

Condition	Keystone XL ^a facilities).	49 CFR 195	Benefits
31	<p>SCADA – Leak Detection Manual: The Leak Detection Manual must be prepared using guidance provided in Canadian Standards Association (CSA), Oil and Gas Pipeline Systems, CSA Z662-03, Annex E, Section E.5.2, Leak Detection Manual.</p>	<p>General, less prescriptive. Many elements inferred through Code Sections 195.134 and 195.444 for leak detection, but code references API 1130 specifically.</p>	<p>Helps provide state-of-the-art monitoring and control of the pipeline reflecting exacting standards.</p>
32	<p>Mainline and Check Valve Control: Keystone must design and install mainline block valves and check valves on the Keystone XL system based on the worst-case discharge as calculated by 49 CFR 194.105. Keystone must locate valves in accordance with 49 CFR 195.260 and by taking into consideration elevation, population, and environmentally sensitive locations to minimize the consequences of a release from the pipeline. Mainline valves must be placed based on the analysis above or no more than 20 miles apart, whichever is less. Mainline valves must contain transit inhibit switches that prevent the valves from shutting at a rate (and in conjunction with pumps being shutdown) so that no pressure surges can occur, or other damage caused by unintended valve closures or by closures that are too rapid.</p> <p>Valves must be remotely controlled and actuated, and the SCADA system must be capable of closing the valve and monitoring the valve position, upstream pressure, and downstream pressure so as to minimize the response time in the case of a failure. Remote power backup is required to ensure communications are maintained during inclement weather. Mainline valves must be capable of closure at all times. If it is impracticable to install a remote-controlled valve, Keystone must submit a valve design and installation plan to the appropriate PHMSA Region Director(s), Central, Western, and Southwest Region to confirm the alternative approach provides an equivalent safety level. For valves that cannot be remotely actuated, Keystone must document on a yearly basis not to exceed 15 months that personnel response time to these valves will not take more than an hour.</p>	<p>General Valve Requirements in Code Section 195.260.</p>	<p>Helps provide more instrumentation feeding back data to reduce leak detection times, helps reduce potential spill volumes though prescriptive valve spacing, and helps ensure that valves can close when loss of primary power is experienced. Also helps ensure prompt response time to non-automated valve locations.</p>
33	<p>Pipeline Inspection: The entire Keystone XL pipeline (not including pump stations and tank farms) must be capable of passing ILI tools. Keystone must prepare and implement a corrosion mitigation and integrity management plan for segments that do not allow the passage of an ILI device.</p>	<p>ILI required in Code Section 195.120, but no requirements for station piping inspection.</p>	<p>Provides pipeline capable of internal inspection and requires direct assessment plan for pump stations and other facilities.</p>