

**PROPOSED RULE 415: ODORS FROM RENDERING FACILITIES**

(a) Purpose

The purpose of this rule is to establish odor management practices and requirements to reduce odors from facilities rendering animals and animal parts.

(b) Applicability

This rule applies to new and existing facilities that cook raw rendering materials; facilities that process trap grease in addition to rendering, and treatment of wastewater from processes associated with rendering or processing of trap grease at these facilities.

(c) Definitions

- (1) BATCH COOKER means a cooking vessel used for rendering into which raw rendering material is loaded in discrete batches and cooked for a period of time before the batch is unloaded from the vessel at the end of the cooking cycle.
- (2) CLOSED SYSTEM means a system handling solids, fluids or air at a rendering facility, in which odors are completely contained.
- (3) COLLECTION CENTER means a receiving area for the temporary storage of animal carcasses, packinghouse waste, or similar products where no rendering operations take place, prior to their transportation to a licensed rendering plant or pet food processor.
- (4) CONFIRMED ODOR EVENT means an occurrence of odor resulting in three or more complaints by different individuals from different addresses, and the source of the odor is verified by District personnel.
- (5) EDIBLE RENDERING means a meat processing operation that produces lard or edible tallow and proteins for use in food products for human consumption.
- (6) 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.
- (7) ENCLOSURE OPENING means any opening in an enclosure that is not connected to a duct in which a fan is installed.
- (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 product of the rendering process derived from animal fat, including such products as yellow grease, choice white grease, and bleachable fancy tallow.
- (11) TRAP GREASE means cooking grease, food waste and wastewater from a restaurant grease trap or interceptor.
- (12) 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*).
- (13) ODOR means, for the purpose of this rule, the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.
- (14) ODOR GENERATING SOURCE means an operation or process at a rendering facility from which odors may be emitted, including such operations and processes as 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 product of the rendering process derived from bone and animal meat, including such products as meat meal, bone meal, poultry byproduct meal and meat byproducts.
- (17) RAW RENDERING MATERIALS means materials introduced into the receiving area at a rendering facility, and may include animal, poultry or fish 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 separate raw rendering materials into fat commodities and protein commodities via elevated temperature and mechanical separation, to convert animal parts and carcasses into fats, oils, proteins, and other products that are used as ingredients in the animal feed, fertilizer, biofuels and other industries.
- (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 where it does 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 complaint, identify corrective measures needed and taken to prevent recurrence of a similar event.
- (23) TALLOW means a fat commodity used in the animal feed, cosmetic and biofuel industries, among others.
- (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 and air conditioning (HVAC) used for comfort heating and 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, including water used in rendering operations, equipment and area washdown water related to rendering, and water from control equipment related to rendering.

## (d) Requirements for New and Existing Facilities

## (1) Core Requirements for all Facilities

## (A) Odor Best Management Practices (BMP)

Upon startup for 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. Odor BMP in paragraphs (e)(15) through (e)(18) shall not be required if the affected area or process complies with the applicable requirements of subparagraphs (d)(1)(B) and (d)(1)(C).

## (B) Permanent Enclosure or Operation in Closed System

(i) Upon startup for a new facility, equipment and processes listed in paragraph (f)(1) shall not be operated except in a closed system or located within the confines of 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 required under this rule, to be evaluated in combination with odor control equipment complying with the requirements of paragraphs (f)(2) and (f)(3).

(iii) Equipment and processes subject to paragraph (f)(1) shall not be operated after 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 the confines of 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 paragraph (f)(1) after 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 the confines of 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 the confines of 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).

(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 subject to Rule 402; or
- (B) Three or more confirmed odor events for a facility are received over any consecutive 180-day period.

The owner or operator shall comply with all terms and conditions of an 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 24 hours after notification by the Executive Officer of a confirmed odor event against a facility subject to this rule, the owner or operator shall conduct a specific cause analysis and submit a report in a 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, identify any corrective measures 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 to enter the rendering facility unless the cargo area of the vehicle is completely enclosed or fully covered with a durable solid covering that does not allow odors to pass through and is free of holes, gaps, cracks, or tears.

(2) Spilled Raw Rendering Materials

Spilled raw rendering materials from delivery transport vehicles outside of the receiving areas at a rendering facility shall be collected and placed into the receiving area as soon as possible, but not to exceed 30 minutes after spill occurs;

(3) Direct Transfer of Raw Rendering Materials

All raw rendering materials received at a rendering facility shall be transferred directly from the transport vehicle or other means of conveyance into a receiving area located within a permanent enclosure, or into sealed, odor-tight containers;

(4) Standards for Washing

All washing of facility grounds, enclosure interiors, delivery trucks, and drums and containers at a rendering facility, or the rendering portion of a facility integrated with a slaughterhouse or meat-packing plant shall be conducted with water at a temperature of not less than 120 degrees Fahrenheit and pressure of not less than 1000 pounds per square inch (psi).

(5) Washing of Outgoing Transport Vehicles

Where raw rendering materials come directly into contact with a transport vehicle, the cargo area and exterior of any vehicle exiting the rendering facility shall be thoroughly washed to prevent trackout of raw rendering materials;

(6) Washing of Drums and Containers

Drums or containers holding raw rendering materials shall be thoroughly washed to remove raw rendering materials prior to leaving a rendering facility;

(7) Holding Time of Incoming Raw Rendering Materials

Within 4 hours after arrival at the facility, incoming loads of raw rendering materials shall enter the cooking process, be staged in a permanent enclosure or stored in a sealed, odor-tight container.

(8) Cleanup of Spilled Raw Rendering Materials

All raw rendering materials washed out of a transport vehicle at a rendering facility shall be placed into the receiving area of the rendering plant for processing within one hour after the transport vehicle is washed.

(9) Repair of Facility Grounds

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 on the facility grounds of a rendering facility, or the rendering portion of a facility integrated with a slaughterhouse or meat-packing plant where raw and processed rendering materials are unloaded, stored or otherwise handled shall be patched, repaired or repaved to prevent standing water with a surface area greater than one square foot from accumulating.

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

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

(11) 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;

- (12) **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.
- (13) **Trap Grease Delivery Trucks**  
Trap grease from delivery trucks shall not be delivered to or transferred within the trap grease storage and 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;
- (14) **Venting Trap Grease Delivery Vehicles to Odor Control Equipment**  
The pressure relief valve on trap grease delivery 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;
- (15) **Preventing Accumulation of Processed Materials within Enclosures**  
Standing water, fat, drippings, grease, oil, tallow or other liquids shall not be permitted to accumulate on floors or equipment;
- (16) **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 at least once per shift, unless a shorter time period is necessary to ensure odors from the receiving area are minimized;
- (17) **Washing of Floor Drains**  
Accessible interior and exterior floor drains shall be maintained in a manner that prevents accumulation; and
- (18) **Repair of Leaking Components**  
All leaking valves, flanges, fittings, conveyor troughs, or any other device holding or conveying liquids, drippings, trap grease or tallow at a rendering facility shall be repaired within 72 hours after the actual



discovery of a leak of more than 3 drops per minute, or within 48 hours after discovery and notice by SCAQMD personnel.

(f) Enclosure Standards and Odor Control Standards

(1) The following equipment and processes at a rendering facility shall not be operated except that the equipment or process is operated in a closed system or located within the confines of a permanent enclosure:

- (A) Raw material receiving areas at rendering facilities;
- (B) Conveyors associated with raw material transfer operations that are not completely covered;
- (C) 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 that are not completely covered.
- (D) Raw material cookers;
- (E) Process equipment for separating rendered fat from protein materials (meat and bone meal), 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 that are not completely covered.

(2) 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 permanent enclosure shall be ventilated by a system designed and operated to maintain a minimum inward face velocity through all routine enclosure openings of not less than 200 feet per minute.
  - (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) In lieu of meeting the requirements for minimum face velocity under subparagraph (f)(2)(C), a permanent enclosure shall be ventilated such that each routine enclosure opening is continuously maintained at a negative differential pressure of at least 0.02 mm of Hg (0.011 inches H<sub>2</sub>O) by a digital differential pressure monitor, installed and operated pursuant to paragraph (f)(3).
- (3) Digital Differential Pressure Monitoring System
- For each permanent enclosure, the owner or operator shall install, operate and maintain a digital differential pressure monitoring system as follows:
- (A) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at each of the following three walls in each permanent enclosure having a total ground surface area of 10,000 square feet or more:
    - (i) The leeward wall;
    - (ii) The windward wall; and
    - (iii) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten ( $\pm 10$ ) meters of the midpoint of a straight line between the two other monitors specified in clauses (f)(3)(A)(i) and (f)(3)(A)(ii). The midpoint monitor shall not be located on the same wall as either of the other two monitors.
  - (B) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at the leeward wall of each permanent enclosure that has a total ground surface area of less than 10,000 square feet.

- (C) Digital differential pressure monitoring systems shall be certified by the manufacturer to be capable of measuring and displaying negative pressure in the range of 0.01 to 0.2 mm Hg (0.005 to 0.11 inches H<sub>2</sub>O) with a minimum increment of measurement of plus or minus 0.001 mm Hg (0.0005 inches H<sub>2</sub>O).
- (D) Digital differential pressure monitoring systems shall be equipped with a continuous strip chart recorder or electronic recorder approved by the Executive Officer. If an electronic recorder is used, the recorder shall be capable of writing data on a medium that is secure and tamper-proof. The recorded data shall be readily accessible upon request by the Executive Officer.
- (E) Digital differential pressure monitoring systems shall be calibrated in accordance with manufacturer's specifications at least once every 12 calendar months or more frequently if recommended by the manufacturer.

(g) Wastewater Treatment

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 that the equipment or process is operated in a closed system or located within the confines of a permanent enclosure subject to subdivision (f):

- (1) Screens;
- (2) Skimmers;
- (3) Clarifiers, including dissolved air flotation;
- (4) Settling tanks;
- (5) Sludge dewatering equipment;
- (6) Sludge drying equipment; and
- (7) Wastewater treatment outlet to city sewer.

(h) Odor Mitigation Plan (OMP) Requirements

- (1) An OMP submitted prior to *(36 months after date of adoption)* shall address the following:
  - (A) All facility-specific information required in Appendix A - Rule 415 Odor Mitigation Plan;

- (B) Prioritization of odor-emitting areas within the facility, in order of highest-to-lowest odor intensity;
  - (C) 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 within the odor-emitting area in one or more closed systems, for all equipment and processes subject to paragraph (f)(1) or subdivision (g) within the odor-emitting area that are not located within the confines of a permanent enclosure or operated in a closed system; and
    - (iii) A detailed construction schedule for each proposed permanent enclosure.
  - (D) Explanation of why construction and commissioning of proposed permanent enclosures cannot be expedited prior to *(36 months after date of adoption)*.
- (2) An OMP submitted after *(36 months after date of adoption)* shall address all information required under subparagraphs (h)(1)(A) and (h)(1)(B) and clause (h)(1)(C)(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.
  - (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) A legible written log recording the date and time of discovery of any leaking valves, flanges, fittings, conveyor troughs, or any other device holding or conveying liquids subject to paragraph (e)(18); the name of the individual who detected the leak; the date and time the leak was repaired; and the name, phone number and company affiliation of the individual who repaired the leak;
  - (2) Records of all readings taken by anemometer to demonstrate compliance with the inward face velocity requirement of subparagraph (f)(2)(b);
  - (3) Records from the continuous strip chart recorder or electronic recorder to comply with the requirement for differential pressure monitoring, as required under subparagraph (f)(2)(D);

- (4) 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 of complaint event;
  - (B) Date and time complaint was received;
  - (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;
  - (H) Determination of cause for odor emissions that generated the complaint, if found;
  - (I) Processes or conditions that may have triggered the alleged odor event;
- (k) Exemptions
  - (1) Facilities conducting only edible rendering operations that do not conduct inedible rendering or handle or process trap grease.
  - (2) Collection centers that do not conduct inedible rendering or handle or process trap grease.
  - (3) Facilities that process trap grease but do not conduct animal rendering operations.

**APPENDIX A**  
**RULE 415 ODOR MITIGATION PLAN (OMP)**