

the voice and choice of public gas



# Controller Fatigue

*John Erickson, PE*



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# American Public Gas Association

- The association for community-owned gas utilities
- ~1000 community-owned gas systems
  - 37 states
  - >5M Customers
  - ~21,000 Employees
  - ~120,000 Miles of Main
- Systems size (Meters): 12 to ~500,000
- Largest cities: Philadelphia, San Antonio, Indianapolis, Memphis, Long Beach, Richmond, Colorado Springs, Mesa
- Freedom, OK (12 meter













# Fatigue can be good!



# Control Room Rule

- APGA was NOT pleased with the final rule
- Two compromises agreed to at 2008 TPSSC were not reflected in the final rule:
  - Limiting to persons who monitor AND control via a SCADA system
  - Limiting fatigue management to controllers on shifts (e.g. staffed 24/7)



# 12/11/08 TPSSC Transcript

- MR. COY: For the fatigue area, we had suggested we introduce language at the front end to say that, you know, if shift operations are in place an operator must et. cetera. So, you know, if an operator in this area does not have shift work or not in shifts, then the fatigue requirement would drop away.





# 12/11/08 TPSSC Transcript

- MR. KUPREWICZ: Rick Kuprewicz here. Our definition of controller involves an animal called SCADA and SCADA is a computer that has control, right?



# What is Fatigue

- *“A reduction in physical and/or mental capability as the result of physical, mental or emotional exertion which may impair nearly all physical abilities including: strength; speed; reaction time; coordination; decision making; or balance.”*

- Source: International Maritime Organization, Maritime Safety Committee Circular



# What Causes Fatigue

- *“Trying to explain to PHMSA the difference between telemetry and SCADA.”*
- *“Explaining to APGA members how a person viewing telemetered data, but with no control capability, can be a controller.”*
- *“Begging the city water or electric utility control room supervisor not to rip out the telemetered gas pressure data they monitor as a favor to the gas utility supervisor.”*

Source: John Erickson, APGA





# Fatigue Issues

- Limits on hours of service
  - The “controller” may be the only operations management person in the utility, and must be available to respond to emergencies 24/7
  - The CRM plans should only limit the hours worked in controller capacity
  - Better yet – limit the rule to real controllers

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# Questions?



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