



All DeLong's Facilities

Procedure #:
CS-011

Oxygen/Fuel
Torch Startup
And Shutdown
Procedure

Rev 1

1. Purpose:

1.1 The purpose of this procedure is to outline the procedure for the safe startup and shutdown of torches.

2. Responsibility:

2.1 The Environmental Health and Safety (EHS) Manager is the program coordinator, with overall responsibility for the program, including reviewing and updating this plan as necessary.

2.2 The EHS Manager and/or Supervisors are responsible for implementation of this procedure, and training of all employees with regard to this procedure.

3. References:

3.1 29 CFR 1910.253 Oxygen-fuel gas welding and cutting.

4. Procedure:

4.1 Torches Supplied With Gas/Fuel From Portable Cylinders. First – Before you attempt to light the torch:

4.1.1 Ensure cylinders are properly secured.

4.1.2 Before connecting a regulator to a cylinder valve, the valve shall be opened slightly and closed immediately. The valve shall be opened while standing to one side of the outlet; never in front of it. Never crack a fuel-gas cylinder valve near other welding work or near sparks, flame, or other possible sources of ignition.

- Regulators must be used only with the gas or gases and pressure for which they are designed.

4.1.3 Make sure torch valves are closed.

4.1.4 **STAND AWAY FROM FRONT OF REGULATOR.** Separately and slowly open the oxygen and fuel cylinder valves. **ALWAYS** open valves slowly so pressure on regulators is **NOT** sudden.

4.1.5 Adjust regulator's T-handles to recommended tip pressure settings.

4.1.6 Open/close torch valves separately and fine tune pressure settings on regulators.

4.1.7 Depress cutting lever and adjust pressure if necessary.

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1/1/17

Page 1 of 3



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Lighting and adjusting the torch:

- 4.1.8 Separately purge both oxygen and fuel gas lines.
- 4.1.9 Open fuel gas valve ½ turn.
- 4.1.10 **ALWAYS** ignite flame with a striker. **NEVER USE A LIGHTER, OTHER TORCH, ETC. TO IGNITE THE TORCH.**
- 4.1.11 Increase fuel gas flow until flame leaves end of tip and no smoke is present.
- 4.1.12 Decrease fuel gas flow until flame goes back to the tip.
- 4.1.13 Open oxygen valve and adjust to neutral flame (flame turns blue about 3/4" from the end of the tip).
- 4.1.14 Depress oxygen lever and make necessary adjustments.

Shutting down the torch:

- 4.1.15 Close fuel/gas torch valve.
- 4.1.16 Close oxygen torch valve.

When the torch/regulators and gases are done being used:

- 4.1.17 Close oxygen and fuel gas cylinder valves.
- 4.1.18 Open fuel gas torch valve to release pressure off of the regulator. Close the torch valve. Completely back out the fuel gas regulator T-handle.
- 4.1.19 Open oxygen torch valve to release pressure off of the regulator. Close the torch valve. Completely back out the oxygen regulator T-handle.
- 4.1.20 Make sure all regulator gauges read 0.

4.2 Torches Supplied With Gas/Fuel Transferred From Bulk Tanks In Piping Systems.

First – Before you attempt to light the torch:

- 4.2.1 Make sure torch valves are closed.
- 4.2.2 **STAND AWAY FROM FRONT OF REGULATOR.** Separately and slowly open the oxygen and fuel supply line valves. **ALWAYS** open valves slowly so pressure on regulators is **NOT** sudden.
- 4.2.3 Adjust regulator's T-handles to recommended tip pressure settings.

Written By: JLJ		Approved By: EMDC	1/1/17	Page 2 of 3
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- 4.2.4 Open/close torch valves separately and fine tune pressure settings on regulators.
- 4.2.5 Depress cutting lever and adjust pressure if necessary.

Lighting and adjusting the torch:

- 4.2.6 Separately purge both oxygen and fuel gas lines.
- 4.2.7 Open fuel gas valve ½ turn.
- 4.2.8 **ALWAYS** ignite flame with a striker. **NEVER USE A LIGHTER, OTHER TORCH, ETC. TO IGNITE THE TORCH.**
- 4.2.9 Increase fuel gas flow until flame leaves end of tip and no smoke is present.
- 4.2.10 Decrease fuel gas flow until flame goes back to the tip.
- 4.2.11 Open oxygen valve and adjust to neutral flame (flame turns blue about 3/4" from the end of the tip).
- 4.2.12 Depress oxygen lever and make necessary adjustments.

Shutting down the torch:

- 4.2.13 Close fuel/gas torch valve.
- 4.2.14 Close oxygen torch valve.

When the torch/regulators and gases are done being used:

- 4.2.15 Close oxygen and fuel gas supply line valves.
- 4.2.16 Open fuel gas torch valve to release pressure off of the regulator. Close the torch valve. Completely back out the fuel gas regulator T-handle.
- 4.2.17 Open oxygen torch valve to release pressure off of the regulator. Close the torch valve. Completely back out the oxygen regulator T-handle.
- 4.2.18 Make sure all regulator gauges read 0.

In the event any damage to torch equipment is noticed. Do not use the equipment and notify a supervisor immediately.

Written By: JLJ			Approved By: EMDC	1/1/17	Page 3 of 3
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