

# CO<sub>2</sub> Pipeline Safety

## Track Record of Safe Operations

CO<sub>2</sub> pipelines have been operating safely in the United States for decades. Pipeline safety laws and government safety regulations administered by the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) and state agencies mandate safe operations of CO<sub>2</sub> pipelines.

### Federal Government Pipeline Safety Requirements

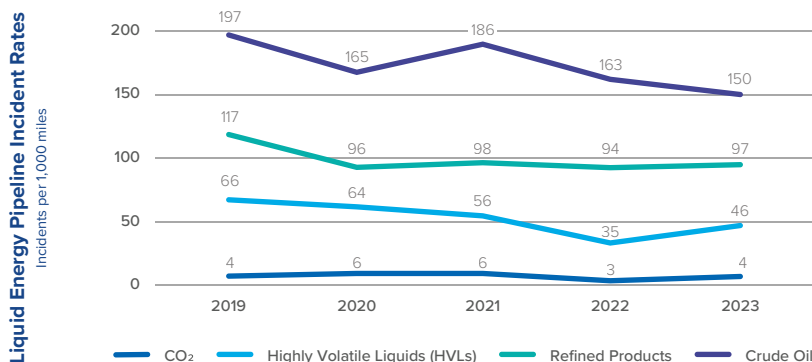
- Congress in the *Pipeline Safety Reauthorization Act of 1988* required the U.S. Department of Transportation to regulate CO<sub>2</sub> pipelines under federal pipeline safety regulations.
- The U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) in 1989 expanded its federal pipeline safety regulations to cover CO<sub>2</sub> pipelines.
- Current PHMSA regulations at 49 CFR Part 195 prescribe hundreds of requirements on the construction, inspection, maintenance, monitoring and incident response for CO<sub>2</sub> pipelines.
- PHMSA is charged with inspecting and enforcing compliance on pipeline operators violating federal CO<sub>2</sub> pipeline safety requirements.

### CO<sub>2</sub> Pipeline Operator Safety Programs

- CO<sub>2</sub> pipeline operators proactively inspect their pipelines on regular schedules to look for any issues and ensure the pipeline remains safe. Pipeline operators perform preventative maintenance on their pipes to address potential issues before they become a problem.
- Operators use diagnostic tools called “smart pigs” that travel inside pipelines scanning the walls with technology similar to an ultrasound or MRI found in a doctor’s office. Specially trained controllers keep a watchful eye 24/7 monitoring pipeline pressure and flow.

### CO<sub>2</sub> Pipeline Safety Record

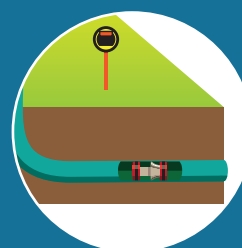
- Government pipeline safety data collected by PHMSA and publicly available shows CO<sub>2</sub> pipeline incidents are rare.
- CO<sub>2</sub> pipelines have a lower incident rate than both crude oil and refined products pipelines.



Source: Liquid Energy Pipeline Association (LEPA)



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Preventative Maintenance



24/7 Monitoring