

## TEXT OF REGULATIONS (Final)

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

Added text is shown in underline.

**Article 7. Requirements For New Or Replacement Pipeline Near Environmentally And Ecologically Sensitive Areas In The Coastal Zone; Plan To Retrofit Existing Pipelines; Notification To State Fire Marshal Of New Construction Or Retrofit Of Pipeline; Consultation With Office Of Spill Prevention And Response**

**§ 2100 – Definitions**

(a) Definitions applicable to this Article:

(1) Automatic Shutoff System means an automated system not dependent upon human interaction capable of shutting down a pipeline system.

(2) Best Available Technology means technology that provides the greatest degree of protection by limiting the quantity of release in the event of a spill, taking into consideration whether the processes are currently in use and could be purchased anywhere in the world.

(3) Check valve means a valve that permits fluid to flow freely in one direction and contains a mechanism to automatically prevent flow in the other direction.

(4) Coastal zone means the same as defined in the California Coastal Act, Public Resource Code, Division 20, Sections 30000 et seq. The coastal zone includes the area of jurisdiction of the San Francisco Bay Conservation and Development Commission, established pursuant to Title 7.2, commencing with Section 66600 of the Government Code.

(5) Computational Pipeline Monitoring means a software-based monitoring tool that alerts the pipeline operator of a possible pipeline operating anomaly that may be indicative of a commodity release.

(6) Emergency flow restriction device means a check valve or remote control valve.

(7) Environmentally and ecologically sensitive area means environmentally and ecologically sensitive areas identified in the State oil spill contingency plan, as developed by the Administrator of the Office of Spill Prevention and Response pursuant to subdivision (d) of Section 8574.7 of the California Government Code.

(8) Leak Detection System means an end-to-end application of one technique that may be internally based or externally based and continuous or non-continuous.

(9) Near means within half a mile.

(10) New Construction means the act of building a new pipeline or replacement pipeline.

(11) New Pipeline means a pipeline that is installed in a location where a pipeline did not exist.

(12) Oil means hazardous liquid as defined in Section 195.2 of Title 49 of the Code of Federal Regulations, which includes petroleum, petroleum products, anhydrous ammonia, or ethanol. Petroleum means crude oil, condensate, natural gasoline, natural gas liquids, and liquefied petroleum. Petroleum product means flammable, toxic, or corrosive products obtained from distilling and processing of crude oil, unfinished oils, natural gas liquids, blend stocks and other miscellaneous hydrocarbon compounds.

(13) Operator means a person who owns or operates pipeline facilities.

(14) Remote control valve means any valve that is operated from a location remote from where the valve is installed. It is usually operated by the supervisory control and data acquisition system with a linkage between the pipeline control center and the valve by fiber optic, microwave, telephone line, or satellite.

(15) Replacement Pipeline means the construction of a new pipeline to take the place of a previously existing pipeline.

(16) Retrofit means adding the best available technology to an existing pipeline.

(17) Supervisory Control and Data Acquisition system means a computer-based system or systems used by a controller in a control room that collects and displays information about a pipeline facility and may have the ability to send commands back to the pipeline facility.

(18) State Waters means the same as defined in Section 8670.3 of the California Government Code.

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.

### **§ 2101 – Incorporated by Reference**

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

(1) American Petroleum Institute Recommended Practice 1175, “Pipeline Leak Detection – Program Management” (First Edition, December 2015).

(2) American Petroleum Institute Recommended Practice 1130, “Computational Pipeline Monitoring for Liquids” (First Edition, September 2007, Reaffirmed April 2012).

(3) Notice of Intrastate Hazardous Liquid Pipeline Construction, Form PSD-103 developed by the State Fire Marshal (dated July 1, 2017).

(4) CAL FIRE - OFFICE OF THE STATE FIRE MARSHAL, Download Ecologically And Environmentally Sensitive Sites In The Coastal Zone (January 1, 2020).

(5) 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.

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, 51013.5, 51013.1, 51015.4, 51016, 51018.6, 51018.7, and 51018.8 Government Code. Sections 60104, and 60105, Title 49 of the United States Code.

### **§ 2102 – Identifying Pipelines Subject to This Article**

(a) It is the responsibility of an operator to identify pipelines that are subject to or may be exempt from the requirements of this Article. At a minimum, the operator must consider the following information in identifying or seeking to exempt a pipeline from the provisions of this Article:

(1) The coastal zone boundary;

(2) The location of known environmentally and ecologically sensitive areas.

(3) If an environmentally and ecologically sensitive area connected to or located in the coastal zone extends beyond the coastal zone, that portion of the environmentally and ecologically sensitive area that extends beyond the coastal zone is presumed to be subject to the requirements of this Article.

(4) If a pipeline intersects an environmentally and ecologically sensitive area in the coastal zone or intersects an environmentally and ecologically sensitive area with a connection to the coastal zone, it is presumptively subject to the requirements of this Article.

(5) If a pipeline is near an environmentally and ecologically sensitive area in the coastal zone or near an environmentally and ecologically sensitive area with a connection to the coastal zone, it is presumptively subject to the requirements of this Article.

(A) Near is measured from the outer extent of an environmentally and ecologically sensitive area or the coastal zone.

1. For environmentally and ecologically sensitive area data represented by points for protective purposes, a ½ mile buffer is applied to the environmentally and ecologically sensitive area point data.

2. For environmentally and ecologically sensitive area data represented by polygons and/or line data, the ½ mile buffer is applied to the outer extent of the environmentally and ecologically sensitive area data.

(b) To determine if the requirements of this Article are applicable to a particular pipeline, operators may rely on the Coastal Zone and Environmentally and Ecologically Sensitive Areas datasets and statewide ½ mile buffer data layer (as depicted in the CAL FIRE - OFFICE OF THE STATE FIRE MARSHAL, Download Ecologically And Environmentally Sensitive Sites In The Coastal Zone (January 1, 2020)) on the National Oceanic and Atmospheric Administration's website.

(c) The State Fire Marshal may identify pipelines subject to the requirements of this Article based on, but not limited to, any of the information, data, factors, and considerations stated in this Article or contained in applicable law.

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

**§ 2103 – Exemption for Pipelines Located Outside the Coastal Zone**

(a) An operator of a pipeline identified in Section 2102 (Identifying Pipelines Subject to This Article) as being subject to this article, may request an exemption from applicable requirements of this Article if they can demonstrate, through the submission of a risk analysis, that a spill from a pipeline will not impact the coastal zone portion of an environmentally and ecologically sensitive area.

(b) The State Fire Marshal will assess the request for exemption based on the considerations and requirements of this Article.

(c) The request for an exemption from the provisions of this Article shall be submitted to the State Fire Marshal no later than May 1, 2021.

(d) The risk analysis submitted with the exemption request shall include, but not be limited to, the factors identified in Section 2111 (Risk Analysis).

(e) Risk analysis submitted for exemption of a pipeline will be evaluated, processed, and communicated to the operator by the State Fire Marshal consistent with Section 2112 (Risk Analysis Assessment).

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

**§ 2104 – Deferral for Pipelines with Existing Best Available Technology**

(a) An operator of a pipeline identified in Section 2102 (Identifying Pipelines Subject to This Article) as being subject to this article, may request deferral from applicable requirements of this Article if they can demonstrate, through the submission of a risk analysis, that a pipeline is currently using the best available technology.

(b) The State Fire Marshal will assess the request for deferral based on the considerations and requirements of this Article.

(c) The request for deferral from the provisions of this Article shall be submitted to the State Fire Marshal no later than May 1, 2021.

The risk analysis submitted with the deferral request shall include, but not be limited to, the factors identified in Section 2111 (Risk Analysis).

(e) Risk analysis submitted for deferral of a pipeline will be evaluated, processed, and communicated to the operator by the State Fire Marshal consistent with Section 2112 (Risk Analysis Assessment).

(f) Pipelines that receive a deferral based on the submitted risk analysis must comply with Section 2117 (Risk Analysis Updates And Review).

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

### **§ 2105 – Future Releases From Jurisdictional Pipelines Impacting Environmentally And Ecologically Sensitive Areas In The Coastal Zone**

(a) If there is a release from a pipeline that impacts an environmentally and ecologically sensitive area in the coastal zone, the following shall occur:

(1) If the pipeline was not subject to the requirements of this Article, based on considerations found in Section 2102 (Identifying Pipelines Subject To This Article) or if the pipeline received an exemption under Section 2103 (Exemption for Pipelines Located Outside the Coastal Zone) or deferral Section 2104 (Deferral for Pipelines With Existing Best Available Technology), the pipeline shall immediately become subject to the requirements of this Article, and:

(A) The operator of the pipeline will provide a report (within 90 days) to the State Fire Marshal analyzing the release in relation to the exemption request risk analysis previously submitted pursuant to Section 2103 (Exemption for Pipelines Located Outside the Coastal Zone) or Section 2104 (Deferral for Pipelines With Existing Best Available Technology). The report shall include the following:

1. an evaluation and failure analysis of all the factors considered in the risk analysis conducted pursuant to Section 2103 (Exemption for Pipelines Located Outside the Coastal Zone) or Section 2104 (Deferral for Pipelines With Existing Best Available Technology), including lessons learned and best practices for change going forward;

2. a description of how the operator intends to address the failure to meet the risk analysis exemption or deferral expectations; and

3. the operator must review other pipelines that received an exemption or deferral and reevaluate those risk analyses based on lessons learned from the release.

(2) If the pipeline was subject to the requirements of this Article:

(A) The operator of the pipeline will provide a report (within 90 days) to the State Fire Marshal analyzing the release in relation to the risk analysis previously submitted pursuant to the requirements of this Article. The report shall include, but not be limited to the following:

1. an evaluation and failure analysis of whether the best available technology used on the pipeline performed as expected in the risk analysis submitted to the State Fire Marshal. The evaluation shall consider, but not be limited to all the factors considered in this Article;

2. if the best available technology failed to meet the expectation in the risk analysis, the operator must identify the failures; and identify how the operator intends to address the failure to meet the risk analysis expectations through a plan submitted to the State Fire Marshal. The plan shall consider all the factors identified in this Article.

(3) The State Fire Marshal may identify additional requirements for inclusion in the report required by this Section but not identified here based on the facts and circumstances of the release. The additional information in the report shall be used to more effectively evaluate factors leading to the release and how best available technology performed or failed to perform as anticipated to better protect the public and environmentally and ecologically sensitive areas.

(4) Following a release as described in this Section, operators must submit a new risk analysis and implementation plan to the State Fire Marshal consistent with the requirements of this Article. The State Fire Marshal shall evaluate the adequacy of the new risk analysis and implementation plan in conjunction with the report required in this Section.

(A) Operators will have 12-months from the time the pipeline suffered the release to submit a risk analysis and implementation plan to the State Fire Marshal. The implementation plan shall specify retrofit completion within 30-months of the date of the release.

Note: Authority cited: Sections 51010, 51013.1, 51013.5 and 51015 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51013, 51013.1, 51013.5, 51015, 51015.4, 51015.5, 51016, 51018, 51018.6, 51018.7 and 51018.8 Government Code. Sections 60104 and 60105, Title 49 of the United States Code.

### **§ 2106 – 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 submit a risk analysis and implementation plan to the State Fire Marshal. The implementation plan shall specify retrofit completion within 30-months of the date the pipeline became jurisdictional to the State Fire Marshal.

Note: Authority cited: Sections 51010, 51013.1, 51013.5 and 51015 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 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.

### **§ 2107 – Relocation of Pipelines**

(a) The relocation of a pipeline is not considered a new or replacement pipeline.

(b) The relocation of a pipeline will be treated as an existing pipeline. If the relocation of a pipeline results in a change to the pipeline profile or a change to the pipeline operations that would impact the amount released in an environmentally and ecologically sensitive area in the coastal zone, or where a release could impact an environmentally and ecologically sensitive area in the coastal zone because of the relocation, the pipeline will be required to comply with applicable parts of this Article, including but not limited to the following: Section 2117 (Risk Analysis Update And Review), and Section 2111 (Risk Analysis).

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

### **§ 2108 – Timing for Compliance and Pipeline Prioritization**

(a) On May 1, 2021, the State Fire Marshal shall commence enforcement of this Article against any new or replacement pipeline near an environmentally and ecologically sensitive area in the coastal zone that is required to use best available technology.



(b) On October 1, 2021, the State Fire Marshal shall commence enforcement of this Article against an operator of an existing pipeline located near an environmentally and ecologically sensitive area in the coastal zone that is required to submit a risk analysis and a plan to retrofit existing pipelines with the best available technology.

(c) On April 1, 2023, the State Fire Marshal shall commence enforcement of this Article against an operator of an existing pipeline located near an environmentally and ecologically sensitive area in the coastal zone that is required to complete retrofit of existing pipelines with the best available technology.

(1) Prioritization of Pipeline Retrofits

(A) Pipelines requiring retrofit to include best available technology shall be prioritized by the operator. Operators should consider the following factors in determining retrofit priority:

1. pipelines posing a higher risk to environmentally and ecologically sensitive areas;

2. pipelines in the coastal zone;

3. pipelines located inland from the coastal zone that pose a more immediate retrofit priority due to a higher potential to impact or result in greater harm to environmentally and ecologically sensitive areas over other pipelines.

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

**§ 2109 – Use of Best Available Technology**

(a) All operators of new, replacement, or existing pipelines shall use best available technology as defined by this Article. Best available technology includes, but is not limited to, the installation of leak detection technology, automatic shutoff systems, remote controlled sectionalized block valves, Emergency Flow Restriction Devices (EFRDs), or any combination of these technologies.

(b) When considering best available technologies, operators must evaluate leak detection technology, automatic shutoff systems, remote controlled sectionalized block valves, EFRDs, or any combination of these technologies, taking into consideration whether the processes are currently in use and could be purchased anywhere in the world.

(c) Operators shall conduct and submit a risk analysis to the State Fire Marshal that evaluates and proposes the use of best available technologies, among other requirements. The risk analysis shall include, at a minimum, the requirements of Sections 2111 (Risk Analysis), 2112 (Risk Analysis Assessment), and 2113 (Implementation Plan). The State Fire Marshal will assess the adequacy of the risk analysis and supporting documentation submitted by the operator.

(d) The State Fire Marshal shall determine what is the best available technology and shall consider the effectiveness and engineering feasibility of the technology consistent with the criteria listed in Section 2110 (Best Available Technology Determination).

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

#### **§ 2110 – Best Available Technology Determination**

(a) The State Fire Marshal shall review risk analyses, plans, and other associated materials required by this Article and make a best available technology determination based on the following criteria. These criteria are subject to a field performance evaluation to substantiate operator claims:

(1) The effectiveness of each technology in terms of sensitivity, accuracy, reliability, and robustness;

(2) The engineering feasibility of each technology considering operational aspects of the pipeline;

(3) Whether each technology provides the greatest degree of protection;

(4) Whether each technology limits the quantity of release in the event of a spill;

(5) Whether each technology is the best in use in other similar situations and is available for use by the operator;

(6) Whether each technology is transferable to the operator's pipeline operations;

(7) Whether there is a reasonable expectation that each technology will provide increased spill prevention, spill volume reduction, or other environmental benefits;

(8) The age and condition of the technology currently in use on the pipeline;

(9) Whether each technology is compatible with existing operations and technologies in use by the applicant;

(10) Regional considerations (i.e., long pipeline distances, changes in elevation, underwater environments, limited access to pipe segments).

(11) Any other information that may be relevant or appropriate when rendering a determination of best available technology based on the criteria in this Section.

(b) Operators must include a written justification that the technology proposed for use is the best available for the applied operations of the pipeline.

(c) If the State Fire Marshal determines that a technology proposed for use by the applicant is not the best available technology, the State Fire Marshal will provide a written finding explaining the decision consistent with the provisions found in Section 2112 (State Fire Marshal Risk Analysis Assessment).

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

### **§ 2111 – Risk Analysis**

(a) Where information required by this Section exists elsewhere, copies of the pre-existing information may be submitted. If the information provided is not sufficient to meet the requirements of this Article, additional information may be requested by the State Fire Marshal. Documents submitted must be in hard copy and electronic format.

(b) Operators are required to submit a risk analysis to the State Fire Marshal considering, at a minimum, the best available technology requirements in Section 2109 (Use of Best Available Technology) and the requirements of this Article.

(c) Operators must also submit an initial Implementation Plan that outlines the time frame to implement the proposed best available technologies with the risk analysis.

(d) Operators shall provide the following information in the risk analysis:

(1) Introductory Material:

(A) name of the operator and State Fire Marshal pipeline ID number, and mailing address if different. The name and State Fire Marshal pipeline ID number shall be referenced in the title or on the title page at the front of the documents;

(B) a certification statement signed under penalty of perjury by an executive within management authorized to fully implement the risk analysis, who shall review the documents for accuracy, effectiveness, and feasibility. If this executive does not have training, knowledge, and experience in the area of risk analysis, the certification statement must also be signed by a person within the operator's management structure with the requisite training, knowledge, and experience to review a risk analysis for accuracy, effectiveness, and feasibility. The certification shall state:

"I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this risk analysis is true and correct and that the plan is both effective and feasible."

\_\_\_\_\_ (Signature) (Spelled Signature), (title), (date).

(C) Include a list of contacts and contact information for persons within the operator's company, and any alternates, responsible for overseeing and conducting the risk analysis. If the operator contracts for this service, contact information and alternates for the contractor shall be provided.

(D) Provide the name, address, and telephone number for an agent for service of process designated to receive legal documents on behalf of the operator. If the operator contracts for this service, documentation that the agent for service of process acknowledges this capacity shall be included in the risk analysis and plan. The agent shall be located in California.

## (2) Pipeline Description

(A) Each risk analysis shall describe and consider the pipeline design and operations with specific attention to environmentally and ecologically sensitive areas. This description and consideration shall include, at a minimum, the following information:

1. a piping and instrumentation diagram, and a tank diagram including the location of pumps, valves, vents and lines; the number, and oil capacity of each pipeline covered under the risk analysis and its age, design, known design defects, construction and general condition; the range of oil products normally shipped in the pipeline; the nature and characteristics of the product the pipeline is transporting; physical support of the pipeline segment, such as by a cable suspension bridge; operating conditions of the pipeline; the hydraulic gradient of the pipeline; the presence or absence of containment structures; the capacity of the pipeline; the diameter of the pipeline, material and manufacturing information and seam type, the potential release volume, and the distance between the isolation points.

2. vicinity maps showing any vehicular or rail crossings along the pipeline, nearby residential, commercial, or other populated areas;

3. seasonal hydrographic and climatic conditions;

4. physical geographic features, including type of soil and terrain; drainage systems such as small streams and other smaller waterways that could serve as a conduit to an environmentally and ecologically sensitive area; roadway crossings and ditches; potential natural forces inherent in the area; natural and manmade barriers; potential physical pathways between the pipeline and environmentally and ecologically sensitive areas; and any other physical feature or peculiarity of local geography that call for special precautionary measures that may affect environmentally and ecologically sensitive areas.

(3) A summary of the risk analysis shall be included and must describe the method used in the risk analysis, and a statement that the analysis is specific to the pipeline. All supporting documentation used to develop the risk analysis summary shall be made available to the State Fire Marshal upon request.

(4) The operator must conduct a spill analysis to determine the consequences of a potential release. The spill analysis shall assume adverse environmental conditions such that the worst possible dispersion of oil will be considered. This spill analysis is intended to be used as the baseline for which best available technologies may be used to reduce the quantity of release in the event of a release. Some of the information required in this subsection may be drawn from the appropriate Area Contingency Plans. The spill analysis must be summarized in the risk analysis and shall include at least the following:

(A) a trajectory, or series of trajectories (for multiple environmentally and ecologically sensitive areas, multiple release locations, etc.), to determine the potential direction, rate of flow and time of travel of the reasonable worst case discharge from the pipeline to environmentally and ecologically sensitive areas that could be affected. For purposes of this requirement, a trajectory or trajectories that determine the outer perimeter of a spill, based on regional physical geographic and hydrographic features shall be sufficient.

(B) To calculate the reasonable worst case discharge, operators must consider whether the release is from an on-shore pipeline or an off-shore pipeline.

1. For on-shore pipelines, the reasonable worst case discharge is the largest volume in barrels of the following:

a. The pipeline's maximum release time in hours (i.e. the time between pipeline rupture and discovery), plus the maximum shut-down response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) near environmentally and ecologically sensitive areas; or

b. The largest foreseeable discharge for the line section(s) near environmentally and ecologically sensitive areas, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken; or

2. For off-shore pipelines, the reasonable worst case discharge is the largest volume in barrels of the following calculation:

a. The pipeline system leak detection time, plus the shutdown response time, multiplied by the highest measured oil flow rate over the preceding 12-month period. For new pipelines, use the predicted oil flow rate. Add to this calculation the total volume of oil that would leak from the pipeline after it is shut in. This volume should be calculated by considering the effects of hydrostatic pressure, gravity, frictional wall forces, length of pipeline segment, tie-ins with other pipelines, and other factors.

(C) The operator's approach for analyzing the spill analysis and the potential effects of a pipeline failure that could affect an environmentally and ecologically sensitive area shall consider the following elements:

1. proximity to water crossings;

2. variations in topography near the pipeline;

3. variations in distance between the pipeline and the environmentally and ecologically sensitive area;

4. adequate choice of release locations;

5. failure type or size (e.g. catastrophic failure);

6. operating conditions (e.g., flow rate, operating pressure);

7. leak detection and response time;

8. calculations of drain down following leak or rupture;

9. release rates, if air dispersion is possible in the operator's system, product's behavior, air dispersion mechanisms, and ignition must be considered;

10. pipeline system design factors (e.g., pipe diameter, distance between isolation valves, location of tanks and other facilities); and

11. existing leak detection systems, automatic shutoff systems, remote controlled sectionalized block valves, computational pipeline monitoring, and emergency flow restriction devices.

(D) Where a reasonable worst case discharge could affect a waterway, the operator shall consider:

1. waterway conditions;

2. flow characteristics;

3. water properties and water transport consequences;

4. changes in commodity properties due to interaction with the environment;

5. commodity solubility; and

6. abnormal stream conditions such as flood or storm conditions.

(E) The calculations, and such parameters as flow rates, line fill capacities and emergency shutoff times, that are used to determine a pipeline's reasonable worst case discharge shall be submitted as part of the risk analysis. The State Fire Marshal may review and test these parameters.

(5) Describe how the best available technology identified will provide the greatest degree of protection by limiting the quantity of release in the event of a spill. Operators shall consider, at a minimum, the criteria the State Fire Marshal uses when making a best available technology determination found in Section 2110 (Best Available Technology Determination).

(6) Provide for training and testing on best available technology used, based on the requirements of Section 2116 (Training Requirements) and Section 2115 (Testing Requirements and Test Failures).

(7) The risk analysis shall be reviewed periodically and updated where necessary pursuant to the requirements of Section 2117 (Risk Analysis Updates and Review). All

updates shall be submitted to the State Fire Marshal consistent with the requirements of this Article.

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

### **§ 2112 – State Fire Marshal Risk Analysis Assessment**

#### (a) Timeframes

(1) Each Risk Analysis shall be accepted or denied within 90 days after receipt by the State Fire Marshal. The State Fire Marshal may extend the assessment period beyond 90 days for good cause, and shall notify the operator in writing of the extension.

(2) The State Fire Marshal shall determine whether each risk analysis is adequate and complies with this Article. If a risk analysis is determined inadequate, a written explanation of deficiencies, and, if practicable, suggested modifications or alternatives, shall be sent to the operator.

(3) Upon notification of risk analysis deficiencies, the operator will have 30 days to submit a new or revised risk analysis. The resubmittal shall be treated as a new submittal and processed according to the provisions of this Article.

#### (b) Determination of Adequacy

(1) A risk analysis will be determined to be adequate if it provides for the use of the best available technology to reduce the amount of oil released in an oil spill to protect state waters and wildlife. The State Fire Marshal shall determine what is the best available technology and shall consider the effectiveness and engineering feasibility of the technology when making this determination based on criteria found in Section 2110 (Best Available Technology Determination).

(2) To be determined adequate, at a minimum, each risk analysis shall include the requirements from Section 2109 (Use Of Best Available Technology), Section 2110 (Best Available Technology Determination), and Section 2111 (Risk Analysis).

(3) In assessing the adequacy of a risk analysis, the State Fire Marshal shall consider, the following:

(A) evaluation of assumptions and conclusions reached by an operator;



(B) analysis of operator methodology in calculating spill trajectory or trajectories;

(C) where applicable, review of analysis and justification that operators have used to reach a conclusion that a pipeline should be exempt from this Article under Section 2103 (Exemption for Pipelines Located Outside the Coastal Zone) or Section 2104 (Deferral for Pipelines with Existing Best Available Technology);

(D) existing technology or technologies currently installed on the pipeline;

(E) pipeline specific characteristics;

(F) additional information that may be relevant to the State Fire Marshal when assessing or determining the adequacy of a risk analysis based on the criteria in this Section.

(c) The State Fire Marshal may conduct on-site inspections to determine the adequacy of the risk analysis.

(d) The operator shall be notified when a risk analysis and plan is accepted as adequate. A Letter of Acceptance will be issued by the State Fire Marshal and will describe the conditions of acceptance, if any. The risk analysis will not be considered adequate until the operator is notified by a Letter of Acceptance from the State Fire Marshal.

(e) The State Fire Marshal shall commence enforcement consistent with the timing for compliance requirements found in Section 2108 of this Article.

(f) Operators must receive a written Letter of Acceptance of the risk analysis to implement the use of best available technology prior to commencing construction consistent with the requirements of Section 2114 (Notice of Any New Construction or Retrofit).

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

### **§ 2113 – Implementation Plan**

(a) Operators are required to submit an initial Implementation Plan with the risk analysis that outlines the time frame to implement the proposed best available technologies.

(b) Within 60 days of acceptance of the Risk Analysis pursuant to Section 2112 (State Fire Marshal Risk Analysis Assessment) a detailed supplemental implementation plan must be submitted or the State Fire Marshal shall take enforcement action consistent with the timing for compliance requirements found in Section 2108 of this Article. Each plan shall be effective upon acceptance.

(c) The supplemental implementation plan shall include, at a minimum: introductory material, a timetable for implementation and completion, a startup plan, a testing program, and training.

(1) The following introductory material shall be included in the implementation plan:

(A) name of the operator and State Fire Marshal pipeline ID number, and mailing address if different. The name and State Fire Marshal pipeline ID number shall be referenced in the title or on the title page at the front of the documents;

(B) name, address, phone number, and email address, if available, of the operator;

(C) a certification statement signed under penalty of perjury by an executive within the management who is authorized to fully implement the plan, who shall review the documents for accuracy, effectiveness, and feasibility. If this executive does not have training, knowledge, and experience in the area of planning, the certification statement must also be signed by a person within the operator's management structure who has the requisite training, knowledge, and experience. The certification shall state:

"I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this plan is true and correct and that the plan is both effective and feasible."

\_\_\_\_\_ (Signature) (Spelled Signature), (title), (date).

(D) Include a list of contacts and contact information for persons within the operator's company, and any alternates, responsible for overseeing and implementing the plan. If the operator contracts for this service, contact information and alternates for the contractor shall be provided.

(2) The timetable for implementation and completion shall include key milestones and, at a minimum, consider the following: purchase of equipment, acquisition of permits, and securing qualified individuals for construction.

(A) The operator must implement the plan according to the timetable submitted.

(B) Deviation from the timetable submitted in the plan must be communicated to the State Fire Marshal in writing and should demonstrate good cause for delay.

(3) The startup plan shall be consistent with the requirements of 49 CFR 195.402(c)(7).

(4) The testing program shall be consistent with the requirements of Section 2115 (Testing Requirements And Test Failures).

(5) The training program shall be consistent with the requirements of Section 2116 (Training Requirements).

(d) The State Fire Marshal shall commence enforcement consistent with the timing for compliance requirements found in Section 2108 of this Article for implementation plans unless the operator provides an explanation demonstrating good cause for delaying implementation past the deadline.

(e) The State Fire Marshal shall commence enforcement consistent with the timing for compliance requirements found in Section 2108 of this Article for operators who fail to implement and complete the plan absent a showing of good cause.

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

### **§ 2114 – Notice of Any New Construction or Retrofit Of Pipelines**

(a) An operator shall notify the State Fire Marshal of any new construction or retrofit of a pipeline subject to this Article by filing Form PSD-103 with the State Fire Marshal Pipeline Safety Division at least 60 days before construction begins.

Note: Authority cited: Sections 51010, 51013.151013.5 and 51015 Government Code. Sections 60104 and 60105, Title 49 of the United States Code. Reference: Sections 51010, 51010.5, 51013, 51013.1 51013.5, 51015, 51015.4 and 51016 Government Code. Sections 60104 and 60105, Title 49 of the United States Code.

### **§ 2115 – Testing Requirements and Test Failures**

(a) This Section describes the minimum testing requirements for best available technologies installed on pipelines and for subsequent testing where installed technologies fail to perform according to testing requirements. If there is a conflict

between provisions of this Section or Article and standards incorporated by reference the provisions of this Section and Article shall control.

(b) For Leak Detection Systems, the operator shall:

(1) test the leak detection capability and leak limitation effectiveness every 3 years from the date of installation or initial operation, whichever is soonest;

(2) perform testing consistent with the minimum standards contained in API RP 1175 (2015) Sections 8 and 9.

(c) For Computational Pipeline Monitoring - Leak Detection Systems, the operator shall:

(1) test the leak detection capability and leak limitation effectiveness every 3 years from the date of installation or initial operation, whichever is soonest; and

(2) perform testing consistent with the minimum standards contained in API RP 1130 (2007) Sections 6.2 through 6.2.6, and 49 CFR 195.444.

(d) For Automatic Shutoff System(s), the operator shall:

(1) annually test and calibrate the components of the system and the overall effectiveness of the system at intervals not to exceed 15 months.

(e) If EFRD valves are installed, they must be installed and maintained in accordance with 49 CFR 195.116, 195.258, and 195.420(a) and 195.420(c).

(1) EFRD's shall be tested annually at intervals not to exceed 15 months.

(f) When testing best available technology, operators must consider the manufacturer recommendations and sound engineering practices for verification and testing of the best available technology component.

(g) Within 90 days of completion of the required system testing, operators shall provide a summary of the test results to the State Fire Marshal for review. Operators shall maintain any supporting documentation used to generate the summary and analysis and shall provide the supporting documentation to the State Fire Marshal if requested.

(h) Test Failures:

(1) If the performance results indicate failed or impaired leak detection capability and/or leak limitation capability, the operator must annually test the Leak Detection System, Computational Pipeline Monitoring - Leak Detection System, Automatic Shutoff System,

Remote Controlled Sectionalized Block Valves, EFRD, or other best available technology every year for the next 3 years.

(2) If the operator experiences two test failures during the 3-year annual testing period, as required in subsection (g)(1) of this section, the operator shall submit a new or revised risk analysis for State Fire Marshal review in accordance with the provisions of this Article.

(i) Operators shall ensure that testing records are maintained in a manner consistent with Section 2118 (Record Retention). All documentation shall be made available to the State Fire Marshal upon request.

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

### **§ 2116 – Training Requirements**

(a) Each plan submitted by an operator shall provide that all appropriate personnel employed by the operator receive training in the use and operation of best available technology installed on the pipeline. The plan shall describe:

(1) the procedures, type, and frequency of training that each individual receives to achieve the level of qualification demanded by their job description.

(b) Each plan shall describe the procedures, type, and frequency of personnel training on specific operation procedures, policies to reduce operational risks, and correct operations of best available technology. The description of the training shall include, if applicable, the following:

(1) any established training objectives that address potential concerns with using best available technology identified in the risk analysis;

(2) procedures for the proper interpretation of operating parameters and alarms, abnormal operations scenarios, and consequences for incorrect operation of best available technology;

(3) any licenses, certifications or other prerequisites required to hold these positions; and

(4) the means of achieving any established training objectives, such as:

(A) training programs for the positions involved with the various aspects of the pipeline or pipeline systems operation that could involve the use of best available technology (e.g., positions responsible for control room management, or control room operators);

(B) a training schedule, including adequate frequency, (e.g. initial training upon hire and annual refresher training) and type of training (workshops, classroom, videotape, on-the-job training, etc.) for each position trained, by job classification.

(c) Operators shall ensure that training records are maintained in a manner consistent with Section 2118 (Record Retention). All documentation must be made available to the State Fire Marshal upon request.

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

### **§ 2117 – Risk Analysis Updates and Review**

(a) Operators shall update their risk analysis and resubmit for State Fire Marshal review once every 5 years from the date of the most recent Letter of Acceptance issued under Section 2112 (State Fire Marshal Risk Analysis Assessment).

(1) If the most recently accepted risk analysis has not changed on or before the five-year resubmittal due date, the operator may submit correspondence to the State Fire Marshal stating that the risk analysis on file continues to limit the consequences of a release from the pipeline or pipeline systems that could affect an environmentally and ecologically sensitive area as identified in the risk analysis. The correspondence should provide explanation and justification for not updating the existing risk analysis. The operator shall consider best available technology in the justification.

(A) The State Fire Marshal will review the correspondence consistent with the provisions of this Article to determine if the existing risk analysis and best available technology is adequate or must be updated.

(2) A new risk analysis shall be required if a pipeline is near a newly identified or previously unidentified environmentally and ecologically sensitive area in the coastal zone that could be affected by a pipeline release.

(3) If the risk analysis on file is over five years old from the date of the most recent Letter of Acceptance, and the operator has not submitted correspondence to the State Fire Marshal stating that the risk analysis on file continues to limit the consequences of

a release from the pipeline or pipeline systems as identified in the risk analysis, the operator must submit a new or updated risk analysis.

(b) The State Fire Marshal may require earlier or more frequent resubmission or updates than required in Subparagraph (a) of this section. The operator shall be notified in writing if an earlier resubmission or update is required. The notice shall include an explanation of the reasons for the resubmission or update. Circumstances that may warrant an earlier resubmission or update include the following:

(1) a change in applicable law, statute, or regulation;

(2) the development of new best available technologies as determined by the State Fire Marshal during any review of risk analysis;

(3) deficiencies identified in the State Fire Marshal review of risk analysis;

(4) deficiencies identified in the risk analysis following an oil spill;

(5) deficiencies identified in risk analysis following testing pursuant to Section 2115 (Testing Requirements and Test Failures);

(6) significant changes to the pipeline operations or profile;

(7) any other situation deemed appropriate by the State Fire Marshal where deficiencies in risk analysis or best available technology are identified.

(c) The State Fire Marshal may require earlier or more frequent resubmission or updates than required under Subparagraph (a) of this section when an operator transfers operations of a pipeline. It is the responsibility of all operators involved in the pipeline transfer to notify State Fire Marshal in writing of the transfer. The State Fire Marshal shall review the risk analysis on file and determine if a resubmission or update is required. If a resubmission or update is required, the State Fire Marshal shall notify the operators in writing of this determination and shall include an explanation of the reasons for the resubmission or update. Circumstances that may warrant an earlier resubmission or update include, but are not limited to, the following:

(1) the sale, purchase, or transfer of a pipeline to an operator;

(2) the sale, purchase, or transfer of a pipeline by an operator;

(3) the assumption of a pipeline's operations to an operator;

(4) the assumption of a pipeline's operations by an operator; or

(5) any other situation deemed appropriate by the State Fire Marshal, including but not limited to, where a pipeline is sold, purchased, transferred, or operations are assumed by or to an operator.

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

### **§ 2118 – Record Retention**

(a) Operators shall maintain the risk analysis, implementation plan, testing results, training requirements, and supporting documentation for the life of the pipeline.

(b) Operators shall maintain records, other than those identified in Subparagraph (a) of this Section, for State Fire Marshal to review during inspections to demonstrate compliance for a period of 6 years or three inspection cycles, whichever is longer.

(c) All documentation must be made available to the State Fire Marshal upon request.

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

### **§ 2119 – Confidential Treatment of Information**

(a) An operator may request confidential treatment of information submitted in the risk analysis and plan(s) or contained in any documents associated with the plan and/or risk analysis described in this Article, including, but not limited to, information regarding the proposed location of automatic shutoff valves or remote controlled sectionalized block valves.

(b) Submission of confidential information

(1) An operator submitting any records containing information claimed to be confidential or otherwise exempt from disclosure pursuant to the Public Records Act or under other applicable law shall assert a claim of exemption in writing at the time of submission to the State Fire Marshal. The operator requesting the exemption must:

(A) Clearly and distinctly identify each paragraph, sentence, number, data, map, photograph, or other item, and provide the specific legal authority for each item that the



operator believes should be withheld from public disclosure. Generic non-specific labeling of an entire plan or risk analysis is not sufficient designation of information to be withheld nor is it a sufficient assertion or preservation of the justification for withholding information from public disclosure, and will not be considered.

(B) Provide the name, address, email address, and telephone number of the individual to be contacted if the State Fire Marshal receives a request for disclosure of, or if the State Fire Marshal seeks to disclose on its own, information claimed to be confidential.

(2) If an operator submits information designated as confidential or privileged, two different copies of the information shall be submitted as follows:

(A) One copy shall not be redacted and will contain the confidential or privileged information.

(B) One copy shall be submitted depicting the confidential or privileged information as redacted.

(c) Appropriate portions of the plan, risk analysis, or in any documents associated with the plan or risk analysis described in this Article shall be kept confidential until the review and acceptance of the risk analysis and plan by the State Fire Marshal has concluded, at which time the documents shall become a public record.

(d) Upon receipt of a request that the State Fire Marshal disclose information claimed to be confidential, or if the State Fire Marshal itself seeks to disclose such information on its own, the State Fire Marshal may inform the individual designated pursuant to subsection (c) by email, telephone, or mail at least ten (10) business days before the release of such information to allow the operator an opportunity to seek an appropriate remedy in Court, if applicable.

(e) The State Fire Marshal shall decide whether all or portions of the redacted information should be disclosed pursuant to the California Public Records Act, or other applicable law, unless directed otherwise by a Court order.

Note: Authority cited: Section 51013.1. Government Code. Reference: Section 51013.1. Government Code.

### **§ 2120 – Enforcement and Compliance Orders**

(a) If an operator fails to meet the requirements of this Article or the requirements of Government Code Section 51013.1, the State Fire Marshal may take enforcement

action pursuant to Government Code Sections 51018.6, 51018.7, and 51018.8 or other applicable law.

Note: Authority cited: Sections 51010, 51013.1, 51018.6, 51018.7 and 51018.8 Government Code. Sections 60104 and 60105, Title 49 of the United States Code.

Reference: Section 51010, 51013.1, 51018.6, 51018.7 and 51018.8 Government Code. Sections 60104 and 60105, Title 49 of the United States Code.