AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

RULE 67.10 - KELP PROCESSING AND BIO-POLYMER MANUFACTURING OPERATIONS

WORKSHOP REPORT

A workshop notice was mailed to the one company known to be involved in kelp processing and bio-polymer manufacturing operations in San Diego County. Notices were also mailed to all Economic Development Corporations and Chambers of Commerce in San Diego County, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

A workshop was held on February 5, 1997. Written comments from the affected company and from EPA were provided. Additional comments were presented at the workshop. The comments and District responses are as follows:

1. WORKSHOP COMMENT:

The exemption for temporary equipment in Subsection (b)(4) should be amended to allow a volatile organic compound (VOC) emissions increase of 27 pounds per day instead of 10 pounds per day. This would be consistent with the 5 tons per year District Rule 11 exemption being developed for the biotechnology industries.

DISTRICT RESPONSE:

The exemption from permit requirements proposed in Rule 11 for the biotechnology industry (5 tons per year of VOC or less) applies to the entire stationary source. It does not apply to each piece of equipment as does Subsection (b)(4) or Rule 67.10. Applying the same exemption criteria to Rule 67.10 as is proposed for the biotechnology industry in Rule 11 would make Rule 67.10 more stringent than it currently is for the one affected facility. Since this facility clearly has stationary source emissions greater than 5 tons per year, applying this criteria would mean no equipment would be exempt from the requirements of Rule 67.10.

It should also be noted that the exemption proposed in Rule 11 for the biotechnology industry is from permit requirements only. It provides no exemption from the requirements of other applicable rules.

The existing 10 pound per day exemption limit is consistent with the District's New Source Review threshold for Best Available Control Technology (BACT) required by the California Health and Safety Code. Revising the exemption level in Rule 67.10 from 10 to 27 pounds per day would not exempt the equipment from complying with BACT requirements.

Lastly, allowing an exemption increase from 10 to 27 pounds per day per piece of equipment, as this comment proposes, would be considered a relaxation of the federal State Implementation Plan for San Diego county. The EPA would not approve such a relaxation.

2. WORKSHOP COMMENT:

Definition (c)(5) for "fugitive liquid leaks" includes a criterion of three drops per minute. Is this consistent with the standard used for other industries in San Diego County?

DISTRICT RESPONSE:

Yes. District rules related to storage and transfer of fuels or solvents (Rule 61 series), Rule 67.8 (Dry Cleaning Facilities Using Halogenated Organic Solvent), and Rule 67.19 (Coatings and Printing Inks Manufacturing Operations) define a "fugitive liquid leak" as a rate in excess of three drops per minute. The three drops per minute standard for fugitive liquid leaks is one of EPA's reasonably available control technology (RACT) requirements for fugitive emission controls.

3. WORKSHOP COMMENT:

Definition (c)(14) for "spent pot" should be revised and the word "distillation" deleted. The current definition could mistakenly be interpreted to apply to large settling tanks.

DISTRICT RESPONSE:

The District agrees. The word "distillation" has been deleted from definition (c)(14) for "spent pot".

4. WORKSHOP COMMENT:

Definition (c)(18) for "temporary equipment" should be revised by deleting the restriction that it apply only to equipment located at a pilot plant facility. The exemption in Subsection (b)(4) for temporary equipment should also delete reference to a pilot plant facility.

DISTRICT RESPONSE:

The District disagrees. The definition and exemption for temporary equipment in a pilot plant facility was included when the rule was revised in 1994. At that time, the District agreed that some research and development work needed to be done in a pilot plant. This research and development work could require the use of different pieces of equipment for short periods of time and could be allowed provided that each piece of equipment did not result in more than 10 pounds per day VOC emissions increase. Revising the definition as suggested would expand this exemption from Rule 67.10 to include temporary equipment located anywhere at the facility, not just at a pilot plant. The District does not believe such an expanded exemption from the requirements of Rule 67.10 is appropriate. In addition, even if this exemption were expanded as suggested, such temporary equipment would still require a permit to operate and be subject to the District's New Source Review rules.

5. WORKSHOP COMMENT:

Is it the District's intent to exclude exempt compounds identified in Rule 2(b)(20) from the VOC definition in Subsection (c)(19)? Is acetone included as an exempt compound?

DISTRICT RESPONSE:

Yes. Definition (c)(19) excludes any non-photochemically reactive "exempt" compound from being considered a VOC. Definition (c)(4) for "exempt compound" has been revised and now references District Rule 2 which was updated for consistency with the recent EPA definition. It now includes acetone as an exempt compound.

6. WORKSHOP COMMENT:

The provisions of Subsection (d)(4) should not apply to emissions or liquid losses occurring during maintenance, cleaning, repair, or back flushing of the press systems. A statement specifying this should be added to Subsection (d)(4).

DISTRICT RESPONSE:

Since only Subsections (d)(4)(i) and (d)(4)(v) regulate emissions from the presses, the suggested language relates specifically to those subsections. Wording has been added to Subsection (d)(4) to exclude emissions from press systems occurring during maintenance, cleaning, repair, or back flushing. Liquid losses are occurring during maintenance, cleaning, repair, or back flushing of equipment are excluded under Subsection (d)(8).

7. WORKSHOP COMMENT:

The proposed revision to Subsection (d)(8) no longer states that a fugitive liquid leak from an incorporator is considered a violation of the rule only if the liquid contains more than 50% by weight VOC. Control equipment for the incorporators are not scheduled to be installed until November, 1999. Since there is no compliance schedule for Subsection (d)(8), it would become effective upon adoption of the rule and result in a period of non-compliance. It is requested that Subsection (d)(8) be included in the compliance schedule and allow until November, 1999 for installation of control equipment.

DISTRICT RESPONSE:

The District agrees. The rule has been revised to include a compliance schedule in Section (g) for incorporators subject to Subsection (d)(8). The compliance schedule provides until November, 1999 for incorporators to comply with the new liquid leak requirements of Subsection (d)(8) .

8. WORKSHOP COMMENT:

The new language "identified at the time of the District compliance inspection" added to Subsection (d)(8) is an unnecessary tightening of the rule and is contrary to State Assembly Bill (AB) 2937 which allows regulatory discretion by the District to issue a Notice to Comply instead of a Notice of Violation for minor violations.

DISTRICT RESPONSE:

The District disagrees. The addition of this language to Subsection (d)(8) is not a tightening of the rule. The intent of the provision remains unchanged. This language was added merely to clarify previous misunderstandings regarding this provision.

Although AB 2937 has been signed into law, the program necessary to implement it is still in its early stages. The District's Compliance Division is participating in a Statewide Committee to develop a model rule to implement AB 2937 in a consistent manner throughout the state. However, it is important to note that, to date, the committee has agreed that any excess emission incident will not be categorized as a minor violation. A notice to comply is only a different means of handling a violation. The non-compliance incident is still considered to be a violation.

Implementation of AB 2937 is outside the scope of this specific rule to address. Interested parties will have an opportunity to participate when the Statewide Committee develops a model rule and submits it for public workshops.

9. WORKSHOP COMMENT:

Subsection (d)(8) contains an exemption for liquid losses occurring during maintenance, repair, or back flushing of process and storage equipment. This exemption should also apply to liquid losses during cleaning of process and storage equipment. It is also unclear whether distillation units are considered process equipment.

DISTRICT RESPONSE:

The District agrees. The word "cleaning" has been added. The District considers process equipment to include distillation units.

10. WORKSHOP COMMENT:

Subsection (d)(8) as proposed will require weekly inspection of all facility components which may contain VOC or materials containing VOC. This is a tremendous task due to the number of components and some of these are not easily accessible. It is requested that Subsection (d)(8) replace the list of components with the phrase "components in the inspection program."

DISTRICT RESPONSE:

The suggested revision is vague and unenforceable. There is no requirement in the rule to provide an inspection program and therefore the components that require regular inspection would remain unidentified. The District recognizes the magnitude of this task and the problem of inaccessibility. The District has addressed this concern by including language in Subsection (d)(8) to allow for an alternative inspection schedule as approved by the Air Pollution Control Officer.

11. WORKSHOP COMMENT:

Subsection (d)(8) should further be revised to replace the requirement that the equipment be "visually free of fugitive liquid leaks" with "inspected and repaired in accordance with this subsection."

DISTRICT RESPONSE:

The District disagrees. The purpose of Subsection (d)(8) is precisely to ensure that the equipment be free of fugitive liquid leaks. The proposed addition of an inspection schedule is in response to an EPA-identified deficiency to make the standard enforceable and more precise. The inspection, therefore, is not the ultimate goal, but the means of assuring the goal.

The suggested language would be a relaxation of the rule and make it unapprovable by EPA.

12. WORKSHOP COMMENT:

The inspection frequency specified in Subsection (d)(8) should be revised to monthly.

DISTRICT RESPONSE:

The District agrees. Subsection (d)(8) has been revised as suggested.

13. WORKSHOP COMMENT:

Subsection (f)(3) which specifies the test method for capture efficiency of an emission collection system should not apply to Subsections (d)(1), (d)(2), and (d)(3).

DISTRICT RESPONSE:

The District agrees. The reference to Subsections (d)(1), (d)(2), and (d)(3) has been removed from Subsection (f)(3).

14. WORKSHOP COMMENT:

Subsection (f)(3) should be revised to specify that one or more of the alternative or reference protocols or methods within EPA's document "Guidelines for Determining Capture Efficiency" can be used. Additionally, language stating that alternate methods or protocols acceptable to the APCO should be added.

DISTRICT RESPONSE:

Subsection (f)(3) specifies the use of "Guidelines for Determining Capture Efficiency" to determine the efficiency of emission collection systems. Any protocol or method within that document is therefore acceptable if it is demonstrated to the satisfaction of the District that all criteria of the test applicability are met.

The use of alternate methods or protocols approved only by the District would be unacceptable to EPA. EPA has been reluctant in the past to accept any alternate test methods not reviewed and approved by EPA. Language has been added to Subsection (f)(3) to allow for alternate test methods as approved by EPA. As a result, the affected facility will need to make an equivalency demonstration directly to EPA.

15. WORKSHOP COMMENT:

It is requested that the compliance schedules in Subsections (g)(2) and (g)(3) be extended to November 24, 1999 for demonstration of compliance with the incorporator and propylene glycol emissions control requirements.

DISTRICT RESPONSE:

The compliance schedule has been extended as requested.

16. WORKSHOP COMMENT:

Subsection (d)(8) prohibits fugitive liquid leaks and requires regular inspection of all components. Some components may contain or transport propylene oxide (PO) which is a hazardous air pollutant (HAP) while others contain or transport isopropyl alcohol (IPA) which is a VOC. The requirements of Subsection (d)(8) are very stringent for IPA. Is this inspection program for IPA consistent with EPA guidelines?

DISTRICT RESPONSE:

EPA's CTG for "Control of VOC Leaks from Synthetic Organic Chemicals and Polymer Manufacturing Equipment" requires that components in VOC service be free of leaks and monitored regularly. The only distinction in frequency of monitoring is for components in light liquid service compared to components in heavy liquid service. IPA is a light liquid as defined in this CTG.

Subsection (d)(8) has been revised to allow a modified monitoring frequency and inspection plan to be issued if approved by the District.

17. WORKSHOP COMMENT:

The existing format of Rule 67.10 is very familiar and is preferred.

DISTRICT RESPONSE:

The comment is noted. However, in an effort to make the format of all District rules consistent, the revised format will be retained.

18. EPA COMMENT:

The definitions in Subsection (c)(4) for "exempt compound" and (c)(15) for "stationary source" refer to definitions in District Rule 2. Only rules that have been incorporated into the SIP may be referenced. The current Rule 2 in the SIP was adopted on September 2, 1983.

DISTRICT RESPONSE:

Revised District Rule 2 was adopted on May 15, 1996, and submitted to EPA for inclusion in the SIP on October 18, 1996. District Rule 2 was proposed for inclusion in the SIP on March 27, 1997 and will become effective May 27, 1997. The District will therefore retain references to Rule 2.

19. EPA COMMENT:

The Consent Decree entered into with EPA by the affected facility requires that the emission collection system specified in Subsection (d)(4)(ii) meet the criteria for permanent total enclosure in EPA Method 204. For consistency with the Consent Decree, Subsection (d)(4)(ii) should require that the design of the emission collection system comply with the criteria of Method 204.

DISTRICT RESPONSE:

The proposed language in Subsection (f)(3) of Rule 67.10 does not preclude the use of Test Method 204. If the source demonstrates that the emission collection system required under Subsection (d)(4)(ii) meets the criteria of Test Method 204, then the District will accept the design of that equipment as meeting the criteria of that Test Method.

Test Method 204 is part of EPA's document "Guidelines for Determining Capture Efficiency" and, therefore, reference to that document is appropriate.

20. EPA COMMENT:

The recordkeeping provisions of Section (b) and Section (e) require that records be retained on site for at least two years. For consistency with federal policy and Title V, this should be revised to require records for at least five years.

DISTRICT RESPONSE:

The District agrees. Section (b) and Section (e) have been revised accordingly.

ADDENDUM

21. WRITTEN COMMENT:

Subsection (d)(2) requires that VOC emissions from dryers and reactors in kelp processing lines be reduced by means of an air pollution control device with a specified efficiency. In actual operation, some of the emissions are bypassed and are not routed to the air pollution control device. Historically, this procedure has been specified by permit conditions and considered to be acceptable. However, the rule language does not appear to provide such flexibility.

DISTRICT RESPONSE:

Rule 67.10 requires that the total VOC emissions from all dryers and reactors be reduced by means of an approved control device with a specified overall efficiency. To provide flexibility in the selection and design of the VOC capture and control system, the rule does not address specific operation details of the control device which may differ depending on the type of control device and the nature of processes being controlled. The determination of the control device's operational parameters, such as flow rates, temperature, etc., is left to a permitting engineer with the requirement that the control system and permit conditions ensure that the emission control system operates in compliance with the overall emission control rule requirements. It is expected that this procedure will be followed when determining acceptability of some emissions not being routed to the control device in Plant B.

AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

PROPOSED AMENDMENTS TO RULE 67.10

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, or associated pilot plant facility, 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) Kelp processing and bio-polymer manufacturing operations subject to, or exempt from, this rule shall not be subject to Rule 66.

(b) **EXEMPTIONS**

The provisions of Sections (d), (e), and (g) of this rule shall not apply to:

(1) Any kelp processing or bio-polymer manufacturing line where emissions of VOC's, at the maximum design capacity of the line, are no greater than 15 pounds in any one day, provided total emissions of 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. It shall be the responsibility of a person claiming this exemption to maintain daily records necessary for the District to determine the applicability of such an exemption; and

(2) Fuel oil; and

(3) Laboratory facilities used exclusively for research and development provided that monthly records are kept of the usage of VOC-containing materials; and

~~(4) Any low volatility organic compound which has a normal boiling point of 185°C or greater. Any person claiming this exemption shall maintain written records which substantiate the claim such as applicable manufacturer's specifications or, for pure compounds, standard reference texts.~~

~~(5)~~(4) Any temporary equipment installed in a pilot plant facility and resulting in an emissions increase not exceeding 10 pounds of VOC's per day. It shall be the responsibility of a person claiming this exemption to maintain daily records necessary for the District to determine the applicability of such an exemption.

All records pursuant to Subsections (b)(1), (b)(3), and (b)(4)~~, and (b)(5)~~ shall be retained on site for at least ~~two~~ five years and shall be submitted to the District upon request.

(c) **DEFINITIONS**

For the purpose of this rule the following definitions shall apply:

(1) **"Approved Air Pollution Control Device"** means a single piece of equipment or combination of pieces of equipment which is designed to reduce the emissions of air contaminants and which is approved, in writing, by the Air Pollution Control Officer.

(2) **"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.

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

(4) **"Exempt Compound"** means the same as defined in Rule 2.

~~any of the following compounds or classes of compounds: 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trifluoromethane (HFC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), chlorodifluoromethane (HCFC-22), dichlorotrifluoroethane (HCFC-123), dichlorofluoroethane (HCFC-141b), 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1,2,2-tetrafluoroethane (HFC-134), chlorodifluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), and the following four classes of perfluorocarbon (PFC) compounds:~~

~~(i) cyclic, branched, or linear, completely fluorinated alkanes;~~

~~(ii) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;~~

~~(iii) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and~~

~~(iv) sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.~~

(5) **"Fugitive Liquid Leak"** means a visible leak of liquid, containing greater than 10 percent by weight VOC, at a rate in excess of three drops per minute, or a visible mist. For the purposes of this rule, a liquid leak dropping into a capture system which is connected to an air pollution control device shall not be considered a fugitive liquid leak.

(6) **"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.

(7) **"In-Process Tank"** means a tank, which is part of a kelp processing or bio-polymer manufacturing line or pilot plant facility and which is used to handle or transfer VOC-containing material. In-process tanks include spent pots, but exclude stationary storage tanks.

(8) **"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.

(9) **"Laboratory Facility"** means a facility which uses bench-scale or small-scale equipment for the purpose of conducting studies or tests for the research, development or evaluation of a product, process, or service.

(10) **"Pilot Plant Facility"** means a facility which uses small-scale or intermediate-scale process equipment.

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

(12) **"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.

(13) **"Research and Development"** means bench-scale or small-scale kelp and/or bio-polymer processing operations, including operations performed for purposes of testing and quality control, which are not used for production purposes to produce a salable product or service, other than the first-article product or service.

(14) **"Spent Pot"** means the container where VOC-containing liquid is initially collected ~~immediately~~ after being discharged from a press ~~before distillation~~.

(15) **"Stationary Source"** means the same as ~~is~~ defined in Rule 2.

(16) **"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 or spent pots.

(17) **"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.

(18) **"Temporary Equipment"**, for the purposes of the exemption in Subsection (b)(5), means equipment located at a pilot plant facility for a period not exceeding 90 days in any consecutive ~~twelve~~ 12-month period.

(19) **"Volatile Organic Compound (VOC)"** means any volatile compound containing at least one atom of carbon excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonates, and exempt compounds which may be emitted to the atmosphere during operations subject to any provision of this rule.

(d) **STANDARDS**

~~(1) 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 which have 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).~~
moved to new Subsection (d)(6)

~~(2) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless all piping, valves, fittings, tanks, stills, process equipment and other devices used to transport, store, react or process VOC or materials containing VOC are free of fugitive liquid leaks. A fugitive liquid leak from incorporators shall only be considered a violation of this rule if the liquid contains more than 50 percent by weight of VOC.~~ ***moved to new Subsection (d)(8)***

~~Repair of a fugitive liquid leak may be delayed until the leaking equipment is next scheduled to be off-line, or a production cycle is completed, or within 72 hours of detection, whichever occurs first, 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; and~~

~~(iii) 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. The provisions of this subsection shall become effective June 15, 1997 for presses in a kelp processing manufacturing line.~~

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

~~(3) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless each in-process tank for material containing VOC is equipped with an apparatus or cover which completely covers the tank 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.~~ ***moved to new Subsection (d)(5)***

~~(4)~~(1) A person shall not operate any bio-polymer manufacturing line unless the total emissions of VOC's to the atmosphere from all ~~driers~~ dryers used in conjunction with all lines are reduced by at least 95 percent by weight by means of an approved air pollution control device. This requirement shall not apply to ~~driers~~ dryers 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~~ dryer shall be included when determining emissions from that ~~drier~~ dryer.

~~(5)~~(2) A person shall not operate a kelp processing line unless the total emissions of VOC to the atmosphere from all ~~driers~~ dryers and reactors used in conjunction with all affected lines are reduced by means of an approved air pollution control device as follows:

(i) For all dryers in 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 a total of at least 95 percent by weight.

(ii) For all reactors and dryers associated with those reactors in kelp processing lines or portions of lines where the primary VOC being emitted is a process reactant or byproduct of a process reaction, except propylene glycol, by a total of at least 80 percent by weight.

(iii) For all dryers in kelp processing lines where propylene glycol is being emitted, by a total of at least 90 percent by weight.

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

~~(6)~~(3) A person shall not operate any pilot plant facility unless the total emissions of VOC's to the atmosphere from all ~~driers~~ dryers used in conjunction with all lines are reduced by at least 95 percent by weight by means of an approved air pollution control device. This requirement shall not apply to ~~driers~~ dryers 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 pneumatic transfer of materials containing VOC into or out of a ~~drier~~ dryer shall be included when determining emissions from that ~~drier~~ dryer. Emissions of VOC occurring during manual transfer of materials containing VOC into or out of a ~~drier~~ dryer shall not be included when determining emissions from that ~~drier~~ dryer, provided the containers used to transfer the materials are covered after filling and prior to discharge.

(4) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless:

(i) The ~~total~~ uncontrolled emissions of VOC to the atmosphere from presses and spent pots are captured by an emission collection system and the captured emissions are transported to an air pollution control device, and the combined emissions capture and control device efficiency is at least 75% by weight; and

(ii) The ~~total~~ uncontrolled emissions of VOC to the atmosphere from incorporators are captured by an emission collection system and the captured emissions are transported to an air pollution control device, and the combined emissions capture and control device efficiency is at least 80% by weight; and

(iii) Pumps processing VOC-containing material are equipped with dual mechanical seals, or equipped with other leak-free technology that has been approved in writing by the Air Pollution Control Officer and provided that the equipment complies with Subsection (d)(8); and

(iv) Liquid process mixtures containing VOC's are maintained at a temperature not higher than 115°F (46°C) before entering a press; and

(v) Presses are equipped with sealing door covers.

Subsections (d)(4)(i) and (d)(4)(v) shall not apply during maintenance, cleaning, repair, or back flushing of the press systems.

(5) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless each in-process tank for material containing VOC is equipped with an apparatus or cover which completely covers the tank 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.

(6) 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 which have 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).

(7) Equipment, devices and systems in use to transport and control VOC emissions pursuant to Subsections (d)~~(4)~~(1), (d)~~(5)~~(2), ~~and~~ (d)~~(6)~~(3), and (d)(4) 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) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless all piping, valves, fittings, tanks, stills, process equipment and other devices used to transport, store, react or process VOC or materials containing VOC are free of fugitive liquid leaks. A visual inspection of these components shall also be performed ~~weekly~~ monthly. A record of these ~~weekly~~ monthly inspections shall be maintained and made available to the District upon request. An alternative inspection schedule and program may be used provided such schedule and program have been approved, in advance, by the Air Pollution Control Officer. ~~A fugitive liquid leak from incorporates shall only be considered a violation of this rule if the liquid contains more than 50 percent by weight by VOC.~~

Repair of a fugitive liquid leak may be delayed until the leaking equipment is next scheduled to be off-line, or a production cycle is completed, or within 72 hours of detection, whichever occurs first, 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; and

(iii) The record required by Subsection (d)(8)(i) is made available to the Air Pollution Control Officer upon request.

An unrecorded leak identified at the time of the District compliance inspection shall be considered a violation of this rule. ~~The provisions of this subsection shall become effective June 15, 1997 for presses in a kelp processing manufacturing line.~~

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

~~(8)~~(9) An operation and maintenance program shall be submitted to the Air Pollution Control Officer for approval for new equipment required by Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii) ~~(d)(5) (d)(6), and (d)(11)~~. An existing operation and maintenance program that has been approved by the Air Pollution Control Officer need not be resubmitted for approval as a result of amendments to this rule unless such approved operation and maintenance program is revised. Each program shall be implemented and maintained on approval of the Air Pollution Control Officer.

Each operation and maintenance program submitted for approval shall:

(i) Maintain the VOC emission reduction efficiency required under Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii) ~~(d)(5) (d)(6), and (d)(11)~~; and

(ii) Identify and maintain all key system operating parameters. Key system operating parameters are those parameters, such as temperature, pressure, and/or flow rate, necessary to maintain the VOC emission reduction efficiency required under Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii), ~~(d)(5) (d)(6), and (d)(11)~~; 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 equipment necessary to meet the requirements of Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii), ~~(d)(5) (d)(6), and (d)(11)~~ and need not include inspection, maintenance or recordkeeping relevant to compliance with Subsection (d)(7).

A copy of the most recent District-approved operation and maintenance program shall be maintained on site and made available to the Air Pollution Control Officer upon request.

~~(9)~~(10) Compliance with Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii), ~~(d)(5) (d)(6), and (d)(11)~~ 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. Affirmative determination of compliance may be demonstrated through tests or observations for a shorter period of time provided such period of time has been determined appropriate in writing by the Air Pollution Control Officer. ~~Such a shorter test period shall not be the basis for determining non-compliance.~~

~~(10) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless:~~

~~(i) Pumps processing VOC-containing material are equipped with dual mechanical seals, or equipped with other leak-free technology that has been approved in writing by the Air Pollution Control Officer and provided that the equipment complies with Subsection (d)(2); and~~

~~(ii) Liquid process mixtures containing VOC's are maintained at a temperature not higher than 115°F (46°C) before entering a press; and~~

~~(iii) Presses are equipped with sealing door covers.~~
moved to new Subsection (d)(4)(iii) , (d)(4)(iv) and (d)(4)(v)

~~(11) A person shall not operate any kelp processing or bio-polymer manufacturing line or pilot plant facility unless:~~

~~(i) The total uncontrolled emissions of VOC to the atmosphere from presses, and spent pots are captured by an emission collection system and the captured emissions are transported to an air pollution control device; and~~

~~(ii) The combined emissions capture and control device efficiency is at least 75% by weight.~~ ***moved to new Subsection (d)(4)(i)***

(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) For air pollution control equipment, maintain records sufficient to document compliance, such as daily records of process and key system operating parameters and maintenance performed pursuant to Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii), ~~(d)(5),~~ and (d)(9) ~~(d)(6), (d)(8), and (d)(11)~~ which will demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities.

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

(f) **VOC TEST METHODS**

(1) The VOC content of fluids subject to Subsections (c)(5) ~~and (d)(2)~~ 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.

~~(2) The determination of the normal boiling point of an organic compound pursuant to Subsection (b)(4) shall be conducted in accordance with ASTM Standard Test Method for Distillation Range of Volatile Organic Liquids, D 1078-86 or, for pure compounds, may be made from technical data contained in standard reference texts.~~

~~(3)~~(2) Measurements of VOC emissions subject to Subsections (d)(1), (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii), ~~(d)(5) (d)(6), and (d)(11)~~ of this rule shall be determined in accordance with EPA Test Methods 18 and 25 or 25A (40 CFR, Appendix A) ~~as they exist on June 15, 1994~~. Test procedures shall be performed in accordance with a protocol approved by the Air Pollution Control Officer. An alternative method to EPA Test Method 18 may be used provided such method has been approved, in advance, by the Air Pollution Control Officer and U.S. Environmental Protection Agency for the specific processes being tested. Subsequent to ~~the~~ an initial compliance demonstration ~~period~~, appropriate parameters as determined by the Air Pollution Control Officer may be used as indicators of the performance of ~~the~~ an emission control system.

(3) The capture efficiency of the emission collection systems subject to Subsections ~~(d)(1), (d)(2), (d)(3),~~ (d)(4)(i), and (d)(4)(ii) of this rule shall be determined according to EPA's technical document, "Guidelines for Determining Capture Efficiency", January 9, 1995. Test procedures shall be performed in accordance with a protocol approved by the Air Pollution Control Officer. EPA Test Method 204 may be used if it is demonstrated to the satisfaction of the Air Pollution Control Officer that all criteria of the test applicability are met. An alternative method to "Guidelines for Determining Capture Efficiency" may be used provided such method has been approved, in advance, by the Air Pollution Control Officer and U.S. Environmental Protection Agency for the specific processes being tested. Subsequent to an initial compliance demonstration, appropriate parameters as determined by the Air Pollution Control Officer may be used as indicators of the performance of an emission collection system.

(g) **COMPLIANCE SCHEDULE**

~~(1) Any person operating an existing bio-polymer manufacturing line or pilot plant facility which is subject to the provisions of Subsections (d)(6), (d)(10) and/or (d)(11) shall meet the following increments of progress:~~

~~(i) By December 15, 1994, submit to the Air Pollution Control Officer an application for Authority to Construct and Permit to Operate the equipment specified in Subsections (d)(6), (d)(10) and/or (d)(11).~~

~~(ii) By June 15, 1995, demonstrate compliance with Subsections (d)(6), (d)(10), and/or (d)(11).~~

~~(2)~~(1) Any person operating an existing kelp processing line which is subject to ~~the provisions of~~ Subsections ~~(d)(10) and/or~~ (d)~~(11)~~(4)(i) shall ~~meet the following increments of progress:~~ demonstrate compliance with Subsection (d)(4)(i) by June 15, 1997, except for the spent pots. Compliance with Subsection (d)(4)(i) for the spent pots shall be demonstrated by November 24, 1999.

~~(i) By June 15, 1995, submit to the Air Pollution Control Officer an application for Authority to Construct and Permit to Operate the equipment specified in Subsections (d)(10) and/or (d)(11).~~

~~(ii) By December 15, 1995, demonstrate compliance with Subsection (d)(10).~~

~~(iii) By June 15, 1997, demonstrate compliance with Subsection (d)(11).~~

(2) Any person operating an existing kelp processing line which is subject to Subsection (d)(2)(iii) shall demonstrate compliance with Subsection (d)(2)(iii) by ~~May 4~~ November 24, 1999.

(3) Any person operating an existing kelp processing line which is subject to Subsection (d)(4)(ii) shall demonstrate compliance with Subsection (d)(4)(ii) by ~~May 21~~ November 24, 1999.

(4) Any person operating an existing kelp processing line or bio-polymer manufacturing line which is subject to Subsection (d)(8) shall comply with the provisions of that subsection on [*date of adoption*], except for incorporators. Compliance with Subsection (d)(8) for incorporators shall be demonstrated by November 24, 1999.

~~(3)~~~~(4)~~(5) Any person installing a new kelp processing or bio-polymer manufacturing line or pilot plant facility which is subject to the provisions of Section (d) shall have equipment necessary to comply with the provisions of Section (d) installed and operating upon startup of the line or facility and shall demonstrate compliance within 180 days of startup.