

**Part 1        General**

**1.1            PRODUCT DATA**

- .1        Submit product data in accordance with Section 01 33 00 – Submittal Procedures.
- .2        Indicate on manufacturer's catalogue literature following: valves.

**1.2            CLOSEOUT SUBMITTALS**

- .1        Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

**1.3            WASTE MANAGEMENT AND DISPOSAL**

- .1        Separate and recycle waste materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .2        Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan

**Part 2        Products**

**2.1            PIPE**

- .1        Steel pipe: to ASTM A53, Schedule 40, seamless or ERW as follows:
  - .1        NPS 1/2 to 2, screwed.
  - .2        NPS2 1/2 and over, plain end.

**2.2            JOINING MATERIAL**

- .1        Screwed fittings: approved thread sealer compound.
- .2        Welded fittings: to CSA W47.1.

**2.3            FITTINGS**

- .1        Steel pipe fittings, screwed, flanged or welded:
  - .1        Malleable iron: screwed, banded, Class 150.
  - .2        Steel pipe flanges and flanged fittings: to ASME B16.5.
  - .3        Welding: butt-welding fittings.
  - .4        Unions: malleable iron, brass to iron, ground seat, to ASTM A47/A47M.
  - .5        Bolts and nuts: to ASME B18.2.1.
  - .6        Nipples: schedule 40, to ASTM A53/A53M.

## **2.4 VALVES**

- .1 Provincial Code approved, lubricated ball type.

## **Part 3 Execution**

### **3.1 PIPING**

- .1 Install in accordance with Section 23 05 05 – Installation of Pipework, supplemented as specified herein.
- .2 Install in accordance with applicable Provincial/Territorial Codes.
- .3 Install in accordance with CAN/CGA B149.1, 2015 edition.
- .4 Install drip points:
  - .1 At low points in piping system.
  - .2 At connections to equipment.

### **3.2 VALVES**

- .1 Install valves with stems upright or horizontal unless otherwise approved by Departmental Representative.
- .2 Install valves at branch take-offs to isolate pieces of equipment, and as indicated.

### **3.3 FIELD QUALITY CONTROL**

- .1 Test system in accordance with CAN/CGA B149.1 (2015) and requirements of authorities having jurisdiction.

### **3.4 PURGING**

- .1 Purge after pressure test in accordance with CAN/CGA B149.1 (2015).

### **3.5 PRE-START-UP INSPECTIONS**

- .1 Check vents from regulators, control valves, terminate outside building in approved location, protected against blockage, damage.
- .2 Check gas trains, entire installation is approved by authority having jurisdiction.

### **3.6 CLEANING AND START-UP**

- .1 In accordance with requirements of CAN/CGA B149.1 (2015).

**END OF SECTION 23 11 23**