

**REGULATION 12
MISCELLANEOUS STANDARDS OF PERFORMANCE
RULE 10
OLEUM TRANSFER OPERATIONS**

INDEX

12-10-100 GENERAL

12-10-101 Description

12-10-200 DEFINITIONS

12-10-201 Equipment
12-10-202 Failure Event
12-10-203 Management of Change Procedure
12-10-204 Monitoring Systems
12-10-205 Oleum
12-10-206 Oleum Transfer Facility
12-10-207 Oleum Transfer Checklist
12-10-208 Oleum Transfer Procedure
12-10-209 Prevention Measure
12-10-210 Process Hazards Analysis
12-10-211 Qualified Operator
12-10-212 Qualified Person
12-10-213 Responsible Manager
12-10-214 Secondary Containment

12-10-300 STANDARDS

12-10-301 Operating Requirements
12-10-302 Secondary Containment Requirement

12-10-400 ADMINISTRATIVE REQUIREMENTS

12-10-401 Oleum Transfer Procedure Requirements

12-10-500 MONITORING AND RECORDS

12-10-501 Records

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RULE 10
OLEUM TRANSFER OPERATIONS

(Adopted August 3, 1994)

12-10-100 GENERAL

12-10-101 Description: The purpose of this Rule is to prevent releases of oleum from tank truck and railroad tankcar transfer operations that impact the public.

12-10-200 DEFINITIONS

12-10-201 Equipment: The implements used in an operation or activity including, but not limited to valves, pumps, compressors, connectors, hoses, piping, pressure relief devices, storage tanks, loading equipment, tank trucks, railroad tankcars and storage containers.

12-10-202 Failure Event: Any release of oleum associated with the use of a piece of equipment or human error which may expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or 2 parts per million calculated as H_2SO_4 averaged over any 10 consecutive minutes.

12-10-203 Management of Change Procedure: Written procedures which detail the review and approval process that must be followed to change the Oleum Transfer Procedure or the Oleum Transfer Checklist.

12-10-204 Monitoring Systems: Systems designed to detect emissions from equipment. Monitoring systems include, but are not limited to attended operation, remote viewing, remote detection or other methods that facilitate quick detection and mitigation response.

12-10-205 Oleum: Fuming sulfuric acid (H_2SO_4 with any dissolved SO_3).

12-10-206 Oleum Transfer Facility: An operation that loads or unloads oleum into or out of tank trucks or railroad tankcars.

12-10-207 Oleum Transfer Checklist: A written detailed step by step procedure for an oleum transfer which must be used by a Qualified Operator when transferring oleum. The checklist must provide for a method that will verify completion of each step in the transfer procedure.

12-10-208 Oleum Transfer Procedure: Written procedures detailing an oleum transfer operation that meets the requirements of Section 12-10-401.

12-10-209 Prevention Measure: A component, system or program that will prevent a Failure Event. Examples of Prevention Measures include, but are not limited to: flow, level and pressure indicators with interlocks, deadman switches, monitoring systems, deluge systems, documented and verified routine inspection and maintenance programs specified in detail by the Oleum Transfer Procedure and secondary containment and control equipment. Operator training and documented and verified routine inspection and maintenance programs specified in detail by the Oleum Transfer Procedure, collectively, may count as only one of the 3 Prevention Measures required by Section 12-10-401.3. A component, system or program with a high probability for failure shall not be considered a Prevention Measure.

12-10-210 Process Hazards Analysis: The systematic method for reducing the likelihood for a release, and for identifying conditions, component failures and human errors which may result in an emission to the atmosphere. As part of the Process Hazards Analysis, methods for reducing the likelihood for a release include an inherent safety review of the operation, which considers minimizing the transfer of oleum and process modifications.

12-10-211 Qualified Operator: A person who is trained to conduct an oleum transfer as provided in the Oleum Transfer Procedure.

12-10-212 Qualified Person: An APCO approved person who is qualified to attest to the validity of the Oleum Transfer Procedure and who is an independent registered professional engineer in the State of California with expertise in chemical, mechanical or safety engineering. An independent registered engineer is a person who does not work at the facility and is not involved in the design or operation of the facility.

12-10-213 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.

12-10-214 Secondary Containment: A system designed to contain and control the sudden release of oleum such that any release does not expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or 2 parts per million calculated as H₂SO₄ averaged over any 10 consecutive minutes.

12-10-300 STANDARDS

12-10-301 Operating Requirements: Effective July 1, 1995, any person operating an Oleum Transfer Facility shall meet the following conditions:

301.1 All oleum transfers shall be conducted in strict accordance with the facility's Oleum Transfer Procedure as defined in Section 12-10-208 and specified and reviewed under Section 12-10-401;

301.2 A Qualified Operator as defined in Section 12-10-211 shall conduct the transfer;

301.3 An Oleum Transfer Checklist as defined in Section 12-10-207 shall be completed for each transfer and signed by the Qualified Operator upon completion of the transfer; and

12-10-302 Secondary Containment Requirement: Effective August 1, 1996, any person operating an Oleum Transfer Facility shall vent all pressure relief devices to a Secondary Containment system as defined in Section 12-10-214. In lieu of controlling any pressure relief device on a tank truck or railroad tankcar, an additional pressure relief device may be installed on the vent line to the tank truck or railroad tankcar. This additional pressure relief device shall be vented to a Secondary Containment system as defined in Section 12-10-214 and shall be designed to relieve at less than 80 percent of the set point of the tank truck or railroad tankcar pressure relief device.

12-10-400 ADMINISTRATIVE REQUIREMENTS

12-10-401 Oleum Transfer Procedure Requirements: The Oleum Transfer Procedure shall meet the following requirements:

401.1 Explicitly establish training, equipment, inspection, maintenance and monitoring levels such that the Oleum Transfer Facility shall not expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or 2 parts per million calculated as H₂SO₄ averaged over any 10 consecutive minutes;

401.2 Provide a detailed step by step procedure for the transfer;

401.3 Using a Process Hazards Analysis, predict, plan and implement at least 3 consecutive Prevention Measures for every predicted Failure Event before any oleum release can occur that will expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or 2 parts per million calculated as H₂SO₄ averaged over any 10 consecutive minutes;

401.4 Provide an Oleum Transfer Checklist as defined in Section 12-10-207;

401.5 Provide a Management of Change Procedure, as defined in Section 12-10-203, that details the approval process that must be followed to change the Oleum Transfer Procedure or the Oleum Transfer Checklist;

401.6 Provide a program to train Qualified Operators as defined in Section 12-10-211;

- 401.7 Must be approved and signed by a Qualified Person and a Responsible Manager; and
- 401.8 Must be approved by the APCO to meet the requirements of Subsection 12-10-401.1 through 401.7. The APCO shall provide a 30 day public comment period and will consider all comments received during this period prior to approval of the procedure.

12-10-500 MONITORING AND RECORDS

12-10-501 Records: Oleum Transfer Checklists for each transfer shall be retained for at least 4 consecutive quarters.