Pipeline Damage Prevention Programs

A proactive approach to reduce methane emissions

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Damage Prevention . . . a proactive approach

Background Information

◆ Largest LDC in Missouri, serving primarily the St. Louis metro area
  - 632,000 customers
  - 16,000 miles of mains & service lines

◆ Year 2000 third-party damages to Laclede underground facilities were averaging 4-5 times each workday
  - 20% to mains,  80% to service lines
  - Dig-in issues:
    - Safety & reliability
    - Customer service disruptions / inconvenience
    - Repair cost / crew time
    - Gas loss
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History of the Damage Prevention Department

◆ In 2001, Laclede voluntarily created a new department within Operations to specifically address third-party dig-in issues

  • Consists of:
    – Department Manager
    – 3 District Damage Coordinators

  • Department coordinates closely with:
    – Construction & Maintenance (C & M) Department
    – Engineering Department
    – Claims Department

◆ Goals of this new approach:
  Ø More proactively manage risk of damage from third-party excavators
  Ø Provide for more uniform / consistent data gathering
  Ø Improve communications between excavators and the company
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Damage Prevention Department Responsibilities

◆ Investigate
  • Interview witnesses / participants to the damage
  • Gather and document accurate, relevant damage data
  • Identify root cause(s) of damages
  • Expedite the resolution of responsibility for damages / charges
  • Follow-up / track status of billable damages
  • Appear as witness for Claims Department in litigated cases

◆ Communicate
  • Minimize contractor damages through outreach and education
    – Focus on excavators who chronically hit facilities
    – Participate at excavator safety meetings
  • Network with organizations having a common interest in underground utility safety and damage prevention
  • Raise public awareness about underground utility damage
    – Promote damage prevention / safety awareness messages
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Program Benefits / Lessons Learned

◆ Excavators:
  • Assess responsibility and resolve billable damages promptly
  • Appreciate having a designated company point-of-contact person
  • Faster Laclede response means less down time for them
  • Appreciate our willingness to readily accept responsibility for damages outside the control of the excavator (non-billable)

◆ Laclede:
  • Substantially improved damage investigation procedures
  • Greatly accelerated payment collection system
  • Improved relationship with excavators

◆ Regulatory / Governmental:
  • Improvements to Missouri One Call System Legislation
  • “Call Before You Dig” message being widely disseminated
  • More aggressive enforcement (Missouri Attorney General letters)
Results

◆ Pipeline Damage Prevention and Laclede Gas Co. are strongly linked in the minds of Missouri’s excavators and state pipeline safety regulators

◆ Proactive damage prevention awareness efforts have fostered a spirit of cooperation with excavators and have yielded striking positive trends

◆ Since inception of the program:
  • Annual number of facility “Locates” has increased 35%
  • 33% reduction in dig-in damages
  • “No call” damages reduced from 39% to 22%
Results

- **Internal company impacts:**
  - Less time spent repairing dig-in damages
  - Lowering damages annually - now part of corporate goal setting
  - Billing, Payments & Collections
    - 90% reduction in time to process billable damages
    - 64% reduction in time to receive payment for billable damages
  - Learn from damages / continuously improve operational procedures to be a better facility owner (and excavator)
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Methane Emission Reductions

◆ Quantify mcf / dig-in (Calendar Year data)
  • Analyzed approximately 7,000 actual dig-ins from 2002-07
  • Grouped by pipe diameter, material and operating pressure
  • Average duration of blowing gas, by group
  • Varied size of rupture from 1/10 dia. to full-open
    ➢ Mains – Average 193 mcf / dig-in
    ➢ Service lines – Average 12 mcf / dig-in

◆ Emissions avoided based on actual number of dig-ins annually vs. projected damage rate in absence of the Damage Prevention Program

◆ Total 65,246 mcf not emitted for period 2002 through 2007
Reduction in Dig-ins vs. Increase in "Locates"
Conclusion

◆ Laclede’s approach has been to:
  • Communicate and cooperate with excavators
    – Be fair, consistent and even-handed
  • Network with others interested in underground damage prevention
  • Work with state and local regulatory bodies to protect underground facilities and promote safety on a voluntary basis
  • Pursue legislative support and/or enforcement changes when necessary
  • Learn from damage events to make internal operational corrections / improvements
  • Reduce methane emissions through reduced dig-ins