

## **Visual Inspection of Test Welds**

### **1. General**

The Metropolitan Utilities District shall visually inspect the welding of each qualifying welder as outlined below.

### **2. Responsibility**

- \* The Chief Welder, or qualified welder inspector, shall be responsible for performing visual inspections during the welder qualifying process. The results of all such inspections shall be reported to the Engineering Design Division on [Form 1095A](#), [Form 1095B](#), [Form 1095C](#), or [Form 1095D](#). If only a periodic visual inspection is performed, the results shall be reported to Engineering Design on [Form 1596](#).

### **3. Frequency of Inspections**

- \* All welders shall satisfactorily pass a visual inspection for each qualifying welding test. However, more frequent visual inspections may be made if deemed necessary in the judgment of the Inspector, or the Director of Engineering Design.

### **4. Methods of Inspection and Acceptability**

Visual Inspection - The method and technique used shall be observed before, during and after the weld is complete, to determine that the welding complies with the qualified welding procedure for the type of welding being done. The inspection shall be made to insure:

- A. A proper fit-up of the joints before the weld is made, that the stringer bead is good and proper before subsequent beads are applied and that the completed weld is sound and proper before any coatings are applied.
- B. That the completed weld is free of cracks, inadequate penetration, undercutting, un-repaired burn-through and other defects defined in API Standard 1104, Section 6.0, and that it presents a neat, professional and workmanlike appearance.
- C. That when automatic or semi-automatic welding is used, filler wire protruding into the inside of the pipe is held to a minimum.

### **5. Retest**

A welder who fails to meet the minimum requirements of a visual inspection, may, at the option of the Inspector, be required to make a second weld while still under direct observation.

- \* Meeting the minimum requirements on this retest weld shall qualify the welder to continue with the qualifying test or to continue work on District facilities.

Failure to meet the minimum requirements on this retest will result in the welders immediate disqualification for welding with the procedure evaluated. The welder must pass a complete requalification test prior to using this procedure on District facilities.

- \* Text Revision