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| <div>METROPOLITAN UTILITIES DISTRICT</div> | O & M Procedure | No: | E.229.0 |
| | Visual Inspection of Test Welds | Page: | 1 of 1 |
| | | Supersedes: | 8-8-16 |
| | | Effective: | 9-4-25 |
| The latest revisions can be found at the end of this document | | | |

GENERAL

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

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](#).

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.

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 ensure:

- 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. The completed weld is free of cracks, inadequate penetration, undercutting, un-repaired burn-through and other defects defined in API 1104*, Section 6.0, and that it presents a neat, professional and workmanlike appearance.

* The edition of API 1104 referenced by Minimum Federal Safety Standards, 49 CFR, § [192.7](#)

- C. When automatic or semi-automatic welding is used, filler wire protruding into the inside of the pipe is held to a minimum.

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 and 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.

Revision

The latest revision is detailed on the following page(s).

Pages affected: #1

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| METROPOLITAN UTILITIES DISTRICT | O & M Procedure | No: E.229.0 |
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* ~~Revised Text~~