



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

# Part 26 Implementation

February 8, 2011

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# AL

AL - acronym list

BAC - blood alcohol concentration

NEI - Nuclear Energy Institute

NRC - Nuclear Regulatory Commission

PRM - petition for rulemaking

UCS - Union of Concerned Scientists

# Overtime and Staffing Problems In the Commercial Nuclear Power Industry

**March 1999**

*My group spends a lot of time in the field, and so do the other groups and we see problems -- working hours, overtime, fatigue. There are three quick examples that we're in between having a standard on how to deal with that and a problem that we know is lurking out there.*

NRC Staffer to Advisory Committee on Reactor Safeguards December 5, 1996

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# Risk from Worker Fatigue

Being awake for 17 hours (not being on the job, simply being awake) impairs human performance like the impairment from a 0.05% blood alcohol concentration.\*

\* Source: *Nature*, July 17, 1997, page 235

# Risk from Worker Fatigue

An individual with a BAC of 0.05% cannot legally fly an airplane or drive a bus,\* but an individual of equal impairment can legally be at the controls of a nuclear power plant per Part 26, Subpart I.

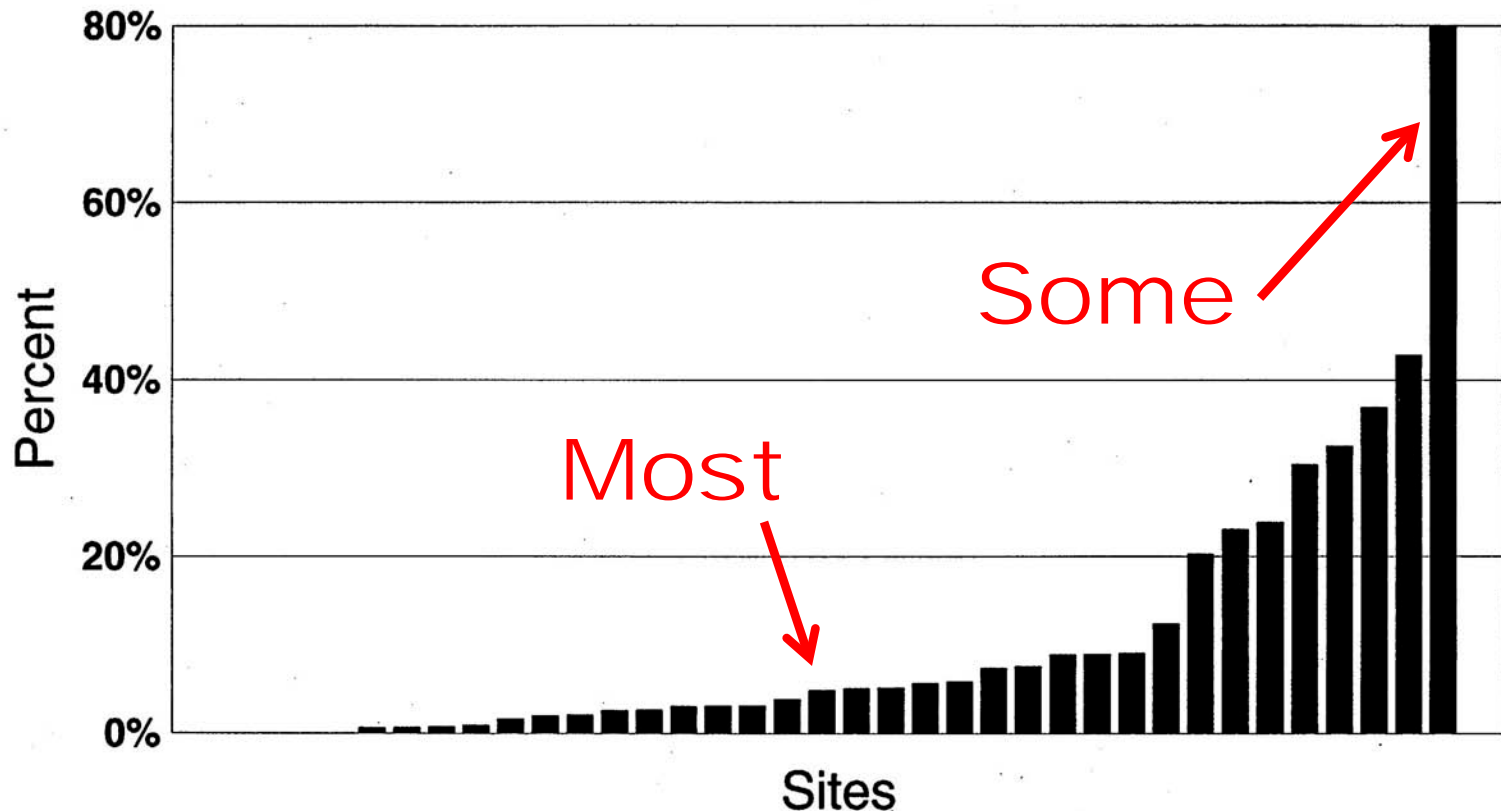
\* Source: [http://en.wikipedia.org/wiki/Blood\\_alcohol\\_content#Legal\\_limits](http://en.wikipedia.org/wiki/Blood_alcohol_content#Legal_limits)

# Prime Reason for Part 26 Subpart I

The overtime hours provided to NRC by NEI early on during the rulemaking effort showed that most plant owners were managing working hours to a reasonable level but that some owners were abusing the process.

# Prime Reason for Part 26 Subpart I

## Percent of Personnel at a Site Working > 600 Hours Overtime per Year - 1999



# Past as Prologue?

Recommendation:

Adjustments to the final rule to lessen the burden on most plant owners must not create loopholes that some plant owners will wriggle through to repeat past abuses.



# Working Hours Limits for Limited Workers

Original PRM sought working hour limits for all individuals granted unescorted access (i.e., the Part 26 population).

Scope narrowed to only workers with "hands on" assignments.

# Working Hours Limits for Limited Workers

Scope reduction justified on basis that excluded workers had other barriers (e.g., second verifications) to catch errors caused by fatigue, but that the subset lacked these other barriers and thus warranted special treatment.

# Working Hours Limits for Limited Workers

Having determined that no other credible barriers against fatigue-induced errors exist for the subset of workers, it would be foolhardy to now punch big ol' holes in this single safety net.

# Where's the (New) Beef?

Concerns about morale, pay, shift transitions, accounting headaches, turnover, etcetera were all raised during the rulemaking process, addressed in regulatory analysis, and factored - where applicable - into the final rule.

# Where's the (New) Beef?

UCS wanted (and still prefers) a better working hours rule, but we gave our best effort during the rulemaking campaign and must live with the final rule, with its limitations.

Absent new issues (not just recycled rants), the final rule should be implemented as-is.