DCP Midstream’s Experience with EPA Gas Star Program

Gas Star Workshop, 4-24-2007
DCP Midstream - Overview
Fast Facts

• Became DCP Midstream 1/1/07 (formerly Duke Energy Field Services)
• Operates primarily in 16 States
• Approximately 50 gas plants and several hundred compressor stations
• 56,000 miles of gathering and transmission pipelines
• Produces ~360,000 bbl/day of NGL
History with EPA Gas Star Program

• 2000: Helped EPA develop processing sector program
• 2001: DCP joined program by signing MOU
• 2001-2005: DCP remained a partner, implemented practices to reduce emissions, but did not report emissions reductions to the STAR Program
• 2002: BTU Efficiency pilot program began
• 2003: BTU teams started in 5 asset areas
• 2005: BTU Efficiency program extended to all asset areas
• 2006: DCP renews commitment to the Program
• 2006: Reported emission reductions and submitted Implementation Plan 2006: Received recognition as Partner of the Year for Gas Processing sector
Implementation Plan

• Develop internal support
  - Re-introduce program to company leaders
  - Internal communications program
  - Integrate STAR program with BTU Efficiency Teams

• Quantify and report annual emission reductions
Implementation Plan

- **Continue methane reduction practices**
  - BTU Teams will implement best practices
  - BTU Teams also will provide information on emission reductions
  - Track and report emission reductions annually

- **Other participation**
  - Share new best practices
  - Sponsor workshops
  - Attend workshops and present our experiences
## 2005 Reductions

Summary of Improvement in Gas Loss

<table>
<thead>
<tr>
<th>ASSET</th>
<th>L&amp;U Improvement (MMSCF)</th>
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<tbody>
<tr>
<td>SE New Mexico</td>
<td>2,900</td>
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<tr>
<td>Goldsmith</td>
<td>890</td>
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<tr>
<td>Liberal</td>
<td>400</td>
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<tr>
<td>Southern OK</td>
<td>90</td>
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<tr>
<td>Triad</td>
<td>60</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4,340</strong></td>
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BMP and PRO Implemented

- Pipeline replacement and repair
- Aerial optical imaging using laser and/or infrared technology (followed by pipeline repair)
- Minimize flaring, venting and blowdowns using operational best practices
- Improved measurement systems that allow problems to be identified more quickly
- Eliminate unnecessary equipment (idle gathering lines and idle equipment)
- Directed inspection and maintenance at gas plants and booster stations
2006 Reductions

- Similar quantity of methane emission reductions
- Increased number of systems reporting reductions
  - Due to expansion of BTU Efficiency teams
- Implementing same set of BMP and PRO
BTU Efficiency Program

- Program began in 2003 in 5 asset areas
- In 2004, expanded to 13 asset areas
- In 2005, expanded company wide
- Improve or maintain the calculated % of the difference between the MMBtu’s that enter the system and the MMBtu sales that leave the system (NGL, Condensate, and Residue Gas)
- Establish a baseline
- Implement Best Practices
- Set a standard
BTU Efficiency Teams

• **Asset Core Team – Measurement, Operations, Commercial & Accounting**
  – Establishes baselines
  – Sets the standards
  – Determines priorities based on sub-balances
  – Forms system teams
  – Studies electronic maps
  – Brainstorms
  – Sets the tone

• **System Teams – Field Oper., Meas. Tech, Mechanic, I&E, Commercial Rep, Accounting**
  – Studies the trends
  – Determines areas of focus
  – Leads by example
  – Meets As needed

• **Subsystem Teams – Everyone who touches the asset**
  – Accountable and responsible for subsystem balance
  – Share ideas with system and core teams
BTU Efficiency

Local BTU teams must drive the process – Empowerment

Find It Fast
- Improved measurement systems
- Laser – Aerial with LaSen, Inc.
- Remote Methane Leak Detector (RMLD) – Ground follow-up to aerial laser
- Infrared Camera – boosters & plants

Fix It Fast
- Resource limitations
2002 to Current Performance

- 2002: L&U -1.26%
- 2003: L&U -1.14%
- 2004: L&U -0.91%
- 2005: L&U -0.77%
- 2006: L&U -0.68%

45% Improvement over 2002
2007 BTU Efficiency Focus

• Find it Fast
  – Balance Ownership (at least weekly)
  – RMLD
  – Aerial Laser
  – Plant and Booster Shutdown Management
• Fix it Fast
• Tracking systems