

Pipeline Integrity Management

Pipeline integrity management is the ongoing process of monitoring and inspecting the pipeline to keep it in a safe operating condition. This happens in conjunction with a strict maintenance and repair program. The pipeline that will be converted for the Energy East Pipeline Project will use all of our experience gained through other pipeline conversions as well as the latest industry technologies and pipeline operating and maintenance procedures. TransCanada has invested an average of \$900 million per year over the last three years on pipeline integrity and maintenance programs to ensure safe and reliable operations of its pipeline systems.

The integrity of a pipeline considers:

- Rigorous construction standards for design, compliance and quality control
- Quality of raw materials and construction techniques used
- Operating conditions of the pipeline
- Monitoring of the pipeline
- Ongoing maintenance of the system

Energy East's Integrity Management Plan will be an integral component to ensure:

- Safety of the public and pipeline personnel
- Stringent monitoring for any impact on the environment
- Adherence to all policies / standards mandated by Energy East and the regulators
- Transportation service for oil suppliers

Energy East Pipeline Conversion from Gas to Oil Service

The National Energy Board, in accordance with the Canadian Standards Association (CSA), requires an Engineering Assessment (EA) be conducted on any pipeline undergoing a change in service. In the case of the Energy East Pipeline, this will involve a detailed analysis of historical maintenance and operational records, assessment of the current state of the pipeline, any required modifications as well as future

operational needs. All of this information will be gathered and a comprehensive integrity management plan developed to ensure continued safe operations once the pipeline has been converted to oil service.

Before we convert sections of the Canadian Mainline for Energy East, we will perform thorough in-line inspections with advanced technologies to assess the condition of the pipeline; any areas of concern will be repaired – including replacing a pipe joint or an entire section if necessary – to ensure the pipeline is fit for oil transportation before going into service.

Once the pipeline has been assessed, we will then disconnect the pipeline from the gas system, purge the natural gas from the line before adding new facilities like pump stations (which push the crude oil along the pipeline) and shut-off valves.

Ongoing Pipeline Maintenance

Once in service, the pipeline will be maintained on an ongoing basis through:

- Regular in-line inspections to monitor the condition of the pipe and identify any anomalies that need further investigation
- Cathodic protection
- Leak prevention and detection systems
- Supervisory Control and Data Acquisition (SCADA) computer system that can remotely control the pipeline system
- Regular aerial patrols of the pipeline and the right-of-way
- Geotechnical assessments
- Regularly scheduled pipeline maintenance

TransCanada has safely converted pipelines throughout its 60 year history with the most recent example being the conversion of Line One of the original Canadian Mainline system for the Keystone Pipeline, which has safely delivered one billion barrels of oil to the United States since it began operating in July 2010.

Energy East Pipeline



Contact us

We encourage your input and invite interested stakeholders to contact us.

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