

# **SNL/CA Agency Update**

**Gordon Gibbs**

**JOWOG 28 Joining Subgroup  
Sandia National Lab.**

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**Sandia National Laboratories**

**Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under Contract DE-AC04-94AL85000.**

# Welding Operations at SNL/CA

✿ 8200 California Weapons Systems Engineering

◆ 8224 Gas Transfer Systems

- Manager - Paul Spence

- ◆ Joe Puskar (1822)
- ◆ Gordon Gibbs
- ◆ Tony De Sousa
- ◆ Rich Campiotti
- ◆ Annette Newman
- ◆ Mike Gutzler \*
- ◆ Logan Kucerak \*

# Joining Activities

*Gordon Gibbs, Tony De Sousa,  
Annette Newman and Logan  
Kucera*

- ❖ Weapons Support
- ❖ Aluminum Pressure Vessel Welding
- ❖ GTS PRT Activities
- ❖ Hardware Fabrication
- ❖ Equipment Characterization
- ❖ Weld Acceptance using Data Acquisition



# FY12 Joining Activities

## *Joe Puskar*

- ❖ GTS PRT Activities
- ❖ Joining Lab Coordination
- ❖ JTA Weld Processes
- ❖ WR Production Liaison
- ❖ Equipment Characterization
- ❖ Aluminum welding
- ❖ Forging HAZ Recrystallization

# Current Focus of the Aluminum Welding Project

- ❖ GTA Welding
- ❖ EB Welding
- ❖ Resistance Welding
- ❖ Variable Polarity Plasma Arc Welding

# FY12 Joining Activities

## *8222 Hydrogen & Metallurgy Science*

- ✿ Beryllium (S-65C) to Copper Alloy (Cu-Cr-Zr) diffusion bonding for ITER fusion reactor in Cadarache France via hot isostatic pressing (Steve Goods and Joe Puskar)

# New Equipment

- ★ In Process of upgrading Low Voltage EB welder to next generation of Lab View Real Time/FPGA system
- ★ Laser Star Welder
- ★ Welding Expert Microscope
- ★ Exploring Weld Computer's inverter/wave synthesis technology with a frictionless, pneumatic ram for pinch welding and resistance forge welding applications

