

# IV. Requalification of Welders

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## [A. Requirements](#)

## [B. Requalification Tests](#)

## [C. Failures to Requalify](#)

## [D. Records](#)

### A. Requirements

A welder may not weld on Company assets with a designated welding process unless, within the preceding 6 calendar months, the welder has engaged in welding with that process.

Welders originally qualified under the requirements of [Section III](#) that are working on or are going to be working on any Company pipeline shall be requalified **at least twice each calendar year, but at intervals not exceeding 7½ months**.

In addition, welders shall be given a requalification test if any of the following is true:

1. There is a specific reason to question a welder's ability to make sound welds as determined by destructive or nondestructive inspections.
2. A change is made to the essential variable in the qualified welding procedures.
3. Within 7½ months of the last requalification test.

Welders that have not been requalified for a period of **at least twice each calendar year, but at intervals not exceeding 7½ months** shall be required to take the original qualification test as described in [Section III](#).

### B. Requalification Tests

Separate requalification tests are required for Downhill Shielded Metal Arc Welding (SMAW) and Uphill SMAW processes. The finished welds shall exhibit a neat, uniform workman-like appearance. Any requalification test(s) shall be given by a designated Company representative. The test shall consist of one of the following for each direction of welding:

#### 1. Downhill SMAW

- a. Production Groove Weld – the welder shall make a butt joint groove weld with the pipe axis at a specified angle using one of the following API 5L pipe specifications and corresponding Company welding procedure specification (WPS):

Run Pipe	Procedure
1.315" OD, 0.179" WT, Grade B	<a href="#">SM-1</a>

4.500" OD, 0.188" WT, Grade B	<a href="#">SM-4</a>
6.625" OD, 0.188" WT, Grade X52	<a href="#">SM-10</a>
8.625" OD, 0.219" WT, Grade X52	<a href="#">SM-10</a>
12.75" OD, 0.250" WT, Grade X52	<a href="#">SM-10</a>

- b. The welder shall lay out, cut, fit and weld a branch connection that extends vertically upward or downward from run pipe in the horizontal, vertical or inclined position. The branch and run pipe shall be one of the following API 5L pipe specification combinations using the corresponding WPS. A full size hole shall be cut in the run pipe prior to welding of the branch.

Run Pipe	Branch Pipe	WPS
2.375" OD, 0.154" WT, Grade B	1.315" OD, 0.179" WT, Grade B	<a href="#">SM-53</a>
4.500" OD, 0.188" WT, Grade B	2.375" OD, 0.154" WT, Grade B	<a href="#">SM-53</a>
6.625" OD, 0.188" WT, Grade X52	4.500" OD, 0.188" WT, Grade B	<a href="#">SM-54</a>
8.625" OD, 0.219" WT, Grade X52	4.500" OD, 0.188" WT, Grade B	<a href="#">SM-54</a>
12.75" OD, 0.250" WT, Grade X52	6.625" OD, 0.188" WT, Grade X52	<a href="#">SM-60</a>

- c. Any weld as determined by the Company that is covered under qualified downhill SMAW procedures (SM-1 through SM-86).

All welds will be tested in accordance to API-1104 by nondestructive or destructive means.

## 2. Uphill SMAW

- a. The welder shall lay out, cut, fit and weld a branch connection that extends vertically upward or downward from run pipe in the horizontal, vertical or inclined position. The branch and run pipe shall be one of the following API 5L pipe specification combinations using the corresponding WPS. A full size hole shall be cut in the run pipe prior to welding of the branch for destructive testing.

Run Pipe	Patch	WPS
2.375" OD, 0.154" WT, Grade B	2.875" OD, 0.203" WT, Grade B	<a href="#">SM-102</a>
4.500" OD, 0.188" WT, Grade B	4.500" OD, 0.188" WT, Grade B	<a href="#">SM-102</a>
6.625" OD, 0.188" WT, Grade X52	6.625" OD, 0.188" WT, Grade X52	<a href="#">SM-108</a>
8.625" OD, 0.219" WT, Grade X52	8.625" OD, 0.219" WT, Grade X52	<a href="#">SM-108</a>
12.75" OD, 0.250" WT, Grade X52	12.75" OD, 0.250" WT, Grade X52	<a href="#">SM-108</a>

- b. The welder shall layout, cut, fit and weld a patch onto a run pipe as shown Appendix B, Figure B2 of the latest approved edition of API-1104. The run pipe shall be at a specified angle. The patch and run pipe shall be one of the following API 5L pipe specification combinations using the corresponding welding procedure specification.
- c. Any weld as determined by the Company that is covered under qualified uphill SMAW procedures (SM-101 through SM-133).

All welds will be tested in accordance to API-1104 by destructive means.

## C. Failures to Requalify

Welders failing to requalify shall not weld on the Company's pipeline.

Welders failing to requalify shall be required to pass the appropriate welder tests described in [Section III](#) to regain their qualification to weld on Company pipelines.

Welders that fail the requalification test because of conditions beyond their control may be given second opportunities to requalify.

#### **D. Records**

All welder requalification tests shall be documented on form WTF-01. A current file containing all original qualification and requalification test reports will be maintained at Company Engineering office for each qualified welder. Also, a complete listing of all qualified welders shall be maintained at each of the Engineering offices.

Updated welder identification cards will be issued to those welders that are requalified to weld on Company pipelines.

(UNCONTROLLED IF PRINTED)