

(2) Vent gas streams affected by §115.311 of this title (relating to Emission Specifications) must be burned properly at a temperature equal to or greater than 1,300°F (704°C) in a smokeless flare or a direct-flame incinerator with a destruction efficiency of at least 90%.

§115.313. Alternate Control Requirements. For all affected persons in the counties referenced in §115.319 of this title (relating to Counties and Compliance Schedules), alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements in this section may be approved by the executive director in accordance with §115.910 of this title (relating to Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

§115.315. Testing Requirements. For all affected persons in the counties referenced in §115.319 of this title (relating to Counties and Compliance Schedules), compliance with §115.311 of this title (relating to Emission Specifications) and §115.312 of this title (relating to Control Requirements) shall be determined by applying the following test methods, as appropriate

(1) Test Method 22 (40 Code of Federal Regulations 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(2) additional control device requirements for flares described in 40 Code of Federal Regulations 60.18(F);

(3) Test Methods 1-4 (40 Code of Federal Regulations 60, Appendix A) for determining flow rate, as necessary;

(4) Test Method 18 (40 Code of Federal Regulations 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(5) Test Method 25 (40 Code of Federal Regulations 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(6) Test Methods 25A or 25B (40 Code of Federal Regulations 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis; or

(7) modifications to these test methods approved by the executive director.

§115.316. Recordkeeping Requirements. For all affected persons in the counties referenced in §115.319 of this title (relating to Counties and Compliance Schedules), the following recordkeeping requirements shall apply.

(1) Any person who operates a vacuum-producing system affected by §115.

311 of this title (relating to Emission Specifications) shall keep the following records:

(A) the exhaust gas temperature immediately downstream of a direct-flame incinerator; and

(B) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of volatile organic compound emissions during such activities.

(2) Any person who conducts a process unit turnaround affected by §115.312 of this title (relating to Control Requirements) shall keep the following records:

(A) the date of process unit shutdown and subsequent start-up following turnaround;

(B) the type of process unit involved in the turnaround; and

(C) an estimation of the concentration and total emissions of volatile organic compound emissions released to the atmosphere during the process turnaround.

(3) The results of any testing conducted in accordance with the provisions specified in §115.315 of this title (relating to Testing Requirements) shall be maintained at the affected facility.

(4) All records shall be maintained for two years and be made available for review upon request by authorized representatives of the Texas Air Control Board, United States Environmental Protection Agency, or local air pollution control agencies.

§115.317. Exemptions. For all affected persons in the counties referenced in §115.319 of this title (relating to Counties and Compliance Schedules), any vacuum-producing system emitting a combined weight of volatile organic compounds equal to or less than 100 pounds (45.4 kg) in any consecutive 24-hour period is exempt from the requirements of §115.311 of this title (relating to Emission Specifications).

§115.319. Counties and Compliance Schedules. All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties shall be in compliance with this undesignated head, concerning process unit turnaround and vacuum-producing systems in petroleum refineries in accordance with the following schedules:

(1) all compliance schedules which have expired prior to the adopted effective date of this section in accordance with §115.930 of this title (relating to Compliance Dates); and

(2) all persons in Brazoria, El Paso, Galveston, or Harris Counties affected by the provisions of §115.316 of this title (relating to Recordkeeping Requirements) shall be in compliance with this section as soon as practicable but no later than December 31, 1990.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas on July 19, 1989.

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Allen Ell Bell
Executive Director
Texas Air Control Board

Proposed date of adoption: December 15, 1989

For further information, please call: (512) 451-5711, Ext. 354

Fugitive Emission Control in Petroleum Refineries

• 31 TAC §§115.322-115.327, 115.329

The Texas Air Control Board (TACB) proposes new §§115.322-115.327 and 115.329, concerning fugitive emission control in petroleum refineries, which contain the provisions of existing §§115.251-115.255, concerning fugitive emission control in petroleum refineries in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties. This new undesignated head will be included in a proposed new Subchapter D, concerning petroleum refining and petrochemical processes. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the Post-87 State Implementation Plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning control of air pollution from volatile organic compounds. Since the proposed changes are extensive, the staff has determined that it would be administratively more efficient to propose concurrently the repeal of the existing Chapter 115 in its entirety and the addition of a new Chapter 115.

The proposed new §115.322, concerning control requirements, specifies the applicable equipment and procedural requirements. The proposed new §115.323, concerning alternate control requirements, provides for executive director approval for the use of alternate technology which will result in equivalent volatile organic compound (VOC) emission reductions. The proposed new §115.324, concerning inspection requirements, specifies applicable inspection procedures and schedules. The proposed new §115.325, concerning testing requirements, identifies federally approved test methods and procedures to be used to determine compliance with applicable

controls or exemptions. The proposed new §115.326, concerning recordkeeping requirements, specifies the type of records to be kept to document satisfaction of exemption criteria or performance of applicable control devices. The proposed new §115.327, concerning exemptions, specifies the types of facilities which are exempted from the requirements of these sections. The proposed new §115.329, concerning counties and compliance schedules, requires all affected facilities to be in compliance in accordance with all expired schedules.

Bennie Engelke, director of management and staff services, has determined that for the first five-year period the proposed sections are in effect there will be no fiscal implications for state and local government or small businesses as a result of enforcing or administering the sections.

Les Montgomery, director of technical support and regulation development program, has determined that for each of the first five years the sections as proposed are in effect the public benefit anticipated as a result of implementing the sections will be more effective and consistent enforcement associated with the control of VOC. In addition, these measures are necessary to address the requirements of Phase I of the Post-87 SIP revisions. There is no anticipated economic cost to individuals who are required to comply with sections as proposed.

Public hearings on this proposal are scheduled for the following times and places: August 15, 1989, 10 a.m., Texas Air Control Board Auditorium, 6330 Highway 290 East, Austin; August 15, 1989, 7 p.m., City of Houston, Pollution Control Building Auditorium, 7411 Park Place Boulevard, Houston; August 16, 1989, 7 p.m., City Council Chambers, Second Floor, 2 Civic Center Plaza, El Paso; and August 17, 1989, 4 p.m., Arlington Public Library, 101 East Abram, Arlington.

Copies of the proposed sections are available at the central office of the TACB, 6330 Highway 290 East, Austin, Texas 78723, and at all TACB regional offices. Public comment, both oral and written, on the proposed changes is invited at the hearings. The TACB would appreciate receiving five copies of testimony prior to or at the hearings. Written testimony received by the Regulation Development Section by 4 p.m. on August 25, 1989, at the TACB central office will be included in the hearing record.

The new sections are proposed under Texas Civil Statutes, Article 4477-5, §3.09(a), which provide the TACB with the authority to make rules and regulations consistent with the general intent and purposes of the Texas Clean Air Act and to amend any rule or regulation the TACB makes.

§115.322. Control Requirements. For the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), no person shall operate a petroleum refinery without complying with the following requirements.

(1) No component shall be allowed to have a volatile organic compound leak as defined in §115.010 of this title (relating to Definitions).

(2) All technically feasible repairs to a leaking component, as specified in paragraph (1) of this subsection, shall be made within 15 days after the leak is found. If the repair of a component would require a unit shutdown which would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown.

(3) All leaking components, as defined in paragraph (1) of this section, which cannot be repaired until the unit is shutdown for turnaround shall be identified for such repair by tagging. The executive director at his discretion may require early unit turnaround or other appropriate action based on the number and severity of tagged leaks awaiting turnaround.

(4) Except for safety pressure relief valves, no valves shall be installed or operated at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only while a sample is being taken or during maintenance operations.

(5) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to monitoring personnel.

§115.323. Alternate Control Requirements. For all affected persons in the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), the following alternate control techniques may apply.

(1) Any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the executive director in accordance with §115.910 of this title (relating to Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(2) The executive director of the Texas Air Control Board may approve an alternate monitoring method if the refinery operator can demonstrate that the alternate monitoring method satisfies the conditions of §115.324(8) of this title (relating to Inspection Requirements). Any request for an alternate monitoring method must be made in writing to the executive director.

§115.324. Inspection Requirements. For the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), the owner or operator of a petroleum refinery shall conduct a monitoring program consistent with the following provisions:

(1) measure yearly (with a hydrocarbon gas analyzer) the emissions from all:

- (A) pump seals;
- (B) pipeline valves in liquid service;
- (C) process drains; and

(D) all valves elevated more than two meters above any permanent structure;

(2) measure quarterly (with a hydrocarbon gas analyzer) the emissions from all:

- (A) compressor seals;
- (B) pipeline valves in gaseous service; and

(C) pressure relief valves in gaseous service;

(3) visually inspect, weekly, all pump seals;

(4) measure (with a hydrocarbon gas analyzer) the emissions from any pump seal from which liquids are observed dripping;

(5) measure (with a hydrocarbon gas analyzer) emissions from any relief valve which has vented to the atmosphere within 24 hours;

(6) measure (with a hydrocarbon gas analyzer) immediately after repair, the emissions from any component found leaking;

(7) Upon the detection of a leaking component, shall affix to the leaking component a weatherproof and readily visible tag, bearing an identification number and the date the leak was located. This tag shall remain in place until the leaking component is repaired; and

(8) the monitoring schedule of paragraphs (1)-(3), of this section may be modified as follows.

(A) After completion of the required annual and quarterly inspections for a period of at least two years, the operator of a refinery may request in writing to the Texas Air Control Board that the monitoring schedule be revised based on the percent of valves leaking. The percent of valves leaking shall be determined by dividing the sum of valves leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements. This request shall include all data that have been developed to justify the following modifications in the monitoring schedule.

(i) After two consecutive quarterly leak detection periods with the

percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(ii) After five consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(B) If the executive director of the Texas Air Control Board determines that there is an excessive number of leaks in any given process area, he may require an increase in the frequency of monitoring for that process area of the refinery.

§115.325. Testing Requirements. For all affected persons in the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), compliance with this undesignated head, concerning fugitive emission control in petroleum refineries shall be determined by applying the following test methods, as appropriate:

(1) Test Method 21 (40 Code of Federal Regulations 60, Appendix A) for determining volatile organic compound (leaks the leak detection equipment can be calibrated with methane, propane, or hexane, but the meter readout must be as parts per million by volume (ppmv) hexane);

(2) determination of true vapor pressure using ASTM Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual operating temperature in accordance with API Publication 2517, Third Edition, 1989; or

(3) modifications to these test methods approved by the executive director.

§115.326. Recordkeeping Requirements. For the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), the owner or operator of a petroleum refinery shall have the following recordkeeping requirements:

(1) submit to the executive director a monitoring program plan. This plan shall contain, at a minimum, a list of the refinery units and the quarter in which they will be monitored, a copy of the log book format, and the make and model of the monitoring equipment to be used;

(2) maintain a leaking-components monitoring log for all leaks of more than 10,000 ppmv of volatile organic compound detected by the monitoring program required by §115.324 of this title (relating to Inspection Requirements). This log shall contain, at a minimum, the following data:

(A) the name of the process unit where the component is located;

(B) the type of component (e.g., valve or seal);

(C) the tag number of the component;

(D) the date on which a leaking component is discovered;

(E) the date on which a leaking component is repaired;

(F) the date and instrument reading of the re-check procedure after a leaking component is repaired;

(G) a record of the calibration of the monitoring instrument;

(H) those leaks that cannot be repaired until turnaround; and

(I) the total number of components checked and the total number of components found leaking;

(3) retain copies of the monitoring log for a minimum of two years after the date on which the record was made or the report prepared; and

(4) maintain all monitoring records for at least two years and make them available for review upon request by authorized representatives of the Texas Air Control Board, United States Environmental Protection Agency, or local air pollution control agencies.

§115.327. Exemptions. For all affected persons in the counties referenced in §115.329 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

(1) Valves with a nominal size of two inches (5 cm) or less are exempt from the requirements of this undesignated head, concerning fugitive emission control in petroleum refineries, provided allowable emissions at any refinery from sources affected by these sections after controls are applied with exemptions will not exceed by more than 5.0% such allowable emissions with no exemptions. Any person claiming an exemption for valves two inches (5 cm) nominal size or smaller under this section shall at the time he provides his control plan also provide the following information:

(A) identification of valves or classes of valves to be exempted;

(B) an estimate of uncontrolled emissions from exempted valves and

an estimate of emissions if controls were applied plus an explanation of how the estimates were derived; and

(C) an estimate of the total volatile organic compound emissions within the refinery from sources affected by §115.322 of title (relating to Control Requirements), §115.324 of this title (relating to Inspection Requirements), and §115.326 of this title (relating to Recording Requirements) after controls are applied and assuming no exemptions for small valves, plus an explanation of how the estimate was derived.

(2) Components which contact a process fluid that contains less than 10% volatile organic compound by weight are exempt from the requirements of this undesignated head, concerning fugitive emission control in petroleum refineries.

(3) Components which contact a process liquid containing volatile organic compound having a true vapor pressure equal to or less than 0.147 psia (1.013 kPa) at 68°F (20°C) are exempt from the requirements of this undesignated head, concerning fugitive emission control in petroleum refineries, if the components are inspected visually according to the inspection schedules specified within these same sections.

(4) Petroleum refineries or individual process units in a temporary nonoperating status shall submit a plan for compliance with the provisions of this undesignated head, concerning fugitive emission control in petroleum refineries, as soon as practicable but no later than one month before the process unit is scheduled for start-up and be in compliance as soon as practicable but no later than three months after start-up. All petroleum refineries affected by this paragraph shall notify the Texas Air Control Board of any nonoperating refineries or individual process units when they are shut down and dates of any start-ups as they occur.

(5) Pressure relief devices connected to an operating flare header, components in continuous vacuum service, storage tank valves, and valves that are not externally regulated (such as in-line check valves) are exempt from the monitoring requirement of §115.324 of this title (relating to Inspection Requirements).

(6) Compressors in hydrogen service are exempt from the requirements of §115.324 of this title (relating to Inspection Requirements) if the owner or operator demonstrates that the percent hydrogen content can be reasonably expected to always exceed 50% by volume.

§115.329. Counties and Compliance Schedules. All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and

Victoria Counties shall be in compliance with this undesignated head, concerning fugitive emission control in petroleum refineries in accordance with all compliance schedules which have expired prior to the adopted effective date of this section, in accordance with §115.930 of this title (relating to Compliance Dates).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

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Allen Eli Bell
Executive Director
Texas Air Control Board

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For further information, please call: (512) 451-5711, ext. 354

Fugitive Emission Control in Synthetic Organic Chemical, Polymer, and Resin Manufacturing Processes

• §§115.332-115.337, 115.339

The Texas Air Control Board (TACB) proposes new §§115.332-115.337, and 115.339, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, which contain the provisions of existing §§115.271-115.275, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes in Harris County. This new undesignated head will be included in a proposed new Subchapter D, concerning petroleum refining and petrochemical processes. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the Post-87 State Implementation Plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning control of air pollution from volatile organic compounds. Since the proposed changes are extensive, the staff has determined that it would be administratively more efficient to propose concurrently the repeal of the existing Chapter 115 in its entirety and the addition of a new Chapter 115.

The proposed new §115.332, concerning control requirements, specifies the applicable equipment and procedural requirements. The proposed new §115.333, concerning alternate control requirements, provides for executive director approval for the use of alternate technology which will result in equivalent volatile organic compound (VOC) emission reductions. The proposed new §115.334, concerning inspection requirements, specifies applicable inspection procedures and schedules. The proposed new §115.335, concerning testing requirements, identifies federally

approved test methods and procedures to be used to determine compliance with applicable controls or exemptions. The proposed new §115.336, concerning recordkeeping requirements, specifies the type of records to be kept to document satisfaction of exemption criteria or performance of applicable control devices. The proposed new §115.337, concerning exemptions, specifies the types of facilities which are exempted from the requirements of these sections. The proposed new §115.339, concerning counties and compliance schedules, requires all affected facilities to be in compliance in accordance with all expired schedules.

Bennie Engelke, director of management and staff services, has determined that for the first five year-period the proposed sections are in effect there will be no fiscal implications for state and local governments or small businesses as a result of enforcing or administering the sections.

Les Montgomery, director of technical support and regulation development program, has determined that for each of the first five years the sections as proposed are in effect the public benefit anticipated as a result of implementing the sections will be more effective and consistent enforcement associated with the control of VOC. In addition, these measures are necessary to address the requirements of Phase I of the post-87 SIP revisions. There is no anticipated economic cost to individuals who are required to comply with the sections as proposed.

Public hearings on this proposal are scheduled for the following times and places: August 15, 1989, 10 a.m., Texas Air Control Board Auditorium, 6330 Highway 290 East, Austin; August 15, 1989, 7 p.m., City of Houston, Pollution Control Building Auditorium, 7411 Park Place Boulevard, Houston; August 16, 1989, 7 p.m., City Council Chambers, Second Floor, 2 Civic Center Plaza, El Paso; and August 17, 1989, 4 p.m., Arlington Public Library, 101 East Abram, Arlington.

Copies of the proposed sections are available at the central office of the TACB, 6330 Highway 290 East, Austin, Texas 78723, and at all TACB regional offices. Public comment, both oral and written, on the proposed changes is invited at the hearings. The TACB would appreciate receiving five copies of testimony prior to or at the hearings. Written testimony received by the Regulation Development Section by 4 p.m. on August 25, 1989, at the TACB central office will be included in the hearing record.

The new sections are proposed under Texas Civil Statutes, Article 4477-5, §3.09(a), which provide the TACB with the authority to make rules and regulations consistent with the general intent and purposes of the Texas Clean Air Act and to amend any rule or regulation the TACB makes.

§115.332. Control Requirements. For the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules), no person shall operate a synthetic organic chemical, polymer, or resin manufacturing process, as defined in §101.1 of this title (relating to Definitions), without complying with the following requirements.

(1) No component shall be allowed to have a volatile organic compound

leak, as defined in §115.910 of this title (relating to Definitions).

(2) All technically feasible repairs to a leaking component, as specified in paragraph (1) of this section, shall be made within 15 days after the leak is found. If the repair of a component would require a unit shutdown which would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown.

(3) All leaking components, as defined in paragraph (1) of this section, which cannot be repaired until the unit is shut down for turnaround shall be identified for such repair by tagging. The executive director at his discretion may require early unit turnaround or other appropriate action based on the number and severity of tagged leaks awaiting turnaround.

(4) Except for safety pressure relief valves, no valves shall be installed or operated at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only while a sample is being taken or during maintenance operations.

(5) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to monitoring personnel.

§115.333. Alternate Control Requirements. For all affected persons in the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules), the following alternate control requirements may apply.

(1) Any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the executive director in accordance with §115.910 of this title (relating to Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(2) The executive director of the Texas Air Control Board may approve an alternate monitoring method if the process operator can demonstrate that the alternate monitoring method satisfies the conditions of §115.334(3) of this title (relating to Inspection Requirements). Any request for an alternate monitoring method must be made in writing to the executive director.

§115.334. Inspection Requirements. For all affected persons in the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules), the following inspection requirements shall apply.

(1) The owner or operator of a synthetic organic chemical, polymer, or resin manufacturing process shall conduct a monitoring program consistent with the following provisions:

(A) measure yearly (with a hydrocarbon gas analyzer) the emissions from all valves elevated more than two meters above any permanent structure;

(B) measure quarterly (with a hydrocarbon gas analyzer) the emissions from all:

- (i) compressor seals;
- (ii) pipeline valves;
- (iii) pressure relief valves in gaseous service; and
- (iv) pump seals;

(C) visually inspect, weekly, all pump seals;

(D) measure (with a hydrocarbon gas analyzer) the emissions from any pump seal from which liquids are observed dripping;

(E) measure (with a hydrocarbon gas analyzer) emissions from any relief valve which has vented to the atmosphere within 24 hours; and

(F) measure (with a hydrocarbon gas analyzer) immediately after repair, the emissions from any component found leaking.

(2) The owner or operator of a synthetic organic chemical, polymer, or resin manufacturing process upon the detection of a leaking component shall affix to the leaking component a weatherproof and readily visible tag, bearing an identification number and the date the leak was located. This tag shall remain in place until the leaking component is repaired.

(3) The monitoring schedule of paragraph (1)(A)-(C) of this section may be modified as follows.

(A) After completion of the required annual and quarterly inspections for a period of at least two years, the operator of a synthetic organic chemical, polymer, or resin manufacturing facility may request in writing to the Texas Air Control Board that the monitoring schedule be revised based on the percent of valves leaking. The percent of valves leaking shall be determined by dividing the sum of valves leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements. This request shall include all data that have been developed to justify the

following modifications in the monitoring schedule.

(i) After two consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(ii) After five consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(B) If the executive director of the Texas Air Control Board determines that there is an excessive number of leaks in any given process, he may require an increase in the frequency of monitoring for that process.

§§115.335. Testing Requirements. For the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules) compliance with this undesignated head (concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes), shall be determined by applying the following test methods, as appropriate:

(1) Test Method 21 (40 Code of Federal Regulations 60, Appendix A) for determining volatile organic compound leaks. The leak detection equipment can be calibrated with methane, propane, or hexane, but the meter readout must be as parts per million by volume (ppmv) hexane;

(2) determination of true vapor pressure using ASTM Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual operating temperature in accordance with API Publication 2517, Third Edition, 1989; or

(3) modifications to these test methods approved by the executive director.

§115.336. Recordkeeping Requirements. For the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules), the owner or operator of a synthetic organic chemical, polymer, or resin manufacturing process shall have the following recordkeeping requirements.

(1) The owner or operator shall submit to the executive director a monitoring program plan. This plan shall contain, at a minimum, a list of the process units and the quarter in which they will be monitored, a copy of the log book format, and the make and model of the monitoring equipment to be used.

(2) The owner or operator shall maintain a leaking components monitoring

log for all leaks of more than 10,000 ppmv of volatile organic compounds detected by the monitoring program required by §115.334 of this title (relating to Inspection Requirements). This log shall contain, at a minimum, the following data:

(A) the name of the process unit where the component is located;

(B) the type of component (e.g., valve or seal);

(C) the tag number of the component;

(D) the date on which a leaking component is discovered;

(E) the date on which a leaking component is repaired;

(F) the date and instrument reading of the re-check procedure after a leaking component is repaired;

(G) a record of the calibration of the monitoring instrument;

(H) those leaks that cannot be repaired until turnaround; and

(I) the total number of components checked and the total number of components found leaking.

(3) Copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report prepared.

(4) Monitoring records shall be maintained for two years and be made available for review upon request by authorized representatives of the Texas Air Control Board, United States Environmental Protection Agency, or local air pollution control agencies.

§115.337. Exemptions. For the counties referenced in §115.339 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

(1) Valves with a nominal size of two inches (5.0 cm) or less are exempt from the requirements of this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, provided allowable emissions at any plant from sources affected by these sections after controls are applied with exemptions, will not exceed by more than 5.0% such allowable emissions with no exemptions. Any person claiming an exemption for valves two inches (5.0 cm) nominal size or smaller under this sec-

tion shall at the time he provides his control plan also provide the following information:

(A) identification of valves or classes of valves to be exempted;

(B) an estimate of uncontrolled emissions from exempted valves and an estimate of emissions if controls were applied plus an explanation of how the estimates were derived; and

(C) an estimate of the total volatile organic compound emissions within the process from sources affected by this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, after controls are applied and assuming no exemptions for small valves, plus an explanation of how the estimate was derived.

(2) Components which contact a process fluid that contains less than 10% volatile organic compound by weight are exempt from the requirements of this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes.

(3) Components which contact a process liquid containing volatile organic compound having a true vapor pressure equal to or less than 0.147 psia (1.013 kPa) at 68°F (20°C) are exempt from the requirements of this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, if the components are inspected visually according to the inspection schedules specified within these same sections.

(4) Synthetic organic chemical, polymer, and resin manufacturing process units in a temporary nonoperating status shall submit a plan for compliance with the provisions of this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, within six months after start-up and be in compliance as soon as practicable but no later than one year after start-up. All synthetic organic chemical, polymer, and resin manufacturing processes affected by this paragraph shall notify the Texas Air Control Board of any nonoperating process units when they are shut down and dates of any start-ups as they occur.

(5) Processes at the same location but unrelated to the production of synthetic organic chemicals, polymers, and resins are exempt from the requirements of this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes.

(6) The following items are exempt from the monitoring requirements of

§115.334 of this title relating to Inspection Requirements:

(A) pressure relief devices connected to an operating flare header, components in continuous vacuum service, and valves that are not externally regulated (such as in-line check valves);

(B) pressure relief valves that are downstream of a rupture disk which is intact;

(C) pumps in liquid service that are equipped with dual pump seals, barrier fluid system, seal degassing vents, and vent control systems kept in good working order; and

(D) compressors that are equipped with degassing vents and vent control systems kept in good working order.

§115.339. Counties and Compliance Schedules. All affected persons in Harris County shall be in compliance with this undesignated head, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes, in accordance with all compliance schedules which have expired prior to the adopted effective date of this section, in accordance with §115.930 of this title (relating to Compliance Dates).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas July 19, 1989.

TRD-8906400

Allen Eli Bell
Executive Director
Texas Air Control Board

Proposed date of adoption: December 15, 1989

For further information, please call: (512) 451-5711, ext. 354

Fugitive Emission Control in Natural Gas/Gasoline Processing Operations

• 31 TAC §§115.342-115.347, 115.349

The Texas Air Control Board (TACB) proposes new §§115.342-115.347 and 115.349, concerning fugitive emission control in natural gas/gasoline processing operations, which contain the provisions of existing §§115.281-115.285, concerning fugitive emission control in natural gas/gasoline processing operations in Harris County. This new undesignated head will be included in a proposed new Subchapter D, concerning petroleum refining and petrochemical processes. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the

inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the Post-87 State Implementation Plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning Control of Air Pollution from Volatile Organic Compounds. Since the proposed changes are extensive, the staff has determined that it would be administratively more efficient to propose concurrently the repeal of the existing Chapter 115 in its entirety and the addition of a new Chapter 115.

The proposed new §115.342, concerning control requirements, specifies the applicable equipment and procedural requirements. The proposed new §115.343, concerning alternate control requirements, provides for executive director approval for the use of alternate technology which will result in equivalent volatile organic compound (VOC) emission reductions. The proposed new §115.344, concerning inspection requirements, specifies applicable inspection procedures and schedules. The proposed new §115.345, concerning testing requirements, identifies federally approved test methods and procedures to be used to determine compliance with applicable controls or exemptions. The proposed new §115.346, concerning recordkeeping requirements, specifies the type of records to be kept to document satisfaction of exemption criteria or performance of applicable control devices. The proposed new §115.347, concerning exemptions, specifies the types of facilities which are exempted from the requirements of these sections. The proposed new §115.349, concerning counties and compliance schedules, requires all affected facilities to be in compliance in accordance with all expired schedules.

Bennie Engelke, director of management and staff services, has determined that for the first five-year period the proposed sections are in effect there will be no fiscal implications for state and local governments or small businesses as a result of enforcing or administering the sections.

Les Montgomery, director of technical support and regulation development program, has determined that for each of the first five years the sections as proposed are in effect the public benefit anticipated as a result of implementing the sections will be more effective and consistent enforcement associated with the control of VOC. In addition, these measures are necessary to address the requirements of Phase I of the Post-87 SIP revisions. There is no anticipated economic cost to individuals who are required to comply with the sections as proposed.

Public hearings on this proposal are scheduled for the following times and places: August 15, 1989, 10 a.m., Texas Air Control Board Auditorium, 6330 Highway 290 East, Austin; August 15, 1989, 7 p.m., City of Houston, Pollution Control Building Auditorium, 7411 Park Place Boulevard, Houston; August 16, 1989, 7 p.m., City Council Chambers, Second Floor, 2 Civic Center Plaza, El Paso; and August 17, 1989, 4 p.m., Arlington Public Library, 101 East Abram, Arlington.

Copies of the proposed sections are available at the central office of the TACB, 6330 Highway 290 East, Austin, Texas 78723, and at all TACB regional offices. Public comment, both oral and written, on the proposed changes is invited at the hearings. The TACB would appreciate receiving five copies of testimony prior to or at the hearings. Written testimony received by the Regulation Development Section by 4 p.m. on August 25, 1989, at the TACB central office will be included in the hearing record.

The new sections are proposed under Texas Civil Statutes, Article 4477-5, §3.09(a), which provide the TACB with the authority to make rules and regulations consistent with the general intent and purposes of the Texas Clean Air Act and to amend any rule or regulation the TACB makes.

§115.342. Control Requirements. For the counties referenced in §115.349 of this title (relating to Counties and Compliance Schedules) no person shall operate a natural gas/gasoline processing operation, as defined in §101.1 of this title (relating to Definitions), without complying with the following control requirements.

(1) No component shall be allowed to have a volatile organic compound leak, as defined in §115.010 of this title (relating to Definitions).

(2) All technically feasible repairs to a leaking component, as specified in paragraph (1) of this subsection, shall be made within 15 days after the leak is found. If the repair of a component would require a unit shutdown which would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown.

(3) All leaking components, as defined in paragraph (1) of this subsection, which cannot be repaired until the unit is shut down for turnaround shall be identified for such repair by tagging. The executive director at his discretion may require early unit turnaround or other appropriate action based on the number and severity of tagged leaks awaiting turnaround.

(4) Except for safety pressure relief valves, no valves shall be installed or operated at the end of a pipe or line containing volatile organic compound unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only while a sample is being taken or during maintenance operations.

(5) Valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to monitoring personnel.

§115.343. Alternate Control Requirements. For all affected persons in the counties referenced in §115.349 of this title (relating to Counties and Compliance

Schedules), the following alternate control requirements may apply.

(1) Any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the executive director in accordance with §115.910 of this title (relating to Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(2) The executive director of the Texas Air Control Board may approve an alternate monitoring method if the process operator can demonstrate that the alternate monitoring method satisfies the conditions of §115.344(3) of this title (relating to Inspection Requirements). Any request for an alternate monitoring method must be made in writing to the executive director.

§115.344. Inspection Requirements. For all affected persons in the counties referenced in §115.349 of this title (relating to Counties and Compliance Schedules), the following inspection requirements shall apply.

(1) The owner or operator of a natural gas/gasoline processing operation shall conduct a monitoring program consistent with the following provisions:

(A) measure yearly (with a hydrocarbon gas analyzer) the emissions from all valves elevated more than two meters above any permanent structure;

(B) measure quarterly (with a hydrocarbon gas analyzer) the emissions from all:

- (i) compressor seals;
- (ii) pipeline valves;
- (iii) pressure relief valves in gaseous service; and
- (iv) pump seals;

(C) visually inspect, weekly, all pump seals;

(D) measure (with a hydrocarbon gas analyzer) the emissions from any pump seal from which liquids are observed dripping;

(E) measure (with a hydrocarbon gas analyzer) emissions from any relief valve which has vented to the atmosphere within 24 hours at manned facilities or within 30 days at unmanned facilities; and

(F) measure (with a hydrocarbon gas analyzer) immediately after repair, the emissions from any component found leaking.

(2) The owner or operator of a natural gas/gasoline processing operation upon the detection of a leaking component shall affix to the leaking component a weatherproof and readily visible tag, bearing an identification number and the date the leak was located. This tag shall remain in place until the leaking component is repaired.

(3) The monitoring schedule of paragraph (1)(A)-(C) of this section may be modified as follows.

(A) After completion of the required annual and quarterly inspections for a period of at least two years, the operator of a natural gas/gasoline processing facility may request in writing to the Texas Air Control Board that the monitoring schedule be revised based on the percent of valves leaking. The percent of valves leaking shall be determined by dividing the sum of valves leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements. This request shall include all data that have been developed to justify the following modifications in the monitoring schedule.

(i) After two consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(ii) After five consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0%, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(B) If the executive director of the Texas Air Control Board determines that there is an excessive number of leaks in any given process, he may require an increase in the frequency of monitoring for that process.

§115.345. Testing Requirements. For the counties referenced in §115.349 of this title (relating to Counties and Compliance Schedules), compliance with this undesignated head shall be determined by applying the following test methods, as appropriate:

(1) Test Method 21 (40 Code of Federal Regulations 60, Appendix A) for determining volatile organic compound leaks. The leak detection equipment can be calibrated with methane, propane, or hexane, but the meter readout must be as parts per million by volume (ppmv) hexane;

(2) determination of true vapor pressure using ASTM Test Method D323-82 for the measurement of Reid vapor pres-

sure, adjusted for actual operating temperature in accordance with API Publication 2517, Third Edition, 1989; or

(3) modifications to these test methods approved by the executive director.

§115.346. Recordkeeping Requirements. For the counties referenced in §115.349 of this title (relating to Counties and Compliance Schedules), the owner or operator of a natural gas/gasoline processing operation shall have the following recordkeeping requirements.

(1) The owner or operator shall submit to the executive director a monitoring program plan. This plan shall contain, at a minimum, a list of the refinery units and the quarter in which they will be monitored, a copy of the log book format, and the make and model of the monitoring equipment to be used.

(2) The owner or operator shall maintain a leaking components monitoring log for all leaks detected by the monitoring program required by §115.344 of this title (relating to Inspection Requirements). This log shall contain, at a minimum, the following data:

(A) the name of the process unit where the component is located;

(B) the type of component (e.g., valve or seal);

(C) the tag number of the component;

(D) the date and instrument reading of the initial check procedure when a leaking component is discovered;

(E) the date on which a leaking component is repaired;

(F) the date and instrument reading of the re-check procedure after a leaking component is repaired;

(G) a record of the calibration of the monitoring instrument;

(H) identification of those leaks that cannot be repaired until turnaround and justification for the delay in making necessary repairs; and

(I) the total number of components checked and the total number of components found leaking.

(3) Copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report prepared.

(4) Monitoring records shall be maintained for two years and be made available for review upon request by authorized representatives of the Texas Air Control Board, United States Environmental Protection Agency, or local air pollution control agencies.

§115.347. Exemptions. For the counties referenced in §115.349 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

(1) Valves with a nominal size of two inches (5.0 cm) or less are exempt from the requirements of this undesignated head concerning fugitive emission control in natural gas/gasoline processing operations provided allowable emissions at any plant from sources affected by these sections after controls are applied with exemptions, will not exceed by more than 5.0% such allowable emissions with no exemptions. Any person claiming an exemption for valves two inches (5.0 cm) nominal size or smaller under this section shall at the time he provides his control plan also provide the following information:

(A) identification of valves or classes of valves to be exempted;

(B) an estimate of uncontrolled emissions from exempted valves and an estimate of emissions if controls were applied plus an explanation of how the estimates were derived; and

(C) an estimate of the total volatile organic compound emissions within the process from sources affected by this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations after controls are applied and assuming no exemptions for small valves, plus an explanation of how the estimate was derived.

(2) Components which contact a process fluid that contains less than 1.0% volatile organic compound by weight are exempt from the requirements of this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations.

(3) Components which contact a process liquid containing volatile organic compound having a true vapor pressure equal to or less than 0.147 psia (1.013 kPa) at 68°F (20°C) are exempt from the requirements of this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations if the components are inspected visually according to the inspection schedules specified within these same sections.

(4) Natural gas/gasoline processing units in a temporary nonoperating status and which satisfy the conditions of paragraphs (2) and (3) of this section are

exempt from the requirements of this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations. All natural gas/gasoline processing operations affected by this paragraph shall notify the Texas Air Control Board of any non-operating process units when they are shut down and dates of any start-ups as they occur.

(5) Processes at the same location but unrelated to the production of natural gas/gasoline processing are exempt from the requirements of this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations.

(6) Natural gas/gasoline processing units where the total design throughput at a property is less than 10 million standard cubic feet of gas per day and there is no capability to fractionate the mixed natural gas liquids, are exempt from the requirements of this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations.

(7) The following items are exempt from the monitoring requirements of §115.344(a)(1) of this title (relating to Inspection Requirements):

(A) pressure relief devices connected to an operating flare header, components in continuous vacuum service, and valves that are not externally regulated (such as in-line check valves);

(B) pressure relief valves that are downstream of a rupture disk which is intact;

(C) positive displacement pumps and pumps in liquid service that are equipped with dual pump seals, barrier fluid system, seal degassing vents, and vent control systems kept in good working order; and

(D) reciprocating compressors and compressors that are equipped with degassing vents and vent control systems kept in good working order.

§115.349. Counties and Compliance Schedules. All affected persons in Harris County shall be in compliance with this undesignated head, concerning fugitive emission control in natural gas/gasoline processing operations, in accordance with all compliance schedules which have expired prior to the adopted effective date of this section, in accordance with §115.930 of this title (relating to Compliance Dates).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas on July 19, 1988.

Proposed date of adoption: December 15, 1989

For further information, please call: (512) 451-5711, ext. 354

Subchapter E. Solvent-Using Processes

Degreasing Processes

• 31 TAC §§115.412, 115.413, 115.415-115.417, 115.419

The Texas Air Control Board (TACB) proposes new §§115.412, 115.413, §§115.415-115.417, and §115.419, concerning degreasing processes, which contain the provisions of existing §§115.172-115.176, concerning specified solvent-using processes in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties. This new undesignated head will be included in a proposed new Subchapter E, concerning solvent-using processes. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the post-87 state implementation plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning control of air pollution from volatile organic compounds. Since the proposed changes are extensive, the staff has determined that it would be administratively more efficient to propose concurrently the repeal of the existing Chapter 115 in its entirety and the addition of a new Chapter 115.

The proposed new §115.412, concerning control requirements, specifies the applicable equipment and procedural requirements. The proposed new §115.413, concerning alternate control requirements, provides for executive director approval for the use of alternate technology which will result in equivalent volatile organic compound (VOC) emission reductions. The proposed new §115.415, concerning testing requirements, identifies federally approved test methods and procedures to be used to determine compliance with applicable controls or exemptions. The proposed new §115.416, concerning recordkeeping requirements, specifies the type of records to be kept to document satisfaction of exemption criteria or performance of applicable control devices. The proposed new §115.417, concerning Exemptions, specifies the types of facilities which are exempted from the requirements of these sections. The proposed new §115.419, concerning counties and compliance schedules, requires all affected facilities to be in compliance in accordance with all expired and pending schedules. Furthermore, affected sources in Brazoria, El Paso, Galveston, Harris, Jefferson, and Orange Counties must comply with applicable recordkeeping requirements by December 31, 1990.

Bennie Engelke, director of management and staff services, has determined that for the first five years the proposed sections are in effect, there would be no fiscal implications for state and local governments or for small businesses. Economic costs for individuals and businesses required to implement the proposed measures are associated only with recordkeeping requirements and are estimated as follows: annual cost per facility for fiscal year 1990 will be \$0, and for fiscal years 1991-1994 will be \$5,000.

Les Montgomery, P.E., director of the Technical Support and Regulation Development Program, has determined that for each of the first five years the sections as proposed are in effect, the public benefit anticipated as a result of implementing the sections will be more effective and consistent enforcement associated with the control of VOC. In addition, these measures are necessary to address the requirements of Phase I of the post-87 SIP revisions.

Public hearings on this proposal are scheduled for the following times and places: August 15, 1989, 10 a.m., Texas Air Control Board Auditorium, 6330 Highway 290 East, Austin; August 15, 1989, 7 p.m., City of Houston Pollution Control Building Auditorium, 7411 Park Place Boulevard, Houston; August 16, 1989, 7 p.m., City Council Chambers, Second Floor, 2 Civic Center Plaza, El Paso; and August 17, 1989, 4 p.m., Arlington Public Library, 101 East Abram, Arlington.

Copies of the proposed sections are available at the central office of the TACB, 6330 Highway 290 East, Austin, Texas 78723, and at all TACB regional offices. Public comment, both oral and written, on the proposed changes is invited at the hearings. The TACB would appreciate receiving five copies of testimony prior to or at the hearings. Written testimony received by the Regulation Development Section by 4 p.m. on August 25, 1989, at the TACB central office will be included in the hearing record.

The new sections are proposed under Texas Civil Statutes, Article 4477-5, §3.09(a), which provide the TACB with the authority to make rules and regulations consistent with the general intent and purposes of the Texas Clean Air Act and to amend any rule or regulation the TACB makes.

§115.412. Control Requirements. For the counties referenced in §115.419 of this title (relating to Counties and Compliance Schedules), the following control requirements shall apply.

(1) No person shall own or operate a system utilizing a volatile organic compound for the cold cleaning of objects without the following controls.

(A) A cover shall be provided for each cleaner which shall be kept closed whenever parts are not being handled in the cleaner. The cover shall be designed for easy one-handed operation if any of the following exists:

(i) the true vapor pressure of the solvent is greater than 0.3 psia (2 kPa) as measured at 100°F (38°C);

(ii) the solvent is agitated;
or
(iii) the solvent is heated.

(B) An internal cleaned-parts drainage facility, for enclosed draining under a cover, shall be provided for all cold cleaners.

(C) A permanent label summarizing the operating requirements in paragraph (1)(F) of this section shall be attached to the cleaner in a conspicuous location near the operator.

(D) If a solvent spray is used, it must be a solid fluid stream (not a fine, atomized, or shower-type spray) and at an operating pressure of 10 psig or less as necessary to prevent splashing above the acceptable freeboard.

(E) The system shall be equipped with a freeboard that provides a ratio (the freeboard height divided by the degreaser width) equal to or greater than 0.7, or a water cover (solvent must be insoluble in and heavier than water).

(F) The operating procedures shall be as follows.

(i) Waste solvent shall not be disposed of or transferred to another party such that the waste solvent can evaporate into the atmosphere. Waste solvents shall be stored only in covered containers.

(ii) The degreaser cover shall be kept closed whenever parts are not being handled in the cleaner.

(iii) Parts shall be drained for at least 15 seconds or until dripping ceases.

(2) No person shall own or operate a system utilizing a volatile organic compound for the open-top vapor cleaning of objects without the following controls.

(A) a cover that can be opened and closed easily without disturbing the vapor zone;

(B) the following devices which will automatically shut off the sump heat:

(i) a condenser coolant flow sensor and thermostat which will detect if the condenser coolant is not circulating or if the condenser coolant temperature exceeds the solvent manufacturer's recommendations;

(ii) a solvent level sensor which will detect if the solvent level drops below acceptable design limits; and