

**REGULATION 12  
MISCELLANEOUS OPERATIONS  
RULE 12  
FLARES AT PETROLEUM REFINERIES**

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**FLARES AT PETROLEUM REFINERIES**

**12-12-100 GENERAL**

- 12-12-101 Description:** The purpose of this rule is to reduce emissions from flares at petroleum refineries.
- 12-12-110 Exemption, Organic Liquid Storage and Distribution:** The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from organic liquid storage vessels subject to Regulation 8, Rule 5 or exclusively from loading racks subject to Regulation 8 Rules 6, 33, or 39.
- 12-12-111 Exemption, Marine Vessel Loading Terminals:** The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from marine vessel loading terminals subject to Regulation 8, Rule 44.
- 12-12-112 Exemption, Wastewater Treatment Systems:** The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from wastewater treatment systems subject to Regulation 8, Rule 8.
- 12-12-113 Exemption, Pumps:** The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from pump seals subject to Regulation 8, Rule 18. This exemption does not apply when emissions from a pump are routed to a flare header.

**12-12-200 DEFINITIONS**

- 12-12-201 Flare:** A combustion device that uses an open flame to burn combustible gases with combustion air provided by uncontrolled ambient air around the flame. This term includes both ground and elevated flares. When used as a verb, the term "flare" means the combustion of vent gas in a flare.
- 12-12-202 Flaring Event:** Any period lasting more than 15 consecutive minutes during which vent gas is flared, or any continuous period during which more than one million standard cubic feet of vent gas is flared. The flaring event ends when the flow of vent gas falls below the detectable levels.
- 12-12-203 Flare Management Plan (FMP):** A document containing all of the elements of Section 12-12-401.
- 12-12-204 Gas:** For the purposes of this rule, "gas" includes aerosols and the terms "gas" and "gases" are interchangeable.
- 12-12-205 Malfunction:** Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused even in part by poor maintenance or careless operation are not malfunctions.
- 12-12-206 Petroleum Refinery:** A facility that processes petroleum, as defined in the North American Industrial Classification Standard No. 324110, and including any associated sulfur recovery plant
- 12-12-207 Responsible Manager:** A person who is an employee of the facility or corporation, who possesses sufficient corporate authority and who is responsible for the management of the facility.
- 12-12-208 Routine Flaring:** Flaring of vent gas produced during normal operation of a petroleum refinery that is not the result of malfunction, startup, or shutdown.
- 12-12-209 Shutdown:** The cessation of a petroleum refining process unit or a unit operation within a petroleum refining process unit for purposes including periodic maintenance, replacement of equipment, or repair.

**12-12-210 Startup:** The setting into operation of a petroleum refining process unit for purposes of production. Startup does not include operation solely for purposes of testing equipment. Startup does not include changes in product for flexible operation units.

**12-12-211 Thermal Oxidizer:** An enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.

**12-12-212 Vent Gas:** Any gas directed to a flare excluding assisting air or steam, flare pilot gas, and any continuous purge gases.

#### **12-12-300 STANDARDS**

**12-12-301 Routine Flaring:** Routine flaring is prohibited except as necessary for the safe operation of the petroleum refinery or where, due to the quantity or quality of gas, it cannot reasonably be recovered, treated and used as fuel gas at the refinery.

**12-12-302 Flare Management Plan:** Effective [insert date-twelve months after adoption of this rule], the use of a flare for any purpose except as necessary for the safe operation of the petroleum refinery is prohibited unless it is consistent with an approved flare management plan and all commitments in that plan have been met. If the owner or operator submitted an FMP in accordance with Section 12-12-402 and the APCO has not disapproved the plan under Section 12-12-403, the plan shall be considered to be "an approved plan" for purposes of this section.

#### **12-12-400 ADMINISTRATIVE REQUIREMENTS**

**12-12-401 Flare Management Plan Requirements:** The owner or operator of a flare subject to this rule shall submit to the APCO a flare management plan in accordance with the schedule in Section 12-12-402. The FMP shall be certified and signed by a Responsible Manager and shall include, but is not limited to:

**401.1** A description and technical information for each flare that is capable of receiving gases and the upstream equipment and processes that send gas to the flare including:

- 1.1** A detailed process flow diagram accurately depicting all pipelines, process units, vapor recovery systems, water seals, surge drums and knock-out pots, compressors and other equipment that are capable of venting to each flare. At a minimum, this shall include full and accurate as-built dimensions and design capacities of the vapor recovery systems, compressors, water seals, surge drums and knockout pots.
- 1.2** Full and accurate descriptions of all associated monitoring and control equipment.

**401.2** A description of the equipment, processes and procedures previously installed or implemented by the owner or operator to reduce the number, volume or duration of flaring events.

**401.3** A description of any equipment, process or procedure the owner or operator plans to install or implement to reduce the number, volume or duration of flaring events.

**401.4** A description and evaluation of flaring that has occurred or may reasonably be expected to occur during planned major maintenance activities, and the feasibility of performing these activities, including startup and shutdown, without flaring.

**401.5** A description and evaluation of flaring that may occur due to issues of gas quantity or quality, and the feasibility of recovery, treatment and use as fuel gas or other means to avoid flaring.

**401.6** A procedure for elimination of avoidable flaring events including, but not limited to, events caused by the recurrent breakdown of equipment described in accordance with Section 401.1. In determining whether a flaring event is avoidable, the flare owner or operator shall consider the adequacy of existing maintenance schedules and protocols for such equipment.

- 401.7** A description of the process by which the owner or operator will continue to review flare use to identify additional equipment, processes or procedures to minimize use of the flare.
- 401.8** An implementation schedule for those items identified in Sections 401.5 and 401.6 as capital improvement projects or modifications in need of a permit.
- 401.9** An implementation schedule for the prevention measures identified in accordance with Section 12-12-406 and 12-12-407, if any.
- 401.10** Any other information requested by the APCO as necessary to enable determination of compliance with applicable provisions of this rule.
- 12-12-402 Submission of Flare Management Plans:** The owner or operator of a flare subject to this rule shall submit an FMP as required by Section 12-12-401 in accordance with the following schedule:

  - 402.1** On or before [insert date-three months after the date of adoption of this provision] and every three months thereafter until a complete FMP is submitted, the owner or operator shall provide a status report detailing progress towards fulfilling the requirements of Section 12-12-401. Upon the submission of each status report the APCO may require a consultation regarding the development of the plan to ensure that the requirements of Section 12-12-401 are fulfilled by [insert date-twelve months after adoption of the rule].
  - 402.2** On or before [insert date-12 months after adoption of this rule], the owner or operator shall submit the completed FMP as required by Section 12-12-401.
- 12-12-403 Review and Approval of Flare Management Plans:** The APCO shall review the FMP and shall approve the plan if it contains all of the required elements. The schedule for review and approval of an FMP is as follows:

  - 403.1** No more than three months after submittal of the FMP as required in Section 12-12-402.2 or a plan update as required in Section 12-12-404, the District shall notify the owner or operator in writing if the APCO has determined that the FMP is not complete.
  - 403.2** Upon receipt of such notification, the owner or operator shall submit any elements necessary for the APCO to determine the plan to be complete. If the owner or operator fails to correct the deficiency within 90 days of the written notification, the APCO shall disapprove the plan.
- 12-12-404 Update of Flare Management Plans:** The FMP shall be updated as followed:

  - 404.1** Prior to installing or modifying any equipment that is, or would, due to such installation or modification, become equipment specified in Section 12-12-401.3, the owner or operator shall submit to the APCO an updated flare management plan addressing the new or modified equipment.
  - 404.2** No more than 12 months following approval of the original FMP and annually thereafter, the owner or operator shall review the FMP and revise the plan consistent with the requirements of Section 12-12-401. The updates must be certified and signed by a Responsible Manager.
  - 404.3** The APCO shall review and approve the updated FMP in accordance with Section 12-12-403.
- 12-12-405 Notification of Flaring:** The owner or operator of a flare subject to this rule shall notify the APCO of flaring if the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM). The notification shall be in a format specified by the APCO and shall include the flare source name and number, the flaring event start date and time, and the flaring event end date and time.
- 12-12-406 Determination and Reporting of Cause:** The owner or operator of a flare subject to this rule shall submit to the APCO within sixty days following the end of a flaring event a report that includes, but is not limited to the following:

  - 406.1** The results of an investigation to determine the primary cause and contributing factors for each flaring event.

**406.2** Any prevention measures that were considered or implemented to prevent recurrence together with a justification for rejecting any measures that was considered but not implemented.

**406.3** A description of those occurrences that have been identified as necessary for the safe operation of the petroleum refinery or where, due to the quantity or quality of gas, it cannot reasonably be recovered, treated and used as fuel gas at the refinery.

**12-12-407 Annual Reports:** Effective [insert date-twelve months after adoption of this rule] and annually thereafter, the owner or operator of a flare subject to this rule shall submit a report to the APCO that summarizes the use of a flare at flow rates less than one million standard cubic feet per day. The summary shall include, but not be limited to, the reason for flaring and any prevention measures that were considered or implemented to prevent recurrence.

**12-12-408 Designation of Confidential Information:** When submitting the initial FMP, any updated FMP or any other report required by this rule, the owner or operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code section 6250 et seq. If a document is submitted that contains information designated confidential in accordance with this section, the owner or operator shall submit a separate copy of the document with the information designated confidential redacted.

#### **12-12-500 MONITORING AND RECORDS**

**12-12-501 Water Seal Integrity Monitoring:** The owner or operator of a flare subject to this rule shall continuously monitor and record the level and pressure within the water seal that services each flare. Records for these measurements shall be retained for one year.