



## **SECTION 15350**

### **NATURAL GAS POLYETHYLENE PIPE JOINING PROCEDURES**

#### **PART 1. GENERAL**

- 1.1 The work in this section shall consist of joining polyethylene pipe as well as testing pipe afterwards. Also included is the cleaning of the pipe as well as the site after work is completed.

#### **PART 2. PRODUCTS**

NOT USED

#### **PART 3. EXECUTION**

##### **3.1 POLYETHYLENE PIPE JOINING**

1. Polyethylene pipe must be joined using a qualified joining procedure and by persons qualified on that procedure.
2. Procedure Qualification - Title 49 CFR, Part 192.283(a) requires that all joining methods for polyethylene pipe be qualified. The polyethylene pipe manufacturers have developed qualified procedures for heat fusion of PE 2406 pipe. KUB has adopted the Plexco Pipe procedure for all socket, saddle, and butt fusion of polyethylene pipe and fittings. KUB has adopted Central Plastics Procedures for electrofusion. All heat fusion joints will be visually inspected to determine if they have the same appearance as a joint properly made under the qualified procedure.
3. Joiner Qualification - Title 49 CFR, Part 192.285 requires persons making either heat fusion or mechanical joints be qualified using applicable joining procedures mentioned above. Each person will be required to qualify for each of the joints they are expected to make. The qualifying procedure for polyethylene pipe joiners will consist of :
  1. Training and experience with the qualified procedure.
  2. Making a specimen joint according to the qualified procedure.
  3. Visual inspection of the specimen joint to determine if it has the same appearance as a joint properly made under the qualified procedure.

4. For heat fusion joints, three longitudinal straps, 1 inch wide, cut from the joint will be examined for defects and then deformed by back bend, root bend, or torque. If failure indicates outside the joined area, the joint is acceptable.
  5. For service saddle tee fusion, the test specimen will be secured and struck with a 3 lb. hammer.
- 3.2 Qualification of persons making joints for each procedure will remain qualified unless the qualified joiner did not make a joint under the applicable procedure during any 12 month period or has had three joints or three percent of the joints found unacceptable.
- 3.3 Mechanical couplings designed for use in polyethylene natural gas piping systems have qualified installation procedures developed by the manufacturers. These procedures shall be followed for installation. All field mechanical joints will be visually inspected to determine if they have the same appearance as a joint properly made under the qualified procedure. All mechanical couplings used in plastic piping systems shall be designed with a pullout resistance greater than or equal to that required by Title 49 CFR, Part 192.283(b).
- 3.4 On all joints made in the field, the person making the joint shall use a Sharpie type marker to sign their name, employee number, installation date and company name on the pipe next to the joint.

END OF SECTION