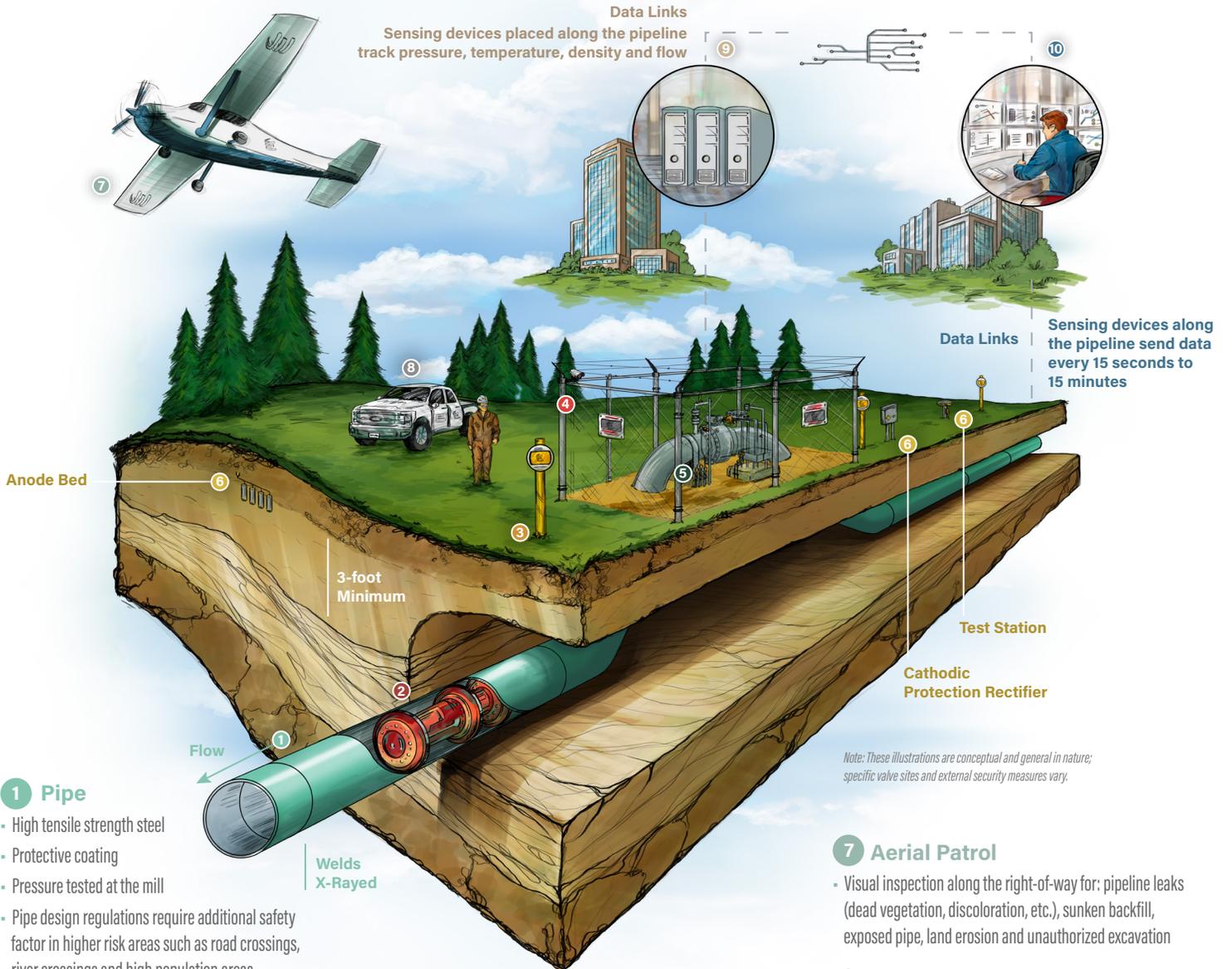


Energy Transfer has a comprehensive pipeline integrity program that enables us to monitor our assets 24 hours a day, 7 days a week, 365 days a year. Pipeline operations personnel are trained and qualified in accordance with pipeline safety regulations. Qualifications cover all aspects of operations and maintenance and are periodically reassessed as required.



Note: These illustrations are conceptual and general in nature; specific valve sites and external security measures vary.

1 Pipe

- High tensile strength steel
- Protective coating
- Pressure tested at the mill
- Pipe design regulations require additional safety factor in higher risk areas such as road crossings, river crossings and high population areas
- All welds 100% x-rayed or NDE inspected
- Pressure tested at a minimum of 125% of maximum operating pressure

2 In-Line Inspection Tools

- There are various tool technologies that may be used to identify and measure metal loss from corrosion and gouges, identify dents and other deformations, and detect longitudinal cracks and crack-like defects

3 Pipeline Markers

- Pipeline markers and warning signs indicate approximate location of the pipeline
- Located at frequent intervals along the pipeline right-of-way
- List product, name of the pipeline operator, and operator's telephone number in case of an emergency
- Display 811 "Call Before You Dig" notification phone number

4 Security

- Chain link security fencing
- Security camera and monitoring

5 Valves

- Both automated and manual valves are strategically placed along the pipeline
- Can be used to stop flow along a certain section of pipe
- Inspected periodically in accordance with regulations
- A variety of valves are used both above and below ground

6 Cathodic Protection

- Inhibits corrosion by application of electrical current with anode bed
- Effective protection requires very low DC voltage
- Entire pipeline is protected below ground
- Inspected and tested annually, rectifier inspected every other month
- Test stations approximately one mile apart

7 Aerial Patrol

- Visual inspection along the right-of-way for: pipeline leaks (dead vegetation, discoloration, etc.), sunken backfill, exposed pipe, land erosion and unauthorized excavation

8 Ground Patrol

- Visual inspections and surveillance of the pipeline along the right-of-way
- Maintenance and inspections of equipment and valves

9 Supervisory Control and Data Acquisition (SCADA) Systems

- Control system that uses computers and networked data
- Sends critical information to pipeline operations teams
- Automates data logging and processing

10 Control Center

- Centralized control center to immediately and easily adjust flow rates in the pipeline
- Pipeline engineers know exactly what is happening along the pipeline at all times
- Can quickly react to equipment malfunctions, leaks, or any other unusual activity along the pipeline