TEXT OF REGULATIONS

CALIFORNIA CODE OF REGULATIONS
TITLE 19. PUBLIC SAFETY
DIVISION 1. STATE FIRE MARSHAL
CHAPTER 14. HAZARDOUS LIQUID PIPELINE SAFETY

Article 8. In-line Inspection Requirements

§ 2150. Definitions.

(a) Definitions applicable to this Article:

(1) **Abandoned** means permanently removed from service.

(2) **Assessment** means in-line inspection to ascertain the integrity of a pipeline segment.

(3) **Bulk Loading Facilities** means all piping containing hazardous liquid substances or highly volatile liquid substances located within a refined products bulk loading facility that is owned by a common carrier and is served by a pipeline of that common carrier, and the common carrier owns and serves by pipeline at least five of these facilities in the state.

(4) **Cluster** means two or more adjacent metal loss features in the wall of the pipe or weld that may interact based on interaction criteria.

(5) **Crack** means a fracture type discontinuity characterized by a sharp tip and high ratio of length to width (e.g., stress corrosion cracking or other environmentally assisted cracking, seam defects, selective seam weld corrosion, girth weld cracks, hook cracks, and fatigue cracks).

(6) **Crack-Like Flaw** means a flaw that may or may not be the result of linear rupture, but which has the physical characteristics of a crack when detected by a non-destructive examination technique.

(7) **Environmentally Assisted Cracking (EAC)** means corrosive attack of the pipe metal caused by exposure to specific environments either internal or external to the pipe and resulting in any of several forms of metal cracking. EAC includes, but is not limited to, hydrogen-induced cracking (HIC), stress-oriented hydrogen-induced cracking (SOHIC), sulfide-stress cracking (SSC), or stress corrosion cracking (SCC).

(8) **General Corrosion** means uniform or gradually varying loss of wall thickness over an area.

(9) **In-Line Inspection (ILI)** means the inspection of a pipeline from the interior of the pipe using an in-line inspection tool.

(10) **Sizing Accuracy** means the accuracy with which an anomaly's dimension or characteristic is reported.

(11) **Stress Corrosion Cracking (SCC)** means a form of cracking produced by the combined application of tensile stress (residual or applied), a corrosive environment, and steel that is susceptible to SCC.

(12) **Threats** mean external corrosion, internal corrosion, stress corrosion cracking, third-party damage/mechanical damage, manufacturing-related defects, construction-related defects, incorrect operational procedure, equipment, and weather-related and outside force.

(13) **Validation Dig** means checking the accuracy of ILI results against empirical evidence, observations, or field measurements.

Authority cited: Sections 51010, 51010.5, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2151. Incorporated by Reference.

(a) This Article incorporates by reference the following standards:

(1) American Petroleum Institute (API) Recommended Practice 1160, “Managing System Integrity for Hazardous Liquid Pipelines” (Second Edition, September 2013).

(2) API Standard 1163, “In-line Inspection System Qualification” (Third Edition, September 2021)

(3) ASME/ANSI B31.4-2006, “Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids” October 20, 2006, (ASME/ANSI B31.4).

(4) ASME FFS-1 2007, “Fitness-For-Service” June 5, 2007, (ASME FFS-1/API 579).

(5) NACE International Standard Practice 0102-2010, “In-Line Inspection of Pipelines”, revised March 13, 2010, (NACE SP0102).

(6) Form ILI-1, “Notification of Proposed In-Line Inspection”, rev. 6/2025

(b) In the event of any differences between these regulations and the documents incorporated by reference then the provisions of this Article shall govern. Where a specific provision varies from the general provision the specific provision shall apply.

§ 2152. Pipelines Subject to This Article.

All segments of intrastate hazardous liquid pipelines as specified in Government Code §§ 51010 et seq. are subject to this Article, including pipelines meeting the criteria identified in §§ 2155 and 2156.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2153. Exemptions.

(a) Abandoned pipelines are exempt from this Article.

(b) Bulk loading facilities are exempt from this Article.

(c) An operator may file for an exemption from this Article by demonstrating that the construction (i.e., length, diameter, operating pressure, or location) of a pipeline cannot be modified to accommodate the passage of an ILI.

(1) An operator shall submit documentation and information with supporting arguments in favor of exemption to the Office of the State Fire Marshal (OSFM) in accordance with § 2160.

(2) The OSFM will provide an approval or rejection response to the operator within 60 days based upon review of the materials provided.

(3) The OSFM may revoke an exemption on pipelines subject to this regulation based on new technologies or in the interest of public safety.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2154. Accommodation of Instrumented Internal Inspection Devices.

Except for those pipelines listed in § 2153, all segments of intrastate hazardous liquid pipelines shall be able to accommodate the passage of instrumented internal inspection devices by January 1, [XXXX].

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2155. Higher Risk Pipelines.

(a) Definitions for purposes of this section.

(1) “Defect” refers to manufacturing or construction defects.

(2) “Leak” or “reportable leak” means a rupture required to be reported pursuant to Government Code § 51018, not including leaks during a certified hydrostatic pressure test.

(b) For purposes of this section, a leak which is traceable to an external force, but for which corrosion is partly responsible, shall be deemed caused by corrosion.

(c) A pipeline which meets any of the following criteria shall be placed on the State Fire Marshal’s list of higher risk pipelines until five (5) years pass without a reportable leak due to corrosion or defect.

(1) Have suffered two or more reportable leaks due to corrosion or defect in the prior three (3) years.

(2) Have suffered three or more reportable leaks due to corrosion, defects, or external forces, but not all due to external forces, in the prior three (3) years.

(3) Have suffered a reportable leak due to corrosion or defect of more than 50,000 gallons, or 10,000 gallons in a high consequence area as defined by 49 C.F.R. § 195.450, in the prior three (3) years; or have suffered a leak due to corrosion or defect which the State Fire Marshal finds has resulted in more than 42 gallons of a hazardous liquid within the State Fire Marshal’s jurisdiction entering a waterway in the prior three (3) years.

(d) Within 30 days of the date of eligibility, the pipeline operator shall report to the OSFM any pipeline which satisfy the criteria in subsection (c) in accordance with § 2160. The pipeline shall be placed on the list retroactively to the date on which it became eligible for listing.

(e) Within 60 days of the date of eligibility, the pipeline operator shall submit relevant information to the pipeline eligibility including but not limited to spill volume, commodity, location, accident investigation report, and metallurgical testing report to OSFM in accordance with § 2160.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2156. In-line Inspections (ILI).

(a) An operator of a pipeline shall assess the integrity of the line pipe by ILI tools.

(b) In choosing the ILI tools for the integrity assessment of each pipeline, an operator shall take action to address threats that it has identified. The tools shall be selected to effectively detect and size the three (3) most likely threats of failure associated with the pipeline and in accordance with Table 1 of NACE International Standard Practice 0102-2010, “In-Line Inspection of Pipelines”.

(c) Pipelines that consist of the following pipe shall utilize an ILI tool that is capable of detecting and sizing long seam weld anomalies or defects in accordance with Table 1 of NACE International Standard Practice 0102-2010, “In-Line Inspection of Pipelines”.

(1) Low-frequency electric resistance welded (LF-ERW) pipe

(2) Pipe with unknown longitudinal seam weld

(3) Pipe with a seam factor less than 1.0 as defined in 49 C.F.R. § 195.106(e)

(4) Electric flash welded (EFW) pipe

(5) Lap-welded pipe

(d) Pipelines that consist of buried and insulated pipe shall utilize an ultrasonic ILI tool that is capable of detecting and sizing metal loss anomalies in accordance with Table 1 of NACE International Standard Practice 0102-2010, “In-Line Inspection of Pipelines”.

(e) Pursuant to Government Code § 51013.5, the OSFM may determine the type of ILI tool used, in the interest of public safety.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2157. Assessment Intervals.

(a) An operator shall perform an ILI of the line pipe at least once every 60 months. However, the criteria used for determining assessment intervals shall be applicable for the range of relevant threats. The operator shall consider the following items when determining the assessment interval:

(1) An operator shall establish the assessment intervals based on the risk factors, the analysis of ILI results from the previous integrity assessment(s), including anomaly growth rate, tool tolerance, and other information analysis as defined in 49 C.F.R. § 195.452(e)

and § 195.452(g).

(2) For pipelines that have time-dependent threats such as external corrosion, internal corrosion, selective seam corrosion, stress corrosion cracking, or other environmentally-assisted corrosion mechanisms, the assessment frequency of the ILI tool that can detect and size these anomalies shall be based on the anomaly growth rate in accordance with Section 9 of the American Petroleum Institute Recommended Practice 1160, “Managing System Integrity for Hazardous Liquid Pipelines” (Second Edition, September 2013). However, the assessment interval cannot exceed 60 months regardless of the anomaly growth rate.

(3) For pipelines which meet the criteria in § 2156(c) the assessment frequency of the ILI inspection tool that can detect and size the long-seam weld anomalies shall be based on the anomaly growth rate in accordance with Section 9 of the American Petroleum Institute Recommended Practice 1160, “Managing System Integrity for Hazardous Liquid Pipelines”. The assessment interval cannot exceed 60 months regardless of anomaly growth rate.

(4) For pipelines which meet the criteria in § 2156(d), an ILI shall be conducted annually. Inspections shall occur at least six (6) months after prior inspection but not more than 12 months from the prior inspection.

(5) For newly acquired pipelines for which the new operator does not have any data relating to the previously established assessment interval, an operator shall complete the ILI of a newly acquired segment of line pipe within one (1) year from the date that the pipe is acquired. The tools shall be selected to effectively detect and size the three (3) most likely threats of failure associated with the pipeline and in accordance with Table 1 of NACE International Standard Practice 0102-2010, “In-Line Inspection of Pipelines”.

(6) For higher risk pipelines which meet the criteria in § 2155(c), an ILI shall be conducted every two (2) years until five (5) years pass without a reportable leak due to corrosion or defect on that pipeline.

(b) Pursuant to Government Code § 51013.5, the OSFM may determine more frequent assessments, in the interest of public safety.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2158. Required Validation, Field Evaluation and Repairs.

(a) An operator shall comply with the requirements in § 2158(d) if a condition that could adversely affect the safe operation of a pipeline is discovered when complying with paragraphs §§ 2158 (b) and (c).

(b) **Discovery of condition.** For the purpose of § 2158, discovery of a condition occurs when an operator has adequate information to determine that a condition exists and presents a potential threat to the integrity of the pipeline. Adequate information includes, but is not limited to, when the operator receives the preliminary internal inspection report, gathers and integrates information from other inspections, or when an operator receives the final internal inspection report. An operator shall promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition and make the determination required under paragraph § 2158(d). If the operator believes that 180 days are impracticable to make a determination about a condition found during an integrity assessment, the pipeline operator shall notify OSFM in accordance with § 2160 and provide an expected date when adequate information will become available.

(c) **Validation Digs.** Prior to the final ILI report being received, the pipeline operator shall perform at least three (3) separate validation digs that do not interact with each other. At a minimum, the pipeline operator shall perform validation digs in accordance with Level 2 or Level 3 of API 1163, In-line Inspection System Qualification.

(1) These validation digs shall meet the anomaly's depth sizing accuracy listed in the ILI tool specification. If the anomalies found during the validation digs do not meet the depth sizing accuracy, additional validation dig(s) shall be performed until three (3) separate validation digs that do not interact with each other meet the depth sizing accuracy.

(2) The conditions listed in § 2158(d) cannot be used to replace validation digs.

(d) **Required Repair Conditions.**

(1) **Immediate repair conditions.** The following conditions shall be field evaluated and remediated within three (3) days from the discovery of condition and the evaluation and remediation of immediate repair conditions shall be completed prior to the next integrity assessment listed in § 2157:

(A) All conditions listed in 49 C.F.R. § 195.452(h)(4)(i).

(B) Any indication of stress corrosion cracking.

(C) Any indication of selective seam weld corrosion (SSWC) that upon excavation are determined to be SSWC.

(D) Crack or crack-like feature(s) with a predicted burst pressure less than 1.1 times maximum operating pressure (MOP) as calculated using crack-like flaw evaluation method ASME FFS-1/API 579-1.

(E) Crack or crack-like feature(s) with a predicted depth greater than or equal to 40% of the pipe nominal wall thickness regardless of dimensions.

(F) For buried and insulated pipelines, any cluster corrosion or general corrosion regardless of dimensions.

(2) **60-day repair conditions.** All conditions listed in 49 C.F.R. § 195.452(h)(4)(ii) shall be field evaluated and remediated within 60 days from the discovery of condition and the evaluation and remediation of 60-day repair conditions shall be completed prior to the next integrity assessment listed in § 2157.

(3) **180-day repair conditions.** The following conditions shall be field evaluated and remediated within 180 days from the discovery of condition and the evaluation and remediation of 180-day repair conditions shall be completed prior to the next integrity assessment listed in § 2157:

(A) All conditions listed in 49 C.F.R. § 195.452(h)(4)(iii).

(B) For buried and insulated pipelines, an anomaly that has a metal loss depth greater than 40% of nominal wall, regardless of dimensions.

(C) Crack or crack-like feature(s) with a predicted burst pressure less than 1.5 times MOP as calculated using crack-like flaw evaluation method ASME FFS – 1/API 579-1.

(D) Surface breaking laminations or laminations which intersect either the longitudinal weld seam or girth weld.

(4) **12-month repair conditions.** The following conditions shall be field evaluated and remediated within 12 months from the discovery of condition and the evaluation and remediation of 12-month repair conditions shall be completed prior to the next integrity assessment interval listed in § 2157:

(A) Any time-dependent anomaly, such as a metal loss, crack, or crack-like anomaly, that has an anticipated predicted burst pressure less than the established MOP prior to the next integrity assessment date. The anomaly growth rate shall be calculated in accordance with Section 9 of the American Petroleum Institute Recommended Practice 1160, “Managing System Integrity for Hazardous Liquid Pipelines”.

(B) Anomaly with a metal loss depth greater than or equal to 40% of nominal wall, regardless of dimensions.

(5) **Types of Repairs.** All repairs shall be performed in accordance with Section 451.6.2.9 of ASME/ANSI B31.4-2006 “Pipeline Transportation Systems for Liquid Hydrocarbons

and Other Liquids”, except the following types of repairs are not allowed:

(A) Deposition of weld metal

(B) Hot tapping

(C) Fittings

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2159. Pressure Reduction.

(a) Until the remediation of a condition specified in § 2158(d)(1) is complete, an operator shall reduce the operating pressure of the affected pipeline by at least twenty (20) percent below the highest operating pressure actually experienced at the location of the defect within the two (2) months preceding the inspection or shutdown the affected pipeline.

(b) When an operator cannot meet the schedule for evaluation and remediation as specified in § 2158(d)(2), § 2158(d)(3), and § 2158(d)(4) and utilizes a temporary pressure reduction to address the required condition, the operator shall reduce the operating pressure by at least ten (10) percent below the highest operating pressure actually experienced at the location of the defect within the two (2) months preceding the inspection or shutdown the affected pipeline.

(c) When a pressure reduction exceeds 365 days, the operator shall notify OSFM in accordance with § 2160 and explain the reasons for the remediation delay. An operator shall also take further action by reducing the operating pressure of the affected pipeline by an additional ten (10) percent to ensure the safety of the pipeline.

(d) An operator may be required to take further remedial action, as directed by the OSFM, to ensure the safety of the pipeline.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; Section 13107.5, Health and Safety Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; Section 13107.5, Health and Safety Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2160. Notifications.

(a) Notifications to the OSFM shall be made via email to pipelinenotification@fire.ca.gov for the following:

(1) **Approval for integrity assessment.** An operator shall complete and submit to the OSFM In-Line Inspection Form ILI-1 (Notification of Proposed In-Line Inspection) for approval at least 30 days prior to performing any ILI on the pipeline.

(2) **ILI tool runs.** A notification to OSFM shall be made at least three (3) days in advance of all ILI tool run dates. Any changes to the date of the ILI tool run shall be brought to OSFM's attention at least three (3) days prior to commencement of the tool run.

(3) **ILI reports.** Once the pipeline operator receives a copy of the preliminary and final report from the tool vendor, it shall be emailed to OSFM within three (3) days.

(4) **Required conditions and validation digs as specified in § 2158(c) of this Article.** A notification to OSFM shall be made at least three (3) days in advance of the anticipated validation dig date.

(5) **Pressure Reductions**. A notification to OSFM shall be made at least three (3) days in advance before the operator takes a pressure reduction to address an integrity issue.

(b) Extension.

(1) **Exceeding ILI tool deadline**. A notification to OSFM shall be made 90 days prior to the due date of the integrity assessment if the operator anticipates a delay in the ILI tool run which will exceed the assessment interval specified in § 2157 of this Article.

(2) **Exceeding deadline for required condition.** A notification to OSFM shall be made at least a week prior to the due date of the required condition if the operator anticipates a delay in the field evaluation and remediation which will exceed the deadline specified in § 2158(d) of this Article.

(3) All operators seeking extensions shall provide justification and documentation demonstrating good cause for delay to the OSFM for review and acceptance, in accordance with § 2160.

(c) Exemptions.

(1) A notification to OSFM shall be made 90 days prior to the timing of compliance specified in §2161 of this Article.

(2) All operators seeking exemptions shall provide documentation and information with supporting arguments demonstrating that the construction of a pipeline cannot be modified to accommodate the passage of an ILI to the OSFM for review and acceptance.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2161. Timing for Compliance.

(a) No later than January 1, [XXXX], an operator of a pipeline shall prepare and follow a written ILI program that contains all the elements described in this Article.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2162. Record Retention.

(a) An operator shall retain records that demonstrate compliance with the requirements of this Article. At minimum, the following records shall be retained for the useful life of the intrastate pipeline:

(1) Notifications to OSFM

(2) Approval letters from OSFM

(3) ILI reports

(4) Field evaluation report

(5) Repair records

(6) Documents to carry out the requirements in this Article

(b) All documentation shall be made available to the OSFM upon request.

(c) When an operator divests its assets, it shall transfer all records listed in § 2162(a) to the new operator who acquired those assets.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2163. Intrastate, Interstate, And Other Non-Jurisdictional Pipelines.

(a) Should an interstate pipeline or other pipeline that is not currently under the jurisdiction of the State Fire Marshal, become reclassified as an intrastate pipeline or become jurisdictional to the State Fire Marshal, that pipeline shall be subject to all the requirements of this Article.

(b) Operators will have 12-months from the time the pipeline became jurisdictional to the State Fire Marshal to conform to the requirements of this Article.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.

§ 2164 Enforcement.

The State Fire Marshal may take enforcement action for violations of this Article consistent with authority found in Government Code Sections 51010 et seq.

Authority cited: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51012.4, 51013, 51013.5, 51014, 51015, 51018.6, 51018.7 and 51018.8, Government Code; and Sections 60104 and 60105, Title 49 of the United States Code.