

# STANDARD OPERATING PROCEDURE

Pipeline

SOP No: 013-PL

SOP Title: Welding of Steel Pipe on  
Right-Of-Way

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	NAME	TITLE	SIGNATURE	DATE
Author	Safety Team	Safety Department		8/17/2016
Reviewer	Upper Management	Safety Committee		8/17/2016
Authorizer				

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013			0	

## 1. PURPOSE

- This procedure is a guideline on the proper way to weld together steel pipe. Employees at BBGCI will use this as a guide to help them perform their duty in a safe and productive manner.
- BBGCI will be in compliance with all government regulations as well as the regulations set forth by our clients.

## 2. INTRODUCTION

- BBGCI understands that all jobs are different. This SOP is set in place as a guideline to help employees understand the proper procedure to follow while welding on steel pipe along the right-of-way.

## 3. SCOPE

- This procedure has been set in place for BBGCI equipment operators, spotters, welders, helpers, and supporting personnel who will be performing operations for the welding of steel pipe.

## 4. DEFINITIONS

- Pipe Clamp- Device used to hold two joints of steel pipe together.
- Welding Pass- A single progression of welding along the steel joint.
- Line of Fire- The path of a moving object that can potentially injure or the potential path of an object that may move.
- Pipe- The continuous section of steel.
- Buffer Zone- The area where operation occurs, that is deemed not safe for unauthorized personnel or equipment.

*NOTE: For basic welding terms, please refer to [www.keenovens.com/articles/welding-terms.htm](http://www.keenovens.com/articles/welding-terms.htm)*

## 5. RESPONSIBILITIES

### Qualified Spotter

1. Participate in tailgate meeting and JSEA.
2. Understand the scope of work and the hazards involved in his/her specific job duty.
3. Maintain good communication with the Equipment Operator and supporting personnel at all times.
4. Ensure that the buffer zone is free of any unauthorized equipment or personnel at all times.
5. Maintain a safe working distance away from any mobile equipment while work is in progress.
6. Be aware of traffic throughout the right-of-way, and make sure the equipment/truck driver knows when equipment or a vehicle is approaching.

*Qualified Equipment Operator*

*(Equipment includes: Excavator or Side Boom)*

1. Participate in tailgate meeting and JSEA.
2. Complete equipment inspection.
3. Understand the scope of work prior to beginning work.
4. Establish good communication with the spotter prior to beginning work.
5. Commence work and maintain safe operations.

*Qualified Welder /Welders Helper*

1. Participate in tailgate meeting and JSEA.
2. Inspect all welding equipment used for welding operations.
3. Scan out work area to ensure any flammable material is not present.
4. Understand the scope of work prior to beginning task.
5. Maintain good communication with the spotter and supporting personnel during operations.
6. Commence work and maintain safe operations.

*Supporting Personnel*

1. Participate in tailgate meeting and JSEA.
2. Maintain a safe working distance away from any mobile equipment while work is in progress.
3. Understand the scope of work prior to beginning task.
4. Use proper lifting techniques while lifting.
5. Maintain good communication with all employees involved in this process.
6. Be aware of traffic throughout the right-of-way, and make sure the equipment/truck driver knows when equipment or a vehicle is approaching.

**6. SPECIFIC PROCEDURE**

*Welding Steel Pipe on Pipeline*

*(Personnel Involved: Equipment Operator, Spotter, Welder, Welders Helper, and Supporting Personnel)*

1. Before work can commence, properly complete all JSEA's, work permits, safety tailgate meetings, and equipment inspections.
2. Equipment inspections will be completed by qualified personnel.

3. Establish the scope of work, and ensure everyone knows their specific job duty.
4. Spotter will maintain a safe buffer zone and inform the operator that it is safe for work to commence.
5. The Welder Helper will begin to buff each joint of steel pipe to remove any possible scale.
6. Using proper lifting devices, supporting personnel will begin to rig up to the joint of steel pipe.
7. The joint of steel pipe will be set in place and the pipe clamp will be attached.
8. Once the pipe clamp is properly connected to two steel pipes, the welder will begin to tack the pipes together.
9. Support personnel will begin to stack skids on the opposite end of the joint of steel pipe using proper lifting techniques.
10. Once the joint of steel pipe has been properly tacked, the pipe clamp will be removed.
11. Welders will begin to make their welding passes on the tacked steel pipes. After each pass the Welder's Helper will grind down the weld. Once the last welding pass is completed, the Welders Helper will use a buffing wheel to buff down the weld.

*NOTE: There may be multiple welders completing a weld on two adjoining steel pipes.*

## **7. JOB RELATED HAZARDS**

### ***Slips, Trips and Fall Hazards:***

- Inspecting equipment
- Climbing on and off equipment.
- Walking near open holes/trenches
- Walking on uneven surfaces or rocks
- Working around welding leads and hoses

### ***Pinch Points and Line of Fire Hazards:***

- Moving equipment
- Walking in unauthorized work areas/ buffer zone
- Walking near overhead loads
- Positioning pipe
- Arc Flash
- Sparks from welding/grinding
- Flying debris from grinding

### ***Fire Hazards:***

- Welding

- Grinding

**8. REQUIRED PPE**

- Hard hat
- Safety Glasses
- Steel Toe Boots
- Gloves
- Welding Gloves
- Fire Resistant Clothing (FRC's)
- Personal Gas Monitors (Site Specific)
- Welding Hood
- Face Shield while grinding
- Hearing Protection while grinding

**9. FORMS/TEMPLATES TO BE USED**

- JSEA
- Work Permits (If Required)
- Equipment Inspection Forms
- Client Required Forms

**10. INTERNAL AND EXTERNAL REFERENCES**

**10.1 Internal References**

**10.2 External References**

**11. CHANGE HISTORY**