SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

(Adopted May 3, 2013)

RULE 1114 PETROLEUM REFINERY COKING OPERATIONS

(a) Purpose and Applicability

The purpose of this rule is to reduce emissions from atmospheric venting of coke drums. This rule applies to all petroleum refineries equipped with delayed coking units.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) COKE DRUM is a batch system pressure vessel in which petroleum coke is produced.

(2) DELAYED COKING UNIT is a petroleum refinery process unit in which high molecular weight petroleum derivatives are converted to lighter gaseous and liquid products and petroleum coke by means of thermal cracking in a series of coke drums. A delayed coking unit consists of the coke drums and ancillary equipment associated with a main fractionator.

(3) PETROLEUM REFINERY is a facility identified by the North American Industry Classification System Code 324110, Petroleum Refineries.

(4) TURNAROUND is a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair or replacement of equipment, or installation of new equipment.

(c) Requirements

(1) Effective November 1, 2013, the owner or operator of a delayed coking unit shall depressurize each coke drum to less than two (2) pounds per square inch, gauge (psig) prior to venting it to atmosphere; or

(2) If unable to comply with the provisions of paragraph (c)(1), the owner or operator of a delayed coking unit shall comply with the following:

(A) At a facility with a single delayed coking unit, effective May 1, 2014, depressurize each coke drum prior to venting to atmosphere to less than five (5) psig until compliance with paragraph (c)(1) is achieved, which is required upon completion of the first unit turnaround after May 1, 2014 or by December 31, 2016, whichever is earlier.

(B) At a facility with more than one delayed coking unit:

(i) By November 1, 2013, submit to the Executive Officer:

(I) For approval, a baseline calculation using general engineering practices and substantiating records that identify the facility-wide average coke drum internal pressure at which atmospheric venting was initiated for all the coke drums during calendar year 2012, or

(II) A notification that the facility intends to depressurize each coke drum to less than five (5) psig until achieving compliance with paragraph (c)(1);

(ii) Effective May 1, 2014, until completion of the first turnaround at an affected delayed coking unit following May 1, 2014 or by December 31, 2016, whichever is earlier, either:

(I) Depressurize each coke drum prior to venting to atmosphere to a pressure not to exceed, when averaged over a 30 day period for all affected drums, 110% of the 2012 baseline submitted and approved pursuant to subclause (c)(2)(B)(i)(I), or

(II) Depressurize each coke drum to less than five (5) psig, pursuant to subclause (c)(2)(B)(i)(II); and,

(iii) Effective upon resuming operations at an affected delayed coking unit following its turnaround or January 1, 2017, whichever is earlier, depressurize each affected coke drum to less than 5 (five) psig prior to venting to atmosphere until compliance with paragraph (c)(1) is achieved within the next 24 months of the earlier trigger date.

(C) Submit to the Executive Officer any required permit applications pursuant to Regulation II for equipment and process modifications necessary to achieve compliance with subdivision (c) at least nine months prior to effective dates.

(d) Monitoring and Recording

Effective November 1, 2013, the owner or operator of a delayed coking unit shall:

(1) Monitor the coke drum pressure and record it continuously from feed introduction until atmospheric venting is initiated, using a device calibrated at least once annually according to manufacturer's specifications;

(2) Monitor and record continuously from feed introduction until atmospheric venting is initiated the following:

(A) Coke drum atmospheric vent valve position (open or closed) or, if unable to comply with subparagraph (d)(2)(A),

(B) Coke drum blowdown valve position or the temperature of the coke drum vent at a location downstream of the atmospheric vent valve, until achieving compliance with subparagraph (d)(2)(A), which is required upon completion of the first unit turnaround following November 1, 2013 or by December 31, 2016, whichever is earlier;

(3) Maintain the monitoring equipment required in paragraphs (d)(1) and (d)(2) in good operating condition except for periods of downtime due to calibration, maintenance or repair, which shall not exceed 96 hours per calendar year per delayed coking unit, and

(4) Manually record the coke drum pressure and the atmospheric vent valve position at five minute intervals covering a time period of no less than 15 minutes immediately prior to atmospheric venting during periods of downtime as specified in paragraph (d)(3).

Notwithstanding the effective date in subdivision (d), the owner or operator of a facility subject to paragraph (c)(2) shall comply with the requirements in this subdivision effective May 1, 2014.

(e) Notification

The owner or operator of a delayed coking unit shall notify the Executive Officer by telephone within 24 hours of any failure of the monitoring or recording equipment required by subdivision (d).

(f) Recordkeeping

Effective November 1, 2013, the owner or operator of a delayed coking unit shall maintain all operational and calibration records required by subdivision (d) for at

least five years and shall make such records available to the Executive Officer upon request. Notwithstanding the effective date in subdivision (f), the owner or operator of a facility subject to paragraph (c)(2) shall comply with the requirements in this subdivision effective May 1, 2014.

(g) Exemptions

Any coke drum subject to the provisions of this rule shall be exempt from the provisions of Rule 404.