

Operations and Maintenance Procedures

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O&M Section # 17	SCUD Task # 560
Section: Construction/Operations	Revision Date: 09/06/16

Installation of Steel Pipe in a Ditch

SCOPE AND PURPOSE

This procedure is to provide personnel when installing steel pipe in a ditch with safe and effective activities to ensure the integrity of the piping system. It describes practices required to comply with §192.319.

RESPONSIBILITY

The Main Line Supervisor, Service Line Supervisor, Maintenance Supervisor, or other designee, is responsible to ensure that the installation of steel pipe in a ditch is performed as described in this procedure.

PERSONNEL SAFETY

- The safety of SCUD employees and the public must be top priority on the job site.
- Establish a safety perimeter to prevent bystanders and unauthorized personnel from entering the area of activity.
Anytime any type of work is to be done on or with a line with gas on it, the hazard of fire or explosion must be reduced by:
 - a) The removal of ignition sources in the presence of gas
 - b) Providing a fire extinguisher or fire dept.
 - c) Preventing welding or cutting on a pipeline containing a combustible mixture
 - d) Post warning signs or monitoring and securing the site.
- Wear a hard hat when working with and around mechanized equipment.
- Wear a high visibility safety vest when near vehicle or equipment traffic.

EQUIPMENT AND MATERIALS

Mechanized equipment
 Routine hand tools
 Other equipment and materials as needed
 PPE and safety equipment

OPERATOR QUALIFICATION

This activity is a covered task under the Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this task. Refer to the OQ Plan for specific qualification requirements.

INSTRUCTIONS

- a. Pipes shall be adequately supported while being lowered into the ditch.
- b. Trench bottom shall be relatively smooth, free of rocks, sticks, and other debris that could damage the pipe and coating.
- c. Pipe condition shall be visually inspected immediately prior to installation in the ditch
- d. When lifting, moving, and lowering pipe into the ditch, be careful to protect the pipe and pipe coating from dents, gouges, nicks, scratches and other damage.
 1. When using mechanized equipment, lift the pipe using nylon sling, padded calipers, or other appropriate devices.

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2. Pipe should not be dragged or rolled across the ground or other surfaces where rocks and other sharp objects could cause damage to the pipe coating.
 3. Avoid impact damage to pipe, such as, dropping heavy objects on the pipe.
- e. A sufficient clearance between steel piping and other underground structures not associated with the piping must be maintained. If clearance cannot be attained, the piping must be protected from damage that might result from the proximity of other structures.
- f. The ditch should be deep enough to give the proper minimum amount of cover over the pipe:
1. 24 inches over mains
 2. 18 inches over service lines on the ROW and under roads and alleys.
 3. 12 inches over service lines on private property. We try to be 18 inches on private property.
- g. Backfill material should be inspected to ensure it is free of any materials that may cause damage to the pipe or coating.

REPORTING/NOTIFICATION

Complete documentation in accordance with Operation and Maintenance Manual.

ABNORMAL OPERATING CONDITIONS

AOC Main Category (Examples of Specific AOCs)	Reactions to AOC, as appropriate	
<p><i>Unplanned escape of product from a pipeline</i></p> <ul style="list-style-type: none"> • Blowing/Escaping gas/Grade I leak 	<ul style="list-style-type: none"> ➤ Protect life & Property ➤ Prevent accidental ignition ➤ Notify appropriate personnel ➤ Notify Fire/Emergency Responders ➤ Initiate Emergency Plan 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC ➤ Use appropriate PPE ➤ Stop gas flow ➤ Make repairs/eliminate AOC
<p><i>Fire or Explosion</i></p> <ul style="list-style-type: none"> • Fire on a pipeline • Explosion 	<ul style="list-style-type: none"> ➤ Protect life & Property ➤ Prevent accidental ignition ➤ Notify appropriate personnel ➤ Notify Fire/Emergency Responders ➤ Initiate Emergency Plan 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC ➤ Use appropriate PPE ➤ Stop gas flow ➤ Make repairs/eliminate AOC
<p><i>Pipeline Damage</i></p> <ul style="list-style-type: none"> • Coating Damage • Corrosion Damage • Dents, Gouges, Scrapes, etc. 	<ul style="list-style-type: none"> ➤ Protect life & Property ➤ Prevent accidental ignition ➤ Notify appropriate personnel 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC ➤ Make repairs/eliminate AOC
<p><i>Unplanned Flow Rate Deviation</i></p> <ul style="list-style-type: none"> • Unplanned Increase in Flow 	<ul style="list-style-type: none"> ➤ Protect life & property ➤ Notify appropriate personnel 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC



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<ul style="list-style-type: none"> • Unplanned Decrease in Flow & or No Flow 	<ul style="list-style-type: none"> ➤ Initiate Emergency Plan as Needed 	<ul style="list-style-type: none"> ➤ Make repairs/eliminate AOC
<p><i>Unplanned Status Change</i></p> <ul style="list-style-type: none"> • Inoperable/Failure of a Pipeline Component • Stray Current on a Pipeline – Electric Shock 	<ul style="list-style-type: none"> ➤ Protect life & property ➤ Notify appropriate personnel ➤ Initiate Emergency Plan as Needed 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC ➤ Make repairs/eliminate AOC
<p><i>Inadequate Odorization or Reports of Gas Odor</i></p> <ul style="list-style-type: none"> • Low odorization • Over odorization • Odor complaint 	<ul style="list-style-type: none"> ➤ Protect life & property ➤ Prevent accidental ignition ➤ Notify appropriate personnel 	<ul style="list-style-type: none"> ➤ Locate source/cause of AOC ➤ Make repairs/eliminate AOC

RELATED PROCEDURES

CONST014 – Backfilling