



Description	This procedure is used to properly install and repair support structures and pipe insulators.
Regulatory Applicability	All supported aboveground pipe <input checked="" type="checkbox"/> Transmission Pipelines <input checked="" type="checkbox"/> Regulated Gathering Pipelines (Type A) <input checked="" type="checkbox"/> Regulated Gathering Pipelines (Type B) ¹ <input checked="" type="checkbox"/> Distribution Pipelines
Frequency	As needed
Reference	49 CFR 192.161 <i>Supports and Anchors</i> LA Title 43 Part XIII 1121 <i>Supports and Anchors</i>
Forms / Record Retention	None
Related Specifications	None
OQ Covered Task	0961 Above Ground Supports and Anchors: Inspection, Preventive and Corrective Maintenance (In order to perform the tasks listed above; personnel must be qualified in accordance with West Texas Gas's Operator Qualification program or directly supervised by a qualified individual.)

¹ If the line is new, replaced, relocated or changed.



Procedure Steps

1. Installation

- a) Determine proper construction, spacing and design of pipe support including support structure foundation through company practice, standards or engineering design. Blueprints and Isometric drawings should be used to ensure that supports are located correctly as per engineering specifications.

Each pipeline and its associated equipment must have enough anchors or supports to:

- i) Prevent undue strain on connected equipment;
- ii) Resist longitudinal forces caused by a bend or offset in the pipe,
- iii) Prevent or damp out excessive vibration.

Each exposed pipeline must have enough supports or anchors to protect the exposed pipe joints from the maximum end force caused by internal pressure and any additional forces caused by temperature expansion or contraction or by the weight of the pipe and its contents.

- b) Obtain proper tools and equipment to complete the installation.
- c) Install temporary support (If applicable).
- d) Lift pipe with a jack using pipe protective device (i.e. pipe saddles). Hoist with proper rigging techniques or another appropriate lift technique (If required).
- e) Install replacement/additional support and insulator in accordance with company practice, standards or engineering design. Each support or anchor on an exposed pipeline must be made of durable, non-combustible material. Provisions must be made for the service conditions involved.
- f) Each support on an exposed pipeline operated at a stress level of 50 percent or more SMYS must comply with the following:
 - i) A structural support may not be welded directly to the pipe.
 - ii) The support must be provided by a member that completely encircles the pipe.
 - iii) If an encircling member is welded to a pipe, the weld must be continuous and cover the entire circumference.
- g) Lower pipe to desired position (If applicable).
- h) Each underground pipeline that is connected to a relatively unyielding line or other fixed object must have enough flexibility to provide for possible movement or it must have an anchor that will limit the movement of the pipeline.
- i) Each underground pipeline that is being connected to new branches must have a firm foundation to prevent lateral and vertical movement.
- j) Remove temporary pipe support (If applicable).



k) If using adjustable support, adjust support heights to insure a level pipe run.

2. Repair

- a) Determine proper construction and design of pipe support in accordance with company practice, standards or engineering design.
- b) Prior to repair process, isolate and blow down segment. Lift pipe with a jack using pipe protective device (i.e. pipe saddles). Hoist with proper rigging techniques or another appropriate lift technique (If applicable).
- c) Remove existing pipe support.
- d) Look for signs of significant corrosion that will require further inspection, including:
 - i) heavy localized oxidation
 - ii) bubbling paint
 - iii) visible pitting
- e) Obtain proper tools and equipment to complete the installation.
- f) Install temporary support (If applicable).
- g) A qualified individual will perform a pipe wall inspection (If applicable).
- h) Repair pipe support in accordance with WTG's practice, standards or engineering design
- i) Install repaired support and insulator. Follow WTG's O&M procedure above for Installation of support.
- j) Lower pipe to desired position.
- k) Remove temporary pipe support.
- l) If using adjustable support, adjust support height to insure a level pipe run
- m) Purge and place segment into service
- n) Document installation (Form WTG 1400)



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