1 PIPING SYSTEMS

A General:

- 1. The chemical feed and sample systems include both tubing and standard single wall piping for chemical and sample transmission.
- 2. Tubing is shown schematically on Drawings to show general intent and system function. Contractor shall layout tubing system to provide the intended function and be accessible for operation and maintenance. All tubing layout shall be reviewed with the Engineer prior to installation.
- 3. Flexible polyethylene tubing shall be of the size and location shown on the Drawings. Tubing shall be rated for -80° to +150° F with a minimum burst pressure of 280 psi at 73°F. Tubing minimum wall thickness shall be 0.062 inches. All tubing connections to rigid pipe or equipment shall be by compression type tubing connections. Tubing shall be natural translucent color, equivalent to Series E, PE tubing by Parker Fluid Connections, Trenton, NJ.
- 4. The system shall be provided with all necessary appurtenances for a complete and operable system.

B. Chemical Feed Line Connecting Tubing

- 1. Contractor shall supply 3 feet of reinforced PVC flexible hose for connection of hard piping to tubing, for the diameters and locations noted on the drawings. The PVC flexible hose shall have a polypropylene female cam & groove quick disconnect fitting factory installed at each end. One end of the connecting tubing female cam and groove connector shall connect to the hard pipe's male cam and groove connectors; the other end shall terminate at the sample pump, analyzers or mixers, as shown on the Drawings. The male cam and groove fitting attached to the rigid piping shall be provided so that it mates to the female end.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. In accordance with manufacturers recommendations.

END OF SECTION