SECTION 15124

WEIR GATES AND FRAMES

WORKING COPY - Manufacturer input, mat'l OK for hypo and revise for M.O.

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included: Furnish and install gates and frames of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

B. Related Work Specified Elsewhere: Cast-in-Place Concrete is specified under Division 3, Surface preparation and shop coatings are specified in Section 09905 and Pipe and Pipe Fittings are specified in this Division.

1.2 QUALITY ASSURANCE

A. All self-contained gates shall be by one manufacturer.

B. Manufacturers shall have proven reliable products in use in similar installations.

C. Acceptable Manufactures:

1. Rodney Hunt Company, Orange, Massachusetts
2. Waterman Industries, Exeter, California
3. Or equivalent.

1.3 JOB CONDITIONS

A. All gate components shall be designed to safely withstand the head and operating conditions of the installation as shown on the Drawings and/or specified herein.

PART 2 - PRODUCTS

2.1 MATERIALS AND CONSTRUCTION

A. The chlorine contact tank weir gates shall be self contained, rising stem, fabricated gates complete with frame, anchor rods, plate disk, stem, bench stand, with offset handles as needed to accommodate adjacent handrails and other gates' handles.

B. Frames shall be extruded aluminum incorporating a slot in which the disk shall be guided. The bottom frame member on weir gates shall be an aluminum angle to serve as support for and attachment of J-seal.

C. The disk shall be aluminum plate reinforced with "U" shaped aluminum extrusions welded to the plate.

D. Operation of the gate shall be by means of a crank operated bench stand.

E. The operating stem shall be Type 303 or 304 stainless steel designed to have an L/r of less than 200 and to withstand compression at least twice the rated output of the bench stand. The stem shall be connected to the disk by means of a cast aluminum connector bolted to the stem and welded to the gate.

F. All attaching bolts, anchor bolts, etc. will be stainless steel and shall be furnished by the weir gate manufacturer.

G. A neoprene "J" seal shall be attached to the frame along the bottom and up both sides to provide tight closure.
H. Provide surface preparation and shop coatings in accordance with specification Section 09905.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install the gate equipment and appurtenances in accordance with the manufacturer's instructions and recommendations.
B. The gate and frame shall be installed after existing gates have been removed. Anchor bolts shall be set in the concrete and grout placed between gate frame and concrete. The gate frame shall not be distorted during installation.

3.2 ADJUSTING AND CLEANING

A. Check hoist, stem guide, and gate attaching bolts for proper tightness.
B. Check gate groove and clean any foreign matter.
C. Lubricate threaded portion of steam and crank assembly with lubricant supplied by manufacturer of gate.
D. Clean contact surfaces on gate and adjust "J" seal.
E. Adjust stem collar stop to within 1/16-inch of the operating nut and lock into place. Install stem cover.

3.3 TESTING

A. Test weir gates for leakage and proper operation. Leakage shall not exceed 0.1 gallons per minute per foot of sealing perimeter.

END OF SECTION