

## Progress Made with Integrity Management

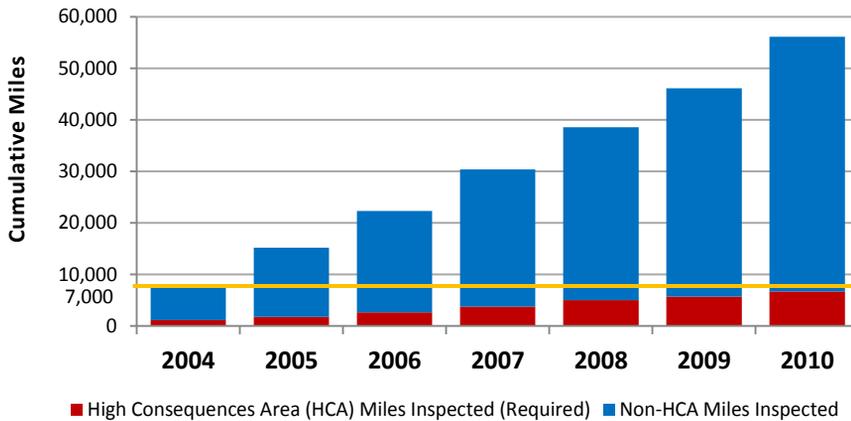
*A strategic plan by members of the Interstate Natural Gas Association of America*

Interstate Natural Gas Association of America (INGAA) has a data collection initiative to enable safety performance evaluation. The intent is to provide a clear and accurate picture of the condition of our natural gas pipeline systems, as well as the detection and maintenance practices of INGAA members.

Miles included in these metrics represent 64% of all PHMSA interstate natural gas transmission pipeline miles.

The data collection team will be working with the Pipeline and Hazardous Materials Safety Administration (PHMSA) to analyze data collected from INGAA members and to reach consensus on the types of data needed and best collection methods. The overall purpose is to further improve the integrity of natural gas pipeline systems and protect the people who live and work near them.

### *We inspect more pipeline annually than regulations require, on track to achieve full IMP assessment by 2012* IMP Baseline Assessment - Total Cumulative Miles (2004 – 2010)



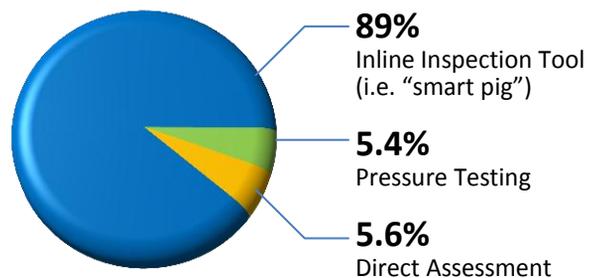
The chart shows that more than 7 times the miles required have been inspected.

More than 90% of the HCA pipeline miles have been inspected through 2010.

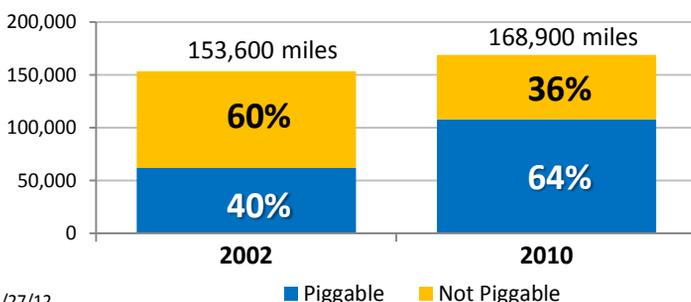
The chart does not include IMP re-inspections and inspections outside of the IMP program.

### *We conduct assessments using preferred methods and standards* Methods of Assessment (2004 – 2010)

The majority of INGAA members' baseline assessments of reported miles over the past 7 years have been with pipeline inspection tools called smart pigs. These are mobile units operators run through pipelines to inspect the pipelines' structural integrity. Smart pigs are widely regarded as the most effective inspection devices available.



### *We have made significant improvement in pipeline accessibility to inline inspection tools* Pipelines Accessible to Inline Inspection (2002 vs. 2010)



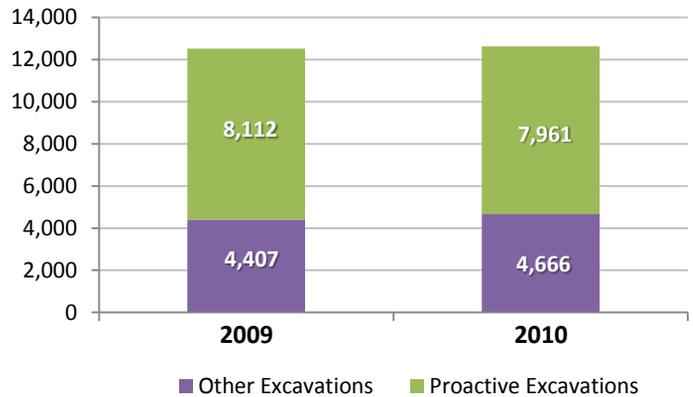
Currently, nearly two-thirds of INGAA members' reported miles are able to accommodate pigs. That is a 50% increase since 2002, and that trend is expected to continue.

**Our pipeline "piggability" has increased by 50% since 2002**

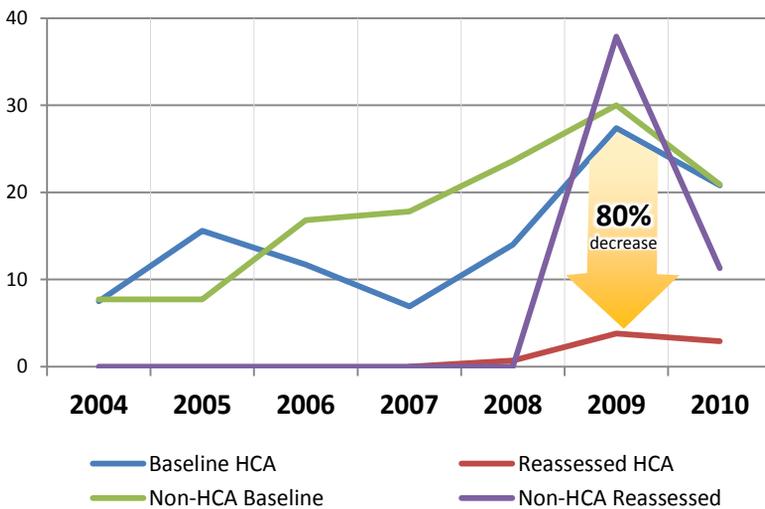
*We examine a large sample of pipe through excavation, providing a good idea of overall pipeline condition*  
**Pipeline Excavations (2009 – 2010)**

INGAA members excavated (dug down to) pipelines to inspect, re-apply protective coating or perform repairs. They performed about 25,000 pipeline excavations (1 per 7.5 miles) in 2009 and 2010. Nearly 16,000 were proactive decisions to uncover the pipeline for recoating, visual confirmations, repairs, or to adjust the depth of cover.

Other reasons for pipeline excavations include third-party construction and line crossings.



**Repairs per 100 Miles Inspected**



There has been an increase in the number of pipeline repairs. Reasons for the increase include improved pipeline inspection technology and more frequent inspections. However, repairs resulting from re-inspections have decreased by 80% in HCAs.

For 2010, 0.06% of the 20,700 miles of pipe inspected required repair or replacement.

*We believe prevention and mitigation are key components of pipeline safety*  
**Pipeline Patrols are Performed Above and Beyond Requirements (2010)**

INGAA members are committed to the safe operation of their pipelines and are active participants in the state one-call programs. Over 55% of pipeline miles reported are patrolled more frequently than required by regulation. Patrolling is an effective method to detect and halt potential third-party damage – which is the primary cause of serious incidents. Patrol frequency is particularly important in highest consequence (densely populated or critical) areas, along with one-call programs.

