

TITLE 8, DIVISION 1, CHAPTER 4

Subchapter 7. General Industry Safety Orders  
Group 16. Control of Hazardous Substances  
Article 109. Hazardous Substances and Processes

Amend Section 5189.1 to read:

§5189.1. Process Safety Management for Petroleum Refineries.

(a) Scope and Purpose.

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(c) Definitions.

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Hierarchy of Hazard Control. Hazard prevention and control measures, in priority order, to eliminate or minimize a hazard. Hazard prevention and control measures ranked from most effective to least effective are: First Order Inherent Safety, Second Order Inherent Safety, and passive, active and procedural protection layers.

Highly Hazardous Material. A flammable liquid or flammable gas, or a toxic or reactive substance. [\[Committee will discuss incorporation of “threshold quantities” as defined in Health and Safety Code Section 25532 & Title 19, Section 2735.3, as well as references for inclusion in the definition of Highly Hazardous Materials. References include Title 8, CCR Section 5189 Appendix A, Title 19, section 2770.5, \(tables 1, 2, and 3\); and Annex 1, Part 1 Directive 2012/18/EU\]](#)

Hot Work. Electric or gas welding, cutting, brazing or any similar heat, flame or spark-producing procedure or operation.

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(l) Hierarchy of Hazard Controls Analysis.

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(4) The HCA team shall:

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(C) Identify, analyze and document all inherent safety measures and safeguards for each process safety hazard in the following sequence and priority order, from most preferred to least preferred: first order inherent safety measures; second order inherent safety measures; passive safeguards; active safeguards; and procedural safeguards. For purposes of this section, first order inherent safety measures are considered to be most effective and procedural safeguards are considered to be least effective;

(D) Identify, analyze, and document relevant, publically available information on inherent safety measures and safeguards. This information shall include inherent safety measures and safeguards that have been: 1. achieved in practice by the petroleum refining industry and related industrial sectors; and 2. required or recommended for the petroleum refining industry and related industrial sectors, by a federal or state agency, or local California agency, in a regulation or report; and,

[NOTE 1 to subdivision \(l\)\(4\)\(D\) "related industrial sectors" includes those industries referenced in Labor Code Section 7856, specifically, code 29 \(Petroleum Refining and Related Industries\) of the Manual of Standard Industrial Classification Codes, published by the United States Office of Management and Budget, 1987 Edition or equivalent under the North American Industrial Classification System that handle "regulated substances" as defined in subdivision \(j\) of Section 25532 of the Health and Safety Code and pose a significant likelihood of accident risk.](#)

[NOTE 2 to subdivision \(l\)\(4\)\(D\) "achieved in practice" includes those inherent safety measures and safeguard which have been implemented \(rather than those which are merely theoretical\) under conditions substantially similar to the subject process.](#)

(E) For each process safety hazard identified in subsection (l)(4), develop written recommendations in the following sequence and priority order:

1. Eliminate hazards to the greatest extent feasible using first order inherent safety measures;
2. Reduce any remaining hazards to the greatest extent feasible using second order inherent safety measures;
3. Effectively reduce remaining risks using passive safeguards;
4. Effectively reduce remaining risks using active safeguards; and,

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5. Effectively reduce remaining risks using procedural safeguards.

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(7) The employer shall retain all HCA reports for the life of each process.

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Note: Authority cited: Sections 142.3 and 7856, Labor Code. Reference: Sections 142.3, 7855, 7856, 7857, 7858, 7859, 7860, 7861, 7862, 7863, 7864, 7865, 7866, 7867 and 7868, Labor Code.