



## 1.0 INTRODUCTION

This guideline describes the requirements for line pipe purchased directly from a Distributor inventory that is intended to be used in new or modified pipelines or related facilities subject to recordkeeping requirements or regulatory compliance. The recommendations are intended to outline the minimum level of documentation needed to allow Companies to maintain traceable, verifiable and complete (TVC) records.

While it can be applied, this guideline is not intended for procurement of general use pipe not subject to TVC requirements, e.g. instrument gas, structural members, etc.

### 1.1 Scope

This guideline is intended for pipe held in inventory by a Distributor or pipe ordered for inventory by a Distributor. For pipe ordered by a Company that requires a Distributor to order a Mill Run of pipe from a Manufacturer, the applicable Company pipe specification shall apply.

The following manufacturing processes are covered under this Specification: seamless (SMLS); high frequency electric welding (HFW); and submerged-arc welding (SAWL & SAWH).

This guideline shall apply to the following pipe:

- 6-inch NPS and greater
- PSL-2 for API 5L certified pipe
- Single grade certification for API 5L grades X52 and above, i.e. no dual API X60/X65 stencil based on test sample.
- Single API and Dual API/ASTM stenciled pipe

### 1.2 Definitions

**AML** – Approved Manufacturer's List

**Company** – The pipeline company or buyer

**Distributor** – Organization that furnishes manufactured pipe to Company

**Facility Pipe** – Pipe that is installed within compressor stations, meter stations, gas pipeline assemblies, processing plants, or other pipe fabrications.

**ITP** – Inspection and Test Plan (sometimes referred to as Quality Assurance Plan (QAP))

**Line Pipe** – Pipe used for pipelines or pipeline facilities, typically mainline pipe

**Manufacturer (Pipe Mill)** – Organization responsible for pipe production (manufacturing)

**Mill Run** – A large quantity of pipe order placed directly with a pipe mill

**MPS** – Manufacturing Procedure Specification

**MPQT** – Manufacturing Procedure Qualification Testing



**MTR** – Material Test Report

**PO** – Purchase Order

**PSL-2** – Product Specification Level 2 (ref. API Spec 5L)

**Quote** – Commercial Quote for Pipe procurement

**RFQ** – Request for Quote (required pipe material requisition)

## 1.3 Codes, Standards and References

The pipe furnished under this guideline shall meet, as a minimum, all “agreed upon” requirements set forth in the latest editions of the following specifications, codes, standards or regulations:

Document	Title
API Spec 5L (API 5L)	Specification for Line Pipe
API RP 5L1	Recommended Practice for Railroad Transportation of Line Pipe
API RP 5LT	Recommended Practice for Truck Transportation of Line Pipe
API RP 5LW	Transportation of Line Pipe on Barges and Marine Vessels
ASTM A53/A53M	Standard Specification for Pipe, Steel, Black and Hot-Dipped Zinc-coated, Welded and Seamless
ASTM A106/A106M	Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service
ASTM A333/A333M	Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service and Other Applications with Required Notch Toughness
Title 49, Code of Federal Regulations, Part 192	Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards
Title 49, Code of Federal Regulations, Part 195	Transportation of Hazardous Liquids by Pipeline



## 2.0 GENERAL REQUIREMENTS

The Distributor should have established procedures for the qualification and audit of Manufacturers who supply materials under this guideline. The Distributor should keep and make available upon request all inspection and audit reports performed on manufacturers being considered.

All pipe should be supplied from manufacturers listed in Company's latest AML unless specified on the RFQ or PO by Company.

Pipe shall be supplied in like new condition, including both physical condition and visual quality.

Under these guidelines, pipe is limited to PSL-2 delivery conditions: as rolled, normalized, quench and tempered, or thermomechanical controlled rolled (TMCP). Stress-relieved condition is excluded.

Distributor should submit the following documentation at the time of quotation. All documentation provided shall match and be traceable to the specific material considered for supply:

1. MTRs from the source manufacturer that include diameter, wall thickness, grade, chemical, and mechanical testing results (including hydrotest) as required per API 5L PSL-2 and this guideline, complete with heat number
2. MTR shall identify source of steel or coil used to manufacture the pipe
3. ITP outlining inspection activities planned for the specific pipe intended to be supplied
4. MPS, if available
5. MPQT, if available
6. Joints of SAW pipe that have undergone weld repair offered within order. Weld repair to base metal or EW seam will be subject to rejection
7. Mill loadout tallies, if available
8. Pipe listing, if available
9. If pre-coated pipe is procured
  - a. Coating Type
  - b. Coating manufacturer
  - c. Coating thickness
  - d. Coating test reports
  - e. Coating date and location
  - f. Additional Company evaluation may be applied for stockpiled coated pipe

### 2.1 Quality Control

Distributor shall inform Company if the pipe considered for supply was part of a mill-run order placed directly by the Distributor with the pipe manufacturer or if the pipe was obtained by the Distributor by other means. The Distributor shall inform Company if the pipe considered for supply was downgraded, e.g. pipe intended as X70 but poor test results degraded to X60.

MTRs must be provided with all pipe supplied as requested in the RFQ or PO. MTRs must clearly indicate the pipe manufacturing specification that was followed.



All pipe supplied by Distributor must have the heat number and API Monogram stenciled on each pipe joint associated with the applicable MTR, in order to certify and verify each pipe joint with the MTR. The individual pipe identification number, serial number, joint number, etc., may still be marked.

Scabs, slivers, deep scratches, sharp projections and burrs shall be removed by grinding, provided the surface is smooth, uniformly contoured, and the remaining wall thickness is not less than the specified minimum (refer to API 5L). If scratches, dents, deep or rough grinds, gouges, and other surface imperfections are scattered, but appear over a large area in excess of what is considered a workmanlike finish, the surface imperfections shall be cause for rejection of the pipe, even if the individual imperfections would be permissible per this guideline.

Pipe with corrosion over a large area in excess of what is considered a workmanlike finish shall be cause for rejection of the pipe, even if the individual imperfections would be permissible per API Spec 5L. Examples of corrosion that shall be cause for rejection include, but are not limited to, pitting corrosion, crevice corrosion, corrosion resulting from rack storage and/or excessive surface corrosion.

Pipe with dents of any size or shape that exceed API 5L limits shall not be accepted. Grinding, jacking or hammering to alleviate or remove a dent condition is not permitted.

Coated pipe with excessive holidays, i.e. not able to be repaired, and/or coating thickness less than specified on the purchase order shall be cause for rejection by the buyer.

Questions on the acceptability of surface quality, imperfections, and/or other defects shall be presented to the Company for approval prior to shipment of the pipe from the Distributor's facility.

## 2.2 Documentation

The Distributor shall provide heat and lot identity for all pipe.

Distributor shall provide the following documentation to the Company:

1. Certified (by the Manufacturer) MTRs complying with the documentation requirements of API Spec 5L and ASTM, as applicable and 49 CFR Part 192 or 49 CFR Part 195
2. Statement of conformance with API Spec 5L (with API Monogram) and ASTM, as applicable (this may be combined with the certified MTR)
3. Pipe measurements from Distributor inventory
4. Load out tallies from Distributor to Company
5. Records of any supplemental testing performed on the pipe while in the Distributor's inventory

## 2.3 Inspection

Company representatives shall have access to all areas associated with the subsequent processing, e.g. shipping, coating, etc., of the pipe where such subsequent processing is part of the PO. Such access applies to facilities of both Distributor and any Subcontractors or Suppliers involved in relevant work.



Adequate space and lighting shall be provided in the inspection area to be used by the Company representatives.

Company shall review all MTR information and reserves the right to reject material based on non-conformance to referenced specification(s).

### 3.0 STORAGE AND TRANSPORT

Bare pipe in outside storage shall be stacked off the ground and separated from storage racks by non-corrosive materials. The pipe ends should not come into contact with the ground and be kept clear of any surface water.

Distributor must inform Company of the duration pipe has been stored and any preservation procedures that have been put in place.

Pipe stored longer than 3 months should be stacked at an angle greater than 3 degrees to ensure adequate water drainage from the pipe interior.

Pipe that has been stored may be inspected at Company's discretion prior to delivery to check for corrosion damage and traceability records.

### 4.0 HANDLING & LOADING

Pipe shall be handled in a manner that is safe for all personnel and property at the site. Jarring, swinging or unnecessary manipulation of a lifted load shall be avoided.

Pipe shall be handled so as to prevent damage to pipe, pipe ends, and pipe coating.

Prior to loading, rail cars, trucks, ships or barges shall be cleaned of debris or any substance that might damage the pipe or coating during loading or transit.

Distributor shall provide a copy of the load-out tallies showing footage of each joint of pipe for receipt by the Company at the shipping destination. For transport by rail or water, load-out tallies shall be supplied to the Company prior to the arrival of the pipe.

Discovery of transit fatigue cracking shall be grounds for the rejection of the entire shipment until absence of cracking of the balance of the shipment is proven.

### 5.0 ADDITIONAL REQUIREMENTS

#### 5.1 Inventory Testing

If specified on the RFQ or PO, additional pipe material testing may be required to qualify Distributor's inventory. This testing must be performed on existing stock pipe and test results accepted before final acceptance and delivery to Company. The testing and approval requirements will be specified in the RFQ or PO and may include, but are not limited to, any of the following:



1. Charpy impact test
2. Tensile test
3. Hardness test
4. Drop weight tear test
5. Hydrostatic test
6. Nondestructive Evaluation (NDE) of pipe body and/or weld
7. Chemical analysis for elemental composition
8. Pipe end dimensional test
9. Coating testing

## 5.2 Certified Mill Test Report

The Certified Mill Test Report (MTR) shall conform to the requirements set by API 5L paragraph 10.1.3.1 for PSL-2 pipe. The certificate shall be in accordance with the format specified as Inspection Certificate 3.1.B of ISO 10474:2013 or Inspection Certificate 3.1 of EN 10204. The information listed on the MTR shall include the items applicable to the product, e.g. HFW, SMLS, listed in API 5L paragraph 10.1.3.2.

## 5.3 Minimum Inspection Level – Distributor Ordered Mill-Run for Inventory

For pipe delivered to this guideline, the following non-mandatory items from API Spec 5L shall be considered mandatory and minimum level for acceptance:

**Paragraph 8.9.2:** The sizing ratio for cold-expanded pipe shall not be less than 0.003 or more than 0.015.

**Paragraph 9.8.2.2:** For welded pipe with  $D \leq 508$  mm (20.000 in), the minimum average (set of three test pieces) shear fracture area for each test shall be at least 85%, based upon a maximum test temperature of 0 °C (32 °F).

**Paragraph 9.9.1:** Drop weight tear testing (DWTT) is required for PSL-2 welded pipe with  $D \geq 508$  mm (20.00 in).

**Paragraph 9.13.2.2(e):** For SAW and COW pipes, for a distance of at least 150 mm (6.0 in) from each end, the outside weld bead shall be removed by grinding such that it does not extend above the adjacent pipe surface by more than 0.5 mm (0.020 in).

**Table 18, Item 10:** For HFW pipe, CVN impact testing of the longitudinal seam weld of welded pipe with specified outside diameter and specified wall thickness as given in Table 22: Once per test unit with the same cold-expansion ratio.

**Paragraph 10.2.3.3:** Note the waiver of CVN impact testing for CVN test piece not covered in Table 22 shall be excluded.



## 5.4 Deviations

All requests for deviations from the Request for Quote, Purchase Order, or this Guideline shall be received by the Company in writing. Written authorization from the Company's procurement department will be required for any change that will affect compliance with this Guideline.

## 6.0 HISTORY OF REVISIONS

Number	Date	Description
0	June 2018	Initial publication