

RULE 4691 VEGETABLE OIL PROCESSING OPERATIONS (Adopted April 11, 1991; Amended May 21, 1992; Amended December 17, 1992)

1.0 Purpose

The purpose of this rule is to limit VOC emissions from vegetable oil processing operations and to provide the administrative requirements for recording and measuring emissions.

2.0 Applicability

The provisions of this rule shall apply to vegetable oil plants.

3.0 Definitions

3.1 Conveyor: any mechanical device which removes the meal from one location to another location.

3.2 Desolventizer-Toaster: a process unit in which steam and air are forced through and across the meal to volatilize the solvent.

3.3 Equipment in Organic Service: any pump, valve, pressure relief valve, sight glass, sample connection, open-ended valve, or connector, by which materials containing organic compounds come into contact or are handled.

3.4 Extractor: equipment which has as its function the removal of oil from the oil-bearing material by the use of a solvent.

3.5 Leak: any dripping or indication of dripping of liquid from equipment in organic service; or an emission of organic compounds which causes a portable hydrocarbon detection instrument to register at least 10,000 ppm as methane, as determined by EPA Method 21.

3.6 Meal: spent vegetable seed flakes containing absorbed solvent.

3.7 Mineral Oil Scrubber: a packed tower using mineral oil as an adsorbent for the extraction solvent.

3.8 Portable Hydrocarbon Detection Instrument: a hydrocarbon analyzer which uses the flame ionization detection or thermal conductivity methods and satisfies Method 21, 40 CFR Part 60.

3.9 Solvent: the extraction medium being used to extract the oil in the vegetable seed cake.

- 3.10 Solvent Extraction: removal of vegetable oil from the seed or bean using a solvent in a contact system.
- 3.11 Tumbler or Cooler: a device which reduces the temperature or moisture from the meal.
- 3.12 Vegetable Oil Plant: any facility engaged in the extraction or refining of vegetable oil.

#### 4.0 Exemptions

For existing facilities, if an incineration device is added or modified for the sole purpose of complying with the requirements of this rule, such a device shall be exempt from the Best Available Control Technology and the Offset requirements of Rule 2201 (New and Modified Stationary Source Review Rule).

#### 5.0 Requirements

##### 5.1 Extractor, Desolventizer-Toaster:

A person shall not operate any extractor or desolventizer-toaster that emits more than 15 pounds of VOCs per day, (excluding the meal discharge) unless such emissions are controlled by one (1) of the following:

5.1.1 A condenser and mineral oil scrubber with a combined capture and control efficiency of at least 90 percent by weight; or

5.1.2 An emission control device, with a combined capture and control efficiency of at least 90 percent by weight, confirmed by source testing. Control device shall be under District permit.

5.2 Desolventizer-toaster conveyor, cooler or tumbler: A person shall not operate a vegetable oil plant unless the desolventizer-toaster discharge conveyor prior to the cooler or tumbler is vented to a mineral oil scrubber having a combined capture and control efficiency of at least 90 percent by weight.

5.3 Equipment in organic service: The owner or operator of a vegetable oil extraction plant shall inspect at least once a month all equipment in organic service for any indication of any leak of VOCs. Monthly inspections shall be carried out in accordance with EPA Method 21. If the detected leakage level exceeds 10,000 ppm (expressed as methane), or if leaks are visible, the leaking equipment shall be repaired within ten (10) days.

5.4 A owner or operator shall not use any equipment in organic service at a vegetable oil plant unless such equipment does not leak.

- 5.5 Emissions from leaks in equipment in organic service which have been tagged by the owner or operator for repair in accordance with the requirements of Section 6.1 or which have been repaired and are waiting reinspection pursuant to Section 6.1 shall not constitute a violation of Section 5.4.

## 6.0 Administrative Requirements

### 6.1 Recordkeeping:

Records shall be maintained for two (2) years and be made available to the APCO upon request.

6.1.1 The owner or operator of a vegetable oil plant shall maintain records such that daily solvent consumption can be determined.

6.1.2 A readily visible identification, in the form of a weatherproof tag, shall be attached to any equipment in organic service with is leaking. The identification tag may be removed upon repair.

6.1.3 The owner or operator of a vegetable oil plant shall maintain an inspection log containing, at a minimum, the following:

6.1.3.1 name, location, type of components, and description of any equipment in organic service where leaking components are found.

6.1.3.2 date of leak detection, emission level (ppm) of leak, and method of detection.

6.1.3.3 date and emission level of recheck after leak is repaired.

### 6.2 Test Methods:

6.2.1 Leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with EPA Method 21.

6.2.2 Analysis of samples: Samples of VOC as specified in this rule shall be analyzed by ASTM Method E-168-67, E-169-87, or E-260-85 as applicable and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432.

6.2.3 Determination of emissions: Emissions of VOC shall be measured by EPA Method 25, 25a, or 25b, as applicable, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422.

6.2.4 Where add-on control equipment is utilized, collection efficiency shall be determined by the EPA document "Model Regulatory Language for Capture Efficiency Testing," August 3, 1990.

## 7.0 Compliance Schedule

7.1 Kern, Kings, Madera, Merced, Stanislaus, San Joaquin, or Tulare Counties:

7.1.1 By August 1, 1991, submit to the District a plan describing the methods to be used to comply with the applicable rule.

7.1.2 By November 1, 1991, submit a completed application for Authority to Construct if necessary.

7.1.3 By November 1, 1992, be in full compliance with the requirements of the rule.

7.2 Fresno County :

The owner or operator subject to this rule shall comply with the following increments of progress:

7.2.1 By May 1, 1988, submit to the District a plan describing the methods to be used to comply with the applicable rule.

7.2.2 By July 1, 1988 submit a completed application for Authority to Construct if needed.

7.2.3 By December 1, 1988, be in full compliance with the requirements of the rule.