

PROPOSED RULE 415: ODORS FROM RENDERING FACILITIES

(a) Purpose

The purpose of this rule is to reduce odors from facilities rendering animals and animal parts.

(b) Applicability

This rule applies to new and existing rendering facilities that process raw rendering materials; and trap grease wastewater associated with rendering or trap grease processing.

(c) Definitions

- (1) BATCH COOKER means a cooking vessel used for rendering into which raw rendering material is loaded in discrete batches, cooked and unloaded at the end of the cooking cycle.
- (2) CLOSED SYSTEM means a system handling any combination of solids, liquids, vapors, and air at a rendering facility, in which odors are contained within the system. A batch cooker is not a closed system.
- (3) COLLECTION CENTER means a receiving area for the temporary storage of animal carcasses, packinghouse waste, or other products, prior to their transportation to a licensed rendering plant or pet food processor.
- (4) CONFIRMED ODOR EVENT means the occurrence of an odor resulting in three or more complaints by different individuals from different addresses, and the source of the odor is verified by District personnel trained in odor inspection techniques.
- (5) CONTROL EFFICIENCY means the percentage value representing the reduction of odorous compounds in an odor control system. Control efficiency is calculated as the uncontrolled rate minus the controlled rate, divided by the uncontrolled rate, multiplied by 100.
- (6) EDIBLE RENDERING means an operation that produces edible fats and protein commodities for human consumption.
- (7) ENCLOSURE ENVELOPE means the total surface area of a building directly enclosing rendering operations and includes the enclosure's exterior walls, floor and horizontal projection of the roof on the ground.
- (8) EXISTING FACILITY means a facility subject to the requirements of this rule that began operation prior to (*date of adoption*).

- (9) FACILITY GROUNDS means any area of operations where rendering materials are transported, stored or handled other than within an enclosure.
- (10) FAT COMMODITY means a finished fat product from rendering and derived from animal fat or plant sources.
- (11) NEW FACILITY means a facility subject to the requirements of this rule that begins operation on or after (*date of adoption*), or for which permit applications for equipment subject to this rule have not been deemed complete on or before (*date of adoption*).
- (12) ODOR means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.
- (13) ODOR CONTROL SYSTEM means equipment serving a permanent enclosure that is designed to reduce odorous emissions captured in the permanent enclosure. Odor control equipment does not mean a closed system.
- (14) ODOR GENERATING SOURCE means a process at a rendering facility from which odors may be emitted, including raw material receiving, size reduction, cooking, separation and processing of cooked materials into fat commodities and protein commodities, and wastewater treatment.
- (15) PERMANENT ENCLOSURE means an enclosure having a permanently installed roof and exterior walls which are constructed of solid material, and completely surround one or more odor-generating sources such that all odors from processes conducted within the enclosure are contained therein.
- (16) PROTEIN COMMODITY means a finished protein produced from rendering and derived from raw rendering materials of either animal or plant origin.
- (17) RAW RENDERING MATERIALS means materials introduced into the receiving area at a rendering facility, and may include animal carcasses and parts, packing house cuttings, out-of-date products from grocery stores, blood, viscera, offal, feces and other organic matter generated by food processors.
- (18) RECEIVING AREA means the area, tank or pit within a rendering facility where raw rendering materials are unloaded from a transport vehicle, or transferred from another portion of the facility for the purpose of rendering these materials.

- (19) RENDERING means operations and processes that convert raw rendering materials into fat commodities and protein commodities by heat and mechanical separation.
 - (20) RENDERING FACILITY means a facility engaged in rendering operations.
 - (21) ROUTINE ENCLOSURE OPENING means any of the following areas that may be open during normal operations at facilities subject to this rule, and through which odors have the potential to escape from a permanent enclosure:
 - (A) Vents for natural or forced-air ventilation, including but not limited to gable vents, eave vents, wall vents and rooftop vents;
 - (B) Windows, doors and doorways; and
 - (C) Spaces below metal sheathing that do not reach the foundation.
 - (22) SPECIFIC CAUSE ANALYSIS means a process used by a facility subject to this rule to investigate the cause of a confirmed odor event, identify corrective measures needed and measures taken or that will be taken to prevent recurrence of a similar event.
 - (23) TRAP GREASE means cooking grease, food waste, and wastewater from a restaurant grease trap or interceptor.
 - (24) VENTILATION SYSTEM means an air-handling system serving odor control equipment that is designed and operated to (a) draw air from within a permanent enclosure and deliver it to approved odor control equipment; and (b) maintain negative air pressure through each routine enclosure opening. Ventilation system does not mean a system for heating, ventilation, or air conditioning (HVAC) used for comfort heating or cooling.
 - (25) WASTEWATER TREATMENT means, for the purpose of this rule, any chemical, biological, or mechanical procedure used to remove, reduce, or neutralize contaminants in water at a rendering facility from rendering- and trap grease-related operations.
- (d) Requirements for New and Existing Facilities
- (1) Core Requirements for all Facilities
 - (A) Odor Best Management Practices (BMP)

Upon startup of a new facility, or within 90 days after (*date of adoption*) for an existing facility, all applicable odor BMP identified in subdivision (e) shall be implemented.

- (B) Permanent Enclosure or Operation in Closed System
 - (i) Upon startup for a new facility, equipment and processes listed in paragraph (f)(2) shall not be operated except in a closed system or located within a permanent enclosure subject to subdivision (f).
 - (ii) Within 12 months after (*date of adoption*) for an existing facility, the owner or operator shall submit permit applications for a permanent enclosure where required under this rule, to be evaluated in combination with odor control equipment complying with the requirements of paragraph (f)(5).
 - (iii) Equipment and processes subject to paragraphs (f)(1) and (f)(2) shall not be operated 24 months after the date a Permit to Construct is issued to an existing facility for the submittal required under clause (d)(1)(B)(ii), except in a closed system or located within a permanent enclosure.
- (C) Ventilation of Permanent Enclosures to Odor Control Equipment
 - (i) Facility operations shall not be conducted at a new facility unless each required permanent enclosure is exhausted through a ventilation system to odor control equipment that is operating in good condition.
 - (ii) The owner or operator shall not operate equipment and processes subject to paragraphs (f)(1) and (f)(2) 24 months after the date a Permit to Construct is issued to an existing facility for the submittal required under clause (d)(1)(B)(ii), unless each required permanent enclosure is exhausted through a ventilation system to odor control equipment that is operating in good condition.
- (D) Wastewater Treatment
 - (i) Upon startup for a new facility, equipment and processes listed in subdivision (g) shall not be operated except in a closed system or located within a permanent enclosure subject to subdivision (f).

- (ii) The owner or operator of an existing facility shall submit permit applications for a permanent enclosure required under this rule within 12 months after (*date of adoption*), to be evaluated in combination with odor control equipment complying with the requirements of paragraphs (f)(2) and (f)(3).
 - (iii) Within 12 months after the date a Permit to Construct for a permanent enclosure in combination with odor control equipment is issued to an existing facility, the owner or operator shall not operate equipment and processes under subdivision (g), except in a closed system or located within a permanent enclosure subject to paragraph (f)(2).
 - (E) Installation of Odor Complaint Contact Sign at Rendering Facilities
Upon startup for a new facility, or within 6 months after (*date of adoption*) for an existing facility, an odor complaint contact sign shall be installed at each facility subject to this rule, pursuant to the requirements of subdivision (i).
 - (F) Installation of Signage Requiring Covering of Incoming Trucks
Upon startup for a new facility, or within 6 months after (*date of adoption*) for an existing facility, a sign shall be posted at each truck entrance at a facility subject to this rule requiring all incoming trucks to be enclosed or fully covered.
 - (G) Notification of Intent to Enclose or Operate in a Closed System
Within 12 months after (*date of adoption*) for an existing facility, the owner or operator shall submit a letter of intent to the Executive Officer stating an intent to either enclose odor-emitting operations and processes within a permanent enclosure or operate them in one or more closed systems, for all equipment and processes subject to paragraph (f)(2) or subdivision (g) that are not located within a permanent enclosure or operated in a closed system as of (*date of adoption*).
- (2) Submittal of Odor Mitigation Plan (OMP).
The owner or operator of a facility shall submit an Odor Mitigation Plan (OMP) to the Executive Officer within 90 days after notification by the Executive Officer, pursuant to the requirements of subdivision (h), if:

- (A) The owner or operator of a facility subject to this rule receives a Notice of Violation for Public Nuisance pursuant to Rule 402; or
- (B) Three or more confirmed odor events for a facility are received during any consecutive 180-day period.

The owner or operator shall comply with all terms and conditions of their approved Odor Mitigation Plan. A violation of any term of an approved Odor Mitigation Plan is a violation of this rule. Submittal of an Odor Mitigation Plan shall be in addition to any settlement of the Notice of Violation triggering such submittal.

(3) Specific Cause Analysis

Within 1 business day after notification by the Executive Officer of a confirmed odor event for a facility subject to this rule, the owner or operator shall conduct a specific cause analysis and submit a report in the format specified by the Executive Officer within 30 days. The report shall include a description of activities during the time of the odor event, any upset or breakdown conditions at the facility, including potential sources of odors and emission points for all equipment required to be enclosed under paragraph (f)(1) or subdivision (g). In addition, the report must identify any corrective measures taken or that will be taken to prevent recurrence of a similar event.

(4) Recordkeeping

Upon startup for a new facility, or within 30 days for an existing facility, the owner or operator of a facility subject to this rule shall collect and maintain records of all information required under subdivision (j).

(e) Odor Best Management Practices (BMP)

(1) Covering of Incoming Transport Vehicles

Transport vehicles delivering raw rendering materials to a rendering facility from offsite locations shall not be permitted past the first point of contact at a rendering facility for incoming trucks, such as a guard shack or weigh station, unless the cargo area of the vehicle is completely enclosed or fully tarped.

(2) Delivery of Raw Rendering Materials

Subsequent to the date a permanent enclosure is required pursuant to subparagraph (d)(1)(B), raw rendering materials received at a rendering facility shall be transferred from a transport vehicle or other means of

conveyance into a permanent enclosure pursuant to paragraph (f)(3), or into sealed, odor-tight containers on a continuous basis after material delivery, such that material does not remain outside of a permanent enclosure for more than 60 minutes after the end of material delivery;

(3) Washing of Outgoing Transport Vehicles

Where raw rendering materials come directly into contact with a transport vehicle and the cargo area is exposed to the air, the cargo area shall be washed before exiting the facility;

(4) Washing of Drums and Containers

Open drums or containers holding raw rendering materials shall be washed prior to leaving a rendering facility;

(5) Holding Time of Incoming Raw Rendering Materials

Prior to the date a permanent enclosure is required pursuant to subparagraph (d)(1)(B), incoming raw rendering materials shall enter the cooking process, be staged in a permanent enclosure or stored in a sealed, odor-tight container within 4 hours after delivery for material delivered at ambient temperature, or within 6 hours after delivery for material delivered below ambient temperature.

(6) Repair of Raw Material Receiving Area

Notwithstanding the time limit of subparagraph (d)(1)(A), within 180 days after (*date of adoption*), all areas of broken concrete or asphalt, including but not limited to divots, cracks, potholes and spalling of concrete or asphalt in the raw material receiving area of a rendering facility, or the rendering portion of a facility integrated with a slaughterhouse or meat-packing plant where raw rendering materials are unloaded and touch the ground outside of an enclosure shall be patched, repaired or repaved as necessary to prevent standing water or puddles with a surface area greater than one square foot from accumulating.

(7) Holding Time of Raw Materials after Size-reduction

Within one hour after size-reduction or grinding activities, raw rendering materials at a facility utilizing a batch cooking process shall enter the cooking process, or be staged in a permanent enclosure or stored in a sealed, odor-tight container;

(8) Holding Time of Cooked Materials

Within one hour after being removed from a batch cooker at a rendering facility subject to this rule, cooked materials shall be placed in

downstream processing equipment to be separated into protein and fat commodities or placed in a sealed, odor-tight container for temporary storage;

- (9) **Transfer of Raw or Cooked Rendering Materials between Enclosures**
Raw or cooked rendering materials shall be transported between permanent enclosures only through a closed system of conveyance, or by odor-tight containers.
 - (10) **Delivery Tanker Trucks**
Trap grease or other odorous liquid deliveries from delivery tanker trucks shall not be delivered to or transferred within the trap grease storage or processing areas of a rendering facility subject to this rule except through a closed system, within a permanent enclosure, or through a system vented to odor control equipment;
 - (11) **Venting Delivery Tanker Vehicles to Odor Control Equipment**
The pressure relief valve on trap grease or other odorous liquid delivery tanker trucks with an internal vacuum or pressure pump shall be vented to odor control equipment operating in good condition prior to unloading of trap grease, unless the truck is unloaded in a permanent enclosure;
 - (12) **Washdown of Receiving Area**
Walls, floors, and other surfaces of the receiving area of a rendering facility and any equipment operated in the receiving area, including screw conveyors, pumps, shovels, hoses, etc., shall be thoroughly washed free of animal matter at least once each working day; and
 - (13) **Cleaning Floor Drains**
Accessible interior and exterior floor drains shall be maintained in a manner that prevents accumulation.
- (f) **Permanent Enclosure, Ventilation, Closed System and Odor Control Standards**
- (1) Subsequent to the date a permanent enclosure is required under subparagraph (d)(1)(B), raw rendering material receiving shall only be conducted within a permanent enclosure.
 - (2) Subsequent to the date a permanent enclosure is required under subparagraph (d)(1)(B), the following equipment and processes at a rendering facility shall not be operated except in a closed system or located within a permanent enclosure,:
 - (A) Conveyors associated with raw material transfer operations;

- (B) Size reduction and conveying equipment, including but not limited to:
 - (i) Breakers;
 - (ii) Crushers;
 - (iii) Hoggers;
 - (iv) Grinders; and
 - (v) Conveyors associated with raw rendering material sizing.
 - (C) Raw rendering material cookers, except batch cookers;
 - (D) Process equipment for separating rendered fat from protein materials, including but not limited to:
 - (i) Centrifuges;
 - (ii) Presses;
 - (iii) Separators;
 - (iv) Pumps;
 - (v) Screens;
 - (vi) Tanks that are not completely enclosed;
 - (vii) Bins and hoppers; and
 - (viii) Conveyors used to transport materials between process equipment.
- (3) Permanent Enclosure and Ventilation Standards
- (A) The combined area of all routine enclosure openings through which odors can escape from a permanent enclosure shall not exceed 5% of the enclosure envelope.
 - (B) A minimum inward face velocity of not less than 200 feet per minute shall be maintained at all times through each routine enclosure opening of a permanent enclosure.
 - (C) Minimum inward face velocities for each permanent enclosure shall be determined by placing an anemometer, or an equivalent device approved by the Executive Officer, at the center of the plane of any opening of the permanent enclosure.
 - (D) Exterior walls of a permanent enclosure shall be constructed of solid material sufficient to withstand the pressure drop created by the inward face velocity of subparagraph (f)(3)(B). Construction shall be of material such as masonry, sheet metal, sheet plastic, wood, metal or aluminum siding, industrial overlapping plastic flap curtains, or other material as approved by the Executive Officer.

- (4) Closed System Standards
- (A) Each component of a closed system shall be maintained in a manner that minimizes leaks from occurring and prevents odors from escaping from the system, to the maximum extent possible.
 - (B) Material conveyors and troughs that are components of a closed system shall be completely enclosed on all sides, except for doors or panels for maintenance and personnel access.
 - (C) Bins and hoppers that are components of a closed system shall be completely enclosed on all sides, except for doors or panels for maintenance and personnel access.
 - (D) Mating metal surfaces on doors or access panels described under subparagraphs (f)(4)(B) and (f)(4)(C) shall be sealed with gasket material.
 - (E) Air gaps in components of a closed system shall be sealed with gasket material or with caulk or sealant.
 - (F) Each section of ductwork containing vapor within a closed system shall be sealed at every connection to other components of the closed system using best industry materials and practices.
 - (G) Any alternative to a closed system, as defined under subparagraphs (f)(4)(A) through (F) that is proposed by the owner or operator of a facility subject to this rule must be approved by the Executive Officer.
 - (H) A batch cooker shall not be considered a component of a closed system.
- (5) Odor Control System Standards and Testing
- An odor control system, designed and operated to control fugitive odors from a permanent enclosure subject to paragraph (f)(3) shall meet the following requirements:
- (A) The control efficiency of an odor control device or system serving a permanent enclosure shall not be less than:
 - (i) 70% for nitrogen compounds.
 - (ii) 70% for sulfur compounds.
 - (B) Nitrogen compounds shall be represented by the marker compound ammonia (NH₃), or other alternative marker compound proposed by the owner or operator and subsequently approved by the Executive Officer.

- (C) Sulfur compounds shall be represented by the marker compound hydrogen sulfide (H₂S), or other alternative marker compound proposed by the owner or operator and subsequently approved by the Executive Officer.
 - (D) Within 180 days after the date a permanent enclosure is required under subparagraph (d)(1)(B), an odor control device or system serving a permanent enclosure shall be tested by an independent third-party to determine control efficiency. Testing and analytical methods shall be as follows:
 - (i) SCAQMD Method 207.1 for ammonia; and
 - (ii) SCAQMD Method 307 for hydrogen sulfide.
 - (E) The requirements of this paragraph shall not apply to operating standards or testing of odor control equipment designed and operated to control high intensity odors addressed under Rule 472.
- (g) Wastewater Treatment
- Subsequent to the date a permanent enclosure is required under subparagraph (d)(1)(B), the following wastewater treatment equipment and processes handling wastewater at a rendering facility, including water used in rendering operations, equipment and area washdown water related to rendering, and water from control equipment related to rendering shall not be operated except in a closed system or located within a permanent enclosure subject to paragraph (f)(3):
- (1) Screens;
 - (2) Skimmers;
 - (3) Clarifiers, including dissolved air flotation;
 - (4) Settling tanks;
 - (5) Sludge dewatering equipment;
 - (6) Sludge drying equipment; and
 - (7) The rendering facility treated wastewater outlet to city sewer.
- (h) Odor Mitigation Plan (OMP)
- (1) An OMP submitted prior to the date a permanent enclosure is required under subparagraph (d)(1)(B) shall address the following:
 - (A) All facility-specific information below:
 - (i) Facility name;
 - (ii) Location address;

- (iii) Days and hours of operation;
 - (iv) Facility ID number;
 - (v) Mailing address; and
 - (vi) Title and phone number of person responsible for addressing community complaints received by facility.
 - (B) Description of odor-emitting areas within the facility;
 - (C) Configuration of all odor control equipment that exists at the time of OMP submittal, and the equipment, processes and buildings or rooms it serves;
 - (D) Description of work practices that exist at the time of OMP submittal designed to minimize odors from migrating off the facility property;
 - (E) Prioritization of odor-emitting areas within the facility, in order of highest-to-lowest odor intensity;
 - (F) For each odor-emitting area designated in subparagraph (h)(1)(B):
 - (i) Description of odor mitigation activities proposed to address odor within the odor-emitting area;
 - (ii) Intent to either enclose an odor-emitting area within a permanent enclosure or operate processes located within the odor-emitting area in one or more closed systems, for all equipment and processes subject to paragraph (f)(2) or subdivision (g) that are not located within a permanent enclosure or operated in a closed system; and
 - (iii) A detailed construction schedule for each proposed permanent enclosure.
 - (G) Explanation of why construction and commissioning of proposed permanent enclosures cannot be expedited prior to the date a permanent enclosure is required under subparagraph (d)(1)(B).
- (2) An OMP submitted after the date a permanent enclosure is required under subparagraph (d)(1)(B) shall address all information required under subparagraphs (h)(1)(A) through (h)(1)(E) and clause (h)(1)(F)(i).
- (3) Approval and Disapproval of an OMP
 - (A) Within 90 days after submittal of an OMP to the District, the Executive Officer will approve or disapprove the OMP.
 - (B) The Executive Officer will notify the owner or operator in writing if an OMP is disapproved. If an OMP is disapproved, the owner or

operator shall resubmit the OMP to the Executive Officer within 90 days after notification of disapproval. The resubmitted OMP shall include any information necessary to address deficiencies identified.

(C) The Executive Officer will approve the OMP if it is complete and the Executive Officer concurs that all odor mitigation activities proposed to address odors within the odor-emitting areas at the facility are sufficient to resolve the odor problem that triggered submittal of the OMP.

(D) Failure to submit an OMP within 90 days after notification by the Executive Officer, or failure to have an approved OMP by the date allowed under subparagraph (h)(3)(B) for an OMP that was denied by the Executive Officer and subsequently resubmitted is a violation of this rule.

(4) OMP Plan Fees

An OMP submitted or resubmitted under this subdivision shall constitute a plan for the purpose of fees assessed under Rule 306 – Plan Fees.

(i) Odor Complaint Contact Sign and Tracking of Odor Complaints at Rendering Facilities

(1) An odor complaint contact sign shall specify 1-800-CUT-SMOG as the SCAQMD contact number for odor complaints. The sign may also include the name of a contact person at the rendering facility to call for questions or to whom odor complaints may be reported. The sign shall meet all of the following requirements, unless otherwise approved by the Executive Officer:

(A) The sign shall be installed within 50 feet of the main entrance to the facility;

(B) The dimensions of the sign shall be at least 48 inches wide by 48 inches tall;

(C) Lettering on the sign shall be at least 4 inches tall;

(D) Lettering color shall contrast with the sign background;

(E) The lower edge of the sign shall be located between 6 and 8 feet above grade; and

(F) The sign shall be unobstructed and clearly visible to a person outside the facility property.

- (2) Notify the SCAQMD by telephone at 1-800-CUT-SMOG no more than three hours after receiving an odor complaint, after facility personnel became aware of the complaint, or after facility personnel should reasonably have become aware of the complaint.
- (j) **Recordkeeping Requirements**

The owner or operator of a facility subject to the requirements of this rule shall maintain on the premises for at least three years and make available upon request by the Executive Officer the following records:

 - (1) Records of all readings taken by anemometer to demonstrate compliance with the inward face velocity requirement of subparagraph (f)(3)(b);
 - (2) A legible written log of all odor complaints received by the rendering facility contact person pursuant to paragraph (i)(1). The odor complaint log shall contain, at a minimum, the following information:
 - (A) Date and time complaint was received;
 - (B) Date and time of alleged odors;
 - (C) Outdoor ambient temperature at time of complaint;
 - (D) Odor description and intensity (i.e., weak, moderate, strong);
 - (E) Weather conditions;
 - (F) Wind speed and direction;
 - (G) Name and contact phone number of complainant, if provided; and
 - (H) Determination of cause for odor emissions that generated the complaint, if found.
- (k) **Exemptions**
 - (1) The following facilities are not subject to Rule 415:
 - (A) Facilities conducting only edible rendering operations that do not conduct inedible rendering or handle or process trap grease;
 - (B) Collection centers that do not conduct inedible rendering or handle or process trap grease; and
 - (C) Facilities that process trap grease but do not conduct inedible animal rendering operations.
 - (2) Wastewater treatment operations at a facility integrated with a slaughterhouse or meat-packing plant shall not be subject to the enclosure requirement of subdivision (g), provided each volume of rendering wastewater is diluted with more than 40 volumes of wastewater from other

sources within the facility such that after mixing, any wastewater exposed to the atmosphere has an average chemical oxygen demand (COD) lower than 1500 mg/L, based on not less than 5 calendar years of sampling data.

- (3) Blood meal processing operations at a facility integrated with a slaughterhouse or meat-packing plant shall not be subject to this rule, provide the operation is conducted in a permanent enclosure operating under negative pressure and meeting the requirements of paragraph (f)(3), and the enclosure is vented to an odor control system meeting the control efficiency requirements under subparagraph (f)(5)(A).