

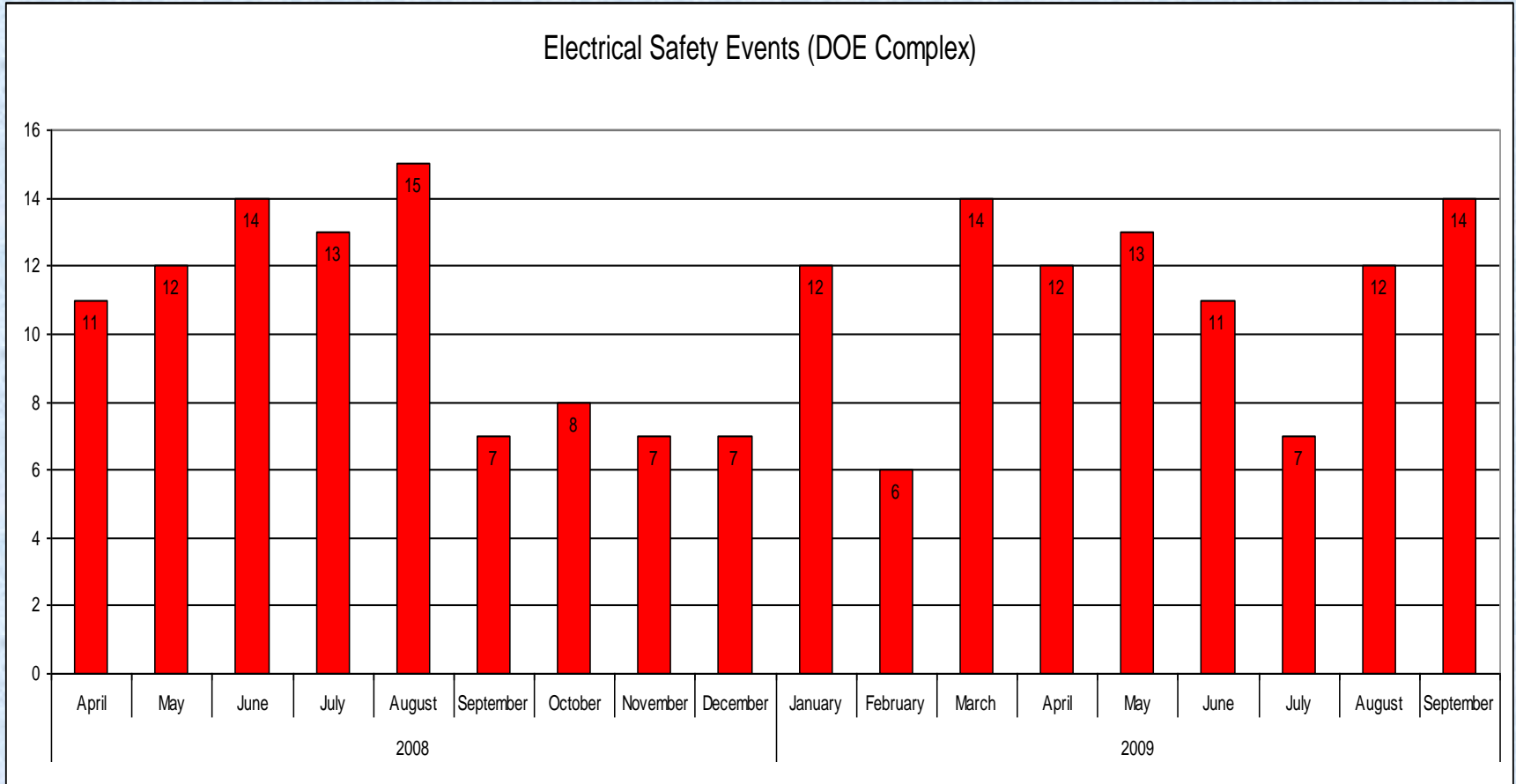
# 2009 DOE/EFCOG Electrical Safety Meeting & Workshop

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# NNSA Perspectives

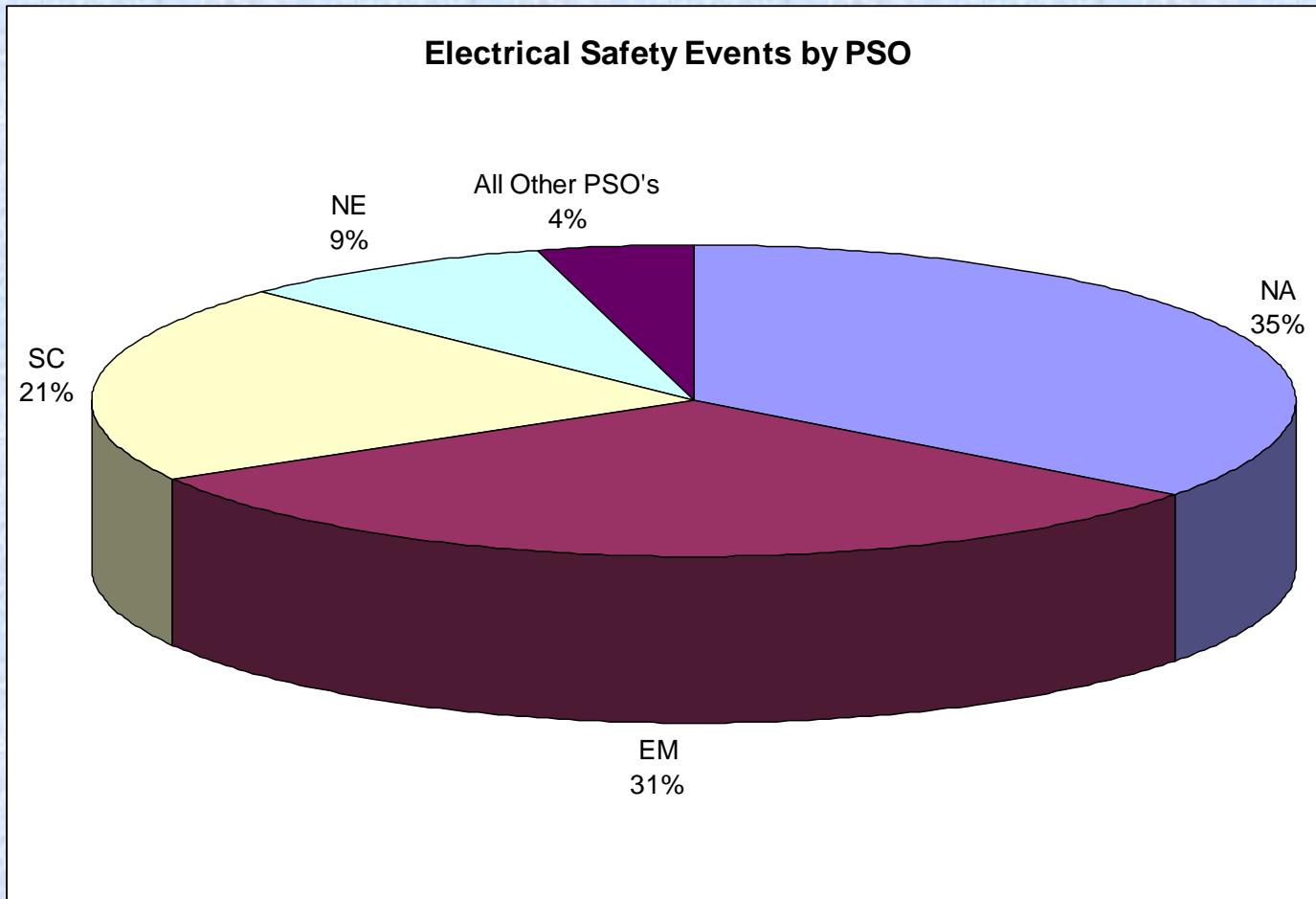
- DOE Electrical Safety Experience
- Changes Affecting Electrical Safety
- Changes We need to Affect
- One Site's Experience

# DOE Electrical Events

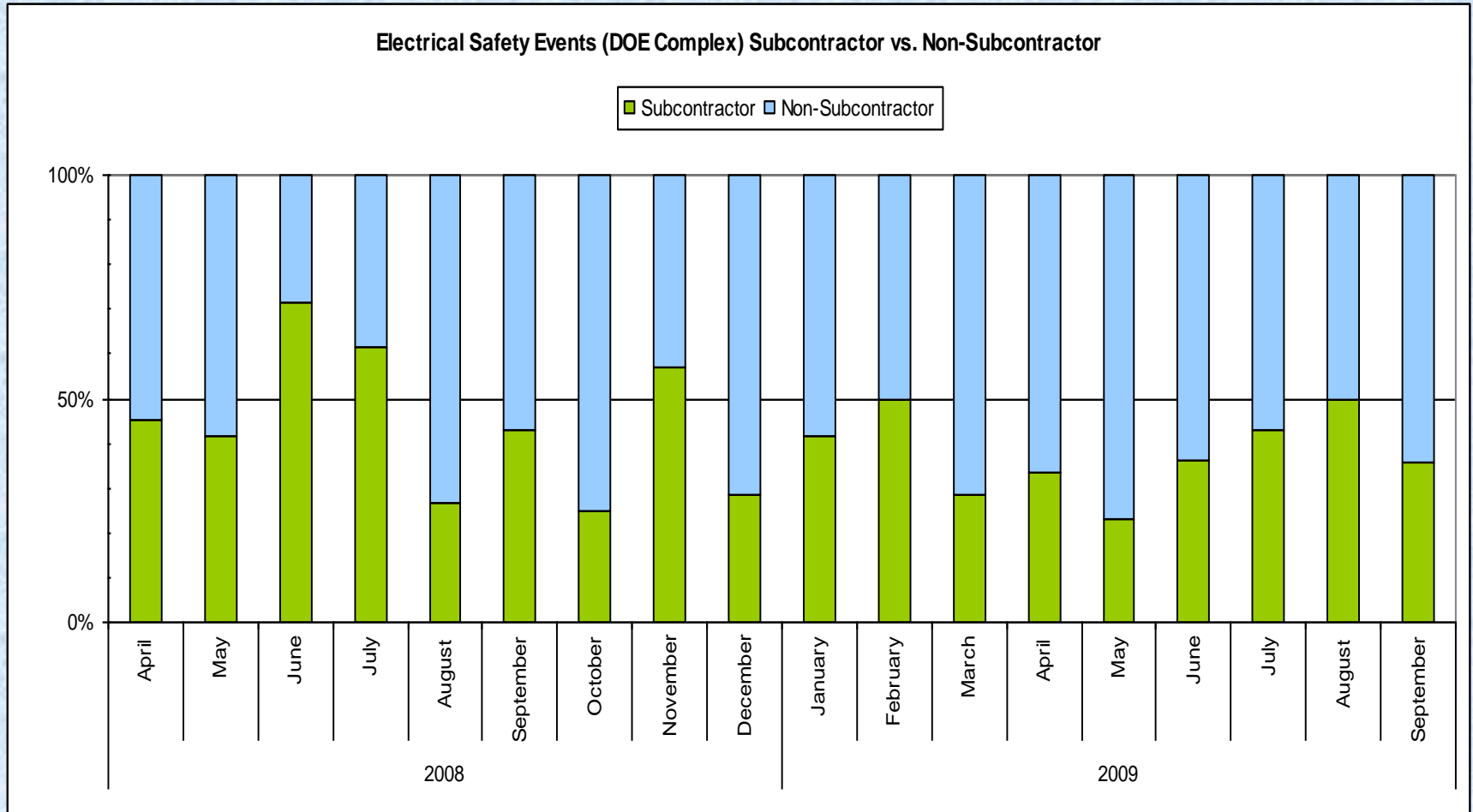


**Total number of electrical safety events over 18 months = 195**  
(This represents roughly 10% of the 1,872 total ORPS events recorded)

# DOE Electrical Events

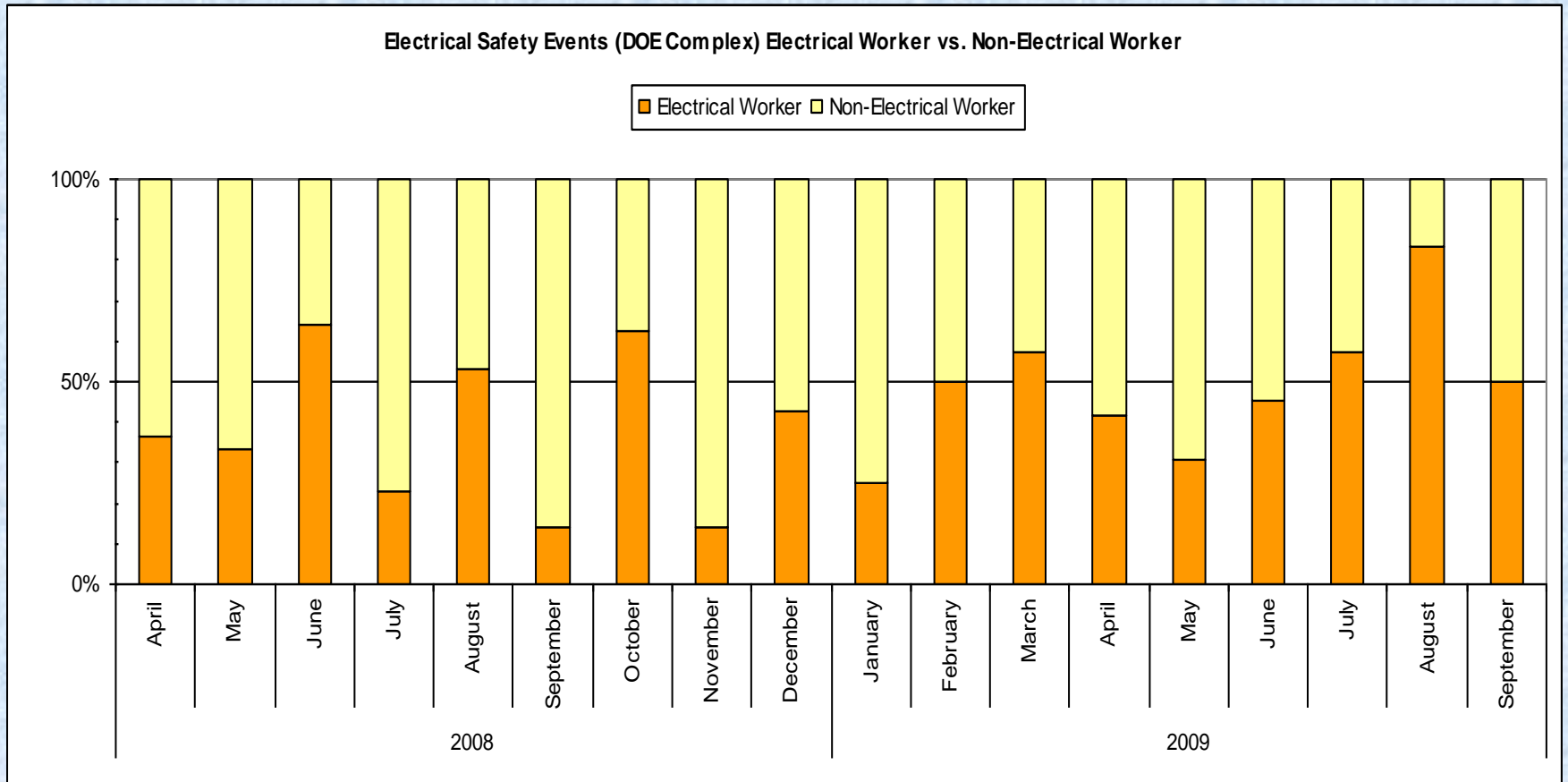


# DOE Electrical Events



Total Number of Events involving a sub-contractor =80  
Percentage of Events involving a sub-contractor 41%

# DOE Electrical Events



Total Number of Events involving an electrical worker = 87  
 Electrical worker involved 45%  
 Non-Electrical worker involved 55%

# 2009 DOE Electrical Safety Workshop

Where do we go from here?

# Changes Affecting DOE Electrical Safety Performance

- Electrical Safety Working Group - +
- 10 CFR 851 - +
- The Weather – Performance is cyclical
- Involvement of Non-Electrical Workers
- Subcontractors – May be unfamiliar with DOE electrical safety expectations.
- Contractor Change at DOE sites – Drive to improve productivity may impact safety.

# Recent Changes that may affect DOE Electrical Safety Performance

- Stimulus Projects – Large scale with new workers and defined schedules.
- SAFETY REFORM INITIATIVE
  - Reduced DOE Oversight
  - OSHA Jurisdiction
  - OSHA & NRC Jurisdiction

# Changes we need to affect

- Revise Electrical Safety Consensus Standards to reflect to DOE Operations
- Train & Educate Non-Electrical Workers
- Mentor Electrical Subcontractors
- Electrical SME participation in Work Planning
- Safety Culture

# One Site's Approach

What Sandia National Lab did:

- **Electrical Safety Improvement Plan (ESIP) developed for Lab line managers after 2007 electrical near miss**
- 34 Separate Improvement actions, including:
  - Improved training to emphasize “No energized work!” is SNL policy
  - Developed 2 Videos for general distribution
    - “Electrical Safety Explained” (Routine Electrical Hazards e.g. Cord & Plug)
    - “An Unnecessary Incident” (Electrical event fall-out)
  - Electrical Safety Advisor program (more later)
  - Senior Management Self-Assessment of SNL Hot Work and LOTO performance
  - Independent SNL-wide electrical safety assessment to validate ESIP corrective actions.

# SNL Electrical Safety Efforts

- **Sharp rise in 2008 Contractor Events led to SNL Kaizen Activity for Contractors**
- **Identified Several Target Areas for Improvement**
  - Pre-planning (e.g. Joint SNL/Contractor Job Safety Analysis)
  - Communications Flow-down (Monthly/Quarterly Meetings)
  - Identification of Unsafe Work Conditions for Non-Electrical Workers

# What SNL Says Worked Best

- **Electrical Safety Advisors:**
  - Line worker involvement in support of program goals to reduce energized work and eliminate electrical hazards
  - Advisors are Technologists and Researches with added electrical safety training
  - Support in electrical safety by serving as an electrical safety contact and conducting electrical safety walkthroughs of assigned areas
- **Increased awareness:**
  - Ensured requirements are consistently communicated throughout the complex
  - Visibility through non-listed equipment inspection process
- **Subcontractors:**
  - Establish and communicate clear standards and expectations
  - Formal work planning and documented pre-briefs
  - Electrical hazard pamphlet for non-electrical workers
  - Flow-down of requirements
  - Oversight of contracted activities

# Electrical Safety Improvements at Sandia National Laboratories

## Sandia's Electrical Incident Experience

- 2006 14
- 2007 18
- 2008 14
- 2009 YTD 3

# Take Aways

- Review your site's experience as to causal factors and group(s) involved
- Take action based on local conditions
- Roll with the Changes, but retain our focus throughout the year and keep our eye on the ball to prevent electrical incidents that endanger our employees and facilities.
- We must never become complacent.