

SECTION 11206 - REGENERATIVE TURBINE PUMPS

City of San Diego, CWP Guidelines

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The WORK of this Section includes providing regenerative turbine pumps with horizontal electric motor, and all appurtenant work, complete and operable.

1.2 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.

- 1. Section 11175 Pumps, General

PART 2 -- PRODUCTS

2.1 PUMP NAME: [Sampling Pumps] - (P-[] through P-[])

- A. **General:** Regenerative turbine pumps shall conform to the following requirements:

- 1. Number of pumps -[]
- 2. Sample or pump number -[]
- 3. Location -[]
- 4. Service -[]
- 5. Operation (hours per day) -[]

- B. **Operating Conditions:**

- 1. Capacity (gpm) -[]
- 2. NPSH available at suction (ft) -[]
- 3. Pump head (TDH-ft) -[]
- 4. Total discharge head (ft) -[]
- 5. Self-priming feature -[]
- 6. Liquid to be pumped -[]
- 7. Specific gravity of liquid -[]
- 8. Liquid temperature (degrees F) -[]

- 9. Max pump speed (rpm) -[]
- 10. Min motor size (hp) -[]
- 11. Max motor speed (rpm) -[]

C. Pump Dimensions:

- 1. Min impeller diameter (in) -[]
- 2. Min size of suction (in) -[]
- 3. Min size of discharge (in) -[]

2.2 PUMP REQUIREMENTS

A. Construction: Construction of regenerative turbine pumps shall conform to the following requirements:

- 1. Casing -Cast iron
- 2. Impeller -Bronze
- 3. Shaft - Stainless steel
- 4. Bearings -2 sets of ball bearings, [40,000] hours of L-10 life
- 5. Coupling -Flexible shaft coupling with guard
- 6. Seal -[Stuffing box] [mechanical seal]
- 7. Pump base -Cast iron or fabricated steel with drain
- 8. Mounting method wall brackets] -[Base-mounted] [wall-mounted with baseplate and
- 9. Accessories suction -Bypass with relief valve discharging to pump

B. Drive: Direct drive with horizontal, [open drip-proof] electric motor suitable for [115-volt, single-phase, 60-Hz] [480-volt, 3-phase, 60-Hz] AC power supply, in accordance with Section 16040.

2.3 SPARE PARTS

A. The following spare parts shall be provided for each pump:

- 1. 3 sets of all gaskets and O-rings
- 2. 1 set of all pump bearings
- 3. 1 set of packing or mechanical seal

B. Spare parts shall be packaged and boxed as indicated in Section 11000.

2.4 MANUFACTURERS

- A. The pumps shall be manufactured by one of the following (or equal):
 - 1. Aurora Pumps, model []
 - 2. Colt Industries (Fairbanks Morse), model []
 - 3. Decatur Pump Company, (Burk Pumps), model []
 - 4. Roth Pump Company, model []

PART 3 -- EXECUTION

3.1 INSTALLATION

- A. Pumping equipment shall be installed in accordance with approved procedures submitted with the shop drawings and as indicated, unless otherwise approved.
- B. General installation requirements shall comply with Section 11175.

**** END OF SECTION ****