ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT

RULE 477 -- COKE OVENS
(Adopted: 04/01/77; Amended 04/06/79; Amended 04/03/81)

(a) Definitions

(1) COKE OVEN means any retort oven in which coal is converted to coke.

(2) COKE OVEN BATTERY means a series of ovens grouped by a common designation or function.

(3) COKING CYCLE means the period of time between replacing the last charge port lid and removing the coke-side door.

(4) CHARGE PORT means any opening in the roof of a coke oven through which coal is introduced.

(5) CHARGING OPERATION means the process of introducing coal into a coke oven. The coal charging operation begins with the first introduction of coal into the oven and ends when the last oven charge port lid is replaced.

(6) COLLECTING MAIN means the piping extending from the connection to the gas offtake piping on a coke oven to and including the flange of the battery pressure control valve.

(7) GAS OFFTAKE SYSTEM means any set of piping (e.g., standpipes, goosenecks) that interconnects a coke oven with a collecting main which is common to all such systems. The gas offtake system extends from the connection on top of the coke oven to the connection on the collecting main.

(8) HOT CAR means a vehicle which transfers hot coke from the oven to the area of quenching.

(9) LARRY CAR means a vehicle which transfers and introduces coal into a coke oven.

(10) OPERATING COKE OVEN BATTERY means a battery actually being used for the production of coke.

(11) PUSHING OPERATION means the process of removing coke from the coke oven. The coke pushing operation begins when the ram begins to push coke into the hot car and is completed when the hot car enters the quench tower.

(12) VISIBLE EMISSION means any discharge of an air contaminant into the atmosphere which is darker in shade than that designated No. 0 on the Ringelmann Chart, as published by the United States Bureau of Mines, or is of such opacity as to obscure an observer's view to the same degree as an air contaminant greater than Ringelmann No. 0.

(b) Coke Oven Battery Emission Limitations

At no time shall visible emissions of air contaminants into the atmosphere from any portion of a coke oven battery exceed the following limits:

(1) Coal Charging Limits

There shall be no visible emission of air contaminants into the atmosphere for a total accumulated time equal to or greater than seventy-five (75) seconds from any charge port, offtake system and larry car on a coke oven during five (5) consecutive charging operations.

(2) Charge Port Limits

There shall be no visible emission of air contaminants into the atmosphere from more than three (3) percent of the total coke oven charge ports per coke oven battery during the coking cycle.

(3) Gas Offtake System Limits

There shall be no visible emission of air contaminants into the atmosphere from more than ten (10) percent of the total gas offtake systems per coke oven battery during the coking cycle.

(4) Collecting Main Limits

There shall be no visible emission of air contaminants into the atmosphere from -ore than three (3) points on the collecting mains of a coke oven battery.

(5) Coke Oven Door Limits

Subject to the provisions of subparagraph (b)(7), there shall be no visible emission of air contaminants into the atmosphere from more than the percentage of doors on each coke oven battery specified in subparagraphs (A), (B), and (C) below. For the purposes of this rule, emissions from the chuck door shall be considered to be emissions from the push side door.

(A) Coke oven batteries installed prior to 1955: twelve (12) percent.

(B) Coke oven batteries installed subsequent to 1955: eight (8) percent.

(C) Coke oven batteries installed subsequent to January 11, 1979: shall comply with the lowest achievable emissions rate (LAER) for coke oven door fugitive emissions.

(6) Coke Plant Emission Limits

Subject to the provisions of subparagraph (b)(7), there shall be no visible emission of air contaminants into the atmosphere from more than ten (10) percent of the total number of coke oven doors on all operating coke oven batteries situated at a single location.

(7) The owner or operator of any equipment subject to subparagraph (b)(5) and (b)(6) which has been completed and put into service prior to the date of adoption and which requires reconstruction, rehabilitation or modification to meet the requirements of said subparagraphs (b)(5) or (b)(6), shall comply with said requirements by December 31, 1981 and shall comply with the following schedule of increments of progress:

(A) On or before June 1, 1979, submit an approvable final control plan which specifies, at a minimum, the following:

(i) the steps to be taken to achieve compliance with subparagraphs (b)(5) and (b)(6).
(ii) the timetable for reconstruction, rehabilitation or modification of each coke oven battery necessary to achieve compliance with subparagraph of increments of progress.
(iii) the type of reconstruction, rehabilitation or modification that will be undertaken.
(iv) interim emission limits that can be attained through diligent efforts until final compliance is achieved. The Executive Officer shall have final authority to determine the appropriate interim emission limits.

(B) On or before July 1, 1979, begin work on reconstruction, rehabilitation or modification of coke ovens.

(C) On or before December 1, 1981, complete work on equipment necessary to achieve compliance with subparagraphs (b)(5) and (b)(6) for all operating coke ovens.

(D) On or before December 31, 1981, assure final compliance with subparagraphs (b)(5) and (b)(6) for all operating coke ovens.

(c) Coke Pushing Emissions

(1) All coke ovens shall be equipped with a device that will capture and clean coke-side particulate emissions resulting directly from the pushing operation. The efficiency of the cleaning device shall be such that the outlet gas shall contain no more than 0.03 pound of non-condensible particulate matter per ton of coal charge for each oven, averaged from five (5) pushes. The emission limitations specified in this subparagraph (c)(1) shall apply only to air pollution control devices exhausting to stacks.

(2) Except as provided in subparagraph (c)(3) below, there shall not be discharged into the atmosphere from the hot car, capture or collection device at any time, any visible emission which is:

(A) As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke of Ringelmann No. 1.

(3) The provisions of subparagraph (c)(2) shall not apply to:

(A) Fugitive visible emissions from a coke oven which occur after the coke oven has been pushed until such time as the coke-side door has been replaced.

(B) Fugitive visible emissions from from the door jamb to coke guide interface, provided that such fugitive visible emissions shall not exceed sixty (60) seconds duration.

(C) Fugitive visible emissions escaping from the quench car while it travels to the quench tower during periods when the wind velocity, as measured at the nearest air monitoring station, is:

(i) greater than fifteen (15) miles per hour, and from the west,
(ii) or greater than twenty-one (21) miles per hour, and from the northwest or southwest.

(D) Fugitive visible emissions escaping from the quench car after removal of traveling hood push controls and prior to entry into the quench tower, provided that such fugitive emissions do not exceed fifteen (15) seconds in duration.

(4) The owner or operator of any equipment subject to subparagraph (c), Coke Pushing Emissions, which has been completed and put into service prior to the date of adoption, shall comply with the provisions of subparagraph (c) by July 1, 1984 and shall comply with the following schedule of increments:

(A) March 1, 1979. Award the contract for emission control systems, or issue orders for the purchase of component parts to accomplish emission control for a battery of ovens.

(B) March 1, 1980. Initiate on-site construction or installation of emission control equipment on a battery of ovens.

(C) July 1, 1982. Complete on-site construction or installation of emission control equipment on batteries of ovens installed after 1955.

(D) October 1, 1982. Demonstrate final compliance of battery of ovens with the provisions of this subsection.

(E) July 1, 1984. Demonstrate final compliance for all remaining batteries with all applicable provisions of this subparagraph (c).

(d) Demonstration of New Technology

(1) The owner or operator of any coke oven batteries installed prior to 1945 shall, in accordance with a Demonstration of New Technology Control Plan, equip the coke-side doors and the push-side doors of at least ten coke ovens of one pre-1945 coke oven battery, with new door seals of a nickel, copper and titanium alloy; and shall equip at least another four coke-side doors of one pre-1945 oven battery with new Battelle door seals. Said new seals shall be tested for a period of at least six months. An approval "Demonstration of New Technology Control Plan" shall be submitted to the Executive Officer on or before June 1, 1979. The plan shall specify, at a minimum, the dates by which the new seals will be ordered, the date by which the new seals will be installed, and the date by which the report to the Executive Officer on the results of the test program will be made. The Executive Officer shall not approve the plan unless he determines that the control plan provides for the installation of the test seals at the earliest possible date, considering the availability of said seals and the rehabilitation schedule for the affected coke ovens.

(2) On and after January 1, 1979, no coke oven battery may be constructed, reconstructed, or rehabilitated unless such battery, after such construction, reconstruction or rehabilitation, makes use of top hung coke oven doors.

(e) Observation of Violations

For the purpose of determining whether the number of visible emissions from the coke oven doors exceeds the limitations set forth in subparagraphs (b)(5) and (b)(6) of this rule, or in the final control plans, all visible emissions observed during an inspection period shall be accumulated to determine the number of doors from which visible emissions are being discharged. The manner of inspection shall be determined by the

Executive Officer of the District and a copy of that procedure shall be made available to owners or operators of coke ovens upon request. If application of the percentage allowable results in a fraction, the fraction shall be rounded to the nearest whole number.

(f) Separate Violations

(1) Exceedances of the applicable emission limitations specified in subparagraph (b)(5) or in the final control plan shall constitute a separate violation of this rule for each battery exceeding the applicable limit.

(2) If, at any time, the coke plant emissions limitation specified in subparagraph (b)(6) is exceeded, violations shall be determined as follows:

(A) If no battery has exceeded the emission limitation specified for that battery in subparagraph (b)(5), then there is only a violation of subparagraph (b)(6).

(B) If any battery has exceeded the emission limitation specified for that battery in subparagraph (b)(5), then there is a separate violation of subparagraph (b)(5) for each battery exceeding the applicable emission limitation rather than violation of subparagraph (b)(6).

(3) Each of the requirements of subparagraphs (b)(1), (b)(2), (b)(3), (b)(4), and (c) shall be regarded as separate requirements to be met at all times by each battery and shall result in separate liability for each separate violation by each separate battery.

(4) There can be no more than one violation of each subparagraph per battery per day.

[SIP: Submitted as adopted 4/1/77 on 10/13/77]