

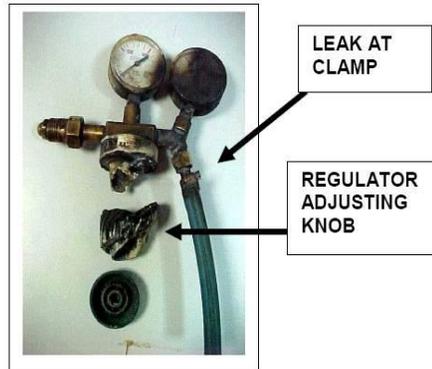
# NOT A NAVY INCIDENT

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## Safety Lessons Learned Mishap Abstract

**MISHAP Type:** Temporary Disability  
**Injury:** Hands severely burned  
**Damage:** Oxygen regulator destroyed  
**Type of Work:** Welder adjusting Pressure on an oxygen regulator

**Equipment:** Oxygen/Acetylene hoses



**DESCRIPTION OF THE MISHAP:** Contractor welder was adjusting the pressure on an oxygen regulator. The welder had oil on his hand and there was oxygen leak from the hose clamp.

**DIRECT CAUSE:** Mixture of enriched oxygen atmosphere and oil

**INDIRECT CAUSE:** Not cleaning hands before handling oxygen regulator

**ROOT CAUSE:** Leaking equipment and handling oxygen equipment with contaminated hands

### **LESSONS LEARNED:**

Know the operating precautions and that gauges can fail during operations and the energy contained in the compressed gases can produce violent effects should the pressure element assembly rupture

- Do:**
1. Use good judgment and common sense. Know the hazards of the material you work with
  2. Stand with the cylinder between you and the regulator when turning on the gas cylinder.
  3. Always apply pressure slowly
  3. Never stand in front of the regulator while adjusting regulator in case of explosion
  4. Maintain the pressure element assembly and connection free from dirt and any grease/grime
  5. Follow the manufacturer's instruction manual for the correct pressure ranges to be used
  6. Use the proper size wrench to secure the gauge to the regulator
  7. Use only the thread sealant recommended by the manufacturer
  8. Leak test the gas outlet using soap solution prior to use

### **DO NOT:**

1. Touch oxygen regulators or cylinder heads with hands or gloves that are contaminated with oil, grease, grime or any organic material. An explosion could result
2. Install a low pressure gauge into the high pressure port of a regulator
3. Use gauges designed for a specific gas for a different gas
4. Exchange gauges from one regulator to another
5. Remove the restrictor installed in the gauge connection. The restrictor limits gas flow and aids in limiting temperature rise due to adiabatic compression
6. Use or handle gas regulators unless you are authorized and qualified to do so.