

- 3.2 Under the following conditions, visual examination of the welds may be substituted for radiographic examination:
 - 3.2.1 The pipe has a nominal diameter of less than 6 inches regardless of stress level, or
 - 3.2.2 The pipeline operates at a pressure of under 40 percent of SMYS and the welds are so limited that radiographic testing is impractical.
- 3.3 Except for a welder whose work is isolated from the principal welding activity, a sample of each welders work for each day must be radiographically inspected.
- *3.4 Radiographic inspection must be performed by a qualified radiographer. Minimum qualifications are as specified for level 2 radiographers in the American Society for Non-Destructive Testing Recommended Practice SNT-TC-1A.

4. VISUAL INSPECTION

- 4.1 Visual inspection requirements apply to all welding, both arc and oxy-acetylene, regardless of stress level. It is not necessary that every weld be visually inspected. However, the inspections should be conducted at reasonably frequent intervals to assure high quality workmanship. The frequency should be determined by the job supervisor, based on the type and location of the facility involved, and the experience of the welders. However, as far as practicable, welds should be visually inspected each day, in accordance with the following schedule:
 - a) A minimum of 20% of the welds on pipeline facilities designed to operate at 20% or more of SMYS, which are not to be radiographically inspected as outlined in Section 3.
 - b) A minimum of 20% of the welds on pipeline facilities designed to operate at less than 20% of SMYS.
- 4.2 Additional welds should be visually inspected if there is any reason to question the work of a welder or if for any other reason it is deemed necessary to assure the quality of welding.
- 4.3 Where practicable, the inspection should include work by each of the welders on the job.
- 4.4 Visual inspection shall verify the following:
 - 4.4.1 That the welding is performed in accordance with the welding procedure.
 - 4.4.2 That the joints are properly aligned prior to welding with minimum high-low.

* Paragraph Revised

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- 4.4.3 That the burn-through and inadequate penetration of the stringer bead do not exceed the limits stated in Gas Standard D-31.
- 4.4.4 That the starts on stringer bead are ground, wagon tracks are completely penetrated with hot pass, and all subsequent passes are started at different locations and are properly cleaned.
- 4.4.5 That undercutting adjacent to the cover pass shall not exceed the limits stated in Gas Standard D-31.
- 4.4.6 The weld must be free of cracks and other defects.
- *4.4.7 The dimensions of the finished weld shall comply with Drawings 284361 and 284363 of Gas Standard D-22.
- ? 4.4.8 The weld must present a neat workmanlike appearance.

4.5 It is not necessary that an inspector be present during the entire time a weld is being made. A spot check made at some point during the welding process or a spot check of a finished weld qualifies as an inspection. However, each of the items outlined above should be checked with sufficient frequency to insure that the welding standards are being met.

*4.6 Visual inspection must be made by qualified ^{personnel} ~~people only~~. Gas Mechanics or a higher T&D classification, radiographer, or exempt foreman classification shall be used to make visual inspections. The inspector shall be an experienced welder or former welder and it must be recorded that the person has read the Weld Inspection Guide in the Gas Foreman's Manual (Section 2). The supervisor designating the person to inspect welds has the responsibility to determine that the person is qualified.

5. RECORDS

5.1 A record of all visual inspection of facilities to operate at less than 20% of SMYS must be kept by stamping the completed Work Order, service record, GM, or other record document with this stamp:



(The foreman can also include this information in his log.)

5.2 ~~Where the system is to operate at 20% or more of SMYS, the record shall be made by filling out form 75-53 and form 75-307 (Gas Standard D-40, Pages 4 and 5).~~ All records shall be retained for the life of the facility.

* Paragraph Revised

A RECORD OF ALL RADIOGRAPHIC INSPECTIONS OUTLINED IN SECTION 3 SHALL BE MADE BY COMPLETING FORMS 75-33 AND 75-307 OF THIS STANDARD.

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NONDESTRUCTIVE TESTING OF WELDS
ON FACILITIES DESIGNED TO OPERATE AT 20%
OR MORE OF S.M.Y.S. AND

PIPING SYSTEMS LOCATED ON BRIDGES AND OPERATING AT A
JOB SUMMARY PRESSURE EXCEEDING 200PSIG

DATE _____

GM/WO NO. _____ REGION _____ DIVISION _____

JOB DESCRIPTION _____

LOCATION - (CITY OR TOWN) _____

*CLASS LOCATION _____ (PERCENT OF WELDS
REQUIRING INSPECTION)

DESIGN PRESSURE _____

PIPE SIZE _____ O.D. WALL THICKNESS _____ PIPE SPECIFICATION _____

LOCATION OF PIPELINE IN RELATION TO PIPELINE MILE POSTS, ENGINEERING
STATIONS OR BY GEOGRAPHIC FEATURES:

FROM: _____

TO: _____

TOTAL NO. OF FIELD GIRTH WELDS IN PIPELINE: _____

TOTAL NO. OF FIELD GIRTH WELDS NONDESTRUCTIVELY TESTED: _____

TOTAL NO. OF FIELD GIRTH WELDS REJECTED: _____

DISPOSITION OF THE REJECTS-NO. OF CUT-OUTS: _____

NO. OF REPAIRS: _____

PERCENT OF FIELD GIRTH WELDS NONDESTRUCTIVELY TESTED: _____ %

RADIOGRAPHIC INSPECTOR: _____

DISTRIBUTION:

REGIONAL GAS OP. MGR. CONSTRUCTION
DIV. GAS SUPT. SUPERVISOR OR
PLO AREA SUPT. GENERAL FOREMAN _____
GC GAS - S.F.
JOB FILE

*USE SEPARATE SHEET FOR EACH CHANGE OF CLASS LOCATION

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