



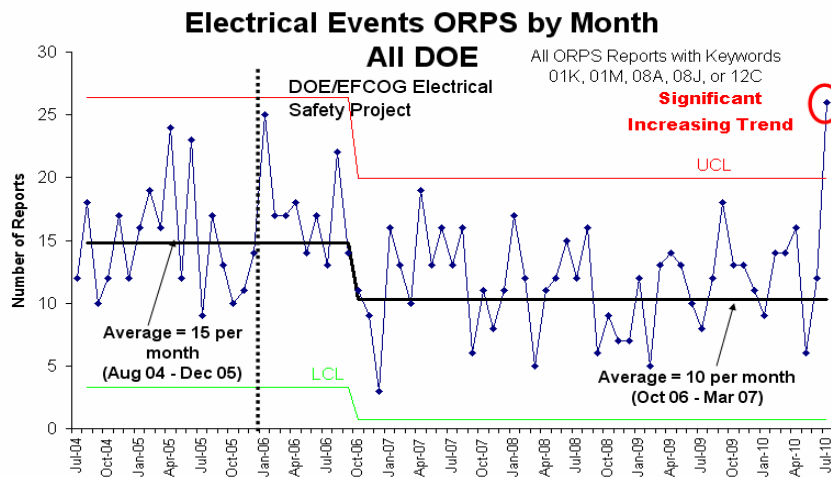
Days Without a Lost Time Injury:	SRNS: 11	SRR: 105	08.23.10
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Electrical Safety

In the U.S., workers are injured about every 30 minutes from electricity, and nearly 300 workers die from on-the-job electrical injuries annually. These are not just statistical numbers, but someone's family member, friend, and/or colleague. The recovery from electrical shocks and burns is slow and painful—no one wants to witness it and certainly not experience it!

Let's take a closer look at this issue in a work environment, where safety systems, processes, and procedures are jointly fit together to protect the worker. There were more than 20 electrical events(*) across the DOE Complex in July alone, initiating a significant upward trend. This is the highest number of events in a single month for DOE since the beginning of tracking this data (July 2004).



There were three 08A Electrical Shocks in the Environmental Management Office for July. This was very close to a significant increase (i.e., two standard deviations above the average).

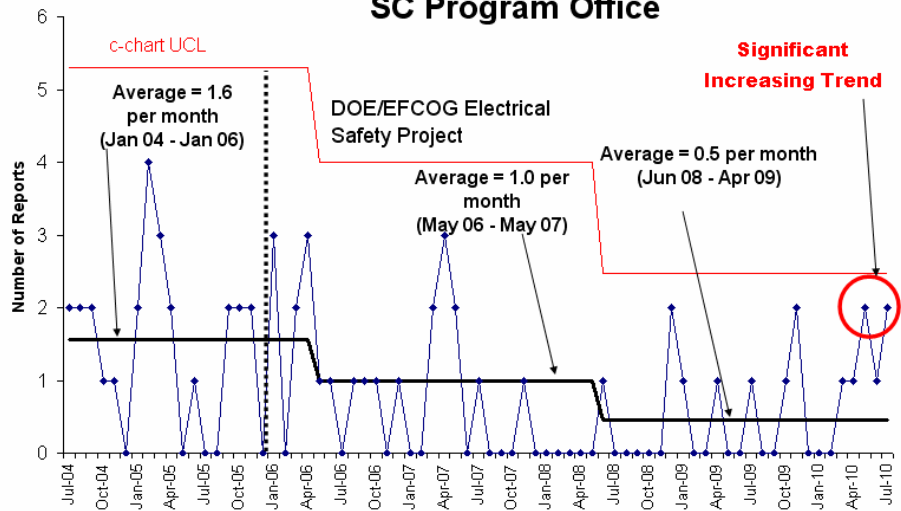
*From the DOE Occurrence Reporting & Processing System HQ key words 01K, 01M, 08A, 08J, or 12C



After four years of steady decreasing trends, there is a significant increasing trend in 08J Electrical Near Misses for the Office of Science. May and July had two events each, and this is two of three months in a row at two standard deviations above average. There have been seven Near Misses in the past five months, as compared to seven Near Misses in the previous thirteen months.

Further, the Office of Science had a grand total of nine electrical events in July 2010, which was above the Upper Control Limit for that chart. This is the highest number of events in a single month for the Office of Science, since the beginning of tracking this data (July 2004).

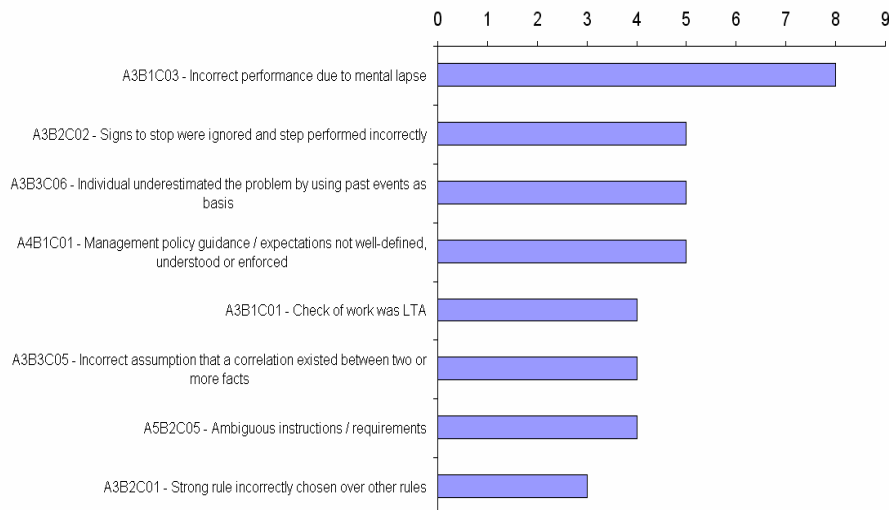
**08J Electrical Near Miss ORPS by Month
SC Program Office**



Causes of electrical near misses over the past year are depicted in the Pareto Chart below. “Incorrect performance due to mental lapse” has consistently been the leading cause, followed by three other causes which are tied for second place.

08J Electrical Near Miss - Top 8 Causes, All DOE

August 1, 2009 to August 1, 2010





We can take the following actions to mitigate these errors:

- **Deenergize – Deenergize – Deenergize.** Power down whenever possible. Working on energized equipment greatly increases your risk of injury and death.
- **Lock out/Tag out & Test before you touch.** Each worksite is dynamic. Following these key principles can prevent shock or worse.
- **Arc Flash prevention & Personal Protective Equipment (PPE).** In the blink of an eye, an arc flash can forever change your life. Protect yourself by choosing the appropriate equipment for the job.
- **Job Planning & Work Permits.** Assess the hazards and define the tasks each job will entail. Never work energized unless it is necessary.

Electrical injuries are not isolated to any one industry or one field of work. It could happen to anyone when they least expect it. Fortunately, you have a choice to protect yourself and others.

For historical and future information regarding these trends, please see the EFCOG Electrical Safety Subgroup charts at:

http://www.efcog.org/wg/esh_es/docs/DOE_Charts/elect_events_charts.htm

For information on trending, including the construction of these charts, contact Steve Prevette at steven.prevette@srs.gov