



## **OPERATIONAL SAFETY:** THE PURSUIT OF SAFETY EXCELLENCE

Maintaining the highest safety standards is essential to delivering excellence across Energy Transfer's operations. We believe in the continuous pursuit of excellence and seek to constantly improve what we do and how we do it. Our comprehensive safety programs, policies, and systems drive us toward best-in-class Environment, Health & Safety (EH&S) compliance and performance. We invest substantial resources to safeguard our assets—from pipelines, storage facilities and gathering systems, to natural gas processing and treating facilities, fractionators and marketing terminals. In 2021, we spent more than \$522 million in maintenance costs to ensure the safety of our assets.

## CULTURE OF CONTINUOUS IMPROVEMENT

Our EH&S and Organizational Excellence (OE) programs are designed to promote a culture of continuous improvement across our engineering, operations, maintenance, and construction activities. These programs incorporate a collective set of attitudes, values, norms, beliefs and practices that our employees and contractors adhere to with respect to continuous improvement. We foster a positive culture through our focus on collaboration, public and individual safety, and protection of the environment. The OE program highlights five pillars to promote continuous improvement:

- Proactively identify and manage risk and promote the sharing of lessons learned
- Safely execute work in an environmentally sound and regulatory-compliant manner
- Regularly evaluate projects, jobs, and tasks to ensure desired results and performance
- Swiftly act and take ownership, encouraging leadership at all levels
- Continuously improve by inspiring and nurturing change, encouraging conversations, and identifying improvements

Energy Transfer is committed to continuously improving pipeline safety programs by utilizing the Pipeline Safety Management System (PSMS). The PSMS defines how we design, construct, operate and care for pipeline assets in a way that ensures safety and reliability. It is based around a set of core elements designed to promote a process and culture of continuous improvement and learning from experience and includes measuring performance by promoting risk management reviews. It also applies the “PDCA” four-step management method: **Plan, Do, Check, Act**.



## EMPLOYEE QUALIFICATION & COMPETENCY

We implement our pipeline safety protocols by using the most proven technology and employing those who are among the most skilled pipeline workers in the industry. More than 3,800 operations personnel are trained and qualified in accordance with pipeline safety regulations. Per federal and state requirements, we developed 124 Operator Qualification (OQ) Tasks supporting the regulatory aspects of pipeline asset operations and maintenance. Our operations employees collectively maintain 64,427 individual qualifications, and per our operator qualifications process, all initial and subsequent qualifications are continually tracked in our Career Development Management System (CDMS). Each OQ Task has an identified requalification frequency based on a Difficulty, Importance, and Frequency Analysis conducted by company Subject Matter Experts. Additionally, to keep our operations employees informed on OQ, equipment, procedure, and process updates, more than 2,000 computer-based and instructor-led trainings are available for initial and refresher training.



**3,800+** operations personnel are trained and qualified



**124** Operator Qualification Tasks



**64,427** individual qualifications



**2,000+** computer-based and instructor-led trainings



## RISK REDUCTION

Our health and safety management system consists of an integrated set of programs, systems, policies and procedures (detailed below) that are relevant to our industry and effectively manage our EH&S compliance, performance and risk. Together, our programs, systems, policies and procedures use advanced data management software systems to manage how we do our business and drive continuous improvement and accountability.

### PROGRAMS:

Overarching programs that support the way we do our business to drive EH&S compliance and performance.

- Asset Management and Reliability
- Community Outreach
- Damage Prevention/One Call
- EH&S Management and Compliance
- Emergency Preparedness
- Internal Audit
- Mechanical Integrity Program
- Organizational Excellence Program
- Pipeline Integrity Risk Management
- Process Safety Management
- Security
- Spill Prevention Program
- Training Programs
- Pipeline Safety Management System

Process Safety Management (PSM) is a regulation put into motion by the federal Occupational Safety and Health Administration (OSHA) and is designed as a tool to properly manage natural gas as well as highly hazardous chemicals.

The goal is to prevent or minimize the consequences of the release of such chemicals. PSM is an additional layer of protection and risk assessment and provides several tools that help ensure safe operations. A Process Hazard Analysis (PHA) helps identify, reduce and manage workplace hazards with a detailed, step-by-step review of operating processes and procedures. A Layers of Protection Analysis (LOPA) is used to help fill in the gaps. The analysis evaluates scenario risk and compares it with risk tolerance criteria to decide if existing safeguards are adequate, and if additional safeguards are needed. It helps focus on the most critical safeguards. Energy Transfer has a comprehensive and disciplined PSM system in place that follows the 14 rules and practices requested by OSHA.

1. Employee Participation
2. Process Safety Information
3. Process Hazards Analysis
4. Operating Procedures
5. Training
6. Contractors
7. Pre-Startup Review
8. Mechanical Integrity
9. Hot Work Permit
10. Management of Change
11. Incident Investigation
12. Emergency Planning & Response
13. Compliance Audits
14. Trade Secrets



## SYSTEMS:

Key EH&S and compliance programs to support and promote continuous improvement.

- Asset Compliance Tracking Software (ACTS)
- Career Development Management System (CDMS)
- Engine Reliability
- Environmental Information Management System
- ET/PSM Management of Change
- GIS Database
- Incident Management System (IMS - Intelex)
- Job Plans
- SAP Preventative Maintenance



## POLICIES & PROCEDURES:

Expectations and requirements to maintain compliance and improve EH&S performance.

- Contractor Safety Manual
- E&C Standard for Procurement, Design, Construction, and Commission
- Environmental Policy and Guidelines Manual
- Organizational Excellence Policy Document
- Pipeline Integrity Management Plans
- Remediation Policy
- Safety Procedures and Forms Manual relevant to our industry
- Standard Operating Procedures (SOPs)
- Vehicle Safety Policy



## PEOPLE AND CAPITAL:

Resource commitment to maintain compliance and improve EH&S performance.

- **400+ individuals** support operations safety performance and compliance by providing EH&S, Technical Services and Integrity support
- **20+ individuals** dedicated to Public Relations, Government Affairs, and Stakeholder Engagement
- **\$522 million** in capital expenditures to maintain our assets
- Security team to plan and manage all security operations
- Dedicated team to communicate and implement One Call Damage Prevention
- Employee Volunteer Program
- Right-of-Way team to work with landowners
- Power Optimization group improving energy efficiency

## INCIDENT MANAGEMENT SYSTEM PLATFORM

We continuously pursue a zero-incident culture by implementing strategic protocols to mitigate risk and eliminate adverse events. To help achieve this goal, our Incident Management System (IMS) employs a five-step risk reduction cycle to document and report any unwanted events. Events reported through this system undergo a thorough investigation, followed by corrective actions and then sharing of lessons learned to prevent future similar events. The custom platform offers tracking and trending data on all established metrics and Key Performance Indicators (KPIs).

- **Draft** - All employees are empowered to create an initial incident in IMS and submit to their supervisor for Verification
- **Verification** - Supervisors verify the draft incidents and progress them to local Subject Matter Experts for Investigation
- **Investigation** - Subject Matter Experts complete the Investigation portion of incidents and submit for Approval
- **Approval** - Area Director or Discipline Director approves the completed incidents and submits them for Closure
- **Closure** - The risk reduction cycle ends when the incident is closed. Incident data is then evaluated and communicated to Management

Events tracked in the IMS platform include: Abnormal Operations, Contractor Incidents, Damage Prevention Events, Environmental Incidents, Injury/Illness, Mechanical & Tank Integrity Events, Mechanical/Electrical/Controls (MEC), Pipeline Regulatory Leak/Failure, Pipeline Safety, Related Conditions, Property Damage, PSM Incidents, Security Incidents and Vehicle Incidents.

## NEAR-MISS AND GOOD CATCH PROGRAM

Our Intelex platform provides a robust system for capturing, analyzing, and reporting situations considered “near-misses” and “good catches.” A near-miss is an unplanned event that did not result in injury, illness, or damage—but had the potential to do so. A good catch is an action-oriented program that implies someone did something positive to prevent an incident from occurring. Both help create a healthy safety culture and serve as significant leading indicators that help us assess potential hazards and prevent safety and environmental incidents. Information on near-misses and good catches are collected and shared with others so they can be on the lookout for similar situations. In 2021, we had 2,826 near-misses/good catches reported internally.

## KEY PERFORMANCE INDICATORS

Our Environmental and Safety Key Performance Indicators (KPIs) provide a data review of incident types and occurrence rates in real time. Interactive maps provide a platform to pull the data for specific geographic areas and time periods. Incident information and GIS location data is processed directly from the IMS platform to the dashboard. KPIs are based on quantifiable metrics established in accordance with OSHA and PHMSA and are used to identify and track industry safety and environmental trends.

## ANALYTICS/BUSINESS INTELLIGENCE REPORTS

Using a Power Business Intelligence (BI) analytics tool, we customize real-time reports that provide more information than the typical EH&S incident management system that traditionally focuses on lagging indicators. These interactive reports provide data analytics in a way that can be used to make business decisions that drive continuous improvement. The data analytics provide a more comprehensive way to review data and provide employees with real-time access that assists with developing strategic initiatives that transform our EH&S pipeline safety programs and move them beyond compliance. Power BI reports in place include:



### EH&S Dashboard

Report provides an overview of environmental incidents, illness/injury incidents, vehicle incidents and near-miss incidents. Each report can be filtered by date, department, type and more.



### Engineering Records

Report provides an overview of the total number of projects that have been received and are complete. The number of projects is also shown by year, regulated/nonregulated and project type.



### Management of Change (MOC) Report

Report provides an overview of all MOC records. The MOC Details Report can be filtered by department, requestor, entry administrator, reason for change, MOC date created, MOC number, change category, type of change, and workflow status. Other reports within the MOC Report include the MOC Approvals and MOC Action Items reports.



### **Underground Storage**

Report shows the working storage of each storage field and can be filtered by location, month, unit and volume.



### **Operations Incident Report**

Report provides an overview of all incidents. Master and sub incident count is shown by department and the status of each incident. This report shows details pertaining to each of the following incident types: injury/illness incidents, vehicle incidents, contractor incidents, property damage, security incidents, PSM incidents, environmental incidents, Pipeline Regulatory leaks/failures, abnormal operations, pipeline safety-related conditions, damage prevention, mechanical and tank integrity, and Mechanical, Electrical and Control equipment.



### **Engine Reliability Report**

Report provides valuable information for use in our maintenance planning and Engine Life-Cycle management. It includes metrics on Engine Hours Operated, Average Engine Utilization, Average Commercial Availability and Average Mechanical Availability.



### **GIS Regulatory Metrics**

Report provides an overview of the total number of pipeline miles by state, asset type, class type, product shipped, High Consequence Areas (HCA), and Moderate Consequence Areas (MCA).



### **Standard Operating Procedure (SOP) Revision History**

Report provides an overview of all SOP revision requests. Reports can be filtered by status, document type and more and searched by SOP, Best Practice or Form Title.



### **Operator Qualifications (OQ) Report**

A series of reports related to the pipeline OQ program including the following reports: Pipeline Operator Qualifications, Technical Training Summary Report, Company Evaluators and Proctors, Control Room Operator Qualifications, Employee Qualification and Technical Training Overview.

## KPI TRENDS & IMPROVED PERFORMANCE

We determine the success of our safety, regulatory, and environmental management programs by analyzing our year-over-year progress through KPIs. Our goal is to always improve year over year. The below improvements include our 2021 averages in our required PHMSA reportables:



### NATURAL GAS:

**27% decrease in volume** of natural gas unintentionally released in a Class 3 location in 2021 vs. 2020

**57% less MSCF** in 2021 than the 3-Year Average (2018-2020)

**40% fewer** natural gas incidents in a Class 3 location in 2021 vs. 3-Year Average (2018-2020).



### LIQUIDS:

Total Volume of Hazardous Liquids Released in 2021 was **13% less** than in 2020

Total Number of Accidents >5 bbls in 2021 was **the same** as the 5-Year Average (2016-2020)

According to a 2021 safety report by the Association of Oil Pipelines and the American Petroleum Institute, liquids pipeline incidents impacting people or the environment have decreased 31 percent over the past five years, and total pipeline incidents decreased by 17 percent, even while pipeline mileage and barrels per day have increased nearly 10 percent. Pipeline incidents impacting people or the environment caused by corrosion, cracking or weld failure decreased by 32 percent over the last five years. Operations and maintenance incidents impacting people or the environment declined 34 percent between 2017 and 2021. The improvement is due to our culture of “safety first, safety always” and a commitment to zero incidents.

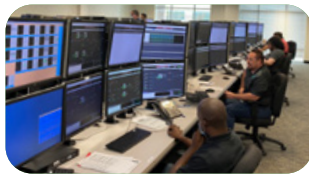
## SAFELY MONITORING OUR ASSETS

### CONTROL CENTERS

Our state-of-the-art control centers are dedicated exclusively to the safe operation of our pipelines. The pipeline controllers for Energy Transfer are highly trained and are qualified to ensure that our products reach the customers in a reliable and safe manner. It is a unique role, as these employees are often the first to recognize or respond to a safety-related condition in real time, as they continually analyze and monitor our assets 24 hours a day, 7 days a week, 365 days a year. They also recognize improvements along the pipeline that have a direct financial impact to the company. Energy Transfer has over 230 pipeline controllers and growing with every new acquisition.

24

HOURS A DAY



7

DAYS A WEEK



365

DAYS A YEAR



### PIPELINE SURVEILLANCE TECHNOLOGY COMMITTEE

Our Pipeline Surveillance Technology Committee was formed in 2016 to evaluate technologies that are currently used within the pipeline industry and determine if these technologies could be implemented on Energy Transfer assets. The committee also evaluates current testing and new or advancing technologies within the industry through various industry consortiums and state or federal programs such as iPIPE, PRCI, FAA, HSAC, Texas A&M, etc. Additional committee functions include:

- Recommendations for any pilot study programs to be initiated on Energy Transfer assets.
- Guidance on the use of drone technology by company and contractor personnel relative to company assets. For example, what is allowed and not allowed, what requirements and safety measures need to be met or considered, or appropriate and innovative uses.
- Increased member participation across other business segments (Environmental, Regulatory Affairs, IT – SCADA and Engineering) to broaden groups' ability to address regulatory drivers such as Greenhouse Gases (GHGs), Environmental, Social, Governance (ESG) criteria, Leak Detection and Repair (LDAR), Methane mitigation, etc. and recommend proven technologies that can be deployed for specific applications.
- Sponsoring the use of Orbital Sidekick (OSK) aerial leak detection technology accompanied by satellite imagery to meet New Mexico methane detection initiatives.



## PIPELINE PROTECTION COMMITTEE

Our Pipeline Protection Committee is an interdepartmental network formed to regulate and provide managerial oversight of strategic programs within our pipeline safety management system. The members in this network all have shared common goals, including damage prevention and continuous improvement of the protection of pipelines from unwanted events. While each function has a unique role of its own, there are also clear, purposeful overlaps. This group is responsible for leading, developing and implementing the company's damage prevention initiative, with the goal of enhancing safety and environmental protection by preventing damage to the company's pipeline systems through increased awareness and knowledge of pipelines. The Committee includes Aerial Patrol, Encroachments, One Call/Damage Prevention, and Public Awareness.

**Aerial Patrol** - With **12 aircraft** located throughout the United States, the Aerial Patrol Department provides aerial coverage for much of Energy Transfer's pipeline systems. The Aerial Patrol group consists of **14 employees**, including ten pilots and three mechanics. Patrol pilots can inspect up to **1,000 miles of pipeline per day**, including patrol areas that are difficult to access from the ground, and send information quickly to field personnel. In addition to providing surveillance, the department also assists with field personnel ride-along flights for ROW inspections, FAA airspace restrictions for planned pipeline blowdowns, and post-natural disaster inspections. The Aerial Patrol Department complements existing pipeline integrity programs and contributes to Energy Transfer's pipeline safety. Safety is a top priority for the group, as detailed in their Safety Management System and thorough safety processes. During 2021, our aerial patrol team safely flew a total of **8,043 hours**. Since we first began to track the group's flight time in 2007, the group has successfully completed **78,636 hours without an accident**.

**Encroachments** - A pipeline crossing, also known as an encroachment, is a temporary or permanent structure across, on, along or under a facility or pipeline right-of-way. Crossings require written consent from pipeline operators to ensure the continued integrity and safe operation of the pipeline. When the Standard Operating Procedure and/or Standard Crossing Guidelines cannot be met, or if the operations group needs assistance, our Encroachment Department will determine pipeline easement rights and review plans. All requests are tracked to make sure existing assets stay safely maintained. As our company grows, so does the number of encroachments. In 2021, we processed **1,414 encroachment requests**, nearly 200 more than the previous year. The department is also responsible for the management of relocation projects, both reimbursable and non-reimbursable. In 2021, we processed **19 relocation projects**.

**One Call/Damage Prevention** - The greatest risk to underground pipelines is accidental damage during excavation. To protect our pipelines and other underground facilities, individuals are required to use the One Call system prior to any excavation-related activities on public and private property. Our One Call/Damage Prevention group tracks all line hits, near misses and One Call violations that happen on our system and performs Root Cause Analyses to determine how to avoid these events in the future. During this process, they file reports with the proper state agencies and reach out to excavators to ensure they are better informed of the One Call laws going forward. In 2021, we **received 687,907 One Call tickets**, including **22,737 emergency tickets** which require a response within four hours. The group is responsible for loading all new pipelines into the company's GIS mapping system, along with keeping the mapping files current and covered for One Call with the various state One Call agencies. Additionally, they operate Energy Transfer's One Call ticketing system, Irth UtiliSphere, and are responsible for daytime callouts on all emergency tickets that come into the system as well as running numerous reports for management throughout the company.

**Public Awareness** - Energy Transfer has a comprehensive public awareness program designed to raise key stakeholders' awareness of the presence of pipelines in their communities in areas where the company operates facilities. Key stakeholder groups include the affected public, emergency responders, public officials and excavators.

The company's public awareness plan is consistent with federal pipeline safety regulations, which require pipeline operators to develop and implement public awareness programs that follow the guidance provided by the American Petroleum Institute (API) Recommended Practice (RP) 1162, "Public Awareness Programs for Pipeline Operators."

Our primary goal is to ensure that the community knows where pipelines are located, how to recognize a leak, and who to contact and what to do in the event of a pipeline incident. Public awareness outreach includes individual and group meetings, mass mailings, training programs and supplemental activities to educate stakeholders.

