

PROPOSED RULE 1495

COMMODITY FUMIGATION

[Rule index to be added after Amendment]

(a) Purpose

The purpose of this rule is to protect public health by reducing emissions of Toxic Air Contaminants from Commodity Fumigation.

(b) Applicability

This rule applies to owners or operators of Commodity Fumigation operations.

(c) Definitions

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

- (1) AERATION is the release of a Fumigant from an enclosed area after Treatment.
- (2) COMMODITY FUMIGATION is the Treatment and Aeration of post-harvest agricultural products or trade products with a Fumigant to eliminate pests in all stages of the pest lifecycle. Commodity Fumigation does not include soil fumigation of pre-harvest agricultural products, medical sterilization subject to Rule 1405 – Control of Ethylene Oxide Emission from Sterilization and Related Operations, or structural fumigation, except when the structure contains post-harvest agricultural products or trade products.
- (3) CONTROL EQUIPMENT is defined in Rule 102.
- (4) DAYLIGHT HOURS is the time period one (1) hour following sunrise to one (1) hour prior to sunset.
- (5) EMERGENCY FUMIGATION is a Commodity Fumigation required by local, state, or federal authorities in accordance with Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act to control the introduction or spread of an invasive pest not previously found in the U.S., control a pest that will cause a significant risk to human health, or other crisis situation.
- (6) FUMIGANT is any substance that contains a Toxic Air Contaminant and is a pesticide product, approved by the U.S. Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (DPR), that is a vapor or gas, or forms a vapor or gas upon application, and whose pesticidal action is achieved through the gaseous or vapor state.
- (7) FUMIGANT AERATION SYSTEM is a combination of fans or any mechanical device to create negative pressure within an enclosed area and accelerate Fumigant away from products, and an exhaust stack for release of Fumigant.
- (8) NON-BUSINESS HOURS is the time period from 9:00 PM to 5:00 AM.

- (9) PERMANENT TOTAL ENCLOSURE (PTE) is any permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. Environmental Protection Agency (EPA) Method 204 except the term “Administrator” in provision 5.1 is revised to mean Executive Officer, as defined in Rule 102 – Definition of Terms.
 - (10) RECEPTOR LOCATION is any location, excluding public roadways or other public rights-of-way, outside the boundaries of a facility performing Commodity Fumigation at which a person could experience exposure to Fumigants.
 - (11) TARPAULIN FUMIGATION is a method of Commodity Fumigation utilizing a temporary enclosed area described in DPR Pesticide Use Enforcement Program Standards Compendium Volume 3, *Restricted Materials and Permitting*, Appendix G – *Commodity Fumigation*.
 - (12) TOXIC AIR CONTAMINANT is an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health.
 - (13) TREATMENT is the process where a Fumigant is used in an enclosed area at a prescribed concentration for a prescribed period of time to destroy all life stages of one or more pests on a product.
- (d) Requirements
- The owner or operator of a Commodity Fumigation operation shall:
- (1) No later than July 1, 2027, for operations existing on [Date of Adoption], submit complete South Coast AQMD permit application(s) to the Executive Officer to add applicable emission limits to South Coast AQMD Permit(s) to Operate for each Fumigant used at the Commodity Fumigation operation.
 - (2) Effective July 1, 2027, submit complete South Coast AQMD permit application(s) to the Executive Officer to modify applicable emission limits to South Coast AQMD Permit(s) to Operate within 30 calendar days of knowing of a change in the distance to the nearest Receptor Location or at the request of the Executive Officer in the case of a change in the distance to the nearest Receptor Location.
 - (3) Effective January 1, 2028, utilize one (1) or more of the following Fumigant capture strategies:
 - (A) Tarpaulin Fumigation;

- (B) PTE;
- (4) Effective January 1, 2028, utilize one (1) or more of the following Aeration strategies:
 - (A) Fumigant Aeration System;
 - (B) Control Equipment;
- (5) Effective January 1, 2028, aerate Fumigant to an exhaust stack releasing in an upward direction and not in a horizontal or downward direction;
- (6) Effective January 1, 2028, emit no more than the applicable emission limits listed in Table 1 – *Fumigant Emission Limits* in accordance with Attachment 1 – *Determination of Distance*: and

Table 1 – Fumigant Emission Limits

Distance to Nearest Receptor Location (m)	Methyl Bromide		Sulfuryl Fluoride		All Others	
	Hourly Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)
25 or less	2.0	83	55.2	831	1.2	13
26 to 50	5.7	283	187.2	2,827	4.2	45
51 to 75	7.5	446	280.8	4,456	6.2	71
76 to 100	9.7	643	388.8	6,427	8.6	103
101 to 200	24.4	2,308	1,053.6	23,084	23.4	369
201 to 300	58.6	6,523	2,460.0	65,232	54.6	1,042
301 to 500	171.7	16,841	6,475.2	168,407	143.8	2,690
Greater than 500	448.3	49,850	17,916.0	498,505	397.9	7,962

- (7) Effective January 1, 2028, in lieu of complying with paragraph (d)(6), emit no more than the applicable emission limits listed in Table 2 – *Fumigant Best Management Practices Emission Limits (Non-Business Hours)* in accordance with Attachment 1 – *Determination of Distance* and comply with the following best management practices:
 - (a) Aerate Fumigant to an exhaust stack with a release point no less than 60 feet above ground level;
 - (b) Aerate Fumigant to an exhaust stack with a flow rate capacity of no less than 2,500 cubic feet per minute;

- (c) Not begin Aeration of more than one (1) fumigation enclosure in any consecutive 60-minute time period; and
- (d) Initiate Aeration exclusively during Non-Business Hours; or

**Table 2 – Fumigant Best Management Practices Emission Limits
(Non-Business Hours)**

Distance to Nearest Receptor Location (m)	Methyl Bromide		Sulfuryl Fluoride		All Others	
	Hourly Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)
25 or less	61.7	6,464	2,239.2	64,641	49.7	1,032
26 to 50	104.0	6,464	2,239.2	64,641	49.7	1,032
51 to 75	170.4	6,464	3,386.4	64,641	75.2	1,032
76 to 100	202.5	6,464	4,605.6	64,641	102.3	1,032
101 to 200	202.5	7,435	4,965.6	74,349	110.3	1,187
201 to 300	242.4	10,716	6,400.8	107,158	142.1	1,711
301 to 500	354.6	17,709	7,672.8	177,085	170.4	2,828
Greater than 500	705.3	33,223	13,034.4	332,226	289.5	5,306

- (8) Effective January 1, 2028, in lieu of complying with paragraph (d)(6), emit no more than the applicable emission limits listed in Table 3 – *Fumigant Best Management Practices Emission Limits (Daylight Hours)* in accordance with Attachment 1 – *Determination of Distance* and comply with the following practices for Daylight Hours Fumigation:
 - (a) Aerate Fumigant to an exhaust stack with a release point no less than 60 feet above ground level;
 - (b) Aerate Fumigant to an exhaust stack with a flow rate capacity of no less than 2,500 cubic feet per minute;
 - (c) Not begin Aeration of more than one (1) fumigation enclosure in any consecutive 60-minute time period; and
 - (d) Initiate Aeration exclusively during Daylight Hours;

**Table 3 – Fumigant Best Management Practices Emission Limits
(Daylight Hours)**

Distance to Nearest Receptor Location (m)	Methyl Bromide		Sulfuryl Fluoride		All Others	
	Hourly Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)	Daily Limit (lbs)	Annual Limit (lbs)
25 or less	62.6	10,368	4,156.8	103,681	92.3	1,656
26 to 50	103.9	10,368	4,641.6	103,681	103.1	1,656
51 to 75	136.4	10,765	6,662.4	107,654	148.0	1,719
26 to 100	136.4	12,288	8,104.8	122,880	180.0	1,963
101 to 200	148.4	18,382	12,374.4	183,824	274.8	2,936
201 to 300	189.5	31,299	18,189.6	312,989	404.0	4,999
301 to 500	298.0	73,314	31,032.0	733,138	689.2	11,709
Greater than 500	648.0	254,518	69,504.0	2,545,177	1,543.5	40,649

(e) Control Equipment

If complying with subdivision (d) with the use of Control Equipment, the owner or operator of a Commodity Fumigation operation shall:

- (1) Demonstrate the overall control efficiency of Control Equipment by a source test in accordance with subdivision (f):
 - (a) Within 60 calendar days after initial operation of Control Equipment; and
 - (b) No later than 24 calendar months from the date of the most recent source test of Control Equipment;
- (2) Install and maintain one (1) or more flow meter, differential pressure gauge, voltage meter, ammeter, power consumption meter, pH meter, or other monitoring device, as applicable, to parametrically monitor the performance of Control Equipment, as approved by the Executive Officer;
- (3) Prior to Aeration of Fumigant to Control Equipment, record readings from each parametric monitoring device each operating day; and
- (4) Operate Control Equipment within manufacturer's specifications of readings from each parametric monitoring device compared to readings recorded during the most recent source test.

(f) Source Testing

The owner or operator of a Commodity Fumigation operation required to conduct a source test pursuant to subdivision (e) shall:

- (1) Demonstrate 86% or better overall control efficiency from the Control Equipment;
- (2) Install and maintain one (1) or more sampling ports at the inlet and one (1) or more sampling ports at the outlet to perform source testing;
- (3) Conduct source testing in accordance with U.S. EPA Method 2, 2A, or 2D for flow rate and Method 25, 25A, 25B, or 25D for measuring total gaseous organic concentrations at the inlet and at the outlet of the Control Equipment, or other methods approved by the Executive Officer;
- (4) Submit a source test protocol for approval to the Executive Officer no later than 60 days prior to conducting the initial source test or prior to conducting subsequent source tests if the Executive Officer requests an updated or new source test protocol;
- (5) Conduct the source test pursuant to the most recent source test protocol approved by the Executive Officer using a contractor approved by the Executive Officer under the Laboratory Approval Program; and
- (6) Submit the source test report to the Executive Officer within 60 calendar days of completing all sampling for the source test.

(g) Parametric Monitoring

No later than January 1, 2028, the owner or operator of a Commodity Fumigation operation utilizing a Fumigant Aeration System shall:

- (1) Install and maintain a voltage meter, ammeter, power consumption meter, or similar electrical monitoring device across the Fumigant Aeration System;
- (2) Prior to initiating Aeration, record the voltage, amperage, or power consumption across the Fumigant Aeration System each operating day; and
- (3) Maintain the Fumigant Aeration System operating within manufacturer's specification for voltage, amperage, or power consumption.

(h) Notifications and Public Meetings

The owner or operator of a Commodity Fumigation operation shall:

- (1) Notify the Executive Officer at least 10 days prior to the start of any source test in writing by electronic mail to Rule1495notifications@aqmd.gov and as specified in the approved source test protocol;

- (2) Notify the Executive Officer at least 24 hours prior to the start of each Commodity Fumigation in writing by electronic mail to Rule1495notifications@aqmd.gov;
- (3) Effective January 1, 2028, create and maintain a website available to the general public that includes an electronic database of each Commodity Fumigation and notify the Executive Officer no later than 72 hours after its creation of the website address in writing by electronic mail to Rule1495notifications@aqmd.gov;
- (4) Effective January 1, 2028, no later than 72 hours after the completion of each Commodity Fumigation, update the website to include the following information:
 - (a) Pounds of each Fumigant used per operating day;
 - (b) Starting and ending time of Aeration;
 - (c) Parametric monitoring results pursuant to subdivisions (e) and (g), as applicable; and
 - (d) Denoting if Commodity Fumigation was Emergency Fumigation;
- (5) Notify all Receptor Locations within 500 feet of the Commodity Fumigation operation within 30 days of issuance of a Notice of Violation for violation(s) of this rule by U.S. mail or by personal service in both English and Spanish, including:
 - (a) Date of violation;
 - (b) Description(s) of violation(s); and
 - (c) Date Notice of Violation served;
- (6) Publish a notice in a newspaper of general circulation published in the county of the Commodity Fumigation operation within 30 days of issuance of three (3) Notices of Violation for violation of this rule within any consecutive 12-month period, including:
 - (a) Dates of violation;
 - (b) Descriptions of violations; and
 - (c) Dates Notices of Violation served; and
- (7) Conduct a public meeting at a location within five (5) miles of the Commodity Fumigation operation, excluding the Commodity Fumigation operation, within 60 days of issuance of a sixth Notice of Violation for violations of this rule within any consecutive 12-month period.
 - (a) Within 30 days of issuance of a sixth Notice of Violation for violations of this rule within any consecutive 12-month period, notify all Receptor Locations within 500 feet of the Commodity Fumigation operation by U.S. mail or by personal service in both English and Spanish of the public meeting; and

- (b) Within 30 days of issuance of a sixth Notice of Violation for violations of this rule within any consecutive 12-month period, publish a notice for the public meeting in a newspaper of general circulation published in the county of the Commodity Fumigation operation.

(i) Recordkeeping

The owner or operator of a Commodity Fumigation operation shall maintain records to demonstrate compliance with the provisions of this rule for at least five (5) years and shall make such records available onsite to the Executive Officer upon request, including:

- (1) Pounds of each Fumigant used per operating day, per calendar month, and per calendar year;
- (2) Starting and ending time of Aeration;
- (3) If initiating Aeration exclusively during Daylight Hours, the time of sunrise and sunset for each operating day initiating Aeration;
- (4) Parametric monitoring results pursuant to subdivisions (e) and (g), as applicable;
- (5) Source test protocols and reports pursuant to subdivision (f);
- (6) Notifications to the Executive Officer, Receptor Locations, or a newspaper of general circulation pursuant to subdivision (h), as applicable; and
- (7) If performing Emergency Fumigation, documentation establishing the emergency from local, state, or federal authorities.

(j) Exemption

The owner or operator of a Commodity Fumigation operation is exempt from subdivisions (d) through (g) of this rule while performing Emergency Fumigation.

Attachment 1 – Determination of Distance

For the purpose of determining the distance to Receptor Location, the following method will be used:

1. The distance to the nearest Receptor Location will be measured from the exhaust stack or the nearest of all exhaust stacks to the nearest property line of the closest Receptor Location.
2. The Executive Officer will consider the possibility of potential exposure at a Receptor Location, such as time of day of operation, in determining whether a location will be considered a Receptor Location.
 - A. Regarding certain Receptor Locations, such as residences, healthcare facilities, retirement and nursing homes, harbors and marinas allowing live-aboard, prisons, dormitories, and other locations where persons are typically present throughout the entire day, no such consideration regarding time of day will be possible.
 - B. For all other Receptor Locations, if performing Aeration exclusively during Non-Business Hours, those Receptor Locations may be assumed not to be Receptor Locations unless presented with evidence to the contrary.
3. The distance to the nearest Receptor Location will be measured each time South Coast AQMD permit applications are submitted to the Executive Officer.