



Santa Barbara County Fire Department
4410 Cathedral Oaks Road, Santa Barbara, CA 93110
(805) 681-5500

Onshore Oil and Gas Production Facility Pre-Inspection Check List

This guidance document is intended to help the onshore oil and gas production industry comply with the 2007 California Fire Code as adopted with amendments in Chapter 15 of the Santa Barbara County Code. The checklist is not exhaustive and is not intended to limit the scope of the code official nor supersede other applicable local, state and federal codes, laws and regulations.

NOTE: This document should not be used in lieu of a working knowledge of the 2007 California Fire Code (CFC); referenced national standards; recognized industry standards; approved safe practices and manufacturer's recommendations.

The fire code sections, where applicable, are referenced from the following chapters in the 2007 CFC:

Chapter 1 Administration
Chapter 2 Definitions
Chapter 3 General Precautions
Chapter 4 Emergency Planning
Chapter 5 Fire Service Features
Chapter 6 Building Service and Systems

Chapter 9 Fire Protection Systems

Chapter 10 Means of Egress
Chapter 14 Construction and Demolition
Chapter 22 Motor Fuel - Dispensing Facilities and Repair Garages
Chapter 26 Welding

Chapter 27 Hazardous Materials

Chapter 30 Compressed Gases
Chapter 31 Corrosive Materials
Chapter 32 Cryogenic Fluids

Chapter 34 Flammable and Combustible Liquids

Chapter 35 Flammable Gases
Chapter 38 LPG
Appendix Chapter 1 Section 105 - Permits

This **PRE-INSPECTION CHECKLIST** is a compilation of the **common violations** noticed by the code official during periodic site inspections of onshore petroleum production facilities involved in, but not limited to, the storage, use, handling, processing, blending, compressing, transporting, treating, and/ or limited refining of hazardous materials, flammable and combustible liquids and flammable gases.

1. **PERMITS.** Obtain an operational permit by correcting all violations listed on the Violation Notice and by paying appropriate fees. **Appendix Ch. 1 Section 105.1.1**
2. **ANNUAL BUSINESS PLAN/HMMP, SPCC and MSDS.** Provide the Santa Barbara County Fire Department with a copy of the annual Business Plan / HMMP with changes to reflect current inventory. Denote "all" out of service hazardous materials vessels/tanks/containers and location of hazardous waste stockpiles. Provide the Santa Barbara County Fire Department with a copy of the SPCC and all MSDS information. NOTE: Current copies (*were/were NOT*) on-site in an accessible location at the time of the inspection. **Section 2701.5.1**
3. **ELECTRICAL WIRING AND EQUIPMENT.** Abate all electrical hazards. Provide documentation from Santa Barbara County Building and Safety verifying electrical wiring, devices, appliances, and other equipment meet the requirements of the California Electrical Code and/or other applicable codes. **Section 3403.1; 2703.9.4**
4. **ELECTRICAL IN STRUCTURES.** Abate all electrical hazards in structures. Provide documentation from Santa Barbara County Building and Safety verifying electrical wiring, devices, appliances, and other equipment meet the requirements of the California Electrical Code and/or other applicable codes. **Section 605.**
5. **STREET OR ROAD SIGNS.** Provide road signs at the intersections on the main road access to the tank battery, **if required.** Signs shall include " *insert numerical address*". Sign should be in contrasting letters 4 inches in height, minimum width stroke 0.5 inches. Include a directional arrow indicating direction of travel. Signs must be readable from the intersection. Reflective letters are advisable. **Section 505.2**
6. **MARKINGS.** Where required by the fire official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. **Section 503.3**
7. **ROADWAY CONDITION.** Ensure roads are capable of supporting the load of fire department apparatus and surfaced to provide all-weather driving capabilities. **Section 503.2.3**
8. **ROADWAY CLEARANCE.** Access roads shall be cleared to a minimum height of 13'6" and shall be cleared of vegetation 10' from roadway. **Section 503.2.1**
9. **KNOX SECURITY SYSTEM.** Provide an approved CHAIN & LOCK or approved KNOX SECURITY SYSTEM on the main gate to the facility. Contact Fire Protection Division- Santa Barbara for application and specifications. (805) 681-5500. **Section 506.1.1**
10. **SUPPORTS, BRACING, FOUNDATIONS AND ANCHORING.** Remove and replace all wood and/or temporary applications with Building and Safety approved permanent supports. Provide supports, bracing, foundations and anchorage for all tanks, equipment, machinery and piping in accordance with seismic design requirements of the California Building Code and approved industry standards. **Section 2703.2.8; 3403.6.8; 3404.2.9.2**
11. **ABATE UNSAFE CONDITION.** (Conditions that affect worker and/or emergency responder safety will be listed on violation notice, as identified). **Section 110.1.1**

- 12. SECURITY.** Secure hazardous/classified areas against unauthorized entry. Hazardous materials storage, dispensing, use and handling areas shall be secured against unauthorized entry and safeguarded in a manner approved by the fire code official. **Sections 2703.9.2**
- 13. VEHICLE IMPACT PROTECTION.** Where tanks, piping, electrical conduit or dispensers are subject to vehicular impact provide approved impact protection in compliance with impact test protocol of UL 2085, or by meeting the requirements of Section 312 or a combination of both. **Section 3404.2.9.6.5**
- 14. CLEARANCE AROUND TANKS.** Clear combustible materials and vegetation **at least 25 feet from** tanks, vessels and storage areas. **Section 2704.11**
- 15. INSPECTION, TESTING, RECORDS.** When requested by inspector, provide inspection records from an API qualified inspector for all tanks, pressure vessels, and pressure relief valves. **Section 2703.2.9**
- 16. PIPING, TUBING, VALVES, AND FITTINGS.** Piping, tubing, valves and fittings conveying hazardous materials shall be designed and installed in accordance with approved standards. Poly lines should be assessed to assure the manufacturer approves the above ground application (exposure to sunlight) and compatibility with the product being transported. Provide documentation from manufacturer for approved use. **Section 2703.2.2**
POLY LINES ARE NOT APPROVED FOR APPLICATION IN CLASSIFIED AREAS AND/OR TANK BATTERIES.
- 17. HAZARD IDENTIFICATION SIGNS.** Install missing and replace all faded, damaged, or obstructed hazard identification and warning signs/placards/diamonds on stationary containers, above ground tanks, and entrances to locations where hazardous materials exist. Ensure NFPA 704 diamonds are located in a conspicuous location and identifiable when secondary containments are full. NFPA 704 diamonds must be readable with an unobstructed view from access driveway(s).
All tanks and vessels containing flammable/combustible liquids and/or flammable gas must be identified. **Section 3403.5**
EXAMPLES:
1) Label all **flammable gas pressure vessels** "FLAMMABLE GAS" in lettering 4 inches tall with contrasting background.
2) Labeling and signs for **storage tanks and storage tank areas** shall comply with **Sections 3403.5; 3404.2.3.1 and 3404.2.3.2.** Mark all flammable/combustible tanks or vessels with name of product ie., "CRUDE OIL" or "PRODUCED WATER". Minimum 4-inch tall lettering with contrasting colors. **Section 2703.5**
- 18. PROTECTION FROM VAPOR RELEASE.** EXAMPLE: **Repair** all damaged and temporary repairs to *VAPOR RECOVERY* at the tank battery. **Replace** all piping damaged and/or temporarily repaired (clamps) to the vapor recovery at the *TANK BATTERY*. **Section 3404.2.7.5.7**
- 19. VAPOR TIGHT CONNECTION.** Connections to the vapor control system shall be designed to prevent the escape of vapor to the atmosphere. **3406.5.1.10.2**
- 20. OVERFILL PREVENTION.** Provide overfill protection and high-level alarm(s) at the *tank battery*. **Section 3404.2.7.5.8** Manual and automatic systems shall be provided to prevent overfill during the transfer of Class II liquids from mainline pipelines in accordance with API 2350. **Section 3406.4.6**

- 21. SECONDARY CONTAINMENT for hazardous material liquids.** Provide adequate secondary containment as described in the 2007 California Fire Code for all tanks.
Section 2704.2.2
- 22. OUTDOOR CONTROL AREAS.** Remove weeds, debris, trash, empty containers, and common combustible materials not necessary to the storage area or secondary containment. **Section 2703.12**
- 23. SECONDARY CONTAINMENT DRAINAGE METHODS.** Secondary containment shall be drained of all rainwater accumulations in an approved manner. Provide drainage for secondary containment/spill control areas. (*List locations*). **Section 2704.2.2.1**
- 24. SPILL CONTROL.** Provide spill control for (*location*) and remove spilled crude, if applicable. Remove and dispose of crude spillage in an approved manner. NOTIFICATION TO COUNTY HAZARDOUS MATERIALS UNIT BY CAER FORM MANDATORY.
Section 2705.1.3; 2704.2.2.1
- 25. PORTABLE FIRE EXTINGUISHERS.** Portable fire extinguishers shall be properly maintained, serviced and installed. Provide annual service documentation (tags) for all extinguishers on site and/or if newly purchased extinguishers provide receipt.
Section 3403.2.1
- 26. SUPERVISION.** Emergency alarm, detection, and automatic fire-extinguishing systems required by section 2704 shall be supervised by an **approved** central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.
- 27. FIRE PROTECTION SYSTEM.** **Section 3403.2** When required, provide adequate fire protection for the facility. A CERTIFIED FIRE PROTECTION ENGINEER must provide Fire Protection assessment, design and construction documents with calculations for a FIRE PROTECTION SYSTEM for this flammable gas processing /flammable and combustible liquid storage bulk plant and terminal. Design and construction plans shall be submitted to Santa Barbara County Fire Protection for review, approval and permitting. **Section 3403.2**
- 28. FIRE PROTECTION WATER SUPPLY TANKS.** When required, water tanks for fire protection shall be installed in accordance with NFPA 22. Section 508.2.2. Perform annual inspection and test of the facility foam system. (*WHEN APPLICABLE*)
- 29. FIRE PROTECTION SYSTEMS. Inspection, testing and maintenance.** Fire detection, alarm and extinguishing systems shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Non required fire protection systems and equipment shall be inspected, tested and maintained or removed. **Section 901.6**
Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and shall be copied to the fire code official upon request. **Section 901.6.2.**
- 30. FIRE PROTECTION SYSTEMS OUT OF SERVICE.** Where a required fire protection system is out of service, the fire department shall be notified immediately. **Section 901.7**

Attachments included: _____