



County of San Diego



R. J. Sommerville
Air Pollution Control Officer

**NOTICE OF WORKSHOP
FOR DISCUSSION OF PROPOSED AMENDMENTS TO
RULE 67.10 - KELP PROCESSING AND
BIO-POLYMER MANUFACTURING OPERATIONS**

The San Diego Air Pollution Control District will hold a public meeting to consider the proposed amendments to Rule 67.10 - Kelp Processing and Bio-Polymer Manufacturing Operations. Comments regarding the proposed amended rule may be submitted in writing before, or made at the workshop, which is scheduled as follows:

DATE: December 11, 1990
TIME: 1:00 - 4:00 p.m.
PLACE: Sheriff's Department, Conference Room
County Operations Center, Building #1
5555 Overland Avenue
San Diego, CA 92123

The amendments to Rule 67.10 correct deficiencies identified by the Environmental Protection Agency. They also include increased control requirements to ensure additional volatile organic compounds (VOC) emissions reductions. The proposed amendments will:

- Increase the VOC emission control efficiency requirements for bio-polymer manufacturing lines and kelp processing lines without reactors from 90% to 95%.
- Increase the control efficiency requirements for kelp processing lines with reactors from 80 to 90% in 1993 and to 95% in 1995.
- Revise the applicability of the fugitive liquid leak prohibition from liquids containing more than 50% by weight VOC to liquids containing more than 10% by weight VOC.
- Add an exemption for low volatility compounds.
- Clarify certain provisions and delete unnecessary language.
- Revise the VOC definition and add additional compounds that are exempt from regulation because they are not ozone precursors, to meet EPA requirements.
- Specify test methods that will be used to determine compliance with the rule.
- Add recordkeeping requirements.
- Specify that a compliance determination period for add-on control devices shall be not more than 24 hours, nor less than 16 hours.

If you would like a copy of the proposed amended Rule 67.10, please call Juanita Ogata at (619) 694-3307. If you have any questions concerning the proposal, please call Natalie Zlotin at (619) 694-3312 or me at (619) 694-3303.

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Proposed amendments to Rule 67.10 are to read as follows:

RULE 67.10. KELP PROCESSING AND BIO-POLYMER MANUFACTURING OPERATIONS

(a) APPLICABILITY

(1) Except as otherwise provided in Section (b), this rule is applicable to any kelp processing or bio-polymer manufacturing line where volatile organic compounds (VOC's) are used as reactants, dissolvers or extractants or used to separate or purify the products of kelp processing or bio-polymer manufacturing line operations.

(2) Operations subject to and in compliance with this rule shall not be subject to Rule 67.6.

(b) EXEMPTIONS

This rule shall not be applicable to:

(1) Any kelp processing or bio-polymer manufacturing line where emissions of ~~volatile organic compounds (VOC's)~~, at the maximum design capacity of the line, are no greater than 15 pounds in any one day, provided total emissions of ~~volatile organic compounds (VOC's)~~ from all kelp processing or bio-polymer manufacturing equipment located at a stationary source are no greater than 100 pounds in a day; and

(2) ~~Fuel oil; and~~

~~(3)~~(2) Laboratory and pilot plant facilities used exclusively for research and development.

(3) Any low volatility organic liquid which, if distilled, has a weight percent evaporated at 150°C (302°F) of 10% or less.

It shall be the responsibility of a person claiming any of the above exemptions to maintain daily records necessary for the District to determine the applicability of such an exemption. All records shall be retained on site for at least two years and shall be submitted to the District upon request.

(c) DEFINITIONS

(1) "Approved Air Pollution Control Device" means a single piece of equipment or combination of pieces of equipment which is approved by the Air Pollution Control Officer.

(2) **"Drier"** means a device used to remove water and/or ~~volatile organic compounds (VOC's)~~ from a material by applying heat, by flowing unsaturated air, or by subjecting the material to vacuum, or any combination thereof.

(3) **"Fugitive Liquid Leak"** means a visible leak of liquid, containing greater than ~~50~~ 10 percent by weight VOC, at a rate sufficient to cause a continuous stream or a pressurized spray of liquid droplets. An exposed process stream containing VOC moving from one piece of process equipment to another or within a piece of process equipment is not a fugitive liquid leak.

(4) **"Incorporator"** means a device in which a solid and a VOC introduced into the device are mixed, where it is not intended that the VOC chemically modify the solid.

(5) **"Kelp Processing Line"** means one or more pieces of equipment linked by a process flow in which kelp or any of its derivatives is dried, extracted, filtered, mixed, or reacted with any VOC where the end product cannot be produced if any piece of equipment is removed or not functioning.

(6) **"Press"** means a mechanical device for separating liquids from solids.

(7) **"Reactor"** means a device in which a chemical reaction takes place between two or more materials introduced into the device, where a VOC chemically modifies one or more materials.

(8) **"Bio-polymer Manufacturing Line"** means one or more pieces of equipment linked by a process flow in which a bio-polymer or any of its precursors is dried, extracted, filtered, mixed or reacted with any VOC where the end product cannot be produced if any piece of equipment is removed or not functioning.

(9) **"Stationary Source"** means the same as is defined in Rule 20.1.

(10) **"Stationary Storage Tank"** means any tank, reservoir, or other container used to store, but not transport, VOC. Stationary storage tanks do not include tanks used to separate solids from process streams.

(11) **"Still"** means a device designed to separate, in whole or in part, the constituents of a mixture of miscible liquids by heating the liquid mixture and preferentially condensing and collecting the vapors.

(12) **"Volatile Organic Compound" (VOC)** means any compound containing at least one atom of carbon, except: methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methylene chloride, 1,1,1-trichloroethane, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (CFC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), dichlorofluoroethane (HCFC-141b), tetrafluoroethane (HFC-134a) and chlorodifluoroethane (HCFC-142b), that, in its pure state, ~~has an absolute vapor pressure greater than 25 mm Hg (0.5 psi) at 20° C.~~

(d) **STANDARDS**

(1) ~~On and after June 1, 1985, a~~ A person shall not operate any kelp processing or bio-polymer manufacturing line unless all aboveground stationary storage tanks, having capacities greater than 20,000 gallons, containing VOC used in conjunction with the line are equipped with pressure-vacuum relief valves ~~meeting specifications approved by the Air Pollution Control Officer~~ and having minimum relief settings of 5 oz/sq. in. (pressure) and 0.5 oz/sq. in. (vacuum). Tanks with capacities greater than 50,000 gallons shall have minimum relief settings of 0.5 oz/sq. in. (pressure) and 0.5 oz/sq. in. (vacuum).

(2) ~~On and after June 1, 1985, a~~ A person shall not operate any kelp processing or bio-polymer manufacturing line unless all piping, valves, fittings, tanks, stills, incorporators, process equipment (excluding presses) and other devices used to transport, store, react or process VOC or materials containing VOC are free of fugitive liquid leaks. Repair of a fugitive liquid leak may be delayed until the leaking equipment is next scheduled to be off-line provided:

(i) The time, date and location of the leak are recorded promptly following detection;

(ii) All practicable steps to minimize the magnitude of the leak are taken as soon as possible following detection;

(iii) The repair is made within 72 hours of detection; and

(iv) The record required by Subsection (d)(2)(i) is made available to the Air Pollution Control Officer upon request.

An unrecorded leak shall be considered a violation of this rule. Effective (12 months after date of adoption) any part of kelp processing or bio-polymer operating line which becomes subject to this subsection due to change in the definition (c)(3) shall be in compliance with Subsection (d)(2).

This subsection shall not apply to liquid losses occurring during maintenance, repair or back flushing of process and storage equipment.

(3) ~~On and after June 1, 1985, a~~ A person shall not operate any kelp processing or bio-polymer manufacturing line unless each in-process tank for material containing VOC is equipped with an apparatus or cover which completely covers the tank, ~~which is designed to retard VOC evaporation~~ but not necessarily provides a vapor tight seal, and which is closed or in place at all times except as necessary to meet operating requirements or for maintenance.

~~(4) Effective October 1, 1986 a~~ A person shall not operate any bio-polymer manufacturing line unless the total emissions of VOC's to the atmosphere from all driers used in conjunction with all lines are reduced by means of a control device ~~designed to reduce the total VOC emissions to the atmosphere~~ by at least ~~90~~ 95 percent by weight. This requirement shall not apply to driers whose exhaust contains VOC at an average concentration of 200 ppmv or less over a complete batch or cycle. Emissions of VOC occurring during the transfer of materials containing VOC into or out of a drier shall be included when determining emissions from that drier.

(5) A person shall not operate a kelp processing line ~~after the effective dates listed below~~ unless the total emissions of VOC to the atmosphere from all driers and reactors used in conjunction with all affected lines are reduced by means of a control device ~~as follows: designed to reduce the total VOC emissions to the atmosphere by at least 90 percent by weight. Emissions of VOC occurring during the transfer of materials containing VOC into or out of a drier or reactor shall be included when determining emissions from the drier or reactor. The effective dates for kelp processing lines shall be as follows:~~

(i) For kelp processing lines or portions of lines where the primary VOC being emitted is not a process reactant or byproduct of a process reaction, by at least 95 percent by weight, the effective date shall be July 1, 1988.

(ii) For kelp processing lines or portions of lines where the primary VOC being emitted is a process reactant or byproduct of a process reaction, by at least 80 percent by weight, the effective date shall be June 1, 1990. Effective January 1, 1993, the emission reduction effectiveness shall be at least 90 percent, and effective January 1, 1995, at least 95 percent.

Emissions of VOC occurring during the transfer of materials containing VOC into or out of a drier or reactor shall be included when determining emissions from the drier or reactor.

(6) ~~Notwithstanding the design VOC emission reduction level specified in Subsections (d)(4) and (d)(5), a person shall not operate any bio-polymer manufacturing line or any kelp processing line unless the VOC emissions subject to control under Subsections (d)(4) and (d)(5) are reduced by at least 90 percent by weight. This 90 percent reduction requirement shall not apply if such VOC emissions are reduced by at least 85 percent by weight and the requirements of Subsection (d)(8) have been met.~~

~~Only reductions in VOC emissions from bio-polymer manufacturing lines and kelp processing lines in excess of the 90 percent level may be used as offsets or credits for VOC~~

~~emissions increases under any other Rule or Regulation of the Air Pollution Control District.~~

(7)(6) Equipment, devices and systems in use to transport and control VOC emissions pursuant to Subsections (d)(4) and (d)(5) shall be maintained so as to be free of visible holes, breaks, openings or separations between adjoining components, that are not consistent with their design and intended operating function, from which fugitive VOC vapors would be emitted to the atmosphere.

(8)(7) An operation and maintenance program shall be submitted to the Air Pollution Control Officer for approval for new equipment required by Subsections (d)(4) and (d)(5). Each submittal shall be made not more than thirty days after the applicable compliance date specified in Subsections (d)(4) and (d)(5). Each program shall be implemented on approval of the Air Pollution Control Officer.

Each operation and maintenance program submitted for approval shall:

(i) ~~Seek to maintain~~ Maintain the VOC emission reduction efficiency design criteria required under Subsections (d)(4) and (d)(5); and

(ii) Identify all key system operating parameters. Key system operating parameters are those ~~reasonable and necessary~~ parameters that are intended necessary to maintain the ~~design criteria~~ VOC emission reduction efficiency required under Subsections (d)(4) and (d)(5); and

(iii) Include proposed inspection schedules, anticipated ongoing maintenance steps and proposed daily recordkeeping practices regarding the key system operating parameters.

Each program will apply only to the new equipment necessary that must be installed to meet the requirements of Subsections (d)(4) and (d)(5) and need not include inspection, maintenance or recordkeeping relevant to compliance with Subsection (d)(6)(7).

~~Records required by this subsection shall be kept for two years and provided upon request to the Air Pollution Control Officer.~~

~~The operator of equipment subject to this rule may appeal to the Hearing Board the decision of the Air Pollution Control Officer to conditionally approve or disapprove a program submitted for approval pursuant to this subsection. The Hearing Board, after notice and a public hearing held within 30 days after the petition is filed, may sustain, reverse or modify the action of the Air Pollution Control Officer; such order may also be made subject to specified conditions.~~

~~If VOC emissions subject to control under Subsections (d)(4) and (d)(5) are reduced by at least 90 percent by weight, this subsection shall not be the basis for a determination of non-compliance.~~

~~(8)(9)~~ Compliance with Subsections ~~(d)(6)~~ (4) and ~~(d)(5)~~ shall be determined based upon tests or observations of the process equipment and air pollution control system during a period of at least 16 hours, but not more than 24 hours. Compliance may be demonstrated through tests or observations for a shorter period of time provided such period of time has been determined appropriate by the Air Pollution Control Officer. ~~Such a shorter test period shall not be the basis for determining non-compliance.~~

~~(10)~~ Within seven months of each compliance date specified by Subsection ~~(d)(5)~~ the Air Pollution Control Officer shall evaluate the VOC reduction efficiency actually achieved in practice by equipment used to meet the requirements of Subsection ~~(d)(6)~~. If the required VOC reduction efficiency cannot be met on an ongoing basis, after all reasonable efforts to achieve compliance have been made, the Air Pollution Control Officer shall advise the Air Pollution Control Board and make a recommendation to revise this rule to reflect the maximum VOC reduction efficiency that can reasonably be met on an ongoing basis. In the case of such inability to meet the required VOC reduction efficiency, the requirements of Subsection ~~(d)(6)~~ shall be deemed to have been met for the period from the date of final compliance specified in Subsection ~~(d)(5)~~ until such time as the Air Pollution Control Board acts on the recommendation of the Air Pollution Control Officer.

Reasonable efforts to achieve compliance shall include, but not be limited to, adherence to the operation and maintenance program approved pursuant to Subsection ~~(d)(8)~~.

~~(e)~~ SCHEDULE OF INCREMENTS OF PROGRESS

Any person subject to this rule shall comply with the following increments of progress:

~~(1)~~ By March 1, 1985, submit to the Air Pollution Control Officer applications for Authorities to Construct and Permits to Operate an approved air pollution control device and any modifications to process equipment necessary to achieve compliance with Subsection ~~(d)(4)~~.

~~(2)~~ By June 1, 1985, be in compliance with Subsections ~~(d)(1)~~, ~~(d)(2)~~, and ~~(d)(3)~~.

~~(3)~~ By September 1, 1985, issue purchase orders for the basic VOC control device and other long delivery time components necessary to comply with Subsection ~~(d)(4)~~.

~~(4)~~ By October 1, 1986, be in compliance with Subsection ~~(d)(4)~~.

~~(5)~~ By January 1, 1987, submit to the Air Pollution Control Officer applications for Authorities to Construct and Permits to Operate an approved air pollution control device and any modifications to process equipment necessary to achieve compliance with Subsection ~~(d)(5)(i)~~.

~~(6)~~ By July 1, 1987, issue purchase orders for the basic VOC control device and other long delivery time components necessary to comply with Subsection ~~(d)(5)(i)~~.

~~(7)~~ By July 1, 1988, be in compliance with Subsection ~~(d)(5)(i)~~.

~~(8)~~ By December 1, 1988, submit to the Air Pollution Control Officer applications for Authorities to Construct and Permits to Operate an approved air pollution control device

~~and any modifications to process equipment necessary to achieve compliance with Subsection (d)(5)(ii).~~

~~(9) By June 1, 1989, issue purchase orders for the basic VOC control device and other long delivery time components necessary to comply with Subsection (d)(5)(ii).~~

~~(10) By June 1, 1990, be in compliance with Subsection (d)(5)(ii).~~

(e) RECORDKEEPING

Any person subject to the requirements of Section (d) of this rule shall maintain the following records:

(1) A current list of VOC's, subject to this rule that are in use, and

(2) Daily records of process and key system operating parameters and maintenance performed pursuant to Subsections (d)(4), (d)(5) and (d)(7).

All records shall be retained on site for at least two years, and shall be made available to the District upon request.

(f) VOC TEST METHODS

The VOC content of fluids subject to Subsection (c)(3) of this rule shall be determined in accordance with ASTM Standard Recommended Practices for General Gas Chromatography Procedures, E 260-73, General Techniques of Infrared Quantitative Analysis, E 168-67, or General Techniques of Ultraviolet Quantitative Analysis, E 169-63.

Measurement of volatility of VOC containing substances pursuant to Subsection (b)(4) shall be conducted in accordance with ASTM Standard Test Method of Distillation Range of Volatile Organic Liquids, D 1078-86.

Measurements of VOC content subject to Subsections (d)(4), (d)(5), (d)(6) and (d)(9) of this rule shall be conducted in accordance with EPA Test Method 25 (40 CFR, Appendix A) as it existed on (date of adoption).