TEXT OF REGULATIONS

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

Article 8. Requirements for In-line Inspection of Intrastate Pipelines

§ 2150. Definitions.

(a) Definitions applicable to this Article:

(1) **Assessment** as utilized in this article means in-line inspection to ascertain the integrity of a pipeline segment.

(2) **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).

(3) **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.

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

(5) **In-Line Inspection (ILI)** means the inspection of a pipeline from the interior of the pipe using an in-line inspection tool. Also called intelligent or smart pigging.

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

(7) **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.

(8) **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.

(9) **Validation ~~Dig~~** means check of the accuracy of in-line inspection results against empirical evidence, observations, or field measurements.

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:

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

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.

§ 2151. Incorporated by Reference.

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

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

(2) ASME/ANSI B31.4-2006, "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids" March 31, 2016, (ASME/ANSI B31.4).

(3) ASME FFS-1 2007, "Fitness-For-Service" June 5, 2007, (ASME FFS-1/API 579).

(4) NACE International Standard Practice 0102-2010, "In-Line Inspection of Pipelines"

(b) If there is a conflict between provisions of this Article and standards found in documents incorporated by reference, the provisions of this Article shall control.

§ 2152. Pipelines Subject to This Article.

All segments of intrastate hazardous liquid pipelines as specified in Government Code sections 51013 and 51013.5 are subject to the requirements of this Article.

Insert criteria list based on recommendations (spills, design issues, known defects, etc.) from Huy and other engineers.

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. Accommodation of Instrumented Internal Inspection Devices.

All segments of intrastate hazardous liquid pipelines must be able to accommodate internal inspection tools by January 1, 2030.

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

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. Exemptions.

(a) Pipelines that are currently classified as an out-of-service pipeline and have received an "Acknowledgement of Deferral" letter from the Office of the State Fire Marshal (OSFM) are exempt from this Article. Those pipelines must come into compliance with this Article prior to returning to service.

(b) Bulk loading facilities are exempt from 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.

§ 2155. In-line Inspections.

(a) An operator of a pipeline must assess the integrity of the line pipe by in-line inspection tools.

(b) In choosing the in-line inspection tools for the integrity assessment of each pipeline, an operator must take action to address threats that it has identified. The tools must 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 low-frequency electric resistance welded (LF-ERW) pipe, pipe with unknown longitudinal seam weld, pipe with a seam factor less than 1.0 as defined in 49 C.F.R. §195.106(e), electric flash welded (EFW) pipe, or lap-welded pipe must utilize an in-line inspection 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".

(d) Pipelines that consist of buried and insulated pipe must utilize an ultrasonic in-line

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

inspection 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) The Office of the State Fire Marshal may determine the type of in-line inspection tool used.

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. Assessment Intervals.

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

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

(2) For intrastate pipelines that consist of low-frequency electric resistance welded (LF-ERW), pipe with unknown longitudinal seam weld, pipe with a seam factor less than 1.0 as defined in 49 C.F.R. §195.106(e), or lap-welded long seams, the assessment frequency of the in-line inspection tool that can detect and size the long-seam weld anomalies must be based on the anomaly growth rate in accordance with Section 9.2 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 anomaly growth rate.

(3) For pipelines that have time-dependent threats such as corrosion, selective seam corrosion, stress corrosion cracking, or other seam weld corrosion, the assessment frequency of the in-line inspection tool that can detect and size these anomalies must be based on the corrosion growth rate in accordance with Section 9.2 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 corrosion growth rate.

(4) For pipelines that are buried and insulated, in-line inspections must be conducted

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

annually. Inspections must occur at least 6 months after prior inspection but not more than 12 months from the prior inspection.

(5) For newly acquired pipeline for which the new operator does not have any data relating to the previously established assessment interval, an operator must complete the in-line inspection of a newly acquired segment of line pipe within one (1) year from the date that the pipe is acquired. The tools must 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”.

(b) The Office of the State Fire Marshal may determine more frequent assessments, as needed.

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. Required Validation, Field Evaluation and Repairs.

(a) An operator must comply with the requirements in § 2157(d) if a condition that could adversely affect the safe operation of a pipeline is discovered when complying with paragraphs §§ 2157 (b) and (c).

(b) **Discovery of condition.** For the purpose of § 2157, 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. An operator may have adequate information 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 must promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition and make the determination required under paragraph § 2157(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 must notify OSFM in accordance with § 2159 and provide an expected date when adequate information will become available.

(c) **Validation Digs.** The pipeline operator must perform at least three (3) independent validation digs prior to the in-line inspection final report is received.

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

(1) These validation digs must meet the anomaly's depth sizing tolerance listed in the in-line inspection tool specification. If the anomalies found during the validation digs do not meet the depth sizing accuracy, additional validation dig(s) must be performed until three (3) independent validation digs meet the depth sizing accuracy.

(2) The conditions listed in § 2157(d) cannot be used to replace validation digs.

(d) **Required Repair Conditions.**

(1) **Immediate repair conditions.** The following conditions must be field evaluated and remediated within three (3) days from the discovery of condition and the evaluation and remediation of immediate repair conditions must be completed prior to the next integrity assessment interval listed in § 2156:
(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 MOP as calculated using crack-like flaw evaluation method ~~software~~ (i.e., ASME FFS – 1/API 579-1).
(E) Crack or crack-like feature(s) with a predicted depth ≥40% of the pipe nominal wall thickness regardless of dimensions.

(2) **60-day repair conditions.** All conditions listed in 49 C.F.R. § 195.452(h)(4)(ii) must be field evaluated and remediated within 60 days from the discovery of condition and the evaluation and remediation of 60-day repair conditions must be completed prior to the next integrity assessment interval listed in § 2156.

(3) **180-day repair conditions.** The following conditions must be field evaluated and remediated within 180 days from the discovery of condition and the evaluation and remediation of 180-day repair conditions must be completed prior to the next integrity assessment interval listed in § 2156:
(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 software (e.g., ASME FFS – 1/API 579-1).
(D) Surface breaking laminations or laminations which intersect either the

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

longitudinal weld seam or girth weld.

(4) **12-month repair conditions.** The following conditions must be field evaluated and remediated within 12 months from the discovery of condition and the evaluation and remediation of 12-month repair conditions must be completed prior to the next integrity assessment interval listed in § 2156:
(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 maximum operating pressure prior to the next integrity assessment date. The anomaly growth rate must be calculated in accordance with Section 9.2 of the American Petroleum Institute Recommended Practice 1160, "Managing System Integrity for Hazardous Liquid Pipelines" (Second Edition, September 2013).
(B) Anomaly with a metal loss depth greater than 40% of nominal wall, regardless of dimensions.

(5) **Types of Repairs.** All repairs must 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.

§ 2158. Pressure Reduction.

(a) Until the remediation of a condition specified in § 2157(d)(1) is complete, an operator must reduce the operating pressure of the affected pipeline by at least 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 § 2157(d)(2), § 2157(d)(3), and § 2157(d)(4) and utilizes a temporary pressure reduction to address the required condition, the operator must 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 must notify OSFM in accordance with § 2159 and explain the reasons for the remediation delay. An operator must 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) Additional pressure reduction may be required as determined by the OSFM at any time.

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.

§ 2159. Notifications.

(a) Notifications to the Office of the State Fire Marshal shall be made for the following:

(1) **Approval for integrity assessment.** An operator must complete and submit to the Office of the State Fire Marshal (OSFM) Form PSD-xxxxILI (Notification of Proposed In-line Inspection) for approval at least 30 days prior to performing any in-line inspection on the intrastate pipeline.

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

(3) **In-line inspection reports.** Once the pipeline operator receives a copy of the preliminary or final report from the tool vendor, it must be emailed to OSFM within three (3) days.

(4) **Required conditions and validation digs as specified in § 2157(c) of this Article.** A notification to OSFM must be made at least three (3) days in advance of the anticipated dig date.

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

(b) Extension.

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

(1) **Exceeding ILI tool deadline**. A notification to OSFM must be made at least a week 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 § 2156 of this Article.

(2) **Exceeding deadline for required condition.** A notification to OSFM must 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 § 2157(d) of this Article.

(c) All notifications and correspondences shall be made via email to: pipelinenotification@fire.ca.gov.

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.

§ 2160. Timing for Compliance.

(a) No later than July 1, 2024, an operator of an intrastate pipeline must incorporate the additional elements within this Article and follow a written in-line inspection 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.

§ 2161. Record Retention.

(a) An operator must 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:
(i) Notifications to OSFM
(ii) Approval letters from OSFM
(iii) ILI reports
(iv) Field evaluation report

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

(v) Repair records
(vi) Documents to carry out the requirements in this Article

(b) All documentation shall be made available to the Office of the State Fire Marshal upon request.

(c) When an operator divests its assets, it must transfer all records listed in § 2161(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.

§ 2162. 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-month from the time the pipeline became jurisdictional to the State Fire Marshal to conform to the requirements of this Article.

§ 2163 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.

Note: Authority cited: Sections 51010 and 51013.1 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51012.4, 51013, 51013.1, 51013.5, 51015, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.