

Control Room Management Pilot Inspection

City of Mesa

April 19–21, 2011



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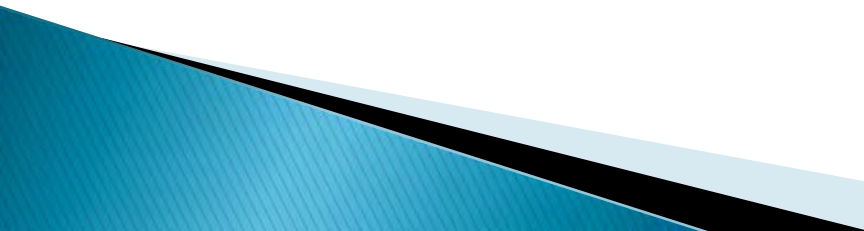
CRM

- ▶ PHMSA + CYCLA
- ▶ Began with overview of system
- ▶ Tour of control room
- ▶ Presented new inspection form

Mesa Gas System– circa 1917



Overview of Mesa system

- ▶ Natural gas distribution system
 - ▶ 54,000+ metered service lines
 - ▶ 90 square miles in Mesa city limits and 236 miles in Pinal County (Magma area)
 - ▶ 1,088 miles of distribution mains
 - ▶ 4 Gate stations, where natural gas is transported to Mesa's distribution system
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Mesa Control Room




Monitors




CRM rule revision

Gas distribution operators <250K services and gas transmission operators without compressor stations are required only to comply with the provisions related to

- ▶ fatigue mitigation
 - ▶ Validation
 - ▶ compliance and deviation
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CRM Pilot Inspection

- ▶ Great opportunity
 - ▶ Open Communication
 - ▶ Interpretation of the Rule
 - ▶ Inspection Form
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CRM Pilot Inspection Lessons Learned

- ▶ Testing of Backup Center – procedures
- ▶ Fatigue Management – extensive
- ▶ HOS of Controllers– procedures
- ▶ Change management – procedures to include everyone

PROCEDURES



PHMSA

Frequently Asked Questions

- ▶ <http://primis.phmsa.dot.gov/crm/faqs.htm#d>

Overview



- Southern Natural Gas had Pilot Audit on April 26-28
- For company, Gas Control, SCADA, and Compliance were represented
- DOT had four representatives
- Tone was conversational and cordial
- There were many “wants” not justified by Rule
- Weaknesses and improvement points were identified

Section “B” Comments

- Clearly delineate roles of Controllers, types of Controllers, and others in Control Room
- Controller expectations are better communicated in responsibilities than OQ
- Consider Shift Change briefing if Controller is out of room for, say, 30 minutes or more
- Address temporary operating pressure possibilities in plan

Section “C” Comments

- Point-to-point should go all the way back to the pipe
- Procedure expansion is always encouraged
- Back-up center full test is recommended
- Define “Safety Related Point”

Section “D” Comments

- Excellent: having enough Controllers to staff 24/7 on two desks and avoiding single-desk operations
- Assure fatigue is addressed in incident investigation and last hours of service
- Document how commute time is considered
- Implement formal system to document all scheduled and unscheduled HOS
- Quantify that enough Controllers are available

Section “E” Comments

- Need more procedural details and clarity
 - Alarm management generally
- Need more procedural details and clarity
- Need more procedural details and clarity

Section “F” Comments

- Change management should apply to all parties that are involved, not just the Control Room
 - Examples include Field Operations, SCADA, Compliance, MAOP records, Measurement, etc

Section “G” Comments

- Procedures should be expanded to include root cause investigations
- Procedures should be expanded to explicitly address erroneous training

Section “H” Comments

- Procedures should be expanded to address how improvements to training is identified
- Procedures should be expanded to better address infrequent set-ups

Conclusions

- Provide an overview of YOUR system to the inspector(s)
- Admit rule has made thinking okay
- Offer Controller interviews, but know there has not been much value there
- Developing procedures is key
- Integrate CRM Manual with other manuals

Questions



D E P E N D A B L E N A T U R A L G A S