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Texas Register

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and in which reactants are not added and products are not removed simultaneously.

Synthetic Organic Chemical Manufacturing Industry distillation operation—An operation separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

Synthetic Organic Chemical Manufacturing Industry distillation unit—A device or vessel in which distillation operations occur, including all associated internals (including, but not limited to, trays and packing), accessories (including, but not limited to, reboilers, condensers, vacuum pumps, and stream jets), and recovery devices (such as adsorbers, carbon absorbers, and condensers) which are capable of, and used for, recovering chemicals for use, reuse, or sale.

Synthetic Organic Chemical Manufacturing Industry reactor process—A unit operation in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way, that their molecular structures are altered and one or more new organic compounds are formed.

Transport vessel—Any land-based mode of transportation (truck or rail) that is equipped with a storage tank having a capacity greater than 1,000 gallons which is used primarily to transport oil, gasoline, or other volatile organic liquid-bulk cargo. Vacuum trucks used exclusively for maintenance and spill response are not considered to be transport vessels.

Utility engines—Small four-stroke and two-stroke, air or liquid cooled, gasoline, diesel, or alternative fuel powered engines under 25 horsepower. They are designed for powering lawn, garden, and turf maintenance implements, timber operations, generating electricity, and pumping fluids.

Vapor recovery system—Any control system which utilizes vapor collection equipment to route volatile organic compound (VOC) to a control device that reduces VOC emissions.

VOC—Any compound of carbon or mixture of carbon compounds excluding methane, ethane, 1,1,1-trichloroethane (methyl chloroform), methylene chloride (dichloromethane), perchloroethylene (tetrachloroethylene),

trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-

tetrafluoroethane (HFC-134a), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and perfluorocarbon compounds which fall into these classes:

(A) cyclic, branched, or linear, completely fluorinated alkanes;

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

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

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

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

Issued in Austin, Texas, on November 10, 1993.

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Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

Effective date December 3, 1993

Proposal publication date July 9, 1993

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Chapter 115. Control of Air Pollution From Volatile Organic Compounds

The Texas Natural Resource Conservation Commission (TNRCC) adopts amendments to §115.10, concerning Definitions, §§115.121-115.123, 115.126, 115.127, and 115.129, concerning Vent Gas Control, §§115.211, 115.212, 115.214-115.217, and 115.219, concerning Loading and Unloading of Volatile Organic Compounds, §§115.222, 115.226, 115.227, and 115.229, concerning Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities, §§115.234-115.237 and 115.239, concerning Control of Volatile Organic Compound Leaks From Transport Vessels, §§115.241-115.249, concerning Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities; §§115.324, 115.334, and 115.344, concerning Fugitive Emission Control in Petroleum Refining and Petrochemical Processes; §§115.421, 115.422, 115.426, 115.427, and 115.429, concerning

Surface Coating Processes; §115.910, concerning Alternate Means of Control; and §§115.930 and §115.932, concerning Compliance and Control Plan Requirements TNRCC also adopts new §§115.152, 115.153, 115.155-115.157, and 115.159, concerning Municipal Solid Waste Landfills, §§115.352-115.357 and 115.359, concerning Fugitive Emission Control in Petroleum Refining and Petrochemical Processes, §§115.442, 115.443, 115.445, 115.446, and 115.449, concerning Offset Lithographic Printing, §§115.541-115.547 and 115.549, concerning Degassing or Cleaning of Stationary and Transport Vessels; §115.621 and §115.625, concerning Utility Engines; §115.940, concerning Compliance and Control Plan Requirements, and §115.950, concerning General Permits.

Adopted with changes as published in the July 9, 1993, issue of the *Texas Register* (18 TexReg 4449) and the July 16, 1993, issue of the *Texas Register* (18 TexReg 4627) are §115.10, concerning Definitions; §§115.121-115.123, 115.126, 115.127, and 115.129, concerning Vent Gas Control; §§115.152, 115.155, and 115.156, concerning Municipal Solid Waste Landfills, §§115.211, 115.212, 115.214, 115.216, 115.217, and 115.219, concerning Loading and Unloading of Volatile Organic Compounds, §§115.222, 115.226, 115.227, and 115.229, concerning Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities, §115.235, concerning Control of Volatile Organic Compound Leaks From Transport Vessels; §§115.242-115.249, concerning Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities, §§115.352-115.357 and 115.359, concerning Fugitive Emission Control Petrochemical Refining and Petrochemical Processes, §115.421 and §115.426, concerning Surface Coating Processes, §§115.442, 115.445, 115.446, and 115.449, concerning Offset Lithographic Printing, §§115.541, 115.542, 115.544-115.547, and 115.549, concerning Degassing or Cleaning of Stationary and Transport Vessels, §115.621, concerning Utility Engines, §115.940, concerning Compliance and Control Plan Requirements, and §115.950, concerning General Permits

Adopted without changes are §§115.153, 115.157, and 115.159, concerning Municipal Landfills, §115.215, concerning Loading and Unloading of Volatile Organic Compounds, §§115.234, 115.236, 115.237, and 115.239, concerning Control of Volatile Organic Compound Leaks From Transport Vessels, §115.241, concerning Stage II, §§115.324, 115.334, and 115.344, concerning Fugitive Monitoring; §§115.422, 115.427, and 115.429, concerning Surface Coating Processes; §115.443, concerning Offset Lithographic Printing, §115.543, concerning Cleaning of Stationary and Transport Vessels, §115.625, concerning Utility Engines, §115.910, concerning Alternate Means of Control, and §§115.930 and §115.932, concerning Compliance and Control Plan Requirements

The amendments and new sections to Chapter 115, concerning Control of Air Pollution From Volatile Organic Compounds (VOCs) and the State Implementation Plan (SIP), are

adopted in response to the 1990 Amendments to the Federal Clean Air Act (FCAA) and U.S. Environmental Protection Agency (EPA) requirements for states to develop and adopt rules relating to the Rate-of-Progress (ROP) requirement by November 15, 1993. The ROP rules are required to achieve and maintain VOC emissions levels that are 15% below the 1990 base year levels by 1996 in the Beaumont/Port Arthur, Dallas/Fort Worth (DFW), El Paso, and Houston/Galveston (H/GA) ozone nonattainment areas. The adopted new and revised rules consist of a Phase I set of rules comprising at least 80% of the required reductions. The remaining reductions will be achieved in future rulemaking. Most of the rules affect some or all of the ozone nonattainment counties of Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller.

The TNRCC adopts an amendment to §115.10, concerning Definitions. The changes add definitions for terms used in automotive refinishing, offset printing, VOC loading and unloading, municipal waste landfills, vessel cleaning, synthetic organic chemical manufacturing industry (SOCMI) reactor and distillation operations, and utility engines. The changes also revise the definition of VOC to exclude perchloroethylene for consistency with the corresponding federal definition soon to be promulgated by EPA, and revise the definition of vapor recovery system to delete inappropriate and obsolete language.

New rules and amendments to existing rules have been adopted in order to obtain the 15% reduction in VOC emissions required by the FCAA. Sections 115.121-115.129, concerning SOCMI Reactor and Distillation Process, establish emission limitations for SOCMI processes specifying a VOC destruction efficiency of at least 98%, and limit VOC emission rates to 20 parts per million. Revisions requested by the Texas Chemical Council to §115.123 are being incorporated to allow alternate means of control for facilities previously equipped with control devices, and to §115.127(a)(1) to clarify a specific exemption for low-density polyethylene plant vent gas streams. Sections 115.152-115.159, concerning Municipal Solid Waste Landfills, establish criteria for the control of VOC resulting from the decay of material in sanitary landfills.

Sections 115.211-115.219, concerning Loading and Unloading of Volatile Organic Compounds, reduce the gasoline terminal emission limitation from vapor recovery systems to 0.09 pound of VOC per 1,000 gallons of gasoline, and reduce the VOC applicability threshold from 15 pounds per square inch absolute (psia) to 0.5 psia. Changes to §§115.221-115.229, concerning Stage I Vapor Recovery, are incorporated for consistency with the changes to Stage II Vapor Recovery. Sections 115.234-115.239, concerning Tank-Truck Leak Testing, extend the requirement that all tank trucks transporting VOC with a vapor pressure greater than or equal to 0.5 psia pass an annual leak-tightness test. New §§115.352-115.359, concerning Fugitive Monitoring, are adopted for the El Paso, Beaumont/Port Arthur, and

Houston/Galveston areas. These rules establish standard requirements for fugitive emission monitoring programs for petroleum refineries and the SOCMI, and establish a more stringent level of control. The TNRCC adopts §§115.241-115.249, concerning Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities for Collin, Dallas, Denton, and Tarrant counties, pursuant to the Texas Health and Safety Code, §382.019(d), and subsequent to a recent federal appeals court ruling (*NRDC v EPA*, CA DC, Number 92-1137, January 22, 1993).

Changes are added to the Stage II rules and the Stage II SIP to improve enforceability. Changes to §§115.324, 115.334, and 115.344, concerning Fugitives, allow substitution of federal fugitive monitoring skip-period requirements in place of those required by the state. Sections 115.421-115.429, Surface Coating Processes, revise VOC content limits for surface coatings (primers and primer surfacers) used in auto refinishing in Dallas and Tarrant counties, and establish new coating limits for the Dallas-Fort Worth, Houston/Galveston, and El Paso nonattainment areas. The rules also establish a minimum transfer efficiency for coating application equipment used in auto refinishing. Sections 115.442-115.449, Offset Printing, establish control requirements in El Paso for lithographic printing processes using alcohol as a solvent or cleaner. Sections 115.541-115.549, Vessel Cleaning, in the Houston/Galveston and Beaumont/Port Arthur require that VOC vapors evacuated from marine and other transport vessels, prior to vessel cleaning, be captured through a vapor recovery system. New §§115.621-115.623, concerning Utility Engines, establish emission limits for small internal combustion engines under 25 horsepower, and are adopted as statewide rules to obtain maximum rule-effectiveness. Changes to §115.910, concerning Alternate Means of Control, delete Hardin and Montgomery counties from the list of unclassified counties. Changes to §115.930 and §115.932, concerning Compliance and Control Plan Requirements, are adopted in order to minimize required paperwork. A new §115.940, Reasonably Available Control Technology (RACT) Equivalency, allows the use of a federal requirement in lieu of a Chapter 115 requirement. A new §115.950, Standard Construction Permit for VOC Control Projects, establishes a standard permit procedure for VOC abatement equipment required pursuant to other provisions of Chapter 115.

Public hearings were held on August 4, 1993, and August 25, 1993, in El Paso; August 5, 1993, in Arlington; August 26, 1993, in Irving; August 5, 1993, and August 23, 1993, in Houston; and August 6, 1993, and August 26, 1993, in Beaumont. The comment period closed on August 13, 1993, for the Chapter 115 rules, and on August 27, 1993, for the 15% ROP SIP.

The TNRCC received testimony from 13 commenters on §115.10, concerning Definitions. Supporting the proposal with suggested changes were Amoco Oil Company (Amoco Oil); Chemical Carriers' Association (CCA); Chevron U.S.A., Products Company (Chev-

ron); DuPont, Beaumont Works (DuPont BMT); Legislative and Regulatory Affairs (Exxon); Exxon Company, U.S.A. (Exxon USA); Fina Petroleum Company (Fina); Houston Lighting and Power (HL&P); Phibro Energy, U.S.A. (Phibro); Phillips Petroleum Company (Phillips); Texas Chemical Council (TCC), and Texas Mid-Continent Oil and Gas Association (TMOGA).

Thirteen commenters submitted testimony on §§115.121-115.123, 115.126, 115.127, and 115.129, concerning Vent Gas Control. DuPont BMT, Dow Chemical Company (Dow); Exxon Chemical Americas (Exxon Chem); Firestone Synthetic Rubber and Latex Company (Firestone); Phillips; Phibro, Quantum Chemical Company, (Quantum); TCC; TMOGA; and Vinson and Elkins generally opposed the changes. EPA, the Lone Star Chapter of the Sierra Club (Sierra Club), and the Galveston Houston Association for Smog Prevention (GHASP) generally supported the changes, but suggested changes.

The TNRCC received testimony from seven commenters on §§115.152, 115.153, 115.155-115.157, and 115.159, concerning Municipal Landfills. Most of the comments addressed the specific rules proposed and covered a variety of issues. The Texas Campaign for the Environment (TCE), GHASP; the North Central Texas Council of Governments (NCTCOG); the City of Garland; the City of Arlington; Madden Road Landfill, and an individual generally supported the proposed rules with some minor changes. The City of Dallas, Department of Health and Human Services (Dallas), and the City of Plano (Plano) did not support the proposed regulations.

The TNRCC received testimony from 21 commenters on §§115.211, 115.212, and 115.214-115.219, concerning Loading and Unloading of Volatile Organic Compounds. EPA supported the proposed amendments. Sierra Club and GHASP generally supported the amendments, but suggested changes. Amoco Chemical Company (Amoco Chem); CITGO; DuPont BMT; ENRON Pipeline and Liquids Group (ENRON), Exxon; Exxon Chem, Exxon USA, GATX Terminals Corporation (GATX); Gas Processors Association (GPA); HL&P, Independent Liquid Terminals Association (ILTA), Congressman Greg Laughlin; OxyChem, Phibro; Phillips; TCC; TMOGA; Warren Petroleum Company (Warren); and Union Carbide Chemicals and Plastics Company (Union Carbide) opposed the changes.

The TNRCC received testimony from eight commenters on §§115.222, 115.226, 115.227, and 115.229, concerning Stage I. Exxon USA; Advanced Tank Technology, Inc. (ATT), Texas Oil Marketers Association (TOMA); HL&P; DuPont BMT; and Star Enterprise (Star) opposed the amendments. GHASP and Sierra Club generally supported the amendments with suggested modifications.

Four commenters submitted testimony on §§115.234-115.237 and 115.239, Tank Truck Testing. Sierra Club and GHASP supported the proposed changes. Warren and Union Carbide opposed the changes.

Fourteen commenters submitted testimony on §§115.241-115.249, concerning Stage II. Opposing the rule were Star; ATT; Fina Oil and Chemical Company, Dallas Office (Fina Dallas); TOMA; Exxon USA; Exxon; Industrial Council on the Environment (ICE); El Paso Natural Gas Company (EPNGC); DuPont BMT; the Houston Chronicle (Chronicle); HL&P; and an individual. Supporting the amendments but suggesting changes were GHASP and Sierra Club.

Staff received testimony from five commenters on the proposed amendments to §§115.324, 115.334, and 115.344, concerning Fugitive Emission Control in Petroleum Refining and Petrochemical Processes (GHASP, Sterling Chemicals (Sterling), Exxon USA, TCC, and TMOGA) GHASP opposed the proposal. TCC, TMOGA, and Exxon supported the proposal with no recommended changes, and Sterling supported the proposal with additional clarification requested.

Forty-five commenters submitted testimony on the proposed new §§115.352-115.357 and 115.359, concerning Fugitive Emission Control in Petroleum Refining and Petrochemical Processes. Twenty-one supported the proposed rule with some suggested changes (GHASP, Monsanto, Shell Oil Company-Shell Chemical Company (Shell); EPA; Marathon Oil Company (Marathon); Pennzoil Company (Pennzoil); Sterling, TMOGA; Dow; TCC; Union Carbide; DuPont BMT; Exxon Chem; Amoco Oil; Sierra Club, Exxon USA; Amoco Chem; OxyChem; Phillips; Rohm and Haas Texas Incorporated (Rohm and Haas); and Phibro). Twenty commenters were against extending the rule to the attainment areas (Board of Trade Port of Corpus Christi; Safety Steel Service (Safety Steel); Victoria Economic Development Corporation; Victoria Chamber of Commerce; Valero Refining Company (Valero); Victoria Bank and Trust; CITGO; U.S. Congressman Greg Laughlin; OxyChem Corpus Christi Plant; Central Power and Light (CPL), Formosa Plastics Corporation (Formosa); Golden Crescent Regional Monitoring Network; OxyChem Victoria Operations; Valero Hydrocarbons, L.P., Boardwalk Properties; an individual; City of Victoria; DuPont Victoria; State Representative Steve Holzheuser, D.V.M.; and State Senator Ken Armbrister). Four commenters were against extending the rule to the natural gas and gasoline processing industry and three of those offered recommended changes (ENRON; Liquid Energy Corporation (LEC); GPA; and Warren).

Seven commenters submitted testimony on §§115.421, 115.422, 115.426, 115.427, and 115.429, concerning Surface Coating Processes. EPA and Nason Automotive Finishes (Nason) supported the proposed changes. BASF Automotive; DuPont; GHASP; National Paint and Coatings Association (NPCA); and Sierra Club generally supported the proposal but recommended revisions.

The TNRCC received testimony from 35 sources on §§115.541-115.547 and 115.549, concerning Degassing or Cleaning of Stationary and Transport Vessels. The following commenters supported the proposed rules with changes: GHASP; Tarrant Coalition for

Environmental Awareness (TCEA); three individuals; Bauguss Engineering Industries, Inc. (Bauguss); HL&P; EPA; Marathon; Sterling; TCC; TMOGA; Dow; Sierra Club; Marine Vessel Degassing and Cleaning Group (Marine Group); DuPont BMT; Exxon Chem; Chevron; TCE; Southtec Services, Inc. (Southtec); United States Coast Guard (USCG); HMT Thermal Systems, Inc. (HMT); Salemco; Fina; Amoco; Star; Amoco Chem; Phillips; and Babet Engineering, Inc. (Babet). The following opposed the proposed rules: Texas Waterway Operators Association (TWOA); International Association of Independent Tanker Owners (INTERTANKO); ILTA; CCA; Stolt Parcel Tankers, Inc. (Stolt); and Ingram Barge Company (Ingram).

Two commenters submitted testimony on §§115.621 and §115.625, concerning Utility Engines. EPA and Sierra Club both supported the rules but recommended changes.

Twenty-two commenters submitted testimony on §§115.910, 115.930, 115.932, 115.940, and 115.950, concerning Administrative Provisions. EPA strongly opposed the proposals that allowed greater Executive Director discretion in alternate methods of control and equivalency determinations of state and federal rules. EPA generally supported the proposal on compliance dates with a provision to extend compliance dates for the early reduction program (ERP). TCC and TMOGA generally supported the amendments with some modification to loosen requirements. The following commenters supported the TCC/TMOGA remarks: Greater Houston Partnership (GHP); DuPont BMT; Chevron; OxyChem; Exxon Chem and the Exxon USA; the Mobil Oil Corporation (Mobil); Dow; and Shell. In all instances where they agree, they will be referred to as TCC/TMOGA, et al. In instances where they differ or comment on other issues, the individual organization will be specifically identified. Southeast Texas Regional Planning Council (SETRPC); HL&P; Dallas; BFI; Firestone; Vought Aircraft Company (Vought); and Pennzoil generally supported the proposals with some modification. GHASP, Sierra Club, and TCE generally opposed the proposals.

GHASP and Sierra Club made several comments with regards to the Industrial and Municipal Wastewater regulation as it was proposed in the July 9, 1993, issue of the *Texas Register* (18 TexReg 4458). At the June 28, 1993, Texas Air Control Board (TACB) Meeting, the Board voted to move the rule from the Phase I to the Phase II rules to give the staff and affected parties time to develop a more effective regulation. This was reflected in the July 27, 1993, issue of the *Texas Register* (18 TexReg 4947) where the proposal was repealed. The comments submitted by GHASP and Sierra Club will be part of the discussion during the work group meetings established to develop this rule.

TMOGA; TCC; DuPont BMT; Exxon Chem; Amoco; Exxon USA; Amoco Chem; Chevron; and Phillips submitted testimony requesting that the Once-In, Always-In (OIAI) concept should be deleted throughout Chapter 115. Some of the specific arguments against the OIAI concept are as follows: TCC and TMOGA stated if production, throughput, or

some other indicator of potential emissions is below the level of regulatory significance, then it simply does not matter when this level is achieved. TCC, TMOGA, Phillips, and DuPont BMT commented that the OIAI concept discourages pollution prevention and waste minimization efforts. TCC and TMOGA emphasized that OIAI can actually cause pollution, by requiring combustion controls for insignificant sources. TCC, TMOGA, and Amoco believe the potential for abuse does not justify the OIAI concept and the TNRCC should rely on regulating violations of the exemption level. Amoco commented that the loss of an exemption level is too severe a penalty for what could be a one-time event. Exxon USA stated that the OIAI concept is a glaring example of the TNRCC failing to honor the "cost-effective/minimum impact" commitment. Exxon Chem made the comment that it discourages process innovation and the cost competitive reward associated with environmental improvement and change. DuPont BMT stated that it does not allow for any flexibility to operate under a possible plant-wide emissions cap under the Title V program.

The Once-In, Always-In (OIAI) concept is an EPA requirement. There are methods available to remove a source from the OIAI requirements, for example, a federally enforceable permit or the AMOC process. On August 11, 1993, the staff met with members of TCC and EPA Region 6 to discuss this and other issues. EPA firmly stood by its policy, which was first stated in the November, 1987, SIP call and which the TACB was required to include in the RACT fixups. EPA indicated the intent was to provide for federal enforcement of sources not to exceed the exemption level, and to prevent the dismantling of the control device which would result in a significant increase in the emissions inventory, i.e., a throughput reduction of 50% could result in an emissions increase of 90% if the control device were removed. A policy memo from G. T. Helms, dated August 23, 1990, states the purpose of this requirement is to discourage a source already subject to the regulation from installing minimal ("less than RACT") controls to circumvent RACT requirements, and to improve the clarity of VOC regulations by minimizing confusing variations in production over whether a particular source is covered by a regulation. Subsequent to the proposal, meetings were held with TCC/TMOGA representatives to develop wording which would allow the removal of control devices if emissions were reduced to at or below the controlled level existing prior to the modification. The staff implemented these changes in §§115.122, concerning Vent Gas Control, and §115.212, concerning Loading and Unloading of Volatile Organic Compounds.

CCA stated that it is not clear what constitutes a VOC and that a list should be published.

Both Chapter 101 (General Rules) and Chapter 115 include a definition of VOC. No additional definition or VOC list is required.

Fina suggested that a clearer definition of "degassing" be provided. Fina's interpretation was that the proposed new §§115.541-115.547 and 115.549, concerning Degassing

and Cleaning of Stationary or Transport Vessels, did not regulate emissions of tanks, barges, trucks, and railcars during loading or unloading operations.

The term "degassing" is commonly used in the field of air pollution. The emissions specifications and levels of control define which categories are affected by the rule. VOC loading and unloading operations are covered by a separate rule.

DuPont BMT suggested that the definition of "gasoline" be revised to specifically exclude diesel fuel.

The existing definition of gasoline is "any petroleum distillate having a Reid vapor pressure (RVP) of four psia (27.6 kPa) or greater, which is produced for use as a motor fuel, and is commonly called gasoline." The vapor pressure restriction will exclude diesel fuel, which has a much lower vapor pressure than that of gasoline. The definition of gasoline was not proposed for amendment, and consequently DuPont BMT's comments are not within the scope of the proposed revisions. However, in conjunction with future EPA guidance, these comments will be considered for future rulemaking.

TCC and TMOGA recommended that the definition of "marine vessel" be changed to "any watercraft used, or capable of being used, as a means of transportation on water, and that is constructed or adapted to carry, or that carries, oil, gasoline, or other volatile organic liquid in bulk as a cargo or cargo residue." TCC and TMOGA stated that this change would be consistent with the definition of "tank vessel" as used in §183(f) of the 1990 Amendments to the FCAA and narrows the focus to VOC liquid cargo. The TNRCC changed the definition of "marine vessel" to reflect this recommendation.

HL&P commented that the definition of "municipal solid waste facility" should include the word "household" in front of "solid waste" to clarify municipal facilities as those regulated by the Texas Department of Health and maintain consistency with the TNRCC definition of "municipal solid waste landfill" (MSWLF).

The proposed definition of municipal solid waste (MSW) facility is consistent with EPA's definition. The TNRCC definition of MSWLF includes other waste from other sources, in addition to household wastes.

Phibro and Fina suggested that a definition of "process vent" be added to §115.10, and Sterling suggested that the definition specify the location of the point of compliance (i.e., before or after recovery and/or controls) for vent gas streams. Phibro suggested that fluid catalytic cracking (FCC) regenerator stacks, sulfur recovery unit (SRU) stacks, heater/boiler stacks, relief valves, and vent gas streams, which are returned to process equipment, should be excluded from the definition of "process vent."

The proposed changes to §115.10 do not include a definition of "process vent," and consequently, these comments are not within the scope of the proposed revisions. However, in conjunction with future EPA guidance, these comments will be considered for future rulemaking. The term "vent" is defined

in §115.10 to mean "any duct, slack, chimney, flue, conduit, or other device used to conduct air contaminants into the atmosphere." This term would include any avenue within a process stream that is used ultimately to conduct air contaminants to the atmosphere, whether the device is located before or after any control equipment in the process stream. Thus, the term "vent," when used in the phrase "vent gas stream," as in §115.127, is interpreted to mean a vent gas stream after the point of generation of air contaminants, but before any control equipment. Therefore, the applicability of exemptions is determined after the point of generation of air contaminants, but before any control equipment.

Two individuals commented that the definition of "solid waste," as it pertains to MSWLFs, should also contain a phrase that would exclude all hazardous material from solid waste. This would assure that solid waste would not contain any hazardous material that is being placed in a MSWLF.

The TNRCC concurs that hazardous waste should not be placed in municipal landfills. However, it would not be possible to exclude all hazardous materials that are normally part of landfill waste such as consumer products, small amounts of solvents, paints, degreasers, and other materials that cannot be extracted from the waste before disposal.

HL&P suggested revising the definition of "transport vessel" to exclude vessels equipped with a storage tank having a capacity of less than 1,000 gallons, in order to provide consistency with the existing definition of "delivery vessel/tank-truck tank."

Phillips, Amoco Oil, TCC, TMOGA, Chevron, DuPont BMT, and Fina suggested that the definition of "transport vessel" be revised to exclude vacuum trucks. TCC, TMOGA, Amoco Oil, Phillips, and DuPont BMT suggested that the definition of "transport vessel" be revised to exclude drums, barrels, and portable tanks used for maintenance and spill response. Phillips also suggested revising the definition of "transport vessel" to exclude vessels equipped with a storage tank having a capacity of less than 8,000 gallons. TCC and TMOGA also recommended that the definition of "transport vessel" be changed to "any land-based mode of transportation (truck or rail) which has a tank used primarily to transport oil, gasoline, or other VOC liquid bulk cargo" in order to exclude boats. This definition would exclude vacuum trucks and portable tanks used for maintenance and spill response or containers such as drums and barrels.

The TNRCC agrees that the definition of "transport vessel" should be for land-based modes of transportation only, with a separate definition used for marine vessels. In order to provide consistency with the existing definition of "delivery vessel/tank-truck tank," the definition of transport vessel was revised to exclude vessels equipped with a storage tank having a capacity of less than 1,000 gallons. This will exclude containers such as drums, barrels, and small portable tanks. The TNRCC agrees that vacuum trucks should be excluded and has revised the definition of transport vessel accordingly.

TCC, TMOGA, and DuPont BMT suggested that the definition of "vapor recovery system" be changed to "vapor control system" to clarify that combustion-type control devices that meet the required performance standards are acceptable.

The term "vapor recovery system" is used throughout Chapter 115, including rules which are not proposed for revision. Therefore, the suggested change cannot be made at this time. However, these comments will be considered for future rulemaking.

DuPont BMT suggested that the definition of "vapor recovery system" be revised to specify that a vapor balance system, as defined in §115.10, is considered to be a vapor recovery system.

The present definition of vapor balance does not include the requirement for the returned vapors to be returned to a storage tank which has a control device, therefore, it would be possible to transfer VOC to a tank without a control device or not comply with the control device destruction efficiency required by the applicable section. Since the definition of vapor balance must be changed, and was not included in the original proposal, this issue will be addressed in future rulemaking.

DuPont BMT suggested that aggregate true partial pressure standard in the definition of "vapor recovery system" should be retained. DuPont BMT expressed concern that the proposed change would preclude the use of condensers.

The deletion of the 1.5 psia aggregate true partial pressure standard will result in wording that more properly defines the concept of a "vapor recovery system," while the required control efficiency or aggregate true partial pressure standard for the vapor recovery system will continue to be specified in the appropriate rules. This change will not preclude the use of condensers if the condensers can meet the required control efficiency and/or aggregate true partial pressure standard for the vapor recovery system specified in the appropriate rules.

Exxon USA suggested that new definitions for "parts per million by volume" and "parts per million by weight" be added and that the definition of "volatile organic compound" be revised to "volatile organic compound, or VOC" in order to avoid repeatedly using "parts per million by volume (ppmv)," "parts per million by weight (ppmw)," and "volatile organic compound (VOC)" throughout Chapter 115.

This practice is a stylistic requirement of the *Texas Register* to aid the general public who may not be as familiar with abbreviations used within the air pollution field.

Vent Gas Control Vinson and Elkins, TCC, TMOGA, Firestone, and Quantum commented on §115.121 and supported the proposed extension of the compliance date from July 31, 1994, to May 31, 1995, for existing vent gas control requirements, while DuPont BMT requested a longer extension to November 15, 1996. TCC, TMOGA, and DuPont BMT recommended that the compliance date for SOCM reactor and distillation vent gas streams be extended from May 31, 1995, to November 1996.

The TNRCC extended the compliance date for SOGMI reactor and distillation vent gas streams from May 31, 1995, to November 15, 1996, in order to provide the regulated community sufficient time to comply. The compliance date for existing requirements, however, was extended to May 31, 1995, as proposed, because this is the FCAA statutory deadline for non-Control Techniques Guidelines (CTG) major source RACT rules.

Dow commented on §115.121(a)(2), concerning general vent gas streams. Dow expressed concern that vent gas streams affected by the SOGMI requirements of §115.121(a)(3)-(4), which are more stringent than the requirements of §115.121(a)(2), seemed to be affected by both rules. Dow suggested adding language to §115.121(a)(2) to specifically exclude streams affected by §115.121(a)(3)-(4) from the requirements of §115.121(a)(2).

Rule 115.122(a)(2) requires vent gas streams affected by §115.121(a)(3)-(4) to be controlled to a VOC emission rate of no more than 20 parts per million (ppm), or burned properly in a smokeless flare or a direct-flame incinerator which has a destruction efficiency of at least 98%. Section 115.122(a)(1), however, requires any vent gas streams affected by §115.121(a)(1)-(2) to be burned properly in a smokeless flare or a direct-flame incinerator which has a destruction efficiency of at least 90%. Any SOGMI vent gas stream which could potentially be affected by both §115.121(a)(2) and §115.121(a)(3)-(4), would have to comply with more stringent requirements of §115.121(a)(3)-(4), and consequently, there is no conflict between the requirements.

Exxon Chem commented on §115.121(a)(3)-(4) and §115.122(a)(2) and stated that the 20 ppm limitation should be expressed as ppmv.

These corrections have been made.

TCC, TMOGA, DuPont BMT, and Firestone commented on §115.122 and stated that the reference to a type of control technology, specifically, smokeless flares and direct-flame incinerators, should be deleted and only a performance standard (i.e., a control efficiency) be included.

Section 115.122(a)(2) currently states that affected vent gas streams must be burned properly in a smokeless flare or a direct-flame incinerator which has a destruction efficiency of at least 98%. The change to §115.122(a)(2) adds an allowance for streams controlled to a VOC emission rate of no more than 20 ppmv, in lieu of control with a smokeless flare or direct-flame incinerator. This change is merely intended to clarify the relationship between §115.121(a)(3)-(4) and §115.122(a)(2). No changes were proposed to §115.122(a)(1), so comments on the 90% destruction efficiency specified in this rule are not within the scope of the proposed revisions. However, in conjunction with future EPA guidance, these comments will be considered for future rulemaking.

EPA commented on §115.122(a)(2) and stated that the 20 ppm control level should include a correction to 3% oxygen to insure that the addition of dilution air does not contribute to meeting the standard.

This clarification has been made to §115.122(a)(2) and, for consistency, was likewise made to §115.121(a)(3) and (4).

EPA and Sierra Club commented on §115.122(a)(2). Sierra Club supported the 98% destruction efficiency, while EPA stated that "properly operated smokeless flare" should be defined. EPA suggested that the flare meet the requirements of 40 CFR, §60.18, and that temperature sensing requirements be added to insure continuous operation of the flare.

The test methods for flares specified in §115.125(a)(2) already include 40 CFR, §60.18. EPA's suggested temperature sensing requirement is appropriate, and has been added to §115.122(a)(2).

DuPont BMT commented on §115.123(a)(1), which establishes the availability of alternate means of control (AMOC) determinations. DuPont BMT suggested that Executive Director approval not be required for AMOCs.

The agency disagrees with DuPont BMT. The purpose of an AMOC is for the agency to provide a case-by-case determination, this cannot be done without Executive Director approval.

GHASP commented that "equivalent" and "substantially equivalent" are not defined in §115.123(a)(1).

These terms have the meanings commonly ascribed to them in the field of air pollution control, and the TNRCC does not believe that further definition is necessary.

Vinson and Elkins, TCC, TMOGA, Sierra Club, GHASP, Phillips, DuPont BMT, and Quantum commented on §115.123(a)(2), which establishes the availability of an alternate reasonably available control technology (ARACT) determination for situations in which a vent gas stream control device with a control efficiency of at least 90% was installed prior to the effective date of a vent gas rule that requires a higher control efficiency. Vinson and Elkins, TCC, TMOGA, Phillips, and Quantum supported the addition of an ARACT provision for such cases. However, Vinson and Elkins, TCC, TMOGA, DuPont BMT, and Phillips objected to limiting the applicability of each ARACT to existing control devices with a control efficiency of at least 90%, while Sierra Club and GHASP recommended that the minimum control efficiency be 98%. Vinson and Elkins, TCC, TMOGA, and DuPont BMT referenced EPA's CTG, Control of Volatile Organic Compounds from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins (November, 1983) and Control of Volatile Organic Compounds from Air-Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (December, 1984), and commented that the CTGs excluded all facilities with existing control in calculating the economic impact of RACT, without regard to control efficiency.

The referenced CTGs are guidelines which EPA developed to enable states to determine an appropriate level of RACT. The general vent gas rule was already in effect with a control efficiency of 90% when the referenced CTGs were initially adopted as Chapter 115

rules. Therefore, it is inappropriate to set a level of control other than 90% for facilities which were equipped with control devices, prior to the adoption of the SOGMI CTGs, EPA's CTG notwithstanding.

Vinson and Elkins, TCC, TMOGA, and DuPont BMT suggested that Executive Director determination of economic reasonableness should not be required in cases where VOC emissions, from a control device having a 90% or greater control efficiency, are less than the applicable mass or concentration exemption limits. GHASP commented that "economically unreasonable" is not defined.

As noted in the discussion concerning the suggested addition of a definition of "process vent" to §115.10, the applicability of exemptions is determined after the point of generation of air contaminants but before any control equipment. Therefore, the agency disagrees with the suggestion by TCC, TMOGA, and DuPont BMT, since it would set an exemption level based upon VOC emissions exiting a control device. Each ARACT will be reviewed on a case-by-case basis to determine if it is economically unreasonable to replace the control device with a new control device, meeting the requirements of the applicable rule(s). The TNRCC does not believe that further definition is necessary.

Vinson and Elkins, TCC, TMOGA, DuPont BMT, and Quantum objected to limiting the applicability of each ARACT to ten years from the original installation date of the control device, and TCC and TMOGA asserted that older control devices were less cost-effective to replace than newer control devices. Vinson and Elkins supported the inclusion of a requirement that the ARACT determination be reevaluated every ten years. GHASP recommended that the applicability of each ARACT be limited to three years from the original installation date of the control device. GHASP also recommended that emissions testing be mandated as a condition of each ARACT.

To address these concerns, the TNRCC has replaced the ten-year ARACT applicability limitation with a limitation that each ARACT is valid until the control device undergoes a replacement, a modification as defined in 40 CFR, §60.14, or a reconstruction as defined in 40 CFR, §60.15, with a reevaluation of the economic reasonableness of replacing the control device conducted at the Executive Director's discretion after the control device has been in place a minimum of ten years.

Section 101.8, concerning Sampling, already provides the Executive Director the authority to require testing to determine the opacity, rate, composition, and/or concentration of emissions. Therefore, a specific requirement for testing, as a condition of each ARACT, is unnecessary.

Sierra Club and GHASP commented on §115.126. Sierra Club recommended that records be retained for at least three years and perhaps five years, rather than two years. GHASP recommended that records be retained for five years.

The suggested five-year timeframe mentioned is for compliance determination used in permitting issues. The TNRCC central of

file keeps records of facility violations forever. The two-year period is considered sufficient for a field investigator to determine the facility's daily compliance with applicable rules for routine spot inspections, as well as, annual/biennial investigations.

DuPont BMT commented on §115.126(a)(1)(C) and §115.126(b)(1)(C). DuPont BMT stated that installation of monitoring systems on carbon canisters is unreasonable and costly.

Neither rule requires monitoring systems on carbon canisters. Carbon canisters are carbon adsorbers, as defined in §115.10. Carbon adsorption systems are defined separately to "include a system to regenerate the saturated adsorbent." The monitoring and recordkeeping requirements apply to carbon adsorption systems, as defined in §115.10, but not to simple carbon adsorbers such as carbon canisters. While it may be unreasonable to continuously monitor simple carbon canisters, some monitoring is imperative to determine the control effectiveness. Additional monitoring requirements will be considered in future rulemaking.

EPA questioned the reason for removing the wording "to determine breakthrough" in reference to carbon adsorption systems in §115.126(a)(1)(C).

The term "breakthrough" was deleted since it is better applied to simple carbon canisters than the regenerative carbon adsorption systems referenced in §115.126(a)(1)(C).

Dow commented on §115.127(a)(5) and suggested that SOCMi reactor and distillation vent gas streams, which are returned to a fuel gas system in process equipment such as process heaters and boilers, be exempted from the requirement of §115.121(a)(4) to combust the stream in a smokeless flare or direct-flame incinerator. Phibro also suggested that vent gas streams, which are returned to a fuel gas system in process heaters, be exempted.

Section 115.122(a)(2) states that vent gas streams affected by §115.121(a)(3)-(4) must be controlled to a VOC emission rate of no more than 20 ppm, or burned properly in a smokeless flare or a direct-flame incinerator which has a destruction efficiency of at least 98%. The option of controlling the vent gas stream to 20 ppm would enable a company to recover VOCs from an affected SOCMi vent gas stream for reuse, provided the vapor recovery system can control the VOC emissions to an emission rate of no more than 20 ppm. Therefore, a specific exemption is not necessary.

EPA commented on §115.127(a)(5) and stated that the rule does not include a Total Resource Effectiveness (TRE) approach to exempting sources which was included in more recent drafts of the SOCMi Reactor and Distillation CTG.

The TNRCC agrees that §115.127 does not include the TRE approach to exempting sources. However, §115.123(a)(2) establishes the availability of an ARACT determination for situations in which a vent gas stream control device with a control efficiency of at least 90% was installed prior to the

effective date of a vent gas rule, which requires a higher control efficiency. This provides an alternate approach for a similar determination.

EPA, GHASP, and Sierra Club commented on §115.127(a)(5)(A). EPA stated that "batch mode" should be defined to clarify the exemption in §115.127(a)(5)(A), while GHASP and Sierra Club stated that SOCMi batch processes should not be exempt.

Batch mode means any noncontinuous reactor process which is not characterized by steady-state conditions and in which the addition of reactants does not occur simultaneously with the removal of products. The TNRCC has added this clarifying language to §115.127(a)(5)(A). Future RACT rules controlling emissions from SOCMi batch processes will be proposed in accordance with EPA's CTG on SOCMi batch processes.

DuPont BMT commented on §115.127(a)(5)(A) and suggested that existing SOCMi reactor and distillation processes be exempt until a modification or reconstruction, as defined in 40 CFR, §60.14 and §60.15 (New Source Performance Standards (NSPS)), occurs.

The general vent gas rule, already in effect, requires a control efficiency of 90%. Therefore, it is inappropriate to exempt from control any facility which was already required to be equipped with a control device. The availability of an ARACT under §115.123(a)(2) was established to provide relief, when determined to be appropriate, for existing control devices in SOCMi processes.

EPA commented on §115.127(a)(5)(C) and stated that the 0.011 standard cubic feet per minute exemption level should be 0.011 standard cubic meters per minute, and that the 0.05 weight percent exemption level should be 0.05 volume percent for consistency with the CTG.

These corrections have been made.

The TNRCC extended the compliance date in §115.129(4) for SOCMi reactor and distillation vent gas streams from May 31, 1995, to November 15, 1996, in order to provide the regulated community sufficient time to comply. In addition, language was added to clarify that this rule applies specifically to SOCMi reactor process or distillation operations.

A suggestion was made by Lloyd, Gosselink, Fowler, Blevins and Mathews, P.C. (Lloyd) and Madden Road Landfill for a postponement of regulations to control emissions from MSWLF facilities until the final rule for landfills is promulgated by the EPA.

The TNRCC disagrees that the State should wait until the final regulations are promulgated by EPA. The purpose of this regulation is to reduce the amount of VOC that is emitted into the air in the Dallas/Fort Worth nonattainment area and to obtain credit for the reduction of VOC toward the 15% ROP SIP. The proposed rules are compatible with EPA's proposed New Source Pollution Standards in applicability, controls, testing, reporting, recordkeeping, and exemptions. Also, it is the agency's experience that due to uncontrollable factors at the federal level, EPA guid-

ance can be delayed and State initiative has been required to comply with federal statutes. Failure to meet the required 15% ROP could initiate sanctions by EPA in the form of Federal Implementation Plans (FIP). The agency is adopting a proactive approach that will reduce landfill emissions while allowing the Dallas/Fort Worth area to receive credit for emission reductions.

An individual commented that all referenced material, or a summary of the material used in the TNRCC regulations, should be included in the regulation which would allow the regulated community to understand fully what is being proposed.

The TNRCC complies with *Texas Register* rules for public notification as required by the Secretary of State. The *Texas Register*, the official State public notification document, determines the extent and format of the material that is printed. It is not possible to include all references in total or to summarize references that are cited in proposed regulations. It is possible to cite the authority, references, and sources for clarification, if the reader requires additional information. The TNRCC does provide a preamble with each proposed regulation to generally inform the regulated community of the authority, purpose, content, and timeframe of proposed rules. Details are included in the body of the proposed regulation. The TNRCC utilizes newspapers in the areas affected by the regulations to inform the regulated community and the public. In addition, the TNRCC conducts public hearings and workshops in affected areas whenever possible, to allow the public the opportunity to familiarize themselves with current or proposed regulations. Smaller businesses that are affected by the proposed or adopted regulations can also contact the Small Business Technical Assistance Program within the TNRCC and request assistance. The TNRCC staff is available to provide assistance to the small businesses on a case-by-case basis.

An individual, Texas Campaign for the Environment, and the City of Plano commented that the rules regarding municipal landfills for the Dallas/Fort Worth nonattainment area should also be applicable to the Houston area, since the area has more exceedances of the ozone standard. Dallas commented that the regulation had been deleted from the Houston/Galveston nonattainment area and suggested that the regulation be deleted from the Dallas/Fort Worth area.

The TNRCC reviewed regulations that would provide the most significant reduction, in the most cost-effective method, for the different nonattainment areas in determining to go forward in Dallas/Fort Worth and wait for Houston/Galveston. The Houston/Galveston nonattainment area has some distinct characteristics that require a different strategy to reduce emissions in order to meet the reduction requirements of the FCAA in 1996. A large proportion of the emissions of the Houston/Galveston are of industrial origin, while the emissions from the Dallas/Fort Worth area are of a different profile that is less industrial in nature. The TNRCC staff proposed that the Dallas/Fort Worth nonattainment area should include, in its

strategy to reduce emissions from the 1990 Base Year, regulations to control emissions from landfills. Approximately six million tons per year of solid waste are produced in the Dallas/Fort Worth area to produce a significant amount of landfill emissions.

Having a core regulation that controls landfill emissions will have a greater impact on the Dallas/Fort Worth area than it would in the Houston/Galveston area.

The strategy does not totally exclude the Houston/Galveston nonattainment area. The Houston/Galveston nonattainment area will have, as part of its commitment plan to reduce ozone levels, a list of proposed regulations that will be promulgated as needed to reduce ozone by 1996. The commitment list includes rules for landfills.

An individual commented that testing methods and any minor modifications to testing methods should be approved by EPA.

The TNRCC agrees with the statement that testing methods and minor modifications should be approved by EPA. The purpose of §115.155(8) is to expedite such deviations that are minor and are within the framework that EPA has approved in advance. Any testing and modifications that are new or do not conform to present standards are reviewed by the TNRCC staff and EPA before any final approval is granted by the Executive Director.

The same individual commented that all exemptions should be eliminated to enhance the ability of the Houston/Galveston nonattainment area to reach attainment.

The TNRCC disagrees with the commenters' statement that all landfill exemptions should be eliminated. The purpose of exemptions in §115.157 is to eliminate those landfills that generate small amounts of emissions which would not result in cost-effective regulation. Part of the strategy to achieve the 1996 ROP SIP is to use the most cost-effective method to reduce emissions by diverting resources to those sources that would have the greatest impact on meeting federal requirements and protecting the health of our citizens.

Two individuals commented that the definition of solid waste, as it pertains to MSWLFs, should also contain a phrase that would exclude all hazardous material from solid waste. This would assure that solid waste would not contain any hazardous material that is being placed in a MSWLF.

The TNRCC concurs that hazardous waste should not be placed in municipal landfills; however, it would not be possible to exclude all hazardous materials that are normally part of landfill waste such as consumer products, small amounts of solvents, paints, degreasers, and other materials that cannot be extracted from the waste before disposal.

Lloyd, Madden Road Landfill, and NCTCOG commented that the 98% reduction requirement of §115.152(a)(1) and the routing requirement of §115.152(a)(2) should apply to collected VOC and landfill gas emissions rather than all VOC and landfill emission gases.

The staff agrees and has changed the language from "all VOC and landfill gas emis-

sions" to "collected VOC and landfill gas emissions" to clarify the intent of the TNRCC in §115.152(a)(1) regarding the 98% reduction requirement. To further clarify this point, the regulation includes all gas producing areas of a well-designed landfill.

Lloyd, Madden Road Landfill, and NCTCOG commented that the MSWLF rule should include specifications of the landfill gas collection systems required under the rule for municipal landfills with VOC emissions in excess of 150 Megagrams per year, and should limit the installation of the collection systems to gas producing areas of the landfill that have received final or interim final cover.

The staff agrees with the comment suggesting that specifications of the landfill gas collection and control systems required by the regulation be included in the regulation. The staff has added general specifications in §115.152, regarding Control Requirements, to provide general guidance for landfill design standards. Guidance is also provided in EPA-450/3-90-011a.

The staff disagrees with the statement that the installation of the collection systems should be limited to the gas producing areas of the landfill that have received final or interim cover. The number and the size of the landfills that will be affected by §§115.152, 115.153, and 115.155-115.157, will be large enough to accommodate control systems in areas that are not affected by daily operations according to owners and operators of landfills that have active collection systems in place.

Lloyd, Madden Road Landfill, Dallas, and HDR Engineering, Inc. commented that §115.152(b) should define specific situations when municipal landfills will no longer be subject to the collection and control requirements.

The TNRCC agrees that a date or time must exist when the levels of emissions from a closed landfill will no longer be subject to collection and control requirements. Since EPA requires strict procedures to assure that the State has not only reduced emissions but has also made plans to continue such reductions, the staff is required to propose a plan that will comply with federal requirements. The staff agrees that at some point, controls and monitoring will not produce further positive results, and will propose that the collection and control system may be capped if the operator of a MSWLF complies with §60.752(b)(2)(v) (A), (B), and (C) of the 40 CFR, §60, regarding Standards for Air Emissions from MSW.

Lloyd, and Madden Road Landfill commented that only MSWLFs subject to the control requirements should be required to comply with the monitoring and recordkeeping requirements of §115.156.

The TNRCC disagrees with the statement that only those operators of landfills that are subject to controls should be required to comply with the monitoring and recordkeeping requirements of §115.156. Operators of MSWLFs without controls that meet the capacity criteria and have not reached the 150 Mg of VOC per year standard shall maintain required records and monitoring to determine

their exemption status. In addition, federal rule-effectiveness procedures require records and monitoring.

An individual commented that there should not be a difference between demonstrated compliance in §115.156(1) and continuous compliance in §115.146(1).

The staff agrees with the statement that demonstrated compliance and demonstrated continuous compliance should be identical in §115.156(1) and §115.146(1). Subsection 115.156(1) has been changed to "continuous compliance."

NCTCOG and the City of Irving commented that the regulation should be written to undertake a calculation on an annual basis to determine if controls are required and to determine which landfills are exempted.

This rule is directed to all landfills that are subject to §§115.152-115.159 except those that are exempted. The staff has changed the language in §115.152 (concerning Control Requirements) to clarify that the annual calculation of the VOC emission rate is the basis for determining the implementation of controls.

NCTCOG commented that the proposed regulation should split the monitoring requirements into two separate segments. Section 115.156 should combine paragraphs (1) and (3) requiring every landfill operator to undertake calculations and report the emissions inventory to the TNRCC. Section §115.156(2) should be a separate part for those landfills that are required to control emissions and to install and maintain continuous monitors on emission control devices.

Paragraphs (1) and (3) of §115.156 pertain to similar concepts of maintaining documentation and submitting reports while paragraph (2) of §115.156 relates to actual controls and monitors. Landfills subject to paragraph (3) for controls will have to implement requirements similar to those specified in paragraphs (1) and (2). The staff proposes to maintain the present sequence of landfills that are not subject to the control requirements in paragraph (1), landfills subject to the control requirements in paragraph (2), and emission reports in paragraph (3) that are required of all municipal landfills.

The NCTCOG commented that Air Emissions from Municipal Solid Waste Landfills-Background Information for Proposed Standards and Guidelines, March, 1991, (EPA-450/3-90-011a) should be used as a cited reference since this document is the basic reference document for the TNRCC approach to the proposed regulation on landfills.

The staff agrees and will cite the Background Information Document (BID) in those areas of the regulation where additional technical information is not presented in its entirety or procedures require clarification.

NCTCOG also commented that Federal Register Notice (Volume 58, Number 117, pp 33790-33792) should be used as a reference.

The staff agrees with the statement and has added the reference to its records.

The City of Dallas and the NCTCOG inquired on the type of computer model and default values that were used to determine the average landfill gas emission rate.

The staff employed two methods to estimate the emissions from the Dallas/Fort Worth nonattainment area. Estimates for gas emissions from landfills were developed by using EPA's Environmental Impact Statement. Air Emissions from Municipal Solid Waste Landfills, dated March, 1988. The model that the staff employed to estimate emissions is found in Document EPA-600/8-90-085Q dated December, 1990, titled Landfill Air Emissions Estimation Model User's Manual. The staff used 5.9 million tons/yr average annual refuse placement; 123.68 million tons average remaining capacity in tons, 21 years average remaining capacity in years, and 1980 as the average opening year. Default values for k averaged at 0.0307 yr, L at 4, 955 cubic feet, and C₁₀ at 1,532 to 8,000 ppmv. The model utilized C₁₀ at 1,532 to 8,000 ppmv and the results indicated sufficient emissions to warrant emission controls for landfills.

The NCTCOG inquired if the Dallas/Fort Worth area landfills that have gas collection and flare systems in place would receive credit towards the 1990-1996 emissions reductions required by the FCAA.

EPA has indicated that emissions that are on the 1990 inventory will provide the basis of the credit that the State will receive when the 1996 inventory is submitted. Reductions from emission levels reported in the 1990 inventory, after growth, with rule effectiveness, rule efficiency, and control efficiency factored in, will result in the credit that the State will receive.

The NCTCOG inquired on the meaning of "gas collection and treatment system" and if the TNRC meant to refer to "energy recovery systems."

Gas collection and treatment system refers to the apparatus in a landfill that is capable of collecting and directing landfill gas emissions to a common point for flaring or processing the collected landfill gas for energy recovery. An energy recovery system is added to the collection apparatus to use the collected gas for the facility's energy requirements or for off-site use.

The NCTCOG also commented that an additional continuous monitoring requirement should be included in the proposed regulation to address the oxygen level in the gas collection system.

The staff agrees with the recommendation. As part of the monitoring equipment, an oxygen monitoring device should be utilized as a part of the emission collection system. Initially, the covered landfill contains a quantity of air that makes the landfill operation anaerobic in nature. The condition becomes anaerobic as the emissions from the landfill displace the air trapped when the landfill was active. A safety feature such as an oxygen monitor in the gas collection system would provide an added margin of safety. A condition of a fire within the landfill can be detected by an increase in the ratio of oxygen to nitrogen in gas sampling.

NCTCOG commented on the estimated \$500 cost per ton of collected VOC and inquired as to what factors were included in the cost.

The amount of \$500 per ton of VOC is an average derived through EPA surveys of new and existing landfills. The cost of controls to collect a minimum of 150 tons of VOCs from landfill emissions was extracted from the BID reflecting costs at different levels of control. Costs varied from \$250 per ton of VOC to over \$1,000 per ton. Specific sites will incur different costs depending on the complexity of the system. Initial research in the Dallas/Fort Worth nonattainment area indicate that the average well or cell to collect emission gases from landfills averaged \$8,000 each. The cost per cell-foot was \$35 to \$45 a linear foot. In the estimation, the implementation, operating, and administrative costs were restricted to the actual emission controls. Economic factors including capital, inflation, land, design, building, administration, machinery, personnel, and other costs were not the focus of the study. Such cost data is available to the owners and operators of landfills since the affected landfills are presently operational.

NCTCOG commented that there is a strong possibility that raising capital for the control of landfill emissions could be delayed by legal procedures and bond elections by the required deadline.

The staff agrees with this statement if a new landfill is constructed because it would be costly and would require a large capital investment. The staff disagrees that the same factors would affect the cost of controls for existing landfills. The cost of landfill controls are not as extensive as the cost for a complete new landfill, and operators of the large landfills that will be affected should have sufficient funds for controls as required by the Resource Conservation and Recovery Act (RCRA). Some will have the required controls in place and only a minimal amount of capital will be required to fully comply with the proposed regulation.

An individual and Texas Campaign for the Environment commented that all records must be kept for five years because other TNRC compliance procedures require a five-year maintenance of records.

The staff disagrees with the statement because the class of solid waste accepted at MSWLFs excludes hazardous waste. Federal requirements for records for landfills are presently in effect under RCRA, and it would be a duplication of effort to maintain additional records concerning the amount of MSW that is placed in a landfill. The TNRC requires that records be maintained for two years to assist inspectors when visiting landfills. Data older than two years will not be of significant use in determining the operational effectiveness of the landfill.

Houston Lighting and Power commented that the definition of Municipal Solid Waste Facility in the General Rules should include the word "household" in front of "solid waste" to clarify municipal facilities as those regulated by the Texas Department of Health and maintain consistency with the TNRC definition of MSWLF.

Landfills are presently regulated by the TNRC and the definition of MSW facility that was proposed in the TNRC General Rules is consistent with the EPA definition. The TNRC definition of MSWLF includes waste from other sources in addition to household wastes.

The City of Dallas questioned the necessity of controlling landfills in Chapter 115 because of their staff review of the EPA computer program which they suspect as significantly over-predicting emissions.

The staff disagrees with the statement that the EPA prediction significantly over-estimates emissions. Extensive surveys have been conducted since the early 1980's when it was discovered that emissions from landfills were greater than previously estimated. EPA has used the data to arrive at the default values implemented in its Landfill Air Emissions Estimation Model (EPA-600/8-90-085a). Default values are those numbers that EPA has determined to be representative of landfill emissions nationwide that are used in the computer model to determine emissions from landfills, along with other data specific to the landfill.

TCC, TMOGA, Exxon Chem, and DuPont BMT suggested that the May 31, 1995, compliance date be extended to November 15, 1996, for substantive changes to Loading and Unloading of Volatile Organic Compounds. Union Carbide suggested that the compliance date be extended from May 31, 1995, to 1997.

The May 31, 1995, compliance date has been changed to November 15, 1996, in order to provide the regulated community sufficient time to comply. Union Carbide's suggested 1997 compliance date, however, does not conform to the November 15, 1996, FCAA deadline for creditable emission reductions.

Exxon USA recommended that changes to §§115.212, 115.214-115.217, and 115.219, be carefully evaluated to insure cost-effective reductions.

The TNRC evaluates the cost-effectiveness of substantive controls for emission sources, including those affected by §§115.212, 115.214-115.217, and 115.219.

CITGO, Congressman Laughlin, OxyChem, Amoco Chem, ENRON, GPA, DuPont BMT, TMOGA, TCC, and Exxon USA expressed general opposition to proposed amendments affecting Gregg, Nueces, Victoria, Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis counties. In particular, the commenters opposed all substantive changes for these counties.

The proposal to extend new requirements to the previously designated nonattainment counties was made to correct deficiencies in the current rules and for purposes of consistency. In addition, the new control requirements would provide additional reductions in those counties to assist in minimizing the possibility that those counties could return to nonattainment status. However, after review of the comments, the TNRC has determined that extension of substantive new control requirements to those counties should be subjected to further review and consideration.

Accordingly, the TNRCC is withdrawing that portion of the proposal. However, the TNRCC is adopting necessary changes which reorganize and clarify the existing rules for these counties but which do not require the addition of substantive new control equipment.

Phibro stated that the gasoline terminal emission limitations of §115.211(a)(1)(A)-(B) conflicted with the compliance dates given in §115.219.

The existing emission limitation for gasoline terminals in Brazoria, El Paso, Galveston, Jefferson, and Orange counties is 80 mg/liter. In Dallas, Harris, and Tarrant counties, and beginning after January 31, 1994, in Brazoria, Chambers, Collin, Denton, El Paso, Fort Bend, Galveston, Hardin, Jefferson, Liberty, Montgomery, Orange, and Waller counties, the emission limitation is 40 mg/liter of gasoline transferred. No conflict exists with §115.219.

TCC and TMOGA commented on §115.211(a)(1)(A)-(B) and suggested that the term "VOC vapors" be changed to "VOC emissions."

This change has been made for consistency with §115.211(a)(1)(C).

Exxon objected to the 10.8 mg/liter gasoline terminal emission limitation of §115.211(a)(1)(C). Exxon stated that this limit was not cost-effective and that it was not reasonable to require the installation of new equipment every year and a half.

The 10.8 mg/liter gasoline terminal emission limitation does not require the installation of new equipment every year and a half. Extensive stack sampling of existing vapor recovery units (VRUs) at gasoline terminals has confirmed that a properly maintained and operated VRU can comply with the 10.8 mg/liter gasoline terminal emission limit.

TCC, TMOGA, and DuPont BMT suggested that the control efficiency specified in §115.212(a)(1) should be changed to require control only to an aggregate VOC partial pressure of 1.5 psia until November 15, 1996, while Sierra Club and GHASP recommended a 95% control efficiency.

For consistency with the present control requirements, the control efficiency specified in §115.212(a)(1) has been changed to require control only to an aggregate VOC partial pressure of 1.5 psia until November 15, 1996. Section 115.212(a)(2) requires a 90% control efficiency after November 15, 1996. The recommended 95% control efficiency would be more stringent than proposed and can not be added at this time. However, the recommendation may be considered for future rulemaking.

Union Carbide commented that marine loading and unloading operations are exempt in §115.212(a)(1)-(4) but not in §115.212(c)(1)-(4).

The reference to marine terminals in §115.212(a)(1)-(2) has been included in order to facilitate the adoption of rules in 1994 which will regulate marine vessel loading operations in ozone nonattainment counties. The reference to marine vessels in §115.212(a)(3)-(4) has been deleted because

the definition of transport vessel was revised to apply specifically to land-based transport vessels. Marine vessels are covered under a separate definition. Marine loading and unloading operations are specifically exempt under §115.217(a)(7), (b)(5), and (c)(5), whether or not such operations are mentioned in §115.212(b)(1)-(4) and (c)(1)-(4).

HL&P commented on the wording "transport vessel" in §115.212(a)(3), (a)(6), (a)(9), (a)(5), and (a)(5). HL&P suggested revising the definition of "transport vessel" to exclude vessels equipped with a storage tank having a capacity of less than 1,000 gallons, in order to provide consistency with the existing definition of "delivery vessel/tank-truck tank."

In order to provide consistency with the existing definition of "delivery vessel/tank-truck tank," the definition of transport vessel has been revised to exclude vessels equipped with a storage tank having a capacity of less than 1,000 gallons. This will exclude containers such as drums, barrels, and small portable tanks. The definition has been revised further to specifically exclude marine vessels such that "transport vessel" is specific to land-based vessels. The TNRCC agrees that vacuum trucks should be excluded and has revised the definition of transport vessel accordingly.

TCC and TMOGA stated that the term "loading or unloading" in §115.212(a)(1) and (2) should be replaced with the term "loading" since these rules apply only to loading operations.

This correction has been made to §115.212(a)(1)-(2), (b)(1), and (c)(1).

TCC and TMOGA suggested that the term "loading operations" in §115.212(a)(1) and (2) be replaced with the term "loading facilities." TCC and TMOGA further suggested that these rules define "the loading arm(s), pump(s), meter(s), shutoff valve(s), relief valve(s), and other valves contiguous with, and that are a part of, a single system used to fill a tank truck or railcar at a single geographic site" as a VOC loading facility. TCC and TMOGA further suggested that "loading equipment and operations that are physically separate (i.e., do not share common piping, valves, and other loading equipment) are considered to be separate loading facilities" be added to §115.212(a)(1) and (2). DuPont BMT and GATX suggested similar language.

The TNRCC notes that the commenters did not define "a single geographic site," and disagrees with the commenters' suggested definition of "loading facility." This suggested definition, in theory, would allow an unlimited amount of VOC to be exempt from controls, no matter how cost-effective controlling the associated VOC emissions might be. The TNRCC does, however, recognize that consideration should be given to unique situations, such as relatively small "satellite" loading and unloading operations which may be isolated on a plant property from other loading and unloading operations such that the cost of control is unreasonable. To address industry's concerns, the TNRCC has established the availability of exemptions under §115.217(a)(10) and (11) to provide relief for such unique situations. Similar language

has been added to §115.217(b)(2) and (c)(2). These exemptions do not include VOC being loaded into marine vessels or gasoline being loaded at gasoline terminals or gasoline bulk plants.

Phibro commented on §115.212(a)(3)-(4) and suggested that truck unloading be exempted from the control requirements. Phibro stated that they have not observed emissions during unloading operations and that the cost of controls at crude oil production facilities is higher than TCC and TMOGA have estimated.

Sampling conducted in 1992 has confirmed that emissions occur during tank-truck unloading. Phibro did not provide specific cost information; however, §115.217 includes exemptions for insignificant emission sources which are not cost effective to control.

Phibro made several comments concerning marine vessel loading/unloading emission control requirements, while Sierra Club and GHASP stated that emissions from marine vessels are significant and objected to exempting marine vessels from the emission control requirements of §115.212(a)(3)-(4).

Section 115.217(a)(7) presently exempts the loading and unloading of ships and barges. The TNRCC agrees that emissions from marine vessel loading are significant and should be controlled. The TNRCC has not yet proposed rules to control emissions from marine vessel loading but intends to do so in 1994. Consequently, Phibro's comments are not within the scope of the proposed revisions.

Phibro commented on §115.212(a)(3) and suggested the rule be revised to allow alternatives to combustion and carbon adsorption for control of VOC unloading.

The definition of "vapor recovery system" referenced in §115.212(a)(3) does not limit the control options to combustion or carbon adsorption. Also, §115.213 provides the option of alternate methods of control.

TCC and TMOGA commented on §115.212(a)(3) and suggested that the reference to marine vessels be deleted and that exemptions be added to allow for nonvapor-tight conditions during unloading, sampling/gauging, and degassing/cleaning operations until November 15, 1996, in order to provide time for any necessary modifications to existing transport vessels. Union Carbide commented on §115.212(a)(3) and (a)(4) and stated that the proposed wording would not allow for vapor balancing or gravity unloading and could allow transport vessels to experience vacuum or pressure conditions. Union Carbide also stated that the proposed wording would prevent repair of transport vessels if they contain VOC and suggested that the wording "remaining in the transport vessel after unloading" be deleted. Phillips commented on §115.212(a)(3)-(6) and stated that it was impractical and technically unfeasible to keep transport vessels vapor-tight at all times until the vapors are discharged to a vapor recovery system.

The definition of "transport vessel" was revised to apply specifically to land-based vessels because marine vessels are covered under a separate definition. Therefore, the references to marine vessels in

§115.212(a)(3) and (4) have been deleted as suggested. Phillips did not provide any documentation to substantiate their claim that the requirement to keep transport vessels vapor-tight is technically infeasible. Comments by TCC and TMOGA indicate that this requirement is, in fact, technically feasible. Upset conditions (such as the venting of safety relief valves) and maintenance are covered by §101.6 and §101.7, and not by Chapter 115, unless otherwise specifically stated. In order to provide time for any necessary modifications to existing transport vessels, §115.219(9) provides a compliance date for all persons affected by the deletion of the allowance for nonvapor-tight conditions during sampling and gauging.

TCC and TMOGA commented on §115.212(a)(5) and suggested that the phrase "all loading and unloading of VOC" be changed to "all loading and unloading of VOC at VOC loading or unloading facilities." TCC and TMOGA believed that this change would prevent a possible misinterpretation that the rule applies to activities that are conducted at other types of facilities.

It is not clear exactly what types of facilities TCC and TMOGA are concerned could be misinterpreted as being covered by §115.212(a)(5). The suggested change does not appear to be necessary.

Phibro and Union Carbide opposed the requirement in §115.212(a)(5)(A)(i) that all liquid and vapor lines be equipped with fittings which make vapor-tight connections and which close automatically when disconnected. Union Carbide stated that such fitting would create a safety problem due to the weight of the fittings.

The requirement in §115.212(a)(5)(A)(i) that all liquid and vapor lines be equipped with fittings which make vapor-tight connections and which close automatically when disconnected is an existing requirement. Section 115.212(a)(5)(A)(ii) provides an alternative to §115.212(a)(5)(A)(i) and states that the liquid and vapor lines may be equipped to permit residual VOC in the loading line after loading is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor recovery system. Union Carbide stated that this is an appropriate way to control emissions.

Phibro commented on §115.212(a)(5)(A)(ii) and questioned whether the requirements applied to loading and unloading, or loading alone. Phibro suggested that the rule be revised to allow alternatives to combustion and carbon adsorption for control of VOC unloading. Phibro also suggested that the rule allow residual liquids to be drained to slop tanks which are controlled by §§115.112-115.119.

As stated in §115.212(a)(5), the rule applies to "all loading and unloading of VOC." The definition of "vapor recovery system" provides for a variety of control options. Section 115.212(a)(5)(A)(i), which requires that all liquid and vapor lines be equipped with fittings which make vapor-tight connections and which close automatically when disconnected, provides an alternative to §115.212(a)(5)(A)(ii). Also, §115.213 provides the option of alternate methods of control.

TCC, TMOGA, Phibro, Warren, and Union Carbide commented on the requirement in §115.212(a)(5)(B) that there be no VOC leaks when measured with a hydrocarbon gas analyzer or as detected by sight, sound, or smell from any potential leak source. TCC, TMOGA, Phibro, Warren, and Union Carbide suggested that the reference to hydrocarbon gas analyzers be deleted. Phibro stated that if the reference to hydrocarbon gas analyzers is retained, then a monitoring frequency shall be established.

Section 115.212(a)(5)(B) prohibits leaks in the transport vessel and VOC transfer system, regardless of whether a leak is detected by sight, sound, smell, or a hydrocarbon gas analyzer. The reference to hydrocarbon gas analyzers is included because, although not required under §§115.211, 115.212, 115.214-115.217, and 115.219, a facility might use a hydrocarbon gas analyzer to detect leaks. The TNRC disagrees with the suggested deletion of this reference since it would mean that leaks detected by a hydrocarbon gas analyzer would not be prohibited unless concurrently detected by sight, sound, or smell. Vapor leaks might, however, be detected by a hydrocarbon gas analyzer without necessarily being detected by sight, sound, or smell.

Phibro commented on §115.212(a)(6) and suggested that de minimus liquid losses which could occur for systems using quick connects be exempted.

The TNRC exercises appropriate enforcement discretion in situations which are beyond the owner's control and does not believe that further clarification to the rule language is necessary.

Phibro commented on §115.212(a)(7)(C) and questioned which liquid or gaseous leaks are considered avoidable.

This requirement is an existing requirement which is being deleted since the situation of leaks is adequately addressed in §115.212(a)(5)(B). The term "avoidable" is not used in §115.212(a)(5)(B). However, unavoidable leaks are those which would occur during an upset condition as specified in §101.6.

Phibro commented on §115.212(a)(8)(B) and (9)(D) and supported the allowance for emissions from pressure-vacuum relief valves during emergency situations.

Both §115.212(a)(8) and (a)(9) include an allowance for emissions during gasoline transfer through pressure-vacuum relief valves resulting from emergency situations.

EPA supported all proposed changes to §§115.211, 115.212, 115.214-115.217, and 115.219 and commented that the addition of the "once-in, always in" provisions to §115.212(a)(10) for loading/unloading operations other than gasoline terminals or gasoline bulk plants corrected a rule deficiency that should have been corrected in 1991 as part of the RACT fix-ups mandated by the 1990 Amendments to the FCAA. TCC, TMOGA, and Union Carbide opposed the "once-in, always-in" requirements.

As noted in EPA's comments, the "once-in, always-in" concept is an EPA requirement. There are methods available to remove a

source from the "once-in, always in" requirements, for example, a federally enforceable permit or the AMOC process. EPA indicated the intent was to provide for federal enforcement to prevent sources from exceeding the exemption level and to prevent the dismantling of the control device which would result in a significant increase in the emissions inventory; i.e., a throughput reduction of 5% could result in an emissions increase of 90% if the control device were removed. A policy memo from G. T. Helms of EPA dated August 23, 1990 states the purpose of this requirement is to discourage a source already subject to the regulation from installing minimal ("less than RACT") controls to circumvent RACT requirements and to improve the clarity of VOC regulations by minimizing confusion over whether a particular source is covered by a regulation.

Union Carbide commented that the requirements of §115.212(a)(8)-(10), concerning gasoline bulk plants and once-in, always-in requirements, do not apply in ozone attainment counties.

The rules were adopted in response to EPA requirements for RACT in ozone nonattainment counties and consequently were not adopted for counties other than ozone nonattainment counties. In conjunction with future EPA guidance, these comments may be considered for future rulemaking.

DuPont BMT suggested that the language be added to §115.213 to allow Executive Director approval without a SIP revision. DuPont BMT noted that they use vapor balancing to route VOC vapors from loading operations back to a storage tank and stated that internal floating roof tanks are viable as vapor control systems (VCS) for tanks that receive VOC from unloading operations.

Section 115.213 was not proposed for revision, and consequently these comments are not within the scope of this rulemaking. However, in conjunction with future EPA guidance, these comments may be considered for future rulemaking.

TCC and TMOGA suggested that the phrase "VOC dispensing operations" in §115.214(a)(1) and (b)(1) be changed to "VOC transfer operations."

The TNRC has made the suggested change since it will result in a more accurate description of the activity controlled by the rule.

DuPont BMT commented on §115.214(a)(5), which extends the requirement that gasoline tank-trucks pass an annual leak-tightness test to include all tank-trucks transporting VOC with a true vapor pressure greater than or equal to 0.5 psia. DuPont BMT stated that the U.S. Department of Transportation (DOT) currently requires transport vessels to be leak-tested, and suggested that proposed changes should be withdrawn.

The TNRC does not agree that the proposed changes should be withdrawn. Currently, the TNRC can only enforce rules concerning leak-tightness of gasoline tank-trucks. The proposal will enable the TNRC to enforce rules which prevent the transport of other VOCs in transport vessels which are not vapor-tight. If, as DuPont BMT stated, the

leak testing requirements are already in place through the DOT, then the regulated community should have no difficulty in complying with the proposal.

Union Carbide commented that the requirements of §115.214, concerning Inspection Requirements, and §115.216, concerning Monitoring and Recordkeeping Requirements, do not currently apply in ozone attainment counties.

These rules were adopted in response to EPA requirements for RACT in ozone nonattainment counties and consequently were not adopted for counties other than ozone nonattainment counties. In conjunction with future EPA guidance, these comments may be considered for future rulemaking.

DuPont BMT commented on §115.215, concerning Testing Requirements, and suggested that wording be added to specify that standard engineering calculations are an approved method of determining compliance with §115.211 and §115.212.

Section 115.215 merely specifies the approved test methods to be used when testing is conducted. Nothing in §115.215 precludes the use of standard engineering calculations as a method of determining compliance with §115.211 and §115.212. The title has been changed from Testing Requirements to Approved Test Methods for clarity.

Phibro commented on §115.216(a)(1) and suggested that the daily recordkeeping requirement be changed to monthly. Phibro also commented on §115.216(a)(5), which requires that VOC loading or unloading operations (other than gasoline terminals, gasoline bulk plants, and marine terminals) maintain daily records of the volume of VOC loaded or unloaded, and the vapor pressure of the VOC loaded or unloaded. Phibro suggested that the daily recordkeeping requirement be changed to monthly.

The existing §115.216(a)(1) already requires a daily record of the total throughput of VOC loaded. Sections 115.216(a)(1) and (5) requirements are comparable to the records already required of gasoline terminals and gasoline bulk plants. The proposed recordkeeping is necessary to insure continuous compliance with the applicable rules and to improve enforceability, and the TNRCC does not believe that the proposed daily recordkeeping is burdensome.

Union Carbide and DuPont BMT commented on §115.216(a)(5)(A), which requires that VOC loading or unloading operations (other than gasoline terminals, gasoline bulk plants, and marine terminals) maintain daily records of the certification number of each tank-truck and the date of the last leak testing required by §115.214(a)(5). Union Carbide suggested that the rule be relaxed to require only that companies keep a record indicating that an employee checked for the last test date and certification number prior to loading, while DuPont BMT suggested that only the certification number be recorded.

The proposed records are identical to those already required of gasoline terminals and gasoline bulk plants. The proposed recordkeeping is necessary to insure continu-

ous compliance with the applicable rules, and the TNRCC does not believe that the proposed recordkeeping is burdensome.

TCC and TMOGA commented on §115.216(b)(5), which requires that VOC loading or unloading operations (other than gasoline terminals, gasoline bulk plants, and marine terminals) maintain daily records of the volume of VOC loaded or unloaded, and the vapor pressure of the VOC loaded or unloaded. TCC and TMOGA suggested that the rule be deleted.

The proposed records are comparable to those already required of gasoline terminals and gasoline bulk plants. The proposed recordkeeping is necessary to insure continuous compliance with the applicable rules and to improve enforceability, and the TNRCC does not believe that the proposed recordkeeping is burdensome. The suggestion by TCC and TMOGA would not insure continuous compliance and would not improve the enforceability of the rules. For example, this suggestion would not require facilities which claim to qualify for exemption under §115.217 to keep records to document that they are actually entitled to the exemption.

Sierra Club and GHASP commented on the requirement in §115.216(b) that records be maintained for at least two years. Sierra Club and GHASP recommended that longer recordkeeping be required. GHASP recommended that records be retained for five years.

The suggested five-year timeframe mentioned is for compliance determination used in permitting issues. The TNRCC central office keeps records of facility violations forever. The two-year period is considered sufficient for a field investigator to determine the facility's daily compliance with applicable rules for routine spot inspections as well as annual/biennial investigations.

TCC, TMOGA, and DuPont BMT commented on §115.216(a)(1) and (b)(1), and §115.217(a)(3) and (a)(4) and recommended that the phrase "the plant, as defined by its TNRCC account number," be replaced with "VOC loading or unloading facility." Exxon Chem commented likewise on §115.216(a)(1) and (b)(1), and §115.217(a)(3). TCC and TMOGA further suggested that §115.217(a)(3) and (a)(4) define "the loading arm(s), pump(s), meter(s), shutoff valve(s), relief valve(s), and other valves contiguous with, and that are a part of, a single system used to fill a tank truck or railcar at a single geographic site" as a VOC loading facility. TCC and TMOGA further suggested that "loading equipment and operations that are physically separate (i.e., do not share common piping, valves, and other loading equipment) are considered to be separate loading facilities" should be added to §115.217(a)(3) and (a)(4). DuPont BMT and GATX suggested similar language. DuPont BMT also stated that there was a potential inconsistency between §115.217(a)(2) and (a)(4) but did not specify the perceived inconsistency. ILTA, GATX, and Union Carbide supported TCC's proposed definition of loading facility. ILTA suggested that, as an alternative, the exemption level be revised in separate rulemaking

with a compliance date in 1996 in order to provide the regulated community with adequate time to comply. ILTA and Union Carbide objected to the exemption level specified in §115.217(a)(3). ILTA stated that the TNRCC's interpretation has been that a loading rack that does not exceed 20,000 gallons per day throughput is exempt from the control requirements. ILTA stated that the 20,000 gallon per day exemption should apply to individual loading racks rather than all loading racks within the entire facility. Warren suggested that the reference to vapor pressure in §115.217(a)(4) be replaced by a reference to VOCs that are not exempt under another paragraph of §115.217.

The TNRCC notes that the commenters did not define what is meant by "a single geographic site," and disagrees with the commenters' suggested definition of "loading facility." This suggested definition would in theory allow an unlimited amount of VOC to be exempt from controls, no matter how cost-effective controlling the associated VOC emissions might be. The TNRCC does, however, recognize industry's overall concern that loading and unloading operations which are not cost-effective to control should be exempt from the control requirements. The TNRCC agrees that consideration should be given to unique situations, such as relatively small "satellite" loading and unloading operations which may be isolated on a plant property from other loading and unloading operations such that the cost of control is unreasonable. To address industry's concerns, the TNRCC has established the availability of exemptions under §115.217(a)(10) and (11) to provide relief for such unique situations. These exemptions do not include VOC being loaded into marine vessels or gasoline being loaded at gasoline terminals or gasoline bulk plants.

TCC and TMOGA suggested that the exemption for "ships and barges" in §115.217(a)(7) should be changed to "marine vessels" and that VOC loading and unloading operations which are exempted under §115.217(a)(7) should be exempt from the requirements of §115.211(a) as well as §115.212(a). TCC and TMOGA stated that this change was necessary to make it clear that the revised emission specifications in §115.211(a)(1)(C) are not applicable to marine vessel loading and unloading.

The suggested change has been made, along with a corresponding change to §115.217(b)(5) and §115.212(c)(5).

Dow commented on §115.217 and suggested the addition of exemptions from the requirements of §§115.212 and 115.214-115.217 for cases in which VOCs from loading and unloading are recovered for use or reuse by vapor balance with the storage tank, return to process, or return to a fuel system for combustion.

The control requirements of §115.212 do not preclude the recovery of VOCs for reuse, provided the vapor recovery system controls the VOC emissions to the specified level of control. Therefore, a specific exemption is not necessary.

Sierra Club stated that §115.217 contains too many exemptions and commented that they do not support all of the exemptions. Sierra Club recommended that at least some, if not all, exemptions be removed, while GHASP objected to all exemptions.

Sierra Club did not identify which specific exemptions they support and which they oppose. The TNRCC has evaluated the cost-effectiveness of substantive controls for small sources and believes that exemption of insignificant emission sources is appropriate.

TCC and TMOGA commented on §115.219(a)(8) and suggested adding "affected" before "loading and unloading of crude oil and condensate."

TCC and TMOGA did not explain why they believed this change should be made. The suggested change does not appear to be necessary.

TCC and TMOGA suggested deleting the reference to §115.213(a) in §115.219(a)(8).

The TNRCC disagrees and believes that the reference to §115.213(a) should be retained because it provides industry the maximum flexibility in selecting an appropriate control method.

TCC and TMOGA commented on §115.219(a)(10), which requires that VOC loading or unloading operations (other than gasoline terminals, gasoline bulk plants, and marine terminals) maintain daily records of the volume of VOC loaded or unloaded, and the vapor pressure of the VOC loaded or unloaded. TCC and TMOGA suggested that the May 31, 1994, compliance date for these recordkeeping requirements be extended to November 15, 1996.

The proposed records are comparable to those already required of gasoline terminals and gasoline bulk plants. Most VOC loading and unloading operations already keep records of the VOCs being transferred for inventory control reasons. The TNRCC can not support a lengthy compliance schedule as proposed by TCC and TMOGA for a relatively simple requirement and believes that the time provided by the May 31, 1994, compliance date is more than adequate.

Phibro suggested that in cases where a facility meets the definition of both a gasoline terminal and gasoline bulk plant, the gasoline terminal requirements should take precedence.

A gasoline bulk plant is defined as a gasoline loading and/or unloading facility having a gasoline throughput less than 20,000 gallons per day, averaged over any consecutive 30-day period," while a gasoline terminal is a gasoline loading and/or unloading facility having a gasoline throughput equal to or greater than 20,000 gallons per day, averaged over any consecutive 30-day period. Therefore, a facility cannot be both a gasoline terminal and a gasoline bulk plant. In addition, the "once-in, always-in" requirements of §115.212(a)(10) preclude a facility from being both a gasoline terminal and a gasoline bulk plant.

Union Carbide suggested that for consistency, all counties within Chapter 115 should have the same requirements and exemptions

regardless of attainment status, or that Chapter 115 should apply only to nonattainment counties, with requirements for attainment counties removed from Chapter 115.

The TNRCC does not agree that emission control requirements for attainment counties should be deleted. Emission control requirements for attainment counties are necessary to insure continuing emission reductions in these counties. The TNRCC agrees that consistency would be provided if all counties within Chapter 115 had the same requirements and exemptions regardless of attainment status. The maximum consistency would occur if Chapter 115 requirements applied statewide, but there does not appear to be adequate support for such a proposal. However, in conjunction with future EPA guidance, these comments may be considered for future rulemaking.

Exxon and ATT commented on §115.222(1). Exxon objected to the requirement that the path through the fill pipe to the bottom of the tank not be obstructed by a screen, grate, or similar device. Exxon did not believe that such devices inhibited the operation of vapor recovery. ATT requested that the term "obstruction" be clarified because of concerns that overfill devices commonly used in fill pipes might be considered obstructions, and therefore, disallowed.

Screens, grates, or similar devices which obstruct the path through the fill pipe to the bottom of the tank prevent a determination of whether or not the tank is equipped with a compliant submerged fill pipe. The TNRCC agrees that the term "obstruction" should be clarified and has added appropriate language to §115.222(1). In addition, §115.229(c) was added to provide a compliance date for any facilities affected by the prohibition on submerged fill pipe obstructions.

Exxon, TOMA, and ATT commented on §115.222(10) and expressed concern over the requirement to disallow the use of coaxial Stage I connections at new installations or to require it on existing facilities when modifications are made to the storage tank requiring excavation of the top of the tank.

The California Air Resources Board (CARB), through the Vapor Recovery Technical Committee, has determined that coaxial Stage I fittings, as they currently exist, have a design flaw such that the long-term vapor tightness of the fitting seals is unachievable. In fact, CARB has determined that even when the coaxial fitting is properly installed, the life of the vapor-tight seal is limited to a few weeks at best. The source of the problem is that during the normal process of filling the storage tank through the fitting, the amount of torque exerted on the fitting leads to disintegration or damage to the seals. The importance of these leaks is related to both Stage I and Stage II effectiveness. If the fitting leaks during a Stage I transfer of fuel, air will be pulled into the storage tank ullage space through the leaking seals. Once in the tank, this unsaturated air will cause vapor growth to occur, resulting in VOC emissions through the atmospheric vent and a lowering of the Stage I effectiveness. The vapor space tightness is fundamental to the proper operation, and therefore, efficiency of all Stage II sys-

tems. This is evidenced by every system being required to pass a pressure decay test annually. This is particularly true for those Stage II systems that produce either a vacuum or pressure, however slight, in the vapor space.

Requiring the installation of non-coaxial Stage I connections for new tank installations should not pose a problem for owner/operators. The TNRCC agrees that retrofitting existing tanks with a two-point Stage I connection should be done at the time that will minimize the cost to the owner/operator and maximize the control of VOC emissions and has added appropriate clarifying language.

HL&P, DuPont BMT, and GHASP commented on the proposed exceptions for natural disasters or emergency conditions to the "once-in, always-in" language in §115.222(11). HL&P suggested that the effective date of the "once-in, always-in" language be modified to apply only after the promulgation of the Stage II rules in 1992. DuPont BMT suggested that the reference to natural disasters or emergency conditions be deleted and be replaced by the broader reference to a "nonroutine situation." DuPont BMT suggested further that routine and nonroutine exceedances could be distinguished by a limit on the number of exceedances. GHASP stated that "natural disaster" and "emergency condition" are not defined.

The TNRCC believes that the case-by-case review of any person petitioning to allow his exemption to continue will provide an adequate forum to weigh the circumstances in each case, and believes that no further definition is required in §115.222(11). For consistency with §115.242(10), the TNRCC changed the compliance period from 90 days to 120 days for facilities that become subject to the Stage I requirements by exceeding the throughput exemption threshold.

TOMA, Star, Sierra Club, and GHASP commented on the requirement in §115.226 that records be maintained for at least two years. Sierra Club and GHASP recommended that longer recordkeeping be required. GHASP recommended that records be retained for five years, while TOMA and Star questioned the need to retain records for two years on-site. TOMA contended that transport truck tightness testing certification must be current for the truck loading or unloading gasoline in any nonattainment area by virtue of other, complementing regulations.

The TNRCC agrees that only the minimum records should be kept at the facility, with records of testing and throughput kept, but not necessarily at the site. Retention of records for two years is standard practice and does not require excessive paperwork. Because compliance history and inspection results are already kept by the agency indefinitely, more than two years of recordkeeping for an owner/operator is not deemed necessary. The TNRCC considers two years of records as sufficient and has revised §115.226 to allow records of testing and gasoline throughput to be kept at a location other than the facility site.

Sierra Club and GHASP commented on §115.227(1) and recommended that the storage tank exemption level be set at 500 gallons rather than 1,000 gallons.

The TNRCC has determined that the current exemption of 1,000 gallons represents a minimum level of significance for emissions from this source category. The 1,000 gallon exemption is consistent with the monthly throughput exemption of 10,000 gallons since a tank of this size, under normal operations, would not be expected to have a throughput greater than this quantity of gasoline.

The TNRCC recognizes that existing storage tanks continuing in use are either exempt from the Stage II regulations or will have to comply with the Stage II regulations within the next two years. In addition, any facilities constructed after November 15, 1992, must be fitted with both Stage I and Stage II regardless of size. The TNRCC has permitted the exemptions allowed in the Stage I rules to agree in scope and applicability with the Stage II rules in order to foster consistency across the regulations at minimal cost to overall VOC control. For these reasons, the TNRCC considers the changes to be adequate and appropriate.

DuPont BMT commented on §115.227(2) and suggested that the Stage I exemption level be set at a gasoline throughput of 120,000 gallons per year.

The Stage II exemption level was previously set at 10,000 gallons per calendar month, with an extended compliance schedule available for independent small business marketers of gasoline. For Stage II controls to be effective, Stage I must also be in place. In order to avoid a situation in which a facility would be required to comply with Stage II requirements, but would be exempt from Stage I requirements, the Stage I exemption level was revised such that it is consistent with the Stage II gasoline exemption level. The compliance date in §115.229 for this change is consistent with the Stage II compliance date.

Sierra Club and GHASP commented on §115.227(3)(A), which exempts containers used exclusively for the fueling of aircraft, marine vessels, or implements of agriculture. Sierra Club recommended that the exemption include a minimum distance requirement to residences, schools, hospitals, etc., while GHASP objected to all exemptions.

Containers used exclusively for fueling of agricultural implements represent an insignificant contribution to emissions from fuel dispensing facilities. The Stage II exemptions currently include gasoline dispensing equipment used exclusively for the fueling of aircraft, marine vessels, and implements of agriculture. The TNRCC agrees with GHASP that no exemption from Stage I should be added for storage tanks associated with fueling of aircraft and marine vessels. Therefore, the TNRCC has retained the exemption for agricultural implements and has retracted the proposed addition of an exemption for storage tanks associated with fueling of aircraft and marine vessels.

No comments were received on §115.229.

However, the TNRCC has added a compliance date for the removal of obstructions in storage tank submerged fill pipes in order to allow for the orderly implementation of this requirement.

Sierra Club, GHASP, and Union Carbide commented on the proposed changes to §115.234 which extend the requirement that gasoline tank-trucks pass an annual leak-tightness test to include all tank-trucks transporting VOC with a true vapor pressure greater than or equal to 0.5 psia. Sierra Club and GHASP supported the proposed changes. Union Carbide stated that the U.S. Department of Transportation (DOT) currently requires transport vessels to be leak-tested under 49 CFR, §180.407, and that proposed changes simply repeat the DOT regulation for the nonattainment counties and should be withdrawn.

The TNRCC agrees with GHASP that VOC control is necessary in the transport link of gasoline marketing. This is particularly true in light of the Stage II regulations. Without proper control of VOC emissions at each step in the gasoline distribution network, VOC control effectiveness will be reduced overall, resulting in continued ozone nonattainment status further into the future. The TNRCC does not agree that the proposed changes duplicate DOT regulations. Currently, the TNRCC can only enforce rules concerning leak-tightness of gasoline tank-trucks. The proposal will enable the TNRCC to enforce rules which prevent the transport of other VOCs in transport vessels which are not vapor-tight. If, as Union Carbide stated, the leak testing requirements are already in place through the DOT, then the regulated community should have no difficulty in complying with the proposal.

Warren and Union Carbide stated that the test method in §115.235(3) is applicable only to gasoline tank-trucks, and that the leak testing method specified under the DOT regulations (49 CFR, §180.407) should be added to §115.235(3).

A new paragraph (4) was added to §115.235 which specifies the alternative test method of 49 CFR, §180.407.

Sierra Club and GHASP commented on the requirement in §115.236(1) that records be maintained for at least two years. Sierra Club and GHASP recommended that longer recordkeeping be required. GHASP recommended that records be retained for five years.

The suggested five-year timeframe mentioned is for compliance determination used in permitting issues. The TNRCC central office keeps records of facility violations forever. The two-year period is considered sufficient for a field investigator to determine the facility's daily compliance with applicable rules for routine spot inspections, as well as, annual/biennial investigations.

Star and ATT questioned why the Dallas/Fort Worth area had implementation costs associated with Stage II, as described in the rule proposal preamble, while other ozone nonattainment areas did not. Fina Dallas, Star, ATT, and Southwestern Bell (SWB) indi-

cated that the Stage II installation cost estimates in the preamble were low.

The cost estimates were published for the Dallas/Fort Worth area because the regulations were being repropounded for this area to solicit comments regarding the need for Stage II in Dallas/Fort Worth to reach ozone attainment, while the modifications to the existing rules were being proposed for all areas. The cost estimates for the other nonattainment areas were made during the original rule proposal which occurred in the Summer of 1992. The TNRCC agrees that the actual cost of installing Stage II controls varies widely depending on many factors, including the number of nozzles, type of system installed, facility layout, etc.

Fina Dallas and ATT questioned the need for Stage II in the Dallas/Fort Worth area in light of the Federal Appeals Court Ruling (*NRDC v. Reilly*).

The 1990 Amendments to the FCAA contain the requirement for Stage II in moderate ozone nonattainment areas only until EPA promulgates on-board vehicle vapor recovery rules. The Federal Appeals court decision required EPA to promulgate such rules. The Texas Health and Safety Code, §382.019(d), permits the adoption of Stage II rules if it is required by the FCAA, if the Commission determines that it is required in ozone nonattainment areas to meet FCAA-mandated VOC emission reductions, or for public health reasons. The TNRCC has determined that without the VOC emission reductions resulting from Stage II vapor recovery in the Dallas/Fort Worth area, the FCAA-mandated VOC reductions (15% net-of-growth by 1996) would not be met. On-board vehicle vapor recovery rules, when promulgated by EPA, will have no effect in reducing VOC emissions by 1996 because these rules will not take effect until the 1998 model year at the earliest.

Sierra Club and GHASP supported the 95% control efficiency of §115.241. An individual stated that Stage II vapor recovery systems were capable of recovering only 50% of the vapors, and that those recovered vapors, taking the form of condensate, were unsuitable for use.

The efficiency of Stage II vapor recovery systems is determined by the CARB by means of extensive and exhaustive emission testing. CARB does not routinely certify equipment for use in Stage II unless it has demonstrated an overall system efficiency of at least 95%. As stated in §115.242(1), only CARB-certified Stage II systems may be installed. The TNRCC agrees that in-use efficiency of control equipment could easily be reduced unless efforts are made to assure the control equipment is properly maintained and used. The control requirements, daily inspection requirements, recordkeeping requirements, and testing criteria backed up by annual (or more frequent) inspections (and reasonably stringent enforcement) by the TNRCC is anticipated to permit the citizens of Texas to realize at least an 81% in-use efficiency for the Stage II program. The TNRCC agrees that the condensate created by recovering gasoline vapors has characteristics somewhat different from the gasoline, but antici-

pates that the condensate will be recombined with the gasoline continuously by virtue of the design of the systems.

TOMA and SWB raised concerns related to the purpose, efficacy, and problems associated with unannounced inspections by the TNRCC. TOMA and SWB commented that announced inspections are necessary in order for them to have the required records available for inspection.

The TNRCC is charged by the citizens of Texas to implement federally-mandated air quality programs at the least cost to the citizens. Implicit in this task is to assure that each control program adopted by the state reach its maximum reasonable in-use efficiency level, thus minimizing the number of control programs necessary to achieve air quality goals. In the case of Stage II, there are three criteria that permit full efficiency of the control measures to be realized: use of equipment demonstrated to reduce emissions by at least 95%; verification of the proper installation of the equipment (through testing); and proper maintenance of the systems to assure initial efficiency is maintained in day-to-day use. EPA, reflecting the experience of California and other states, has determined that day-to-day upkeep is critical to the in-use efficiency of Stage II controls. This determination has prompted EPA to require formal training for station personnel (and regulatory agency inspection personnel) and complete daily maintenance records to be maintained on-site. The EPA model rule issued in August of 1992 to provide guidance to the states suggested that such records be kept on-site for five years. EPA has also determined that the number of agency inspections conducted annually is directly related to the in-use efficiency of the vapor recovery systems. For agencies that conduct a single unannounced inspection less than once a year, the in-use efficiency for the program is less than 70%; for annual inspections, 83%; and for semi-annual inspections, 87%. The Bay Area Air Quality Management District (BAAQMD) of California has determined that at facilities receiving three or more unannounced inspections per year, the in-use efficiency approaches 93%. BAAQMD and other agencies have concluded that announced inspections would not permit efficiencies of this magnitude. During the initial implementation of the State II program, TNRCC plans to utilize a mixture of announced and unannounced inspections. The TNRCC agrees that unannounced inspections are not possible in some circumstances, particularly at facilities that are normally unmanned (e.g., card lock facilities) or at some private refueling facilities. The TNRCC also agrees that the required records should be limited to those necessary to meet federal requirements to allow the inspector to verify that daily inspections were conducted and that defective equipment was repaired. The TNRCC agrees that the duration for records to be kept should be minimized. The TNRCC's response to concerns regarding recordkeeping is discussed in the comments on §115.246.

SWB raised questions related to enforcement policies and procedures related to violations of Stage I and Stage II regulations.

As with any regulatory program, due process and fairness are requisite. To this end, the TNRCC Compliance Section of the Permitting and Enforcement Division has published specific Enforcement Guidelines that describe enforcement policy followed by the TNRCC when resolving apparent violations of any air quality regulation. These guidelines provide for due process in the TNRCC's resolution of formal enforcement actions, including the development of a Board Order, administrative penalty, or lawsuit. Board Order language, administrative penalties, and lawsuit referral are proposed only after careful consideration of the circumstances relative to the case.

The TNRCC agrees that a working knowledge of the consequences of non-compliance with air quality regulations is important. The TNRCC agrees further that some explanation of enforcement policies and procedures in a more formal setting is important, and has included it as part of the facility representative training required by §115.248.

ATT and Exxon commented on §115.242(2)(A) and objected to the requirement that all Stage II underground piping be constructed of rigid material. Exxon believed that non-rigid piping was as effective as rigid piping. ATT stated that the requirement to follow TNRCC Petroleum Storage Tank (PST) Division new pipe requirements for Stage II vapor recovery piping was not necessary, and that other, non-underwriter's laboratory listed, fiberglass pipe was possibly suitable for use.

The TNRCC recognizes that there may be some cost benefit in the utilization of piping other than that which conforms to product piping specifications; however, the vapor return piping will be subject to liquid gasoline on a regular, if not continual, basis. A rule of thumb for calculating this exposure is that approximately two gallons of condensate will be recovered for every 10,000 gallons of gasoline dispensed. The use of non-rigid piping would conflict with the constant slope requirements of vapor return piping mandated by the CARB Executive Orders and, therefore, is disallowed. For these reasons, and in favor of conforming to widely understood and proven piping specification as diligently determined by the Technical Services Section of the PST Division, and for conformity with fire marshal rules related to product listings, the TNRCC considers this requirement to be reasonable and cost-effective.

Star commented on §115.242(2)(E) and requested clarification of the term "riser piping."

The TNRCC agrees that clarification would be helpful and has added appropriate language to §115.242(2)(E).

ATT, SWB, ICE, and Fina Dallas commented on §115.242(4). ATT stated that the use of an organic vapor analyzer (OVA) is excessive and unnecessary. SWB and ICE were concerned that identifying a gasoline leak by smell alone at a service station is too subjective and, therefore, should be disallowed, while Fina Dallas was concerned that identifying a gasoline leak by smell alone could expose employees to adverse health effects associated with benzene.

The TNRCC agrees that the use of an OVA will result in more precise readings of VOC concentrations and that gasoline dispensing facilities do, by their nature, have the smell of gasoline. The OVA meter does provide a means of objectively confirming a leak if one is indicated by other means such as smell. The reference to sampling is included in §115.242(4) because, although not required under §§115.241-115.249, a facility could use an OVA to detect leaks. Since vapor leaks might be detected by an OVA without necessarily being detected by sight, sound, or smell, the TNRCC disagrees with the suggested deletion of the reference to sampling since it would mean that leaks detected by an OVA would not be prohibited unless concurrently detected by sight, sound, or smell.

Ordinarily, a person can recognize the difference between a background level of gasoline odor and the particularly strong odor emanating from a piece of equipment that clearly indicates the strong probability of a leak. For instance, if an investigator followed a strong gasoline odor trail that led to a nozzle, but visual inspection of that nozzle did not reveal tears in the nozzle boot or hose, then the inspector might require that the owner demonstrate that the internal check valve of that nozzle is operating correctly. There are simple spot checks possible that could be used to clarify the situation. Due to the fact that both a facility representative and any inspector with jurisdiction must receive training for the Stage II equipment, problems related to the identification of defects by smell should be rare.

Star commented on §115.242(5) and recommended that the ability to remove defective equipment from service be extended from the owner or operator to include the owner or operator or owner's representative.

The TNRCC agrees and has made the recommended change.

SWB commented on §115.242(5) and recommended that the TNRCC standardize the "out-of-order" tags to assure uniformity statewide in tagging equipment.

The TNRCC recognizes that different facilities utilize various means to remove defective equipment from service and considers the proposed language to be sufficient to allow the owner or operator to determine the best method to use at a site. The tags used by the TNRCC inspectors will be standardized across the state.

Fina Dallas, TOMA, and Star questioned the meaning of "certified owner or operator" in §115.242(6).

The term "certified," as used in this paragraph, references either the facility owner/operator or the facility representative; i.e., that person who has successfully completed the required training as outlined in §115.248.

TOMA commented on §115.242(6) and questioned the need to follow up a verbal notification that repairs have been made with a written notice when placing equipment tagged out of order by an inspector with jurisdiction back into service. TOMA asked if an inspector had the authority to disallow the equipment's return to service after being notified

verbally of repair until an on-site inspection could be made.

The intent of the dual notification (verbal followed up by written) is to allow the owner/operator a means to minimize equipment downtime after an investigator finds a violation resulting in issuance of a Notice of Violation (NOV). Any time an NOV is issued, the owner/operator is required to demonstrate that the problem that resulted in the NOV has been resolved. The verbal notification followed up by written notification permits a formal, traceable mechanism for the owner/operator and the TNRCC to verify that the problem has been resolved. It is not necessary, and the inspector could not require, that he visually inspect the repaired equipment prior to its return to service. The inspector may reinspect at any time to verify the operational status of equipment, and if the determination is made that defective equipment was being used to dispense gasoline, steps could be taken by the TNRCC to initiate enforcement action against the owner or operator for violating an air quality regulation. The required written notice will be made on a form provided by the TNRCC which will greatly simplify the process. This formal notification process is only required when an inspector tags equipment out-of-order, and is not necessary if the equipment is removed from service by the owner or operator or their representative during the ordinary course of daily inspections. The maintenance log documenting the repair activity is sufficient to resolve problems which the owner discovers and resolves. The TNRCC has added clarifying language to §115.242(6)

SWB commented on §115.242(9) and stated that the TNRCC should provide more guidance in the development of forms, decals, and tags in order to foster consistency in documentation across the state.

The TNRCC, by specifying the minimum content of any form or decal, provides for flexibility in the execution of any form or decal by the owner/operator. No modification of the decal description is deemed warranted by the TNRCC. However, the TNRCC anticipates providing examples of such items as they are made available by the TNRCC, or any other agency or person who provides them.

EPNGC, DuPont BMT, Star, SWB, Chronicle, and ICE commented on §115.242(10) and recommended that consideration be given to those facilities whose operations would be exempt from the Stage II control requirements, based on throughput, had not some unusual event(s) occurred. They cite as examples permanent, structural reductions in fleet fueling operations since January 1, 1991, that have resulted in monthly throughputs of less than 10,000 gallons since November 15, 1992, and infrequent or one-time 10,000 gallon per month throughput exceedance(s) due to response to natural disasters or emergency conditions. DuPont BMT suggested that the reference to natural disasters or emergency conditions be deleted and replaced by the broader reference to a "nonroutine situation." DuPont BMT suggested further that routine and nonroutine exceedances could be distinguished by a limit on the number of exceedances. Star re-

quested that for emergency conditions or natural disasters the TNRCC consider changing the exceedance based on calendar month to any consecutive 30-day period. EPNGC suggested that the grace period of 120 days be changed to 180 days. GHASP was concerned that the terms "natural disaster" and "emergency condition" would result in some facilities not having to install Stage II controls that should, in fact, install them.

The TNRCC agrees that circumstances exist that should be considered when a facility has experienced the events cited, and that exempt status should be granted only after a case-by-case review has been conducted. The TNRCC has modified §115.242(10) by adding subparagraphs (A) and (B) to provide additional flexibility for exceedances resulting from unusual events. The TNRCC believes that the 120-day time limit is adequate to complete the required installation.

SWB and ICE commented on §115.242(11) and stated that requiring a facility to replace Stage II equipment, in the event that the equipment is decertified by CARB, is unduly burdensome, and that the TNRCC should 'grandfather' the existing installed equipment, even if CARB had determined that the equipment, either an entire system or a single component, is defective.

The TNRCC agrees that some graceful means to handle CARB decertification of equipment is necessary. CARB engages in dialog with equipment manufacturers long before equipment that CARB identifies as seriously deficient or problematic ever is considered for decertification. CARB does reserve the right to decertify equipment, and if decertification occurs, generally provides a four-year window for the equipment to be removed from service. Due to the extremely thorough CARB certification process and because CARB requires the equipment manufacturer to warrant most vapor recovery equipment for at least three years, CARB decertification is very rare.

The TNRCC cannot engage in "prescriptive rulemaking," i.e., adopting without any opportunity for public comment or rulemaking process rules crafted by any other governmental agency. This prohibition on "prescriptive rulemaking" has resulted in the TNRCC citing, as acceptable control equipment only, those systems CARB certified by a specific date, as found in §115.242(1). Any equipment that received CARB certification after the date as found in §115.242(1) may be used, but only after approval for its use on a site-by-site basis is obtained through the Alternate Method of Control process as described in §115.243. The process to recognize CARB decertification is similar. In order to disallow the use of CARB-certified equipment for which certification was revoked by CARB, the TNRCC must engage in rulemaking, thus providing the public an opportunity to comment on any decertification finding before the TNRCC adopts rules to disallow the equipment. Since the TNRCC anticipates that rulemaking for Stage II will occur on at least an annual basis (to update the date certain found in §115.242(1)), Texas has in effect allowed for CARB-decertified equipment to remain in service for no less

than three years, and very likely for four or five years or more from the date CARB decertifies equipment. The likelihood that the equipment manufacturer will make modifications available in the event of decertification is high. In the unlikely event that the manufacturer elects not to seek recertification, the ordinary life of most vapor recovery equipment (anticipated to be at least three years) would expire prior to the time allotted to repair or replace the decertified equipment. The TNRCC considers that the language found in §115.242(11) adequately addresses equipment decertification circumstances.

TOMA and ICE commented on §115.242(12), which requires that the owner submit written notification of any Stage II vapor recovery system installation at least 30 days prior to start of construction. TOMA stated that a 30-day notification to the TNRCC PST Division is already required.

The TNRCC agrees that the notification should be combined where possible. Since the PST Division only requires notification of construction involving underground storage tanks, while Stage II requirements are applicable to above as well as below-ground tanks, it is necessary to require the installation notification be submitted to the TNRCC separate from that required by the PST Division. The TNRCC contemplated that a minor modification of the current Notice to Construct forms (PST) or Facility Registration Form (PST Division, Registration Section) to accommodate the additional information needed by the Stage II program (Executive Order number(s) and number of gasoline nozzles) would enable those forms to be used when making notification related to Stage II installation. The TNRCC recommends the use of those forms when notifying the agency of Stage II installation.

TOMA commented further on §115.242(12) and expressed the desire that the TNRCC make clear that actual start of construction is not dependent upon an inspector being on-site.

The TNRCC does not require that an inspector be physically on-site prior to initiation of Stage II vapor recovery system construction, but does require that notification of construction of a Stage II system be made 30 days in advance to the TNRCC. The TNRCC believes that no further clarification is necessary.

ICE and SWB commented on §115.243 and suggested that the TNRCC approve the use of vapor recovery equipment through the Alternate Method of Control process, by allowing the Executive Director to approve the use of nonCARB-certified equipment.

EPA does permit any state the option of either adopting for use CARB-certified equipment or allowing the states to develop their own certification procedure provided that the procedure mirror CARB's certification process and requirements. Such a certification process would result in the agency creating a separate vapor recovery certification section. Since there is no funding for this activity, the TNRCC has no option other than to rely on CARB certification. As a result, permission by Executive Director approval of equipment that

has not been CARB-certified cannot be granted at this time. In order to clarify the applicability of §115.243, the TNRCC has added a reference to the requirements of §115.242(1).

Fina Dallas, ICE, SWB, and ATT commented on §115.244 and stated that daily inspections of the vapor recovery equipment were burdensome, unnecessary in some circumstances, and impossible in some circumstances. Fina Dallas suggested monthly or quarterly inspections.

The TNRCC disagrees and believes that the time required to conduct the daily inspections will be minimal, and that daily inspections are necessary for the portions of the system most sensitive to damage, wear, or malfunction. An inspection schedule with a longer time period could allow defects to remain uncorrected for an unacceptable length of time.

The TNRCC agrees that the daily inspections should not be required to include equipment, that by its nature is not readily subject to damage, such as underground piping, pressure/vacuum relief valves, and some portions of vapor processing units. The TNRCC has revised §115.244 accordingly, and for clarity has revised §115.242(3)(E) to refer specifically to booted nozzles in vacuum-assist type systems.

ICE commented on §115.245 and suggested that the requirement to verify proper system operation through testing, within 30 days of installation, could be impractical under certain circumstances and, therefore, provisions to allow more time should be put into place.

The TNRCC considers that for a properly installed system, the current 30-day time is more than adequate to complete the required testing.

TOMA, SWB, and Star commented on §115.245(1) and raised concerns regarding the required tests to verify system performance. TOMA was expressly concerned that the adoption by reference of the TNRCC Stage II Vapor Recovery Test Procedure Handbook document in §115.245, without the opportunity for public comment on the proposed tests or contents, circumvented the rights of Texans, and as such, was unacceptable.

The TNRCC proposed development and adoption of the Stage II Vapor Recovery Test Procedure Handbook for the following reasons:

1) EPA Technical Guidance Document (EPA Document) dated November 1991, entitled "Technical Guidance-Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities" (EPA-450/3-91-022b, Appendix J), contained test procedures that were developed and written with balance Stage II systems in mind only. The EPA Document did not contemplate the applicability of those test(s) to newer systems.

2) The EPA Document was very difficult to obtain for the average citizen.

3) The EPA Document test procedures were somewhat vague, as the language contained in them assumed that the systems were to be

installed in California. This assumption is important because in California, those test procedures are modified by permit conditions, the special requirements of district in which the testing is to be conducted, the special requirements of a given system as defined in the Executive Order for that system, and the body of law under which the California tests are conducted.

4) Newly certified bootless nozzle systems brought with them new standard tests: special pressure decay tests, backpressure tests, volume to liquid tests, and vapor space (ullage) pressure/vacuum limitations. These new tests are mandated by the Executive Order defining the proper system operation. These new test procedures are not widely available and are not mentioned in the EPA Document.

5) No comprehensive document existed under any form that included all tests whose applicability extended beyond a single system. This lack of standard tests led to much confusion among all persons involved in testing.

The TNRCC responded to fill the need for consistent documentation by developing the guidance document entitled Stage II Vapor Recovery Test Procedure Handbook (August 1993). This document was developed in the following manner:

1) The TNRCC staff gathered all available test procedures: CARB draft test procedures for certification and for performance testing, EPA Document test procedures, district test procedures from the Bay Area and San Diego, manufacturer's recommended tests, proposed new test procedures being contemplated by CARB for adoption, and methods currently used by some testing contractors in Texas.

2) The staff reviewed all Executive Orders to identify the performance test criteria for each system.

3) The staff compiled test procedures and developed a standardized format for the procedures, including forms for recording and reporting the test results and tables containing performance criteria. This enabled standardized procedures for all systems to be written for a given test where possible, and provided individual attention to those systems with specific, unique test requirements.

4) After compilation of the book, the staff reviewed it in-house. The staff then sought review of the compiled test procedures from Texas equipment vendors, systems installers, test contractors, from representatives of oil company engineering staffs, other regulatory personnel, including those persons in California responsible for developing CARB test procedures, and original equipment manufacturers. Many provided written comment, and almost every commenter was consulted by telephone for further discussion once their written comments were reviewed by the staff. As a result of the extensive review, the staff was made aware of some technical and safety issues, which were incorporated into the final document.

5) The staff prepared 50 of the documents, made them available prior to August 4, 1993,

and made multiple copies of the documents available at each of the public hearings (El Paso, Arlington, Houston, and Beaumont) held during the public comment period for Chapter 115. These documents were also made available through the regional offices in each of the four ozone nonattainment areas.

The TNRCC has determined that each Stage II vapor recovery system must be tested after installation is complete to assure that the vapor recovery system installed performs at least as efficient as the CARB certified system after which it was modeled. System performance testing must yield results that meet or exceed the performance standards determined by CARB during system certification. In addition, the configuration of the installed system must be consistent with the system tested and certified by CARB. Information related to system performance requirements and system configuration are ordinarily found in the Executive Order describing the system. To ascertain whether the installed system is configured and performs adequately, the following tests are required of all systems:

1) The piping system must be manifolded properly. Failure to manifold the piping will result in incomplete or improper further tests on the system. The vapor space interconnectivity for the entire system must conform to the manifolding requirements of the Executive Order. Texas' Vapor Space Tie Test (TXP101.1) allows this to be determined.

2) Each system must be leak-tight. The pressure decay test (TXP102.1) provides a single test procedure for all systems.

3) Each system must have piping installed in such a manner as to preclude excessive backpressure, and to insure that liquid drains from the dispenser to the storage tank. The Texas Dynamic Backpressure (TXP103.1) test provides the test criteria for this.

4) Each system is limited to a maximum gasoline flow rate from each dispenser. The Texas test procedure for determining this is TXP104.1.

5) Each bootless nozzle vacuum-assist system is limited to the amount of air that can be returned to the storage tank per gallon of gasoline dispensed. This test is known as the Volume to Liquid test (V/L) as described in TXP106.1.

In addition to these general tests, two additional tests have been included at present: a test to ascertain the proper operation of a Healy bootless-nozzle system nozzle, and a method to determine the proper operation of liquid removal devices commonly used in balance systems.

In addition to these tests, each system may have additional testing requirements that are found in the CARB Executive Order for the system. It is contemplated that those tests found to be applicable to more than a single system should eventually be included in the Stage II Vapor Recovery Test Procedure Handbook. This would be accomplished after a thorough review of any test by the TNRCC and after consultation with industry.

The TNRCC considers that the tests as found in the Stage II Vapor Recovery Test Proce-

dures Handbook together with system specific tests as found in the individual Executive Order, comprise the testing required to verify proper system performance. The TNRCC has revised §115.245(1) to clarify this. In addition, the references to Stage II Test Procedure Handbook dated July, 1993, in §115.245(1), (3), and (5) were corrected to August, 1993, and the title was corrected to Stage II Vapor Recovery Test Procedure Handbook for consistency with the document itself and other references to this document.

TOMA, SWB, ICE, and Star commented on §115.245(1) and (3) and suggested that the written notification required ten days prior to testing and the requirement to notify of test cancellation 24 hours in advance be modified to allow other means of notification, including facsimile, telecopier, or in the case of cancellation, by telephone. TOMA suggested that the test cancellation notification requirement be relaxed because in some cases a tester may not show up, and consequently, it would be impossible for the owner to give 24 hours' notice.

The TNRCC agrees and has incorporated these suggestions.

TOMA objected to the requirement in §115.245(1) and (3) that notice be provided to the TNRCC, as well as, any local air pollution control program(s) with jurisdiction. TOMA suggested that the TNRCC and any local program with jurisdiction decide to whom written notification should be addressed so that paperwork might be reduced.

The relationship between the local air pollution control programs and the agency is formal. Even in areas where the local programs have entered into contractual agreements with the agency to perform specific air pollution-related activities, neither the state nor the local program yields jurisdiction. Due to this, it is appropriate to require notification to both the TNRCC and local air pollution control programs.

TOMA commented on the annual pressure-decay testing requirement of §115.245(2). TOMA questioned the necessity of requiring an annual pressure-decay test and suggested that a three-year cycle might be more cost-effective.

The TNRCC disagrees with TOMA. Vapor recovery system efficiency is directly related to system maintenance and proper operation. Daily inspections required of each system are a necessary component to proper system operation and efficiency. System vapor tightness is particularly important in both balance and assist vapor recovery systems. Fugitive emissions from leaking components, undetectable by visual inspection, may easily reduce system efficiency by 10% to 25% even if the owner or operator has made sure that the nozzles and hoses and other components subject to daily wear and tear are kept in top shape. Currently, CARB requires all new bootless nozzle or other assist systems to successfully pass a pressure decay test once every 12 months as part of the Executive Order performance standards. Due to the importance of leak-tight systems on system efficiency, the complementary nature of daily inspections and annual pressure-decay test-

ing in assuring on-going system efficiency, and the fact that literally hundreds of systems currently installed in Texas require annual pressure-decay testing as part of the performance criteria listed in Executive Order, the TNRCC has determined that annual pressure-decay testing is reasonable and required for all systems.

TOMA objected to the requirement of §115.245(3) that a ten-day advance notification be submitted prior to the testing required subsequent to a major system replacement or modification. TOMA stated that they expect problems if the equipment is being tested to verify that a repair has corrected a problem.

TOMA did not specify the perceived problems. Section 115.245(3) does not require testing for routine repairs but only every five years or upon major system replacement or modification. A major system replacement or modification is defined as the repair or replacement of any stationary storage tank equipped with a Stage II vapor recovery system; the replacement of an existing CARB-certified Stage II vapor recovery system with a system certified by CARB under a different CARB Executive Order, or the repair or replacement of any part of an underground piping system attached to a stationary storage tank equipped with a Stage II vapor recovery system, excluding the repair or replacement of an underground piping system which is accessible for such repair or replacement without excavation. The TNRCC believes the specified testing is necessary to insure the continuing proper operation of the Stage II systems.

SWB, ICE, Star, Fina Dallas, ATT, and TOMA commented on §115.245(3) and objected to the proposed requirement that initiation of testing occur between the hours of 7:00 a.m. and 5:00 p.m. ATT and TOMA indicated that flexibility in the testing schedule was necessary to minimize costs. In addition, the requirement to test between 7:00 a.m. and 5:00 p.m. was deemed unnecessary in light of requirements related to tester registration as found in §115.245(5).

The TNRCC agrees and has deleted this requirement.

SWB and ICE commented on §115.245(3)(C) and requested that the major system modification definition be limited to work conducted on the Stage II vapor recovery components only, and not be extended to include work done on components of the storage tank system that do not directly influence the efficiency of the vapor system, such as product piping.

The TNRCC agrees and has incorporated appropriate clarifying language.

TOMA, ATT, SWB, ICE, Exxon, and Star commented on §115.245(5) and stated that requiring third-party system-testing is unnecessary because any tester who wishes to have the results of performance tests accepted by the TNRCC must be registered. Concerns were also raised that the TNRCC may not have the registry available by November 15, 1993.

The TNRCC agrees and has incorporated appropriate clarifying language.

Sierra Club and GHASP commented on §115.245(5)(A), which allows the TNRCC to remove an individual from the registry of testers if the individual has failed to conduct the test(s) properly in at least three separate instances. Sierra Club recommended that only one failure be necessary to remove the tester from the registry, while GHASP recommended allowing up to two failures.

The TNRCC believes that the current criteria is sufficient when taken into consideration with §115.245(5)(B) and the fact that the inspector would not accept the results from the test as valid, requiring the retest of the facility.

TOMA and SWB commented on §115.245(6), which requires that the owner submit testing results within ten working days of the completion of the test(s). TOMA and SWB suggested that permitting an owner's representative to submit the results of testing to the agency would enable the results to be submitted within ten working days of the test. In addition, TOMA questioned the need to have the test results on file in so many locations: the facility, the state, and possibly a local air pollution control program(s).

The relationship between the local air pollution control programs and the agency is formal. Even in areas where the local programs have entered into contractual agreements with the agency to perform specific air pollution-related activities, neither the state nor the local program yields jurisdiction. Due to this, it is appropriate to require submission of test results to both the TNRCC and local air pollution control programs.

The TNRCC agrees that the owner or operator should be able to authorize the submission of test results and has incorporated this change. The TNRCC also agrees that a summary of the test results would meet the on-site recordkeeping requirement and has incorporated this change.

ICE, SWB, Star, and TOMA commented on §115.246(1)-(6) and stated that all these documents may not be needed on-site. Particularly, questions were raised about keeping the proof of a facility representative's (as described in §115.248) training on-site once the individual leaves. Questions related to the necessity of having an Executive Order at the site were raised, as were questions related to appropriate test result records. ICE and SWB suggested that the TNRCC provide examples of, and give clarity to, the actual recordkeeping forms and requirements.

The TNRCC considers the necessity of the Executive Order being on-site to be very important. This Executive Order provides a reference for all employees or maintenance employees at the site when conducting daily inspections or repairs vapor recovery equipment at the facility. Test summaries, as described in response to §115.245, are considered necessary at the site.

The TNRCC considers the language currently in §115.246 to be sufficient when coupled with the specific maintenance requirements specified in a given Executive Order as sufficient explanation of the detail of recordkeeping required at a facility. The TNRCC agrees that the rapid development of

example recordkeeping documents would be beneficial to all and is currently developing such documents.

The TNRCC agrees that it is unnecessary to keep proof of training beyond the time an employee is employed at the facility and believes that the language in §115.246(4) is sufficiently clear in this regard.

SWB expressed concern that gasoline throughput records should remain confidential.

Records must be made available to the TNRCC, EPA, and any local air pollution control program having jurisdiction. Some of the information in records may be proprietary information. Any information which a company desires the TNRCC to treat as confidential must be labeled "CONFIDENTIAL" on each page at the time of submittal. No information deemed confidential shall be disclosed to anyone other than an authorized company representative or other agencies as provided by law. However, the public does have access to nonproprietary information in the TNRCC permit and compliance files.

Sierra Club and GHASP commented on the requirement in §115.246(7) that records be maintained for at least two years. Sierra Club and GHASP recommended that longer recordkeeping be required. GHASP recommended that records be retained for five years.

The suggested five-year timeframe mentioned is for compliance determination used in permitting issues. The TNRCC central office keeps records of facility violations forever. The two-year period is considered sufficient for a field investigator to determine the facility's daily compliance with applicable rules for routine spot inspections, as well as, annual/biennial investigations.

Fina Dallas opposed the requirement of §115.246(7) to keep records on-site and suggested that the rule be revised to allow recordkeeping at an alternate centralized location, with the records to be provided within 24 or 48 hours at TNRCC's request. Star suggested that testing records should only be maintained until a more current test of that portion of the Stage II system is conducted.

The TNRCC does not agree that keeping records on-site should be optional, due to the enforcement weaknesses inherent in such an option. It would be impossible for TNRCC or other inspectors to conduct a complete on-site inspection if records were maintained at a remote location. EPA has made it clear that the recognized, overall efficiency of any Stage II program is contingent upon several things, not the least of which are unannounced inspections and records to be kept on-site. Where the issue of records being kept on-site is concerned, the EPA guidance document entitled "Enforcement Guidance for Stage II Vehicle Refueling Control Programs" dated October, 1991, §8.1.1 is quite clear:

"... The records should be required to be kept on the facility premises in an easily accessible location for review by the POA [Program Oversight Agency] officials."

The TNRCC believes that the requirement to maintain records on-site is valid and reasonable for facilities that are available to the public and which ordinarily have personnel on-site. The TNRCC does, however, recognize that consideration should be given for normally unattended facilities, such as card lock facilities or locations that require security clearance to enter, like some fleet refueling facilities that are ordinarily unmanned, or certain portions of military base refueling facilities that are ordinarily unmanned. The length of recordkeeping as provided in §115.246 is sufficient to assist the TNRCC in determining compliance with the Stage II requirements. The TNRCC has made revisions to §115.246(7) to give appropriate consideration to normally unattended facilities.

Sierra Club and GHASP objected to §115.247(1), which exempts containers used exclusively for the fueling of aircraft, marine vessels, or implements of agriculture. Sierra Club and GHASP recommended that these exemptions be removed.

Containers used exclusively for fueling of agricultural implements represent an insignificant contribution to emissions from gasoline dispensing facilities. The exemption for aircraft, watercraft, and implements of agriculture is consistent with EPA's Stage II guidance.

HL&P, EPNGC, DuPont BMT, GHASP, SWB, Chronicle, and ICE commented on §115.247(2). HL&P suggested that the effective date of the "once-in, always-in" language be modified to apply only after the promulgation of the Stage II rules in 1992. DuPont BMT suggested that the Stage II exemption level be set at a gasoline throughput of 120,000 gallons per year. EPNGC suggested that the Stage II exemption level be set at an annual average gasoline throughput of 10,000 gallons per month, with annual records maintained on-site to confirm the exemption status. GHASP objected to §115.247(2) and recommended that this exemption be removed. ICE recommended that the TNRCC permit an annual certification by the owner or operator to the TNRCC demonstrating continued exempt status (i.e., below 10,000 gallons throughput in any calendar month).

The TNRCC has addressed most of these comments in the discussion on §115.242(10). The TNRCC does not consider the submission of actual monthly throughput for the exempt facility to be any more burdensome than having to submit a certification, therefore, no change was made in §115.247(2).

ICE and SWB commented on §115.248(1) and suggested that a single person might be allowed to be the "facility representative" (i.e., the person who receives the approved training) for multiple facilities.

TNRCC recognizes that for normally unattended facilities, such as card-lock facilities or unattended facilities not open to the general public, having a single person fulfill the "facility representative" role for more than one facility is the only practical solution to the EPA requirement for a separate person to receive training for each separate facility. The TNRCC has modified §115.248(1) to accommodate this.

SWB and TOMA were concerned that the TNRCC is requiring more intensive training than needed to meet EPA requirements on this issue.

EPA has given clear guidance that any facility representative training be approved by the state. The TNRCC believes that the only reasonable method of providing approval for any training program is to formally review any proposed training course to ascertain whether or not the proposed training clearly meets the minimum requirements mandated by EPA. This formal approval program, coupled with a policy implementation that provides some quality assurance of the approved program(s), is the only method that would permit the TNRCC to provide unambiguous approval or denial of approval to any proposed training course. The TNRCC does not believe that the Texas program is more stringent than that which EPA requires.

Star and TOMA commented on §115.248(2) and objected to the restriction that limits the validity of the facility representative training certification to two years from the date of issuance.

The TNRCC agrees that the facility representative need not be retrained every two years if that person continues to work at the same site and has revised §115.248(2) accordingly.

GHASP and SWB commented on §115.248(3)(A). GHASP suggested that specific reference to health effects, and not just health benefits, be made part of the criteria to be included in an approved training program. SWB suggested that clear reference be made to the enforcement consequences for non-compliance with the regulations.

The TNRCC agrees and has made the suggested changes.

Star commented on §115.248(3)(B) and suggested that the phrase "of each type of vapor recovery system" be revised to "specific to each facility's Stage II vapor recovery system."

Each training course will include information on all types of Stage II systems and will emphasize specific Stage II systems as appropriate.

Star, TOMA, and Exxon commented on §115.248(4)(B). TOMA and Exxon objected to the provision that the TNRCC may revoke approval of a training course, if the training provider fails to notify the TNRCC of upcoming courses in writing at least 21 days prior to the date of the training. TOMA and Exxon stated that this requirement was unnecessary. Star stated that not all courses can be scheduled 21 days in advance and further suggested that the phrase "if possible" be added to the course cancellation notification requirement. TOMA commented that the requirement to provide 24-hour notice prior to cancellation could prove unattainable in practice due to circumstances beyond the control of the training provider. Star requested clarification as to who can be a "training provider."

Anyone may become a training provider as long as they successfully complete an Application To Become A Training Provider and

are subsequently approved by the TNRCC. The TNRCC agrees that for some providers, such as in-house training programs, advanced notification would prove untenable and that some consideration on the time required to notify the agency, in the event of a course cancellation, should be given. The TNRCC has revised §115.248(4)(B) accordingly.

The TNRCC has corrected a typographical error in §115.249(1)-(2) to retain the "as soon as practicable" language in these rules.

TOMA commented on §115.249(3) and requested that the average monthly gasoline throughput be used rather than the one month highest throughput since January 1, 1991 when determining whether a person may qualify as an independent small-business marketer of gasoline (ISBMG). TOMA cited seasonal driving patterns as perhaps artificially bumping a facility into an earlier compliance date. TOMA also requested that the TNRCC change the definition of "annual income," a component of the congressional definition of "ISBMG."

The definition of "annual income," as issued by the United States Congress, can only be changed by Congress; however, EPA has clarified that any standard accounting practice definition of "annual income" would be suitable. The TNRCC has already permitted the suggested use of "gross annual income" to be the equivalent of "annual income" and has implemented this in the ISBMG policy currently implemented by the TNRCC. The TNRCC recognizes that utilizing an average monthly throughput might enable some facilities to qualify for ISBMG status. However, one of the criteria that would end the extension granted an ISBMG is if the monthly throughput exceeded 50,000 gallons in any calendar month after the ISBMG status was granted, resulting in the owner or operator having only 120 days to install Stage II equipment. Consequently, no real benefit would be derived by modifying the calculation of throughput at this time. The TNRCC changed the ISBMG application deadline from November 15, 1993, to January 15, 1994, to give ISBMGs additional time to apply for an extension.

The GHASP opposed the equivalency language of §§115.324, 115.334, and 115.344, concerning Inspection Requirements for Fugitive Emissions, because they say it leads to a weaker leak-detection program by allowing a longer period of time between monitoring periods. Also, the commenter contends that the TNRCC has not adequately explained what the NSPS skip-periods are.

The staff disagrees with the comment that the proposed equivalency language will result in a weaker leak detection program. The EPA and the TNRCC confirm that NSPS and National Emission Standards for Hazardous Air Pollutants (NESHAPS) leak-skip provisions meet RACT and the intent of Regulation V. The NSPS leak-skip provisions are found in 40 CFR, §60, Subparts VV, GGG, and KKK, and the NESHAPS leak-skip provisions are found in 40 CFR, §61, Subpart V. The staff believes no further explanation is necessary because the provisions are adequately cited within the applicable provisions.

Sterling supported the proposal but requests further clarification. Sterling stated "... we request that the TNRCC further clarify the language so that it is clear that, to qualify NSPS and NESHAPS skip-period programs for skip-period under Regulation V, the operator may request the schedule be revised after meeting those requirements. This period is typically less than the two years specified in §115.324(a)(8)(A) and §115.334(a)(8)(A)."

The staff's understanding of this comment is that the operator may already be a year into the requirements for NSPS or NESHAPS and within a year will meet the leak-skip provisions. The question is whether an application then can be made for a change in schedule under Chapter 115? The staff believes the wording of the proposal is clear enough to allow such a change.

Many commenters disagreed with the proposal to extend the new fugitive requirements of §§115.352-115.357 and 115.359 to the attainment counties of Victoria, Nueces, and Gregg. Golden Crescent Regional Monitoring Network; Safety Steel; Victoria Economic Development Corporation; Victoria Chamber of Commerce; Victoria Bank and Trust, CPL; Formosa; OxyChem Victoria Operations; Boardwalk Properties; an individual; the City of Victoria; DuPont Victoria, State Representative Holzheuser; and State Senator Armbrister were specifically against inclusion of Victoria County Valero Hydrocarbons, L.P.; OxyChem Corpus Christi; Valero, and Board of Trade Port of Corpus Christi were specifically against inclusion of Nueces County. CITGO, Congressman Laughlin, OxyChem; Amoco Chem; ENRON; GPA, DuPont BMT; TMOGA; TCC, and Exxon USA expressed general opposition to the inclusion of all three counties.

The current regulation is divided into three undesignated heads within Subchapter D, concerning Petroleum Refining and Petrochemical Processes, each governing a different type of industry. Within each undesignated head are two separate parts, one dealing with nonattainment counties and the other dealing with a set of previously designated nonattainment counties. The proposal to extend the new requirements to the previously designated nonattainment counties was made for purposes of consistency and to provide additional reductions in those counties to assist in minimizing the possibility that those counties could return to nonattainment status. However, after review of the comments, the TNRCC has determined that extension of the new requirements to those counties should be subjected to further review and consideration. Accordingly, the TNRCC is withdrawing that portion of the proposal.

LEC, Warren, TMOGA, and TCC stated that the natural gas processing industry was not properly notified because the proposed undesignated head refers to Petrochemical Refining and Petrochemical Processes so they did not read the rule in the *Texas Register*. ENRON, GPA, Warren, TMOGA, and TCC argued that gas plants should remain subject to existing rules because they are inappropriately combined with refineries and SOCOMI plants.

In deciding upon a title for the new undesignated head, the TNRCC believed it appropriate to tailor it after the current title of Subchapter D, "Petroleum Refining and Petrochemical Processes," since it includes rules governing all of the same industries targeted under the new rule. An error in the *Texas Register* substituted Petroleum Refining with Petrochemical Refining. This has been corrected.

Rohm and Haas requested that the TNRCC use the proposed Hazardous Organic National Emissions Standard for Hazardous Air Pollutants (HON) as the guide instead of the 28 MID permit provisions.

When it became apparent that one of the most cost-effective controls in achieving the 15% reduction would be a strengthening of the existing fugitive rules, the TNRCC solicited comments from permit engineers and the affected industries. One common comment concerned the many different federal and state programs which currently existed. The TNRCC attempted to consolidate all existing fugitive monitoring regulations into one comprehensive program. The most effective way of doing that was to determine which existing program was the most stringent and model a rule after that. Currently the 28 MID program is the most stringent program.

Exxon USA suggested the title of the undesignated head should be simplified to read "Fugitive Emission Control."

This would make sense if there was to be only one fugitive monitoring regulation. However, the rule has not been proposed for all nonattainment areas and is being withdrawn from Gregg, Nueces, and Victoria counties. Since there will be four fugitive monitoring regulations, the title of the proposed rules needs to be more descriptive than "Fugitive Emission Control."

Dow commented that in §115.352, regarding Control Requirements, the wording "... polymer, resin, ..." needed to be changed to "... polymer and resin, ..." to be consistent with the definition in §115.10. DuPont BMT, TMOGA, and TCC stated that polymer and resin processes, as defined in §115.10, were not inclusive enough and requested that a list similar to permits Table IA be compiled to delineate these processes.

The intent of the proposed rule was to incorporate all of the existing fugitive monitoring regulations into one program and tighten down only on those sources currently controlled by Chapter 115, not to expand the scope. Additionally, the current regulations remain in place in the Dallas/Fort Worth nonattainment area and will be left in Gregg, Nueces, and Victoria counties. Therefore, it would be more consistent if the wording were the same throughout all existing and proposed regulations.

Sterling, Marathon, Shell, ENRON, Rohm and Haas, GPA, Warren, Exxon USA, Exxon Chem, Dow, DuPont BMT, TMOGA, and TCC argued that the 500 ppmv specification for pump and compressor seals in all types of facilities and all components in natural gas plants is not feasible. They referenced the levels required by the proposed HON and a

1978 CTG which established 10,000 ppmv for pumps and compressors as being equal to a 97% reduction. GHASP and the Sierra Club strongly support the 500 ppmv limit.

After further review, the TNRCC has become convinced that the 500 ppmv level, is not technologically feasible for pump and compressor seals at this time. In light of the documentation submitted, the TNRCC has changed the leak level to 10,000 ppmv

There were a number of comments concerning the definition of a leak. Dow requested that the TNRCC specify the concentration level as ppmv above background. They also stated that Test Method 21 requires a reference compound and that the leak definition be specified by the applicable regulation. They requested a leak definition of 10,000 ppmv and a reference compound of either methane, propane, or hexane. Rohm and Haas requested guidance on proper response factors in determining leaking emissions, stating that they must be developed before a 500 ppmv program will be effective.

The TNRCC agrees that a reference compound must be stated and that either methane, propane, or hexane is appropriate. However, a leak definition of 10,000 ppmv is not acceptable. The definition of leak has been changed to clarify that it is 500 ppmv of the reference compound, that the acceptable reference compounds are methane, propane, or hexane; and that the only approved test method is Test Method 21. The TNRCC also agrees that the leak definition should specify 500 ppmv above the background level. It is believed that this will eliminate the concern expressed regarding response factors.

Union Carbide, Amoco Oil, Exxon USA, Dow, DuPont BMT, TMOGA, and TCC stated that there needs to be an allowance for a reasonable time in which to repair a leak. They argued that, as worded, upon discovery of a leak, the unit will be in violation of the regulation.

The TNRCC agrees with the commenters. The rule has been changed to allow up to 15 days for repair.

Phibro, stated that the stratified factors for SOCM1 leaks are the same at 500 ppmv as at 1,000 ppmv; and therefore, there is no technical justification for the 500 ppmv basis. They suggested a leak definition of 1,000 ppmv

The TNRCC disagrees with this comment. Again the intent of this rulemaking process was to incorporate the most stringent program into a rule. The 28 MID uses 500 ppmv as the definition of a leak; and therefore, it is used in this rule.

Exxon USA stated that the term "exuding" is ambiguous and needs to be deleted; dripping would be more adequate

The TNRCC disagrees. The language is taken directly from the existing definition of a leak. The term "exuding" was added in the 1991 RACT fix-up phase as a result of an EPA requirement

GHASP requested the TNRCC define "technically feasible" in §115.352(2).

This term has a meaning commonly ascribed to it in the field of air pollution control, and the agency does not believe that further definition is necessary.

TCC and TMOGA requested the TNRCC define "component" in §115.352(2).

The term "component" is defined in §115.10.

GHASP requested that a method be specified to determine if valves and components truly cannot be fixed within 15 days

The TNRCC believes that an investigator will be able to ascertain this during a review of the required logs.

Several commenters object to the directed maintenance requirement, especially for pumps and compressors. Union Carbide, GPA, Dow, DuPont BMT, TMOGA, and TCC requested that §115.352(2) be revised to allow reworking within 15 days of repair, and §115.354(6) be revised to allow for the measurement of emissions within 15 days after a component has been repaired. They believe the latter is necessary to distinguish between monitoring to confirm a leak, and the recheck to confirm that the repair was successful.

The 28 MID permit provision requires directed maintenance on accessible valves. To maintain consistency, the TNRCC has revised the proposed language to require directed maintenance for accessible valves only.

DuPont BMT, TMOGA, and TCC requested the word "turnaround" be replaced with "unit shutdown" here and throughout the rule to be more consistent with other programs.

The TNRCC agrees with this recommendation and has incorporated the suggested change.

Union Carbide, DuPont BMT, TMOGA, and TCC questioned the necessity of the requirement of §115.352(5) for marking valves in gaseous service.

The TNRCC agrees this is an unnecessary requirement and it is being deleted.

Union Carbide, Phillips, Rohm and Haas, ENRON, GPA, Dow, DuPont BMT, TMOGA, and TCC objected to the new requirement of §115.352(6), which requires replacement pumps and compressors to be equipped with shaft sealing systems. They assert that it is too costly and request that the language in the 28 M permit provision be used instead. Rohm and Haas requested that new pumps should be defined as those purchased after July 31, 1994

As a result of setting the leak definition for pumps and compressors at 10,000 ppmv, this requirement has been deleted

GHASP, DuPont BMT, TMOGA, and TCC requested a definition for reasonably accessible or nonaccessible, as mentioned in §115.352(9)

The TNRCC agrees and has added the suggested language

TMOGA, TCC, and DuPont BMT have requested that the reference to piping connections in §115.352(9) be deleted because piping connections are not required to be monitored under this program.

The TNRCC disagrees with this comment. Section 115.354(a)(3) requires the weekly inspection of all flanges which are part of most piping connections

Dow, DuPont BMT, TMOGA, and TCC stated that the requirements specified in §115.352(10) are from the codes specified in §115.352(7) (ANSI, API, ASME); and therefore, it would be preferable to just reference the codes.

This language is taken from the 28 MID permit provision where it is stated separately. Maintaining consistency with this program would indicate the need for the requirement to be stated in two places within the rule as well

Exxon Chem, Dow, DuPont BMT, TMOGA, and TCC requested that §115.352(11) allow for devices equivalent to a pressure gauge to monitor for rupture disc integrity

The TNRCC agrees that this recommendation makes sense. The TNRCC has added the suggested language and will require the equivalent device or system to be approved prior to being allowed via the same methods specified in §115.353.

GPA objected to specifying new engineering standards and equipment specifications in §115.352(7)-(11), since the rule is designed to make minor adjustments to a work-practice control program.

These standards and specifications are an integral part of the 28 MID program and have, therefore, been included in this rule.

Phillips and DuPont BMT commented that §115.353, regarding Alternative Control Requirements, needs to be more inclusive to allow for implementation of innovative control strategies and programs.

The TNRCC has proposed changes to §115.910, regarding Alternate Means of Control, which will address this issue.

Pennzoil specifically requests that the substitution of NSPS and NESHAPS be allowed for the proposed fugitive rules.

The NSPS and NESHAPS requirements do not require the same level of control as the proposed fugitive rules. The definition of leak is vastly different as are the monitoring and recordkeeping requirements. The TNRCC believes that the requirements of the proposed rule will satisfy the requirements of the NSPS and NESHAPS programs. However, the TNRCC does not believe that the NSPS or NESHAPS programs are as effective as the 28 MID program which gives 97% reduction credit.

Sterling, Amoco Chem, Phillips, Shell, Rohm and Haas, ENRON, GPA, Exxon USA, Exxon Chem, Dow, DuPont BMT, TMOGA, and TCC requested that a skip-period monitoring program be allowed.

The TNRCC agrees and has included provisions to allow for skip-period monitoring

Dow stated that "TNRCC should provide a skip-period monitoring option and should base the required monitoring frequency on a leak rate at 10,000 ppmv—not the 500 ppmv level. Leak rates for valves at monitoring values in the range of 1,000 to 10,000 ppmv do not justify an increased monitoring frequency as may be suggested by rates for valves monitored at 10,000 ppmv or higher.

Evidence of this is apparent from examination of the Stratified Emission Factors:

Stratified Emission Factors

Valves in Gas Service

1 - 1,000	ppmv	.00031 lbs/hr leak rate
1,001 - 10,000	ppmv	.003364
Over 10,000	ppmv	.0994

As can be seen, the leak-rate increases by a factor of only ten from the first leak range to the second range, but by a factor of 320 from the first range to that for valves monitoring over 10,000 ppmv. The TNRCC can specify the 10,000 ppmv level for the leak rate calculation and retain the 500 ppmv level in §115.352 control requirements."

The TNRCC disagrees with this argument for several reasons. There is a difference in 500 ppmv and 10,000 ppmv as Dow has shown, and that difference would result in a loss of credit towards the required 15% reduction. Not only is there no leak-skip provided for in the 28 MID program; but there is also no mention of a 10,000 ppmv leak definition either. This is also true for the HON's leak-skip program.

Dow stated, "A point of confusion with existing equipment leak rules is the question of what monitoring schedule should be followed for new or replacement components. This is of particular concern when a skip-period option has been elected. In this case, the question is, should new or replacement components follow the inspection schedule of other like components or should the skip-period qualification be determined for these components individually? A separate qualification schedule requirement is highly undesirable because it results in new inspection schedules each time a component or group of components are added. Multiple monitoring schedules unduly complicate the monitor and repair program."

The leak-skip determination is based on a percentage of the total component count. As long as the company can demonstrate the percent cutoff is being met, there is no reason to change or increase the monitoring schedule.

Dow requested the rule language in §115.354 specifically refer to valves as pipeline valves.

The intent is to monitor all valves, including sampling valves and instrumentation valves.

Union Carbide, Amoco Oil, Dow, DuPont BMT, TMOGA, and TCC commented on the requirement of §115.354(1)(A), stating that process drains will be covered in the forthcoming wastewater regulation.

Unfortunately, there is no guarantee that the wastewater rule will be promulgated in the near future or that it will apply equally to all nonattainment areas. The TNRCC has maintained the requirements for monitoring of process drains.

Union Carbide, TMOGA, TCC, and DuPont BMT commented that §115.354(2)(C) and (D) should be combined into one requirement.

The TNRCC agrees that this request makes sense and has deleted the words "... in liquid service ..." from subparagraph (C) and has deleted subparagraph (D).

TMOGA, TCC, and DuPont BMT requested the term "quarterly" be defined.

The TNRCC agrees and has changed the wording from "Measure quarterly ..." to "Measure each calendar quarter ..."

There were numerous comments on §115.354(3). DuPont BMT, TMOGA, and TCC requested that the requirement for pump seals be deleted since they are already required to be monitored quarterly, and to change weekly monitoring to quarterly monitoring for flanges since they have no moving parts. Exxon USA requested the requirement for pump seals be deleted and to replace "weekly" with "semiannually" pump-seal monitoring. Dow requested that the requirement for pump seals be deleted and that the phrase "inspect weekly all flanges" be replaced with "inspect plant weekly for leaking flanges."

The TNRCC agrees with the comments regarding the pump-seal requirement, but disagrees with the comments concerning flanges. Therefore, the only change the TNRCC has incorporated is to delete the words "... and pump seals."

Dow requested that §115.354(4) either be deleted because this requirement is inconsistent and incompatible with the definition of leak, or that leak be redefined to allow for potential leaks.

The TNRCC disagrees. If a component is suspected to be leaking, based upon a §115.354(3) inspection, then it should be monitored. However, as a result of previous comments, the definition of leak has been modified to allow for repair time.

DuPont BMT, TMOGA, and TCC request §115.354(4) allow measurement of a suspected leak to be within five days to be consistent with other programs.

This is a true statement for NSPS and NESHAPS and is not disallowed by 28 MID. Therefore, the TNRCC agrees that it is a reasonable request and has replaced the word "whenever ..." with "within five days after ..."

There were several comments concerning §115.354(5), which requires the monitoring of relief valves which have vented to the atmos-

phere. Union Carbide requested that the monitoring requirement be within five days, not 24 hours, to be consistent with HON and NESHAPS. Dow requested that the TNRCC require monitoring of "accessible" relief valves within 15 days and specify to repair if required. DuPont BMT, TMOGA, and TCC requested the requirement to be monitoring of "accessible" relief valves within five days and repair within 15 days if required.

This requirement originated from an EPA comment submitted in the April 22-24, 1980 hearing record book. The TNRCC believes that operations should be sufficiently controlled so as to make venting from relief valves a rarity to avoid a significant increase in monitoring requirements.

DuPont BMT requested that the words "... adjusted for 68 degrees Fahrenheit, (20 degrees Celsius) ..." be deleted from §115.355(2), regarding Testing Requirements, to be consistent with recommended changes to §115.357(3).

The adjustment for 68 degrees Fahrenheit is necessary to demonstrate compliance with the vapor pressure exemption stated in §115.357(1), and the TNRCC did not incorporate DuPont's recommended change.

DuPont BMT stated the testing of vapor pressure, as required in §115.355(2), should not be required when the VOC material is known and the vapor pressure can be calculated.

The TNRCC agrees that this is a viable alternative if it is properly documented and has added a new §115.355(4) which states "equivalent determinations using published vapor pressure data or accepted engineering calculations."

Union Carbide, DuPont BMT, TMOGA, and TCC commented on §115.356(1), regarding Monitoring and Recordkeeping Requirements, requesting that the reference to leaking components be deleted from the rule language making it applicable to all valves, pressure relief valves, pumps, and compressors.

The TNRCC agrees that this is clearly the intent and has made this clarification.

GHASP and Sierra Club stated that records should be kept for five years for compliance history records.

The TNRCC understands these concerns; however, the five-year timeframe is for compliance determination in permitting issues. The central office file keeps records of violations forever. The two-year period is consid-

ered sufficient for a field investigator to determine the daily compliance for routine spot investigations, as well as, annual/biannual investigations.

Dow, TMOGA, TCC, and DuPont BMT commented that the requirement in §115.356(2) is also stated in §115.356(3) and that §115.356(2) should be deleted.

The TNRCC agrees and has deleted §115.356(2).

Dow, DuPont BMT, TMOGA, TCC, and Rohm and Haas commented that 28 MID, §I states that records of the visual, audible, and olfactory inspections of flanges are not required unless a leak is detected, and they requested this language be incorporated.

The TNRCC agrees with the comment and will incorporate the applicable language from the 28 MID permit provision.

DuPont BMT, TMOGA, and TCC commented that §115.356(1)(E) should state parts per million by volume.

The TNRCC agrees with the comment and has incorporated this change.

Monsanto, Sterling, Marathon, Union Carbide, Phillips, Amoco Oil, Rohm and Haas, Phibro, ENRON, GPA, Warren, Dow, DuPont BMT, TMOGA, and TCC commented on the need for an exemption for a minimum VOC concentration. Currently, §115.327(1) and 115.337(1) exempt streams with less than 10% VOC and §115.347(1) exempts streams less than 1% VOC.

The TNRCC agrees that the intent of the program is to regulate process streams containing VOC and not to control wastewater or cooling water streams. Therefore, the TNRCC has incorporated an exemption for a minimum VOC concentrate and has used the levels established in the existing rules.

Monsanto, Sterling, Union Carbide, Amoco Chem, Exxon Chem, DuPont BMT, TMOGA, and TCC expressed the need for an exemption for propane, propylene, and ethylene services, stating that it may not be possible for them to achieve 500 ppmv. Alternatively, they suggested an exemption for nonrepairable valves (i.e., 5% as specified in the proposed HON).

The TNRCC agrees that this may be a valid concern. The permits program regularly defines propylene and ethylene service as being 85% of the respective chemical within the VOC stream and believes that this would be necessary to specify in the rule. The TNRCC has incorporated the suggested language with the addition of the definition of propylene, propane, or ethylene service.

Union Carbide, Phillips, ENRON, GPA, DuPont BMT, TMOGA, and TCC expressed the need for an exemption for idled and shutdown equipment.

EPA has expressed concern in an August 31, 1987, letter on proposed fugitive RACT rules, commenting that shutdown or idled equipment can still be significant sources of leaks. The TNRCC agrees with this perception and believes that if a piece of equipment, which is shutdown or idled, contains process fluid which has a VOC content greater than the

minimum concentration specified in the exemptions or a vapor pressure greater than 0.044 psia, then it should still be monitored. Therefore, the provisions for exemptions for less than a minimum VOC concentration or 0.044 psia will adequately address this issue.

Phillips requested an exemption for equipment in vacuum service.

The proposed §115.357(2) states that components in continuous vacuum service are exempt.

Sterling requested an exemption for nonprocess units such as lube oil or hydraulic fluids.

The TNRCC believes that this is accounted for with the vapor pressure exemption.

Phillips, ENRON, GPA, DuPont BMT, TMOGA, and TCC requested an exemption for facilities with less than 250 components.

The TNRCC agrees that this is a reasonable request and will meet the intent of the regulation. The exemption has been added to the rule.

DuPont BMT, Phibro, Dow, TMOGA, and TCC expressed concern regarding valves that are unsafe to monitor. Rohm and Haas requested a total exemption from all monitoring requirements for equipment that is unsafe to monitor.

The TNRCC agrees that these are of adequate concern to be exempt from the quarterly monitoring requirements, but believes efforts must be made to monitor them at least annually. The rule has been revised accordingly.

Rohm and Haas, DuPont BMT, TMOGA, and TCC noted that throughout §115.357 there are references to §115.324 which should be §115.354.

The TNRCC had identified this error after publication in the *Texas Register* and has made the necessary corrections.

ENRON, GPA, and Warren requested an exemption from the replacement seal requirement for natural gas and ethane services similar to the one allowed for in NSPS Subpart KKK. They also requested §115.347(6)(C) and (D) be incorporated into the new regulation.

The exemptions of §115.347(6)(C) and (D) are already allowed for under §115.357(4). The exemption from the replacement seal requirements for reciprocating compressors and positive displacement pumps, referred to in NSPS Subpart KKK, is a valid one and has been incorporated.

Dow, DuPont BMT, TMOGA, and TCC expressed the need for an exemption for tubing size lines and components less than or equal to 0.5 inch diameter or an exemption for valves of two inches and smaller. They stated that this is consistent with §A of 28 MID.

EPA does not allow an exemption for two-inch or smaller valves. This was an issue during the RACT fixup phase in 1991, and the permit provisions are being updated to reflect this.

Rohm and Haas, TMOGA, and TCC stated

that if the leak definition for pumps and compressors remains at 10,000 ppmv, then the exemption level should be 0.147 psia. DuPont BMT requested §115.357(1) be modified by replacing 0.044 psia with 0.5 psia, 68 degrees Fahrenheit with 100 degrees Fahrenheit, and adding "or at maximum process operating temperature if less than 100 degrees Fahrenheit." They assert that this exemption will apply primarily to heavy liquid streams and that the language from 28 M should be used.

The TNRCC disagrees. The TNRCC believes that this would result in a relaxation of the existing regulation and not an improvement, and would ultimately result in a loss of credit towards the 15%. This is readily apparent by the request to incorporate language from 28 M into a rule based on 28 MID. Additionally, the TNRCC believes the exemption level of 0.044 psia is sufficient to exempt most heavy liquid streams of concern.

DuPont BMT, TCC, and TMOGA requested storage tank valves be added to the exemption of §115.357(2), and to replace "the monitoring requirements of §115.324 of this title" with "of this undesignated head" to allow exemption from the leak definition as well.

The TNRCC agrees that storage tank valves should be exempt from monitoring requirements. The TNRCC also agrees with the recommended language and has revised the rule accordingly.

GHASP objected to the use of the phrase "reasonably expected to always exceed 50% by volume."

The 50% by volume is an exemption accepted by EPA for the current RACT regulations and removing it would not gain any additional credit towards the 15% nor improve enforceability.

DuPont BMT, TMOGA, and TCC expressed a need for an exemption for valves which can or have been demonstrated to be leakless, and to combine paragraphs §115.357(4) and (6) to describe the types of leakless technologies which would be exempt.

The TNRCC believes that the existing language within the rule addressing leakless valves is sufficient. However, a definition for leakless valves has been added to §115.10 to alleviate any potential confusion.

DuPont BMT expressed a need for an exemption for extremely hazardous substances stating that they must be operated virtually leak-free anyway.

The TNRCC disagrees that this is a strong enough argument to allow an exemption from the monitoring requirements.

EPA requested an exemption or compliance extension be considered for sources which have an approved early reduction application.

The TNRCC believes that the Alternate Methods of Control procedures, already in place, are sufficient to address those few sources which would be affected.

DuPont BMT, TCC, and TMOGA request that the word "liquid" in §115.375(1) be changed to "fluid" to be consistent with the definition of leak.

The TNRCC agrees with this comment and has revised the language.

DuPont BMT, TMOGA, and TCC request that the compliance date be extended to November 15, 1996 because there is no restriction for achieving compliance sooner.

The TNRCC agrees and has revised the rules to allow for a November 15, 1996, compliance date.

EPA and Nason supported the proposed amendments to §§115.421, 115.422, 115.426, 115.427, and 115.429. NPCA, BASF Automotive, Nason, and DuPont DAP commented on §115.421(a)(8)(C)(vi) and suggested changing the limit for three-stage systems from 5.0 to 5.2 pounds of VOC per gallon of coating due to the difficulty in providing satisfactory color matches.

The TNRCC revised the limit for three-stage systems from 5.0 to 5.2 pounds of VOC per gallon of coating in §115.421(a)(8)(C)(vi) as recommended. In addition, the phrase "as defined in §115.10 of this title" was added after each of the automotive refinishing terms in §115.421(a)(8)(C).

GHASP stated that §115.422 should be extended to the Houston/Galveston ozone nonattainment area.

The TNRCC agrees and notes that the revisions to §115.422 extend the automobile refinishing control requirements to Brazoria, Chambers, Collin, Denton, El Paso, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties with a compliance deadline of July 31, 1994. This section is adopted without changes.

For consistency with the recordkeeping requirements of the applicable standard exemption (as referenced in §116.211, concerning Standard Exemption List) for automobile refinishing, the TNRCC has revised §115.426(a)(1)(B) to allow automotive refinishing operations affected by §115.421(a)(8)(B)-(C) to comply with the recordkeeping requirements specified in the applicable standard exemption as an alternative.

Sierra Club stated that §115.427 contains too many exemptions and commented that they do not support all of the exemptions because the exemptions allow too many emissions to be uncontrolled or inadequately controlled.

Sierra Club did not identify which specific exemptions they support and which they oppose. The TNRCC has evaluated the cost-effectiveness of substantive controls for small sources and believes that exemption of insignificant emission sources is appropriate. This section is adopted without changes.

No comments were received on §115.429. This section is adopted without changes.

Printing Industries Association of Texas (PIAT) and an individual stated that the offset lithography rules (§§115.442, 115.443, 115.445, 115.446, and 115.449) would impact mostly small companies which generate small amounts of VOCs. They requested an exemption level of ten tons per year.

The staff agrees that the rule would impact primarily small printers. The staff also agrees

that the small printers emit small amounts of VOCs. However, it is the cumulative effect of all of the small companies which warrant these controls. Initial calculations, based upon the industry profile submitted by PIAT, show that a ten tpy exemption could result in exempting the majority of emissions which constitute the base for the creditable reductions. The FCAA Amendments of 1990 required a 15% reduction in VOCs from the 1990 Base Year Emissions Inventory. For the most part, the 1990 Base Year Inventory reflects that a large number of industrial sources are already being controlled, the staff has had to look to those areas still uncontrolled to achieve the required reductions.

This evaluation has led the staff to develop controls on small industries and area sources. In order to receive a substantial and meaningful reduction in emissions from these sources, there cannot be an exemption level.

Two commenters raised issues regarding where these rules would be required. GHASP stated specifically that these rules need to be extended to the Houston area. The Sierra Club stated more generically that there were too many exemptions from the nonattainment counties.

The staff has adopted a two-phase approach to meeting the requirements of the 15% SIP. The current rule covers only El Paso. The Offset Lithography rule is a Phase II rule for the Dallas/Fort Worth, Houston/Galveston, and Beaumont/Port Arthur nonattainment areas and will be considered in the next round of rulemaking if it is determined to be necessary to meet the 15% mandate described above.

PIAT commented that the proposed VOC limits for fountain solutions are too low. They claimed it would be difficult for many printers to achieve within a short time because their equipment is old and may require replacing to work with different solutions.

After review, the staff is convinced that the proposed new limits for the fountain solution may require the replacement of some of the older equipment. The staff recognizes that this may take some time to budget for and incorporate. The staff also agrees that the EPA's VOC limit assertions for fountain solutions are questionable, and there is an indication EPA is looking at these limits on a much broader scale than initially. Therefore, the staff has incorporated the VOC limits suggested by PIAT and has extended the compliance date of the regulation to November 15, 1996. It is important to note that the CTG is a draft and will be finalized in the next year. When the CTG is finalized, the rule may need to be revised to meet the RACT as defined in the CTG.

PIAT requested that allowances be permitted for alcohol where printers are using nonalcohol substitutes, stating that quite frequently small quantities of alcohol must be used in conjunction with nonalcohol substitutes, and therefore a mandate of 0% alcohol is not achievable.

The staff has received no data to support this claim. Within the draft CTG, there is no indication for the allowance of alcohol in the

fountain solution when an alcohol substitute is used. It is necessary to remain as close as possible to the proposed CTG to minimize the impact of any future revisions. Further discussions with the printing industry and with permit engineers have brought to light the fact that some alcohol substitutes contain compounds with an OH group, thereby meeting the classic definition of an alcohol. Conversations with EPA have verified the staff's assertion that the alcohol of concern is isopropyl. The rule has been revised to clarify this.

PIAT asserts that cleaning solutions with 30% or less VOC is not RACT. They state that a 50%-70% range might be achievable, especially if coupled with towel-handling requirements. They claim this would achieve similar reductions to the 30% requirement.

The staff has researched this issue extensively and agrees with PIAT. Currently, the 30% VOC requirement can be met only if CFCs are used in the solution, and they are scheduled to be banned by EPA in the future. The staff has revised the rule to include two alternatives: use 50% VOC cleaning solutions or, use 70% VOC cleaning solution and incorporate the provisions for towel handling as identified in many permits.

GHASP requested a definition of substantially equivalent.

These terms have the meanings commonly ascribed to them in the field of air pollution control, and the agency does not believe that further definition is necessary. Additionally, this is standard language throughout Regulation V and needs to remain for consistency. Furthermore, the final determination of equivalency rests with the Executive Director.

PIAT asked when the test methods specified in the Test Requirements section were required and how often.

The test methods specified in §115.445 are only a list of approved test methods to demonstrate compliance with any aspect of the regulation whenever necessary. The staff agrees that the title may be misleading and has changed it to remove the confusion.

PIAT commented that Test Methods 25 and 25A are not valid for the printing industry.

The staff agrees that this is a problem. Specifically, the solvents used condense in the sample line of the test equipment and invalidate the test results. The latest EPA guidance the staff has received at this time is to require the sample lines be heated to the temperature of the dryer exhaust stream, typically close to 350 degrees Fahrenheit.

The staff has also deleted the words "as necessary" from §115.445(1), to remove the redundancy from the introductory paragraph. This was in response to a comment received on another rule and needs to be changed for consistency.

GHASP and Sierra Club commented that records should be kept five years.

The staff understands these concerns, however the five-year timeframe is for compliance determination in permitting issues. The central office file keeps records of violations forever. The two-year period is considered

sufficient for a field investigator to determine the daily compliance for routine spot inspections as well as annual/biannual investigations.

PIAT and an individual stated that continuous recording devices, which the proposal requires for monitoring of the temperature in the fountain solution, are unnecessary. Their assertion is based on the fact that the temperature is critical to the printing process to ensure quality. They recommended logging once-a-shift instead.

The staff agrees that continuous monitoring of temperature may not be necessary, however, demonstration of compliance is a concern and once-a-shift logging may be inadequate. The staff believes requiring an hourly record and keeping a temperature log would be sufficient and has revised the rule accordingly. However, it should be stated again that EPA is working on finalizing the CTG and if it requires a more stringent requirement than what the final version of this rule contains, the TNRCC will be required to modify the rule and impose the more stringent requirements.

An individual stated that rules are needed now to reduce emissions from marine and dock hydrocarbons, and further delay is totally unacceptable. Another individual agreed with many of the changes, but urged that more measures be included in the proposed amendments to §§115.541-115.547 and 115.549, regarding Degassing or Cleaning of Stationary and Transport Vessels. Sierra Club stated that most of the proposed revisions are commendable, but they would certainly support even more stringent regulations. Specifically, the degassing and cleaning rule was critical and it should be adopted more quickly because it has already been delayed for decades. Salemco supported the rule as written, and wished it was more stringent.

USCG stated that the marine VCS regulations, which were developed in 1990, did not address degassing and cleaning operations, and that additional studies to address technical and safety issues associated with these operations would be required prior to application of the VCS regulations to these operations. This could be accomplished through further studies with a private contractor or alternately, through a joint industry/government committee. Although USCG firmly believes that this subject required further study prior to moving forward, the USCG reviewed the proposed rule to ensure consistency with existing regulations, policy, and safe maritime practices.

The TNRCC worked with the USCG and affected industries to develop an effective rule. A joint industry/TNRCC committee was established to address the degassing/cleaning rule and every attempt was made to address technical and safety issues. The technology used for vapor recovery for loading operation can be transferred to degassing or cleaning and would only require USCG certification. Studies to address technical and safety issues would be more related to the USCG or worker protection agencies.

ILTA members could not locate facilities in the ports of Texas that would be able to meet

the stringent tank ship and barge VOC degassing and cleaning requirement. They stated that domestic and international commerce in petroleum and petrochemical products to and from the ports of Texas could come to a complete standstill if the rule were enacted. This rule should be tabled until industry and government conduct meetings to determine how this emissions reduction task can be accomplished and to develop a reasonable compliance schedule.

There are at least five facilities in the Beaumont and Houston areas which are capable of ship and barge degassing and cleaning, although some modifications to the facilities may be necessary.

Cost issues were considered in developing these rules. A discussion group with affected parties was formed to further refine the proposed rules and an additional group with international shippers was also formed to continue discussion on whether there was sufficient justification to regulate them.

CCA and Stolt stated that many terminals do not have the ability to accept vapors ashore, that oceangoing ships are not equipped for vapor return for tank cleaning, that even if vessels were properly fitted, virtually all chemical manufacturers' terminals do not allow tank cleaning while at berth, and that most ships have portable tank cleaning machines that cannot be made air-tight. Stolt commented that the rule would require control devices to be installed on vessels to control emissions, and because of the numerous chemical compounds that are handled on parcel chemical ships, many of the gases would have to be routed to a vapor recovery system would be incompatible, thus increasing the potential for an explosion at a terminal.

The purpose of this rule is to control a previously uncontrolled source of emissions. The control can be done either on-board the vessel or at the land-based facility. The obvious, as well as safest, placement of emission control devices would be on land.

Although there may be compatibility problems between cargos, these same compatibility problems would have to be resolved prior to vapor recovery during VOC cargo loading, which is now required in some cases.

INTERTANKO questioned whether the regulation would apply only to tank barges or to all forms of tanker transportation. CCA stated that these rules appear to target barges because they are cleaned at cleaning stations which could with investment take the vapors, where as, for oceangoing vessels, the infrastructure is not in place.

The rules were proposed to cover all forms of marine transportation, however, more recent information suggested that barges may be the largest emission source category in the marine area. The oceangoing, self-propelled marine vessels were exempted from the requirements at the June 28, 1993, TACB meeting until further data is gathered. A workgroup of affected industry, environmental associations, and staff have been meeting to resolve this issue.

An individual stated that, based on his experience and industry understanding, the emissions from the barge-cleaning facilities should

be controlled, and they can be controlled for a reasonable cost. The Marine Group stated that results of evaluation at one of their facilities resulted in an annual cost per ton of VOC removed of \$1,554/ton for a 70% heat-recovery thermal incinerator and \$2,540/ton for no heat recovery. TCC and TMOGA recommended that this rule be written to be as cost-effective as possible. They also stated until the stationary storage tank reaches a significant size (1 million gallons), the cost to control the VOC emissions exceeds \$10,000/ton.

The cost analysis data provided was used to develop cost-effective thresholds for emission control.

Dow stated that TNRCC should evaluate the need and benefit of regulations for degassing and cleaning operations of these facilities.

The TNRCC did a cost and benefit analysis prior to proposing the rule. This rule will substantially reduce emissions and also obtain credit for controlling previously uncontrolled sources of VOC emissions.

The Marine Group commented that it was premature to develop this rule prior to developing loading rules, and that both rules should be "linked", developed, and promulgated together. TCC and TMOGA recommended that this rule be deferred and developed during the regulatory development process for marine loading/unloading.

This rule will be "linked" to the marine loading rules scheduled to be proposed later this fall by having the same basic workgroup members who will be developing similar control strategies and compliance dates, however, the decision to proceed separately was made by the TACB because of industry's request to delay the marine loading rules.

The Marine Group suggested that this rule be subdivided into individual parts such as VOC storage tanks, VOC tank trucks, VOC rail cars, VOC marine barges, and VOC ships. TCC and TMOGA recommended that this rule be segregated into three distinct components: stationary tank degassing, transport vessel degassing, and marine vessel degassing.

The rule has been segregated into distinctive parts for the degassing and cleaning of stationary storage tanks, land-based transport vessels, and marine vessels.

Dow stated that the TNRCC should consider deleting the applicability of this regulation to storage tanks.

Stationary storage tank emissions, when properly reported in the Emissions Inventory, will account for a significant amount of uncontrolled emissions in the Houston and Beaumont nonattainment areas. Additionally, future VOC reductions most likely will be required for these nonattainment areas to demonstrate attainment.

Finna suggested that this rule be removed from the Rate-of-Progress SIP because it duplicates the efforts put forth in Subchapter C: VOC Transfer Operations-Loading and Unloading of VOC.

The TACB directed that this rule be part of the Phase I rules. Since this rule has been to hearing and testimony has already been received and evaluated, it does not make sense to delay its implementation.

INTERTANKO stated that the draft regulation was only published in the *Texas Register* and, therefore, there was little publicity and circulation to all interested parties worldwide. Similarly, Stolt was unaware of the proposed rules until the day before close of comment period and requested the rules be considered as part of the Committal SIP.

Several meetings were held with local governmental regional air quality planning committees before the rules went to public meetings in May. Public meetings were conducted in Houston on May 10, 1993, and in Beaumont on May 11, 1993, to obtain public input before proposing the rules. Newspaper articles were written in the Houston and Beaumont area newspapers and discussion groups were being conducted with industry representatives (TCC, TMOGA, Southwestern Barge Co.) The staff published the proposed rule on July 9, 1993, in accordance with all required State and federal requirements, and conducted public hearings in Houston on August 4, 1993, and in Beaumont on August 5, 1993.

INTERTANKO questioned whether this rule would go beyond EPA and other state legislative requirements as related to degassing and cleaning operations. Ingram suggested a better approach was for the TNRCC to achieve its goals through the federal process. TWA stated that both EPA and the USCG have jurisdiction over the degassing and cleaning of marine vessels either from the facility or tank barge side; therefore, before the facilities can comply with any rules promulgated by the TNRCC, these Federal agencies must approve the type of system installed. Babel recommended delaying the implementation of the requirements to collect vapors from degassing and cleaning operations of marine vessels until the USCG and industry (through the Chemical Transportation Advisory Committee) have a chance to consider and develop adequate safety requirements. Fina suggested that this rule is premature because vapor recovery systems installed at marine loading facilities must be approved by the USCG.

EPA is late in producing guidance documents and the USCG has not considered rulemaking in this area. In order to take credit toward and meet the 15% ROP SIP, Texas does not have the luxury of waiting for EPA or USCG to develop guidance to control these emissions and must develop its own rules now.

CCA stated that there is no study suggesting a feasible technology to accommodate the proposed requirements. CCA was also concerned that there exists a lack of concurrent regulations (USCG, IMO, or other state) that can be applied or compared to the proposed rule. Additionally, CCA stated that the proposed regulation was contrary to current regulations which only control specific lists of VOC on loading, and the proposed regulation provided criteria for all locations. Stolt stated that these rules are inconsistent with safety

regulations promulgated by the USCG, as well as Classification Societies and many terminals themselves.

Numerous studies have addressed vapor recovery systems for marine vessels. The technology exists; however, no one has applied loading vapor control technology to controlling emissions during the degassing operations prior to cleaning. As addressed earlier, Texas must act independently in order to receive credit for significant reductions from this totally uncontrolled source of emissions. Nothing in the proposed rules contravenes safety requirements, and instead, may help establish more stringent requirements in a relatively uncontrolled area.

Sierra Club supported the 1,000 gallon limit, but would support a lower limit of 500 gallons in §115.541, concerning Emissions Specifications. GHASP recommended tanks down to 500 gallons be covered by the rule to maximize emissions reductions. Phillips stated the minimum size of above ground storage tanks should be set at 25,000 gallons. HMT suggested that the 1,000 gallon nominal storage capacity threshold may be overly restrictive since California's BAAQMD revised their Tank Cleaning Requirement, effective June 1, 1993, requiring tanks with a volume in excess of 39,626 gallons to have emissions controls for degassing if RVP is 0.5 psia or greater. TCC, TMOGA, Exxon, Amoco, and DuPont BMT recommended that the proposed rule minimum stationary storage tank size be set at one million gallons, based upon cost estimations submitted with the testimony.

Based on economic data submitted by TCC and TMOGA, the threshold for stationary storage tanks was increased to one million gallons. Although this may seem to be an extremely large tank, only the vapors under the floating roof are regulated.

TCC, TMOGA, and Phillips recommended that the minimum transport vessel size be 8,000 gallons, based upon cost estimations submitted with the testimony. DuPont BMT stated that the minimum size for transport vessels should be 10,000 gallons which would be consistent with NSPS Subpart Kb.

With the modification to the definition of transport vessel, which would include only land-based vessels, a nominal size of 8,000 gallons would include most tank-trucks and all rail cars. Cost justification provided by TCC and TMOGA also indicate that a level of 8,000 gallons is reasonable.

Star recommended that nominal storage capacity of underground storage tanks (UST) be raised to 15,000 gallons, which would be compatible with UST regulations.

Based upon the information provided by TCC and TMOGA concerning above ground storage tanks, a separate category for underground storage tanks was deleted and one requirement was applied to both above and underground stationary storage tanks.

Exxon, Amoco, and Dow stated that the maximum allowable vapor pressure should be changed from 0.5 psia to 1.5 psia for consistency with the storage tank regulations contained in Subchapter B. Salemco supports the 0.5 psia vapor pressure limit as fair and reasonable.

There is a difference in control requirements between the two subchapters, but this discrepancy will be corrected by changing the requirements in Subchapter B to 0.5 psia in the next rulemaking which is scheduled for later this fall. These rules will be compatible well before the November 15, 1996, compliance date of this rule.

TCC, TMOGA, and Dow recommended that "true vapor pressure" be corrected to "partial pressure" which more accurately reflects the objective of the rule, which is to control the "partial" pressure of the contained gases. USCG stated that true vapor pressure cannot be used as a criteria for when a marine vessel should be disconnected from the VCS, but partial pressure of the cargo vapor is appropriate. EPA stated applicability determinations could be greatly simplified by making control required where the last material stored had a vapor pressure greater than 0.5 psia at an appropriate temperature.

The intent of this rule was to control the gases within the vapor space above a certain level (0.5 psia). The correct method of determining the pressure of a vapor is by calculating the partial pressure of the VOC within the confined space. Since this rule affects large vessels which normally have a small amount of residual VOC liquid remaining, a change has been added to clarify that the partial pressure is the determining factor for control requirements.

TCC and TMOGA recommended that the reference to 0.09 pounds of VOC per 1,000 gallons of VOC transferred be deleted since it applies to gasoline terminal operations. Additionally, Dow and the Marine Group stated that the meaning of "a level not to exceed 0.09 pounds of VOC from recovery system vent per 1,000 gallons (10.8 mg/liter) of VOC transferred" is not clear.

This reference does pertain to gasoline terminals and it was deleted from the final text.

An individual stated that controls must reduce hydrocarbons by at least 98%. HMT believed that adoption of a 98% destruction efficiency was consistent with EPA CTG on Above Ground Storage Tanks (AST), and that it can be readily accomplished without imposing a burden on tank owners, or on the providers of degassing services. Another individual, who used to work in the industry, developed a vapor control technique to control emissions from barge cleaning. Salemco stated the efficiency level of the vapor control system should remain at 95%. Star recommended that the control efficiency be lowered and/or the allowable emissions be raised to allow effective implementation of the control requirement to the entire universe of tanks proposed for regulation. TCC, TMOGA, Phillips, Marine Group, and DuPont BMT recommended that the vapor control system minimum control efficiency be established at 90% instead of 95% because the same vapor recovery systems used during loading and unloading of VOC transport vessels will normally be used in controlling emissions during cleaning or degassing operations.

The 95% control efficiency was originally proposed because this level is considered reasonable for a new rule. The 90% control

efficiency was proposed many years ago because it was considered reasonable at that time. Since nitrogen oxide (NO_x) controls may be important in the future, the lower control efficiency of 90% was adopted since it would not necessitate future revision should a limited combustion posture be required because of NO_x considerations.

HMT stated that §115.541(3) does not specifically state if any leak testing would be performed under vacuum conditions.

This section was changed to require only sensory leak detection methods of sight or sound under vacuum conditions.

Dow stated §115.541(3) should include the words "avoidable leaks" which would make both paragraphs consistent.

Changes were made to consistently reflect "avoidable leaks" throughout this rule.

The Marine Group stated that the requirement for smell, as part of the leak definition, should be deleted because the low odor threshold of chemicals does not necessarily represent a hazard or leak. TCC and TMOGA recommended that the use of smell to define an affected leak source is appropriate only to sealed systems. Because of the extremely low odor threshold of many chemical and petroleum substances, odors in the area of cleaning and degassing operations are normally present, requiring continuous emission monitoring.

Odor may not be a good indicator of a leak and may be too subjective when dealing with degassing and cleaning operations. References to odor have been deleted from the leak detection requirements.

The Marine Group stated that the monitoring requirement for VOC leaks during marine barge degassing and cleaning operation is not necessary because the lines and barges will be at a negative pressure. TCC, TMOGA, and DuPont BMT recommended that the subsections dealing with "leaks" be deleted because fugitive monitoring is for sealed systems in petrochemical process units. Since storage tanks are not sealed systems, a different type of monitoring is necessary because any trace of liquid VOC will almost certainly result in the failure of the leak check requirement. They suggested that maintaining a negative pressure in the tank, which can be monitored, and insuring that the connection from the storage tank to the control device is vapor-tight, will insure that the control device is not bypassed.

A different type of monitoring was selected because "leaks" apply to sealed systems. The facility must monitor and ensure that there are no avoidable system malfunctions and that all connections are secure.

USCG stated that marine vessels must have operational pressure/vacuum (P/V) relief valves which allow the cargo tank to "breathe" preventing overpressurization of the cargo tank and structural deformation to the vessel. The Marine Group stated that maintaining vapor tightness of marine barges at all times would mean that no cleaning could take place, since there would be no means to enter the cargo hold to remove the liquid

TCC and TMOGA recommended that the proposed rule be clarified so that degassing does not include the normal operation of stationary tanks' "breathing" which occurs around seals and roof vents when tanks' levels are cycled.

The proposed rule was addressing vapor-tightness for transport vessels only. No reference was made to stationary storage tanks realizing that "breathing" losses were normal. However, a change was made to define transport vessels as land-based only (truck and rail); therefore stationary storage tank and marine vessel "breathing" should not be affected.

TCC and TMOGA recommended that all references to "refilling" should be deleted since this rule applies to emissions generated during vessel degassing or in the preparation and cleaning of vessels.

All references to "refilling" were deleted.

HMT requested clarification on what constitutes the vapor space turnover for an AST in §115.542 concerning Control Requirements. Is it the entire volume of the AST or just the volume beneath the internal floating roof?

A vapor space turnover would be whenever one volume of vapor under the floating roof has been exchanged. This was clarified in the final rule.

The Marine Group recommended that the vapors shall be routed to the control device until the barge is stripped liquid-free and a turnover of at least four vapor space volumes has occurred.

This change was incorporated into the final rule.

Bauguss stated that the vapors should be routed to control devices until the barge is stripped free of liquid and until gas concentrations of 30% of the lower explosion limit (LEL) are reached. The Marine Group proposed that the option of stopping the turnover process once the true vapor pressure is less than 0.5 psia, or if the concentration is below 20% of the LEL for compounds stored within the tanks. TCC, TMOGA, and DuPont BMT stated that the rule should allow for a conversion of a 0.5 psia partial pressure into a vapor space concentration of 19,000 ppmv, or 34,000 ppmv, expressed as methane.

Other methods reflecting 0.5 psia partial pressure have been included in the final rule. These equivalent measurements are 20% of the LEL, and a vapor space concentration of 19,000 parts per million by weight (ppmw), expressed as methane or 34,000 ppmv.

TCC, TMOGA, and DuPont BMT stated that the rule should allow controls to be discontinued once the partial pressure of VOC in the vapor space is less than 0.5 psia, as long as, at least four vapor volumes have been degassed.

This change was incorporated into the final rule.

TCC and TMOGA stated that the rule implies that the other requirements of the regulation (e.g., fugitive emissions monitoring) are not required once the vapor space VOC partial pressure is below 0.5 psia.

The exemption section states that whenever the partial pressure is below 0.5 psia, that vessel is exempt from the requirements of this undesignated head. Other requirements from other undesignated heads may still apply at the facility.

Phillips was concerned that the "no leak" requirements were too restrictive and inflexible. The Marine Group suggested that a negative pressure within the barge should be equivalent to vapor-tight.

The leak requirements were amended so that both concerns were reflected in the final rule.

The Marine Group suggested that the requirement to have automatic closing lines be deleted. TCC and TMOGA stated that the use of fittings which automatically close when disconnected, should not be mandated because this type of fitting is very expensive, unreliable in dirty service, and only available in limited sizes.

The requirement for automatic closing lines was changed to requiring the lines to be "closed" when disconnected.

TCC and TMOGA stated that since a small amount of incidental leakage can be expected when the cleaning device is removed from a transport vessel, the rule should be changed to "minimize" liquid drainage from the degassing or cleaning device.

The rule was changed to reflect this recommendation.

Fina suggested that the term "refilled" be deleted and the Marine Group proposed that the reference to "loading lines" be deleted.

Changes were made to consistently reflect the deletion of "refilled" and "loading lines" throughout the rule.

TCC, TMOGA, and DuPont BMT recommended clarification that this subsection does not apply to process vessel degassing.

Rule language was changed to reflect that this rule shall apply to degassing during, or in preparation of, the cleaning of all stationary storage tanks, transport vessels, and marine vessels.

TCC and TMOGA pointed out that parts of the text appear to be an accidental carry-over from the loading/unloading rule language.

All references to loading/unloading rule language were deleted.

GHASP stated that "substantially equivalent" is not defined, alternate controls should be equivalent, period.

These terms have the meanings commonly ascribed to them in the field of air pollution control, and the TNRC does not believe that further definition is necessary.

The Marine Group requested that the term "significant odors" in §115.544, concerning Inspection Requirements, be deleted, since the mere presence of an odor is not indicative of a leak or problem.

Odor may not be an appropriate means of leak detection for cleaning operations; however, "significant odors" may be an indicator of a malfunction. This term was left in the

Inspection Requirements to highlight the fact that significant odors are not a normal condition and may be a violation of the §101.4, concerning Nuisance Requirements.

TCC and TMOGA stated that immediately discontinuing the degassing or cleaning operation because of a leak was an inappropriate requirement. In some cases, this action may create a safety hazard (for example, when the vapor space is in the flammable range) or in many cases this may actually increase total emissions

For low-pressure and low-VOC concentrations similar to those normally present in degassing or cleaning operations, more emissions may result by shutting down the operation to correct the leak than by maintaining a negative pressure and continuing operations. The rule has been revised accordingly.

Bauguss stated that the LEL as determined by a combustible gas indicator should be allowed in lieu of the 0.5 psia partial pressure test method in §115.545, concerning Testing Requirements. USCG stated that since the percentage of LEL is a physical property that can be easily measured by personnel at a degassing/cleaning facility, this may be a feasible criteria for determining when the vessel may be disconnected from the VCS. The Marine Group recommended that a new authorized test method of determination of the percent of LEL be added.

LEL was added as a method to determine compliance.

HMT requested Procedure 4.3.3, Soap Bubble Test, be acceptable in lieu of Method 21 for determining leaks in flex-hose.

This method was not considered appropriate and was not included as an approved test method.

Salemco stressed that the cleaning industry can live with a requirement of 10-100 ppm around the cleaning systems, manholes, piping, hoses, etc. Salemco suggested that a Flame Ionization Detector be the detection device used to determine compliance with the 0.5 psia limit. Marathon stated that the determination of 0.5 psia is time consuming, not practical for field implementation, and a fugitive monitoring-type determination should be made an option. TCC, TMOGA, and DuPont BMT stated that the use of portable combustible gas detectors for leak detection is not appropriate for the mobile field equipment used to desludge and clean stationary storage tanks.

Portable combustible gas detectors were not considered necessary and will not be included as an approved test method.

USCG stated that Test Method 21 was not practical for marine vessels, and suggested that the cargo tank pressurization method described in 40 CFR, §61.304(f) be used instead.

This change was made to the approved test methods.

The Marine Group recommended that the "as necessary" at the end of §115.545(1) be deleted or added to the remainder of the test methods.

"As necessary" was deleted to maintain consistency with language used throughout other portions of this regulation.

The Marine Group recommended that §115.545(5) be deleted, as it only applies to bulk terminals.

This rule may impact gasoline terminals and may be required for their use; therefore, it will remain in the list of approved test methods.

The Marine Group recommended that §115.545(6) be deleted, since they proposed the elimination of VOC leak detection.

This rule may impact other facilities and may be required for their use; therefore, it will remain in the list of approved test methods.

TCC and TMOGA recommended that the use of facility records or process knowledge be allowed as an acceptable means of demonstrating compliance with the rule, thereby avoid conducting unnecessary and expensive laboratory tests when published information or facility records clearly establish compliance with the rule.

Unless a method exists which is published, precise, and reproducible, it is not considered an approved test method. If companies believe that facility records or process knowledge can substitute for a test method, they may apply to the Executive Director for using this as an alternate method.

TCE commented that at least five years of records are necessary to properly inspect for a facility for compliance in §115.546, concerning Monitoring and Recordkeeping Requirements. The five-year timeframe was supported by GHASP and the Sierra Club. An individual citizen stated that all records must be kept six years in order to reflect a five-year compliance timeframe.

The five-year timeframe is used for compliance determination used in permitting issues. The central office file keeps records on facilities forever. The two-year period is considered sufficient for a field investigator to determine the facility's daily compliance with applicable rules for routine spot inspections and to conduct annual/biannual investigations.

The Marine Group recommends that the requirement for maintaining daily records be changed to monthly records.

Records must be kept on individual activities performed at the time (daily) they are being performed and no change to the proposed language is necessary.

TCC, TMOGA, and DuPont BMT stated that the recordkeeping requirements are extensive, yet they are irrelevant to achieving emission reductions, and add nothing to the enforceability of the rule's specific requirements.

Recordkeeping requirements must be extensive in order to determine what transpired at a facility when an investigator needs to make a compliance determination after the fact. Although recordkeeping does not directly achieve emissions reduction, it is the only means of demonstrating the actual operating conditions which can then be used to calculate the emissions.

Exxon Chem stated that fugitive emissions leak detection requirements of this section are outlined in Subchapter D.

All approved test methods which may be necessary for a facility to demonstrate compliance with the rules are provided in each undesignated head. Test methods are not required provided compliance can be demonstrated by other authorized means.

Star recommended that "to determine breakthrough" be deleted to conform with §115.216(a)(2)(C).

This phrase was deleted in the final rule.

EPA stated recordkeeping requirements should be expanded to include leak inspections and repairs required under §115.544.

An additional paragraph was added to reflect these new requirements.

TCC and TMOGA suggested that monitoring requirements for carbon adsorption systems specified under the Benzene-Waste NESHAP rule (40 CFR, §61.354(d)) be authorized which will minimize the potential for two different monitoring requirements to affect the same activity.

This change was made since the intent of the rule is to insure an EPA approved method is used and to minimize the number of requirements, where possible.

The Marine Group suggested that the amount of liquid VOC contained in each barge be recorded rather than the total VOC contained in each barge.

The intent was to keep records on the amount of liquid VOC contained, since this fluid will determine the maximum partial pressure to be exerted within the vessel. The rule has been revised accordingly.

TWOA stated that the exemption of ships and barges from vapor control requirements in §§115.211, 115.212, 115.214, 115.216, 115.217, and 115.219 is inconsistent with the proposed §§115.541, 115.542, 115.544-115.547, and 115.549, which require degassing and cleaning to be conducted in a vapor-tight environment with vapor recovery capability.

The exemption of ships and barges from the requirements of §§115.211, 115.212, 115.214, 115.216, 115.217, and 115.219 was made by the TACB when the marine loading rules were moved from the core rules. The §§115.211, 115.214, 115.216, 115.217, and 115.219 exemption for marine loading/unloading will be proposed for deletion later this fall, thus eliminating any inconsistencies.

Chevron, Fina, and Amoco Chem recommended that vacuum trucks be exempted from the proposed definition of transport vessel.

Salemco stated that vacuum trucks are competitors of high-tech cleaning systems and should be bound by the same rules. Fina suggested that the exemptions be expanded to include those delivery vessels (especially tank-trucks) which may be handling low throughputs at infrequent intervals.

The TNRC agrees that vacuum trucks should be excluded from the definition of

transport vessel and has revised the definition accordingly.

HMT questioned whether the exemption for degassing of vessels less than 0.5 psia applies to ASTs. EPA suggested that vessel exemption determinations can be simplified by using the vapor pressure of the last stored material, if less than 0.5 psia. TCC and TMOGA recommended adding another exemption which would exempt storage tanks which contained or maintained liquid phase VOC with a true vapor pressure less than or equivalent to 1.5 psia consistent with the provisions of Subchapter B.

This rule was established to control a vapor space partial pressure of 0.5 psia or greater. Since these operations normally have only a small amount of liquid involved, and normally large vapor space volume, the rule remains unchanged. Inconsistencies with Subchapter B are scheduled to be corrected this fall when the Phase II rules are proposed.

Fina suggested that the exemption for maintenance/repairs to be completed within seven days is unreasonable and costly. Due to the infrequent shutdown of tanks, all necessary maintenance, seal replacements, and cleaning activities will be performed while the tank is down, even if these items were not the primary cause of its removal from service. Star recommended that storage tanks emptied and degassed at a frequency equal to or greater than five years be exempted from regulation under this section. Star stated it is extremely unlikely that excessive emissions would result from degassing these tanks once every ten years, or even once every five years. DuPont BMT proposed that the exemption allow a wider range of tank maintenance activities to occur and also extend the time limit on completion to 30 days. TCC and TMOGA recommended the exemption be expanded to include a wider range of tank maintenance activities since these activities would result in minimal emissions if they are conducted without opening the tank for cleaning or entry.

The purpose of this exemption is only to allow limited maintenance or repair without degassing. Extended maintenance or infrequent cleaning of the tank is not germane to reducing the amount of uncontrolled emissions.

Star recommended that all vessels with a nominal storage capacity equal to or less than 15,000 gallon be exempt. TCC, TMOGA, and DuPont BMT recommended the exemption level reflect 8,000 gallons for transport vessels and one million gallons for stationary storage tanks.

The exemption level of 8,000 gallons for transport vessels and one million gallons was based on cost estimation data which reflect a reasonable cost.

The Marine Group proposed a new exemption which allows the degassing of damaged barges, where on-board vapor recovery systems are not operable, or where vapor recovery on a non-vapor recovery barge is not feasible.

An exemption for those marine vessels which are damaged and cannot be degassed and cleaned using normal procedure was logical, provided all means available are utilized to

minimize uncontrolled VOC emissions, and has been added to the rule.

TCC, TMOGA, Sterling, Amoco Chem, Exxon, Exxon Chem, Chevron, Fina, Phillips, and the Marine Group recommended that the compliance date be extended until November 15, 1996, to conform with the latest statutory compliance for the ROP SIP requirements under §115.549, concerning Counties and Compliance Schedules. This will allow as much time as possible for industry to comply because of the planning, acquisition, construction, and shakedown times required. Southtec stated that the proper design, construction, and permitting of cleaning and degassing facilities requires a minimum of two years. Bauguss stated the compliance date should be delayed to December 31, 1996, to allow for the time required to plan and implement facility changes required. TMOGA stated that these rules should be delayed until the USCG has the opportunity to review the proposed rules, and EPA issues its anticipated VOC Rules for Marine Vessel Loading Operations. Ingram believes that the implementation should be tied to the federal regulations for vapor recovery during transfers which is December 31, 1996. TCE stated that under no circumstances should the TNRCC delay development or implementation of rules for any major source of pollutants.

The compliance date was extended to November 15, 1996. Industry will then be afforded sufficient time to plan and implement facility changes required by this rule and also to couple this requirement with the future marine loading rule, to standardize control equipment, and to minimize cost. The compliance date can not be extended past November 15, 1996, and still take credit toward the 15% ROP reductions, therefore, waiting for EPA or the USCG to develop rules or extend compliance to December 1996, is not possible.

CCA and Ingram were concerned about safety and training aspects this rule would require.

The staff is very concerned with the safety issue, however, we see no need to direct what sort of training is required by vessel owners and facility operators to implement this rule. This issue rests with individual companies to develop and implement training applicable to their own activities.

HMT stated that there are no specific guidelines or requirements for permitting and approval of degassing equipment.

The staff has been working with the Air Permits Division to streamline the requirements for degassing/cleaning equipment. Every effort will be made to insure that a standard exemption or standard permit will be applicable for the required control systems/equipment.

Ingram commented that the emissions inventory data used to develop this rule was overstated and should be reviewed prior to implementation of the rule. The Marine Group stated that an Emissions Inventory error reduced the significance of the barge cleaning source category dramatically, such that this

rule should be postponed to the "Committal Rules"

The Emissions Inventory staff worked with the affected facilities in order to obtain an accurate inventory. Several marine cleaning facilities have not been included in the 1990 Base Year Inventory because they were not considered major sources. A complete reassessment of the calculation methodology was made. The estimated emissions from this source category remain a significant uncontrolled emissions category which is appropriate for regulation.

Stolt stated that it is unlikely that terminals would install vapor control devices for the use of vessels at the terminal because of potential legal liabilities associated with accepting degassing/cleaning vapors from a transport vessel and the increased potential for explosions. Stolt stated that many transport vessels will simply choose to degas and clean their vessels in deep water rather than install the proposed controls.

The staff is concerned with the safety aspects of uncontrolled venting of hydrocarbon emissions in the vicinity of population centers, residential areas, schools, and health care facilities. If a shore-based facility will not accept the VOC emissions, then the vessel will have to maintain "vapor-tight" tanks until a suitable location can be found.

The EPA commented that the TNRCC should show the specific assumptions regarding the reduction credit claimed under this proposal.

Assumptions regarding the reduction credit have been added to the SIP document.

EPA commented that the utility engines proposal does not allow two years from time of adoption until the effective date of the new emission standards. The two years of lead time is required under §209(e)(B)(ii) of the FCAA.

The TNRCC has changed the effective date of the rule to January 1, 1996, to comply with FCAA requirements.

EPA commented that the TNRCC should specify the reductions anticipated per engine and the expected rate of turnover in the engine inventory.

The TNRCC used material prepared by the CARB to estimate emission reductions from the utility engine rule. The anticipated reductions per engine are 20 to 24 pounds of VOC over the life of the engine. The California material estimated an inventory turnover of 20% per year. This information has been added to the SIP document.

The Sierra Club stated that the rule contains too many exemptions and some should be eliminated.

The one exemption in the rule allows fire, police, and similar organizations to purchase non-certified equipment when certified equipment is not available and the sole use of the equipment is for response to emergencies. The TNRCC believes this is an appropriate exemption and has not changed the rule.

The TCC/TMOGA, et al., stated concern about the effect of §115.910 on the ERP established by the FCAA §112(i)(5). Several

member companies acting in compliance with the law and EPA's implementing regulations, are in the advanced stages of implementing early reductions programs, with expected completions by January 1994. These companies are now concerned that adoption of these rules could interfere with the mutual benefits sought to be achieved by their creative and voluntary efforts to achieve early reductions. The TCC/TMOGA, et al, therefore, urged TNRCC to adopt a new §115.910(c) to allow sources or activities otherwise subject to the new requirements of Chapter 115 to comply instead with the requirements set out by permit in accordance with its early reduction petition.

DuPont-Beaumont believed that additional language was needed to allow for approval of innovative control strategies by the Deputy Executive Director of the TNRCC without a SIP revision. Clean Texas 2000, Pollution Prevention Programs, and voluntary release reduction goals have or will achieve a significant amount of VOC reductions. None of these programs have been accounted for in meeting the requirements of the 15% ROP SIP. In addition, facilities participating in the ERP will be penalized by this proposed regulation, therefore, added flexibility is needed to allow industry to find innovative and cost-effective control strategies to meet the 15% ROP SIP.

The SETRPC and Star Enterprise Port Arthur stated that Beaumont/Port Arthur needs an alternate means of control to be able to use other voluntary reductions under NO, RACT rules, Benzene NESHAPS rules, the EPA 33/50 project, the TNRCC Clean Industries 2000 project, and the Maximum Available Control Technology (MACT) Voluntary reduction rules.

TCE stated that alternate controls for reducing air pollutants must be equal to the control method for which they are substituting, otherwise this rule is another loophole allowing higher levels of emissions.

The EPA commented that several companies in Texas ozone nonattainment areas have applied for early reductions under §112 of the FCAA (HAP ERP) wherein they receive a six-year extension of the MACT requirements, provided their controls will control their HAPs to at least the 90% level. The EPA recommended that we consider giving exemptions or compliance extensions in §115.930 from the ROP RACT for sources that have approved early reduction applications. They do not believe that the ROP RACT reductions would be significantly greater than the 90% reductions required for the early reductions program, and this may also give a greater incentive to industry to make early HAP emissions reductions.

The TNRCC agrees that there should be some consideration, either through exemptions or compliance extensions, given to companies that make early reductions under §112 of the FCAA in lieu of requiring them to impose 90% early reduction control and greater than 90% VOC RACT control simultaneously. The TNRCC also agrees that other innovative voluntary reduction programs should be reviewed for similar consideration. However, neither an exemption nor a compliance exten-

sion was originally proposed with this rulemaking package. Therefore, to allow for adequate public review and comment, these suggestions should be resolved in a forum separate from this rulemaking.

The TCC/TMOGA, et al., stated that the AMOC SIP revision process has substantial "transactional" costs associated with it which are borne by private and public resources. These costs will render the AMOC option meaningless in practice to those who will need to use cost-effective approaches to achieve the ROP SIP rule mandates. The TCC/TMOGA, et al., further stated that EPA is like the rest of the universe in that it has limited resources. Those resources are going to be seriously taxed when it has to approve an estimated 3,000 Title V permits over the next several years. The EPA has the option to decide whether it wants to spend those resources reviewing permits, reviewing basic SIP submittals, or auditing every state AMOC decision. Dual agency review of AMOC decisions prior to their effectiveness is a waste of whoever's resources are being spent, and effectively destroys the value that the AMOC process provides to this overall rulemaking effort.

The TNRCC agrees that there are substantial "transactional" costs associated with the AMOC SIP revision process, much of which is borne by the public agencies such as TNRCC and EPA. Allowing the Executive Director to approve AMOC requests will significantly reduce the transactional costs and approval time requirements associated with the AMOC approval process. The TNRCC is seeking grant funds to develop replicable procedures for AMOC approvals as soon as possible. Replicable procedures will further reduce the transactional costs and approval time requirements.

The TCC/TMOGA, et al., stated that Nueces, Gregg, and Victoria counties should be added to §115.910(b) because they are not ozone nonattainment counties. This would allow the TNRCC more flexibility and not mandate any particular result in any particular case. It would also prevent excessively costly and environmentally unnecessary application of extremely stringent Chapter 115 requirements.

The TNRCC removed Hardin and Montgomery counties from §115.910(b) simply because they are ozone nonattainment counties and the exemption was no longer valid. The TNRCC can not add Gregg, Nueces, and Victoria counties to the list at this time because their addition has not received public review and comment. On the other hand, not adding these counties merely maintains the status quo, because no additional rules have been adopted in those counties under which they could claim the exemption.

The TCC/TMOGA, et al., stated their opinion that EPA is concerned about the possibility of abuse by the TNRCC on the question of "substantial equivalency" regarding AMOC. TCC/TMOGA, et al., believes that there is no reason that the TNRCC would abuse AMOC determinations, because the state must ultimately ensure attainment of the National Ambient Air Quality Standards (NAAQS), or risk substantial sanctions from EPA. The

TCC/TMOGA, et al., further stated that EPA has the ability to correct abuses without reviewing each AMOC decision as a SIP revision. If EPA believes that the discretionary authority vested in the TNRCC under §115.910(a) is undermining NAAQS, then it may seek a revision of the SIP under the FCAA §110(a)(2)(H).

The TCC/TMOGA, et al., stated that EPA has recently indicated a willingness to bow out of the "AMOC as SIP revision" business, if TNRCC were to adopt, as yet undefined, "replicable criteria" for approving an AMOC. The TCC/TMOGA, et al., feels this is inconsistent with what it believes is EPA's position that the FCAA flatly prohibits AMOC unless processed as a SIP revision.

The TCC/TMOGA, et al., stated that while they appreciate the TNRCC and EPA interest in developing replicable procedures for AMOC determinations, they do not believe it is necessary nor do we have the time to develop such procedures. The procedures development process would not likely be completed by November, 1996, and most certainly could not be completed in time to present itself as an option for companies as they begin their plans to meet the November 1996 compliance date. Given that site-specific literal application of some of the new requirements will impose control costs, in dollars per ton, far in excess of levels even imagined just a year or two ago, many companies will have to rely on the AMOC option. That option is effectively foreclosed by the current need for a second (EPA) layer of review.

The TNRCC agrees with the TCC/TMOGA, et al., position that while there is the possibility of abuse on the question of substantial equivalency, the TNRCC would have no reason to abuse the AMOC process. The state is charged with ensuring that the NAAQS are attained, and any abuse on the part of TNRCC would likely result in sanctions from EPA. To minimize the potential for abuse, the TNRCC is seeking grant funds to develop replicable procedures for AMOC approvals as soon as possible.

The TCC/TMOGA, et al., stated that §115.910(a) should eliminate the need for EPA approval of requests for alternate means of control (AMOC) as an unnecessary procedural burden for both EPA and industry. They cited a recent AMOC effort which led to a delay in excess of one year and involved emissions of only one ton per year. Exxon supported §115.910 as a means to streamline the process of AMOC approval while achieving equivalent emissions reductions.

The TCC/TMOGA, et al., presented their case regarding *U.S. v. General Motors Corporation (GM)* (702 F Supp 133 (N.D. Tex. 1988)) in 1985 in which, under an AMOC provision virtually identical to §115.910(a), GM obtained TACB approval of an AMOC. EPA went to District Court with a complaint that the AMOC was not effective because it had not been approved as a SIP revision. The courts decided that when a provision which allows case-by-case AMOC is built into the SIP, it is not a SIP revision each time an AMOC is approved. In the court's words, "An AMOC issued under the VOC portion of the Texas SIP is an implementation of the SIP,

not a modification." The TCC/TMOGA, et al., stated that the question the Executive Director must answer is simple: "Will VOC emissions with the AMOC be less than or equal to emissions resulting from complying with the otherwise applicable rules?"

The TCC/TMOGA, et al., stated that the most important facts of the GM issue are that the underlying AMOC provision (a previous §115.401(a)) did not require any EPA involvement in AMOC decisions by the TNRCC, and that EPA had approved this provision as part of the SIP. Since GM had obtained an AMOC and was complying with it, EPA could find no literal SIP violation, instead, it argued that the AMOC was not effective because it had not been approved as a SIP revision. For this reason, TCC/TMOGA, et al., stated that the GM case is important for its conclusion that nothing in the FCAA compels EPA to treat AMOCs as SIP revisions

The TCC/TMOGA, et al., therefore, requested the TNRCC to stand up to the EPA disapproval threat and, if necessary, make EPA again try to defend its position.

GHASP stated that the EPA role in approving an AMOC equivalency should be kept in the rule. In addition, GHASP and the Sierra Club believe the TNRCC must mandate any request for alternate controls to have public notice and provide opportunity for public meetings and/or hearings

EPA emphatically stated that they will not approve this change to §115.910(a) of the SIP. The EPA believes that their approval is necessary when a facility requests to use an alternate method of control that is not specifically allowed in the SIP. The EPA approval is not necessary only if there is a replicable procedure for approval of AMOCs contained in the rule.

The TNRCC agrees that eliminating the EPA approval of AMOC would eliminate a significant delay in the processing and approval of AMOC. A large portion of the delay is due to the public notification and hearing process. The TNRCC believes, on the other hand, that the public notification and hearing procedures are important aspects of the SIP process, including RACTs or AMOCs, which must be carefully considered

The TNRCC essentially agrees with the arguments presented by the TCC/TMOGA, et al., and will leave the rule language as proposed in §115.910(c). In order to demonstrate an acceptable method for analyzing and approving AMOC requests, the TNRCC is seeking grant funds to develop replicable procedures for AMOC approvals as soon as possible

The EPA stated that several companies in Texas ozone nonattainment areas have applied for early reductions under §112 wherein they receive a six-year extension of the MACT requirements provided their controls will control their HAPs to at least the 90% level. The EPA recommended that we consider giving exemptions in §115.910 or compliance extensions in §115.930 from the ROP RACT for sources that have approved early reduction applications. They do not believe that the ROP RACT reductions would be significantly greater than the 90% reductions re-

quired for the early reductions program, and this may also give a greater incentive to industry to make early HAP emissions reductions.

The TNRCC agrees that allowances, either exemptions or compliance extensions, should be considered for companies making early reductions under §112 of the FCAA in lieu of unfairly requiring them to impose measures with 90% early reduction control efficiency and greater than 90% RACT control efficiency simultaneously. However, neither an exemption nor a compliance extension was originally proposed with this rulemaking package. Therefore, to allow for adequate public review and comment, this suggestion should be resolved in a form separate from this rulemaking

GHASP and the Sierra Club were opposed to industries not being required to submit compliance plans under §115.932 unless asked by TNRCC. The Sierra Club stated that this practice will place a heavy burden on the agency and deny the public general accessibility to vital information

HL&P and Exxon-Baytown supported the language in §115.930 and §115.932 as a means to minimize unnecessary paperwork and give sources more flexibility in achieving compliance

The TNRCC initiated this change to the rule in an attempt to minimize the paperwork burden during the short period of time available to implement the VOC RACT controls and meet the deadlines of the 15% ROP SIP. Industry will still be required to develop the plans for TNRCC review, and the public will have accessibility to the plans. However, the TNRCC Compliance staff will be able to focus their efforts in a more efficient manner, by only asking for compliance plans from source categories they are preparing to inspect, rather than receiving a mass submission

Exxon-Baytown strongly supported §115.940, as it will allow the TNRCC to integrate potentially conflicting programs to avoid unnecessary burdens on regulated community while achieving the same level of emissions control

The TCC/TMOGA, et al., supported the intent of §115.940 but suggested that the last sentence is in error and should reflect the opposite situation as proposed. They proposed the rewording "The Executive Director may also make a similar equivalency determination that compliance with appropriate provisions of this chapter shall be deemed compliance with an equivalent EPA program"

The EPA stated that the intent of eliminating duplicative state and EPA requirements in §115.940 is admirable. However, they can not legally allow the state to supersede a portion of its SIP without a SIP revision demonstrating that use of the Federal rule in lieu of the state rule will not result in state rule relaxation and a corresponding emissions increase. The EPA committed to work with the state and industry on a case-by-case basis as future federal rules are promulgated in order to resolve conflicting requirements between state and federal rules. One area which might offer some relief is §112(l) of the FCAA,

which allows that where some requirements of the proposed ROP RACT are similar to requirements in the Title III emissions standards being developed, "dual regulation" may be avoided if a state demonstrates that the state rule is as stringent or as equivalent to the corresponding Federal program or rule. Section 112(l) contains provisions that allow states to continue to implement and enforce the requirements of their own air toxics program in lieu of the FCAA requirements relating to HAPs.

The TNRCC agrees that §115.940 will help mitigate conflicting requirements for the regulated community by not being required to follow both state and federal rules which cover the same emissions. The EPA does not agree that the Executive Director has the discretionary authority to choose which rule, state or federal, the regulated community will use in compliance, except by demonstrating equivalency in a SIP revision process. The TNRCC believes that the 45-day notification allows EPA sufficient time to review the equivalency determination for SIP impacts. If EPA determines that the equivalency determination is in error, they can stop the process or request a SIP revision before the *Texas Register* notice is published. EPA is willing to work with the state and the regulated community on a case-by-case basis to make the equivalency determination for future federal and state rules.

The final issue to be resolved would be the notification by industry as to their intent to comply with the federal rule or the state rule. This notice of intent is necessary so that compliance inspectors have the proper tools to enforce compliance. The TNRCC adopted §115.940 with changes to add the requirement to file a notice of intent by the regulated community

The TCC/TMOGA, et al., stated that the preamble to §115.950 indicated that the standard permit is in response to RACT rulemakings instead of ROP SIP rulemakings. The TCC/TMOGA, et al., also stated that the preamble to §115.950 reflected a neutral effect on public resource needs, when in fact there will be a positive effect because the standard permit should minimize the waste of state resources to review beneficial projects

The TNRCC does not agree that the preamble referral to RACT rulemaking is in error. Chapter 115 has historically been the definitive source for VOC RACT, and Chapter 117 is the definitive source for NO_x RACT. Even though the latest rulemakings have been a result of the 15% ROP SIP requirements, the Chapter 115 proposals remain a definition of RACT for various VOC source categories and existing as well as new categories are eligible for the standard permit. The TNRCC does agree, however, that there will be a positive effect on TNRCC and industry workloads because of the standard permit provisions

The TCC/TMOGA, et al., and Firestone suggested that the term "general permit" in §115.950 be changed to "standard permit" to conform to the terminology of the Texas Clean Air Act (TCAA), §382.051(b)(3), and the FCAA Title V program. In accordance with the TCAA, "general permits" are authorized for purposes of the federal operating

program, whereas "standard permits" are to be used to satisfy Chapter 116 permit requirements.

The TNRCC agrees and changed the term "general permit" to "standard permit" in §115.950. The term "general permit" will also be changed to "standard permit" in both the commenter statements and the TNRCC evaluation statements for the rest of this section to eliminate confusion on the part of the reader.

The EPA requested that the state clarify the term "emissions" by revising §115.950(a)(3) to read: "If installation of VOC abatement equipment or implementation of a VOC control technique will result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area, a person claiming a standard permit shall submit information sufficient to demonstrate that the following conditions will be met"

The TNRCC agrees that the term "emissions" should be clarified and changed the language of §115.950(a)(3) to correspond to the EPA request

Firestone stated that the VOC standard permit language is modeled on the NO_x RACT rules and where possible should be consistent. Firestone and the TCC/TMOGA, et al, suggested that we delete the term "unit" from the VOC rules because it is not defined and is only applicable to NO_x units. The TCC/TMOGA, et al, stated that the regulated entity, for purposes of Chapter 116 and any associated standard permit, is the "facility" as defined in TCAA, §382.003(6)

The TNRCC agrees that the term "unit" is not applicable to VOC RACT and has removed the term from §115.950(a)(1)

Firestone stated that the phrase "and incidental to" in §115.950(a)(2) is confusing and should be removed to improve clarity

The TNRCC agrees that the phrase "and incidental to" is redundant to the meaning of the sentence. The intent of §115.950(a)(2) is to ensure that an increase in any non-VOC criteria pollutant emissions is a specific result of installing VOC control equipment or implementing a VOC control technique, and not a resultant emission of a production capacity increase. For example, adding a flare to a VOC vent will increase NO_x as a direct result of adding control equipment, but replacing a production process with one which emits less VOC but more NO_x is not a direct result of adding control equipment

Pennzoil supported the proposed standard permit because VOC abatement equipment is environmentally beneficial and legislatively mandated, therefore, such installation should not be subject to the scrutiny accorded a new source. Firestone and OxyChem supports the standard permit provisions as a means of preventing full permit-review for RACT implementation. BFI believes that standard construction permits can be developed that apply automatically to any source within the source category covered by the standard construction permit, or the sources could opt out of the standard permit and request an individual

permit.

GHASP is against the VOC standard permit in §115.950 because it is a way to cut out public participation and input. The GHASP believes that companies will build facilities without full permitting and later TNRCC will find out that a permit is needed.

BFI stated that the FCAA, Part 70 (40 CFR, §70.6(d)) provides the permitting agency the authority to issue a standard permit covering numerous similar sources after notice and opportunity for public comment and hearing. If a source claims a standard permit wrongly, then they shall be subject to enforcement action for operation without a Part 70 permit (40 CFR, §70.6(d)).

The TNRCC agrees that a standard permit will be beneficial to both the permitting authority and the industry installing VOC-RACT-mandated control equipment, because the standard permit users will not go through the full application and review required for a construction permit. As a result, a Chapter 115 standard permit user will not go through the public notice and hearing process just to install RACT control equipment because the VOC RACT rules in this proposal, which include the standard permit language, have gone through the public comment and hearings process. The concern that a company will build a facility without acquiring a permit is unfounded because §115.950(a) states that the standard permit will be granted to persons who install VOC abatement equipment or implements VOC control techniques in order to comply with the requirements of Chapter 115. The TNRCC reiterates that the intent of §115.950 is to allow a standard permit only for the purpose of complying with the VOC RACT requirements of Chapter 115, not for the purpose of building new production facilities or replacing existing facilities. Other standard permits will be developed under Chapter 116 rulemaking, and the public will receive an opportunity for comment and hearing when a proposed Chapter 116 standard permit for a specific source category is taken through the rulemaking process.

Pennzoil, HL&P, and Firestone support the proposed standard permit because it minimizes the time required to implement RACT-required VOC control equipment by eliminating the time-consuming permit process for both TNRCC and the affected facility. Due to the number of permits required in the near future to implement RACT for the 15% SIP, Pennzoil believes the permits staff would be unable to process regular construction permits in time to meet the compliance deadlines. Pennzoil stated that the use of a standard permit should decrease the amount of time necessary to obtain other permits, thus minimizing the potential conflict between VOC control equipment installation and permitting requirements. This would also allow more time for engineering and construction, resulting in more reliable equipment.

BFI believes that the standard permit is an indispensable approach to permitting in several environmental programs, e.g., under the Clean Water Act they have become an often-used mechanism to ameliorate regulatory costs and burdens. In addition, under the recently promulgated National Pollutant Dis-

charge Elimination System, the standard stormwater permits rely substantially on standard permitting to accommodate the thousands of stormwater-only discharges.

GHASP is against the standard permit program because TNRCC does not have the staff to verify the standard permit.

The TNRCC agrees that the standard permit for VOC RACT projects will substantially reduce the workload of both the permitted entity and the permitting staff. The TNRCC believes that the standard permit will not only minimize the staff requirements to process VOC/RACT projects, but it will also help the state meet the 15% ROP deadlines.

Vought and the City of Dallas stated that §115.950 should be applicable to the counties in the Dallas/Fort Worth nonattainment area for standard permitting consistency.

The preamble published in the July 16, 1993, issue of the *Texas Register* (18 TexReg 4630) stated incorrectly that §115.950 only applied to 11 of the 16 ozone nonattainment counties. The intent of the TNRCC is to allow the standard permit provisions to apply to all counties affected by Chapter 115. The proposed §115.950 rule language did not specify the applicability of standard permits to certain counties, therefore, it applies to all counties affected by Chapter 115 as proposed.

The City of Dallas questioned whether the 14 days specified in §115.950(b) is adequate for a proper response.

The TNRCC believes that the 14-day period is adequate to make a determination on the legitimacy of a notice of intent for a standard permit and notify the applicant if there is a problem with the notice of intent. In addition, §115.940(b) provides the Executive Director the authority to deny coverage under a specific standard permit at any time that a determination is made that the terms and conditions of the permit are not being met.

TCC/TMOGA, et al, and Firestone stated that the standard permit needs to be standardized to authorize any VOC emission reduction project that qualifies under its terms, not just those that are compelled by Chapter 115. This is in fulfillment of the TCAA, §382.057(a), which states that "The Board shall exempt or issue standard permits for emission controls except as needed to protect the intent of the TCAA." The phrase "in order to comply with the requirements of this chapter" should be deleted from the rule as a result.

TCC/TMOGA, et al, stated that they were aware of the work in Chapter 116 to develop a standard permit with the intent of satisfying all of its obligations under TCAA §382.057(a). This standard permit would address all emission control projects, not just those compelled by Chapter 115 or Chapter 117. TCC/TMOGA, et al, does not believe the work on Chapter 116 should stop, and that the standard permit language in Chapter 115 is only a stopgap first effort to solve an immediate need to prevent undue impediments to compliance with the new Chapter 115 control requirements.

The City of Dallas suggested that consideration be given to toxic/odor effects relating to

implementation of a VOC control technique via material substitution, or some other method such as limiting to an equivalent or allowable emissions rate to an effects screening level ratio.

The reference to the TCAA, §382.057, is correct regarding standard permits in the broadest terms, however, §115.950(a) specifically states that the standard permit will be granted to persons who install VOC abatement equipment or implements VOC control techniques in order to comply with the requirements of Chapter 115 Standard permits for other VOC projects or other VOC control techniques should be developed through Chapter 116 rulemaking. The TNRCC does not intend to allow a standard permit for other VOC projects or control techniques as a result of this rulemaking.

TCC/TMOGA, et al, and Firestone stated that we should add language to §115.950(a)(1) which would allow a company to install control equipment before a construction permit is issued even if the construction will result in a capacity increase. The company should not be allowed to utilize the increased capacity until after the permit is approved. This allows sources to comply with the NO_x RACT rule without unnecessary delay and should be, therefore, added to the VOC provisions.

The TNRCC agrees that in a limited situation a company should be allowed to install control equipment before a construction permit is issued when the construction will result in a capacity increase. However, the intent of §115.950 is to smooth the implementation process for VOC/RACT projects, not to allow a company to add process capability or build a new facility without a construction permit in hand. Chapter 117 and the proposed Chapter 116 language regarding standard permits contains a clause to allow installation of central equipment which will result in increased capacity, but not to utilize that increased capacity until the company obtains the required permit authorization in accordance with §116.110. The same clause will be adopted in §115.910(a) (1).

TCC/TMOGA, et al, and Firestone commented that the §115.950(a)(4) reference to "amount specified in the MAJOR MODIFICATION column of Table I of §101.1" is unclear regarding the definition of major NO_x sources. They stated that the major amount for NO_x in an ozone nonattainment area should be the same as a major amount for NO_x in a NO_x attainment (PSD) area if the ozone nonattainment area is not also nonattainment for NO_x. The TCC/TMOGA, et al, included suggested language in their comments.

BFI believes a facility that installs a device to control VOC emissions in accordance with an ROP requirement, NSPS, or other VOC-related control mandate should not be penalized by having to additionally meet RACT or LAER requirements in the event the device emits NO_x. Only in the event the device is found to be a significant contributor to ozone production should additional NO_x controls be contemplated. BFI stated that §115.950(a)(3)(A) should be revised to reflect the possibility of NO_x increases which result from installation of VOC emission control equipment. They also requested that TNRCC specifically state that NO_x RACT may not be required when the NO_x emissions are from a device that is utilized to achieve a VOC emission standard, an ROP control, or an NSPS which is intended to affect ozone concentrations.

The EPA stated that the proposed revision to §115.950 does not require sources to offset significant collateral emission increases, and that the treatment of the emission increases must be consistent with the attainment demonstration plan. Therefore, any increases that are not required to be offset (standard permit increases) should be accounted for as growth for planning purposes.

The TNRCC disagrees that the definition of a major NO_x source or major NO_x modification in an ozone nonattainment area should be the same as the definition in Prevention of Significant Deterioration (PSD) areas, if the ozone nonattainment area is in attainment for NO_x. The FCAA is very clear that VOC and NO_x are to have the same definitions for major source and major modification in ozone nonattainment areas. This is especially important in potentially NO_x limited airsheds such as Houston and Beaumont.

The TNRCC agrees with EPA that §115.950 does not require sources to offset significant collateral emission increases, and that those increases should be accounted for as growth. However, due to the nature of the permit database, a growth estimate from standard permits can not be made at this time. The TNRCC is modifying the database structure and will quantify standard permit increases as part of the 15% milestone demonstration.

Subchapter A. Definitions

• 30 TAC §115.10

The amendment is adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.017, which provides the TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.10. Definitions Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the Board, the terms used by the Board have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined by the TCAA, the following terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

Alcohol substitutes (used in offset lithographic printing) - Nonalcohol additives that contain volatile organic compounds and are used in the fountain solution. Some additives are used to reduce the surface tension of water, others (especially in the newspaper industry) are added to prevent piling (ink build-up).

Automotive basecoat/clearcoat system (used in automobile refinishing) - A topcoat system composed of a pigmented basecoat portion and a transparent clearcoat portion. The volatile organic compound (VOC) content of a basecoat (bc)/clearcoat (cc) system shall be calculated according to the following formula:

$$\text{VOC } T_{3\text{-stage}} = \frac{\text{VOC}_{bc} + \text{VOC}_{cc} + (2 \times \text{VOC}_{cc})}{4}$$

4

where:

VOC T_{bc} - Is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the basecoat/clearcoat system.

VOC T_{cc} - Is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat, and

VOC T_{cc} - Is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat.

Automotive precoat (used in automobile refinishing) - Any coating that is applied to bare metal to deactivate the metal surface for corrosion resistance to a subsequent water-based primer. This coating is

applied to bare metal solely for the prevention of flash rusting.

Automotive pretreatment (used in automobile refinishing) - Any coating which contains a minimum of 0.5% acid by weight that is applied directly to bare metal surfaces to etch the metal surface for corrosion resistance and adhesion.

Automotive sealers (used in automobile refinishing) -Coatings that are formulated with resins which, when dried, are not readily soluble in typical solvents. These coatings act as a shield for surfaces over which they are sprayed by resisting the penetration of solvents which are in the final topcoat.

Automotive specialty coatings (used in automobile refinishing)-Coatings or ad-

ditives which are necessary due to unusual job performance requirements. These coatings or additives prevent the occurrence of surface defects and impart or improve desirable coating properties. These products include, but are not limited to, uniform finish blenders, elastomeric materials for coating of flexible plastic parts, coatings for non-metallic parts, jaming clear coatings, gloss flatteners, and anti-glare/safety coatings

Automotive three-stage system (used in automobile refinishing)-A topcoat system composed of a pigmented basecoat portion, a semitransparent midcoat portion, and a transparent clearcoat portion. The volatile organic compound (VOC) content of a three-stage system shall be calculated according to the following formula.

$$\text{VOC } T_{3\text{-stage}} = \frac{\text{VOC}_{bc} + \text{VOC}_{mc} + (2 \times \text{VOC}_{cc})}{4}$$

4

where:

VOC $T_{3\text{-stage}}$ -is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the three-stage system,

VOC_{bc} -is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat;

VOC_{mc} -is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given midcoat, and

VOC_{cc} -is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat

Batch (used in offset lithographic printing)-A supply of fountain solution that is prepared and used without alteration until completely used or removed from the printing process.

Cleaning solution (used in offset lithographic printing) -Liquids used to remove ink and debris from the operating surfaces of the printing press and its parts

Fountain solution (used in offset lithographic printing) -A mixture of water, nonvolatile printing chemicals, and an additive (liquid) that reduces the surface tension of the water so that it spreads easily across the printing plate surface. The fountain solution wets the nonimage areas so that the ink is maintained within the image areas. Isopropyl alcohol, a volatile organic compound, is the most common additive used to reduce the surface tension of the fountain solution

Hand-held lawn and garden and utility equipment-Equipment that requires its full weight to be supported by the operator to perform its function and requires multi-positional operation

Heatset (used in offset lithographic printing)-Any operation where heat is required to evaporate ink oil from the printing

ink Hot air dryers are used to deliver the heat

High-volume low-pressure spray guns-Equipment used to apply coatings by means of a spray gun which operates between 0.1 and 100 pounds per square-inch gauge air pressure

Industrial solid waste-Solid waste resulting from, or incidental to, any process of industry or manufacturing, or mining or agricultural operations, classified as follows:

(A) Class I industrial solid waste or Class I waste is any industrial solid waste designated as Class I by the Executive Director as any industrial solid waste or mixture of industrial solid wastes that because of its concentration or physical or chemical characteristics is toxic, corrosive, flammable, a strong sensitizer or irritant, a generator of sudden pressure by decomposition, heat, or other means, and may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or otherwise managed, including hazardous industrial waste, as defined in §335.1 of this title (relating to Definitions) and §335.505 of this title (relating to Class I Waste Determination)

(B) Class II industrial solid waste is any individual solid waste or combination of industrial solid wastes that cannot be described as Class I or Class III, as defined in §335.506 of this title (relating to Class II Waste Determination)

(C) Class III industrial solid waste is any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable as defined in §335.507 of

this title (relating to Class III Waste Determination)

Leakless Valve-Any valve which meets the conditions of either paragraph (A) or (B) of this definition

(A) a valve which can be demonstrated by performance (including gas testing or hydraulic testing at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance) or designed to prevent or contain a leak of VOC, as defined in §115.352 of this title (relating to Fugitive Control Requirements), from the valve-stem packing (including but not limited to bellows and diaphragm valves),

(B) a valve which can be demonstrated by performance or design to prevent a leak of VOC, as defined in §115.352 of this title, at the outlet of the valve (including but not limited to valves that stop the process flow through the use of nonrotating plug stems).

Lithography (used in offset lithographic printing)-A printing process where the image and nonimage areas are chemically differentiated, the image area is oil receptive, and the nonimage area is water receptive. This method differs from other printing methods, where the image is a raised or recessed surface

Marine terminal-Any facility which receives volatile organic compounds (VOC) from a marine vessel or loads VOC into a marine vessel.

Marine vessel Any watercraft used, or capable of being used, as a means of transportation on water, and that is constructed or adapted to carry, or that carries, oil, gasoline, or other volatile organic liquid in bulk as a cargo or cargo residue

Municipal solid waste facility All contiguous land, structures, other appurte-

nances, and improvements on the land used for processing, storing, or disposing of solid waste. A facility may be publicly or privately owned and may consist of several processing, storage, or disposal operational units, e.g., one or more landfills, surface impoundments, or combinations of them.

Municipal solid waste landfill-A discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR, Part 257, §257.2. A municipal solid waste landfill (MSWLF) unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally exempt small-quantity generator waste, and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion.

Municipal solid waste landfill emissions-Any gas derived from a natural process through the decomposition of organic waste deposited in a municipal solid waste disposal site or from the volatile organic compounds in the waste.

Non-heatset (used in offset lithographic printing)-Any operation where the printing inks are set without the use of heat. For the purposes of this rule, ultraviolet-cured and electron beam-cured inks are considered non-heatset.

Offset lithography-A printing process that transfers the ink film from the lithographic plate to an intermediary surface (blanket) which, in turn, transfers the ink film to the substrate.

Owner or operator of a motor vehicle fuel dispensing facility (as used in §§115.241-115.249 of this title, relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities)-Any person who owns, leases, operates, or controls the motor vehicle fuel dispensing facility.

Sludge-Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant; water supply treatment plant, exclusive of the treated effluent from a wastewater treatment plant; or air pollution control equipment.

Solid waste-Garbage, rubbish, refuse, sludge from a wastewater treatment plant, water-supply treatment plant, or air pollution control equipment, and other discarded material, including solid, liquid, semisolid, or containerized gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations and from community and institutional activities. The term does not include:

(A) solid or dissolved material in domestic sewage, or solid or dis-

solved material in irrigation return flows, or industrial discharges subject to regulation by permit issued under the Water Code, Chapter 26;

(B) soil, dirt, rock, sand, and other natural or man-made inert solid materials used to fill land, if the object of the fill is to make the land suitable for the construction of surface improvements; or

(C) waste materials that result from activities associated with the exploration, development, or production of oil, gas, or geothermal resources, and other substance or material regulated by the Railroad Commission of Texas under the Natural Resources Code, §91.101, unless the waste, substance, or material results from activities associated with gasoline plants, natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is hazardous waste as defined by the Administrator of the United States Environmental Protection Agency under the Federal Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act, as amended (42 USC, §6901 et seq) -Synthetic Organic Chemical Manufacturing Industry batch distillation operation-A noncontinuous distillation operation in which a discrete quantity or batch of liquid feed is charged into a distillation unit and distilled at one time. After the initial charging of the liquid feed, no additional liquid is added during the distillation operation

Synthetic Organic Chemical Manufacturing Industry batch process-Any noncontinuous reactor process which is not characterized by steady-state conditions, and in which reactants are not added and products are not removed simultaneously.

Synthetic Organic Chemical Manufacturing Industry distillation operation-An operation separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit

Synthetic Organic Chemical Manufacturing Industry distillation unit-A device or vessel in which distillation operations occur, including all associated internals (including, but not limited to, trays and packing), accessories (including, but not limited to, reboilers, condensers, vacuum pumps, and stream jets), and recovery devices (such as adsorbers, carbon absorbers, and condensers) which are capable of, and used for, recovering chemicals for use, reuse, or sale

Synthetic Organic Chemical Manufacturing Industry reactor process-A unit operation in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way, that their mo-

lecular structures are altered and one or more new organic compounds are formed.

Transport vessel-Any land-based mode of transportation (truck or rail) that is equipped with a storage tank having a capacity greater than 1,000 gallons which is used primarily to transport oil, gasoline, or other volatile organic liquid bulk cargo. Vacuum trucks used exclusively for maintenance and spill response are not considered to be transport vessels.

Utility engines-Small four-stroke and two-stroke, air- or liquid-cooled, gasoline, diesel, or alternative fuel powered engines under 25 horsepower. They are designed for powering lawn, garden, and turf maintenance implements, timber operations, generating electricity, and pumping fluids.

Vapor recovery system-Any control system which utilizes vapor collection equipment to route volatile organic compounds (VOC) to a control device that reduces VOC emissions.

Volatile organic compound-Any compound of carbon or mixture of carbon compounds excluding methane, ethane, 1,1,1-trichloroethane (methyl chloroform), methylene chloride (dichloromethane), perchloroethylene (tetrachloroethylene), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113), 1, 2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1,1, 2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2, 2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), 1, 1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and perfluorocarbon compounds which fall into these classes.

(A) cyclic, branched, or linear, completely fluorinated alkanes,

(B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,

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

(D) sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993.

TRD-9332036

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

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Proposal publication date: July 9, 1993

For further information, please call (512) 908-6087

◆ ◆ ◆
Subchapter B. General Volatile
Organic Compound Sources
Vent Gas Control

• 30 TAC §§115.121-115.123,
115.126, 115.127, 115.129

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.121. Emission Specifications

(a) For all persons in the Beaumont/Port Arthur, Dallas/ Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the following emission specifications shall apply

(1) Until May 31, 1995, in Brazoria, El Paso, Galveston, Jefferson, and Orange Counties, no person may allow a vent gas stream to be emitted from any process vent containing one or more of the following volatile organic compounds (VOC) or classes of VOC, unless the vent gas stream is burned properly in accordance with §115.122(a) (1) of this title (relating to Control Requirements):

(A)-(C) (No change)

(2) In Dallas, Harris, and Tarrant Counties, and after May 31, 1995, in ozone nonattainment counties other than Dallas, Harris, and Tarrant, no person may allow a vent gas stream containing VOC to be emitted from any process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title

(3) In Harris County, and after May 31, 1995, in ozone nonattainment counties other than Harris, no person may allow a vent gas stream to be emitted from any air oxidation synthetic organic chemical manufacturing process, any liquid phase

polypropylene manufacturing process, any liquid phase slurry high density polyethylene manufacturing process, or any continuous polystyrene manufacturing process, unless the vent gas stream is controlled to a VOC emission rate of no more than 20 parts per million by volume (ppmv) (on a dry basis corrected to three percent oxygen), or is burned properly in accordance with §115.122(a)(2) of this title.

(4) After November 15, 1996, no person may allow a vent gas stream to be emitted from any synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in §115.10 of this title, unless the vent gas stream is controlled to a VOC emission rate of no more than 20 ppmv (on a dry basis corrected to three percent oxygen), or is burned properly in accordance with §115.122(a) (2) of this title

(b)-(c) (No change)

§115.122. Control Requirements

(a) For all persons in the Beaumont/Port Arthur, Dallas/ Fort Worth, El Paso, and Houston/Galveston areas, the following control requirements shall apply.

(1) (No change.)

(2) Any vent gas streams affected by §115.121(a)(3)(4) of this title, must be controlled to a volatile organic compound (VOC) emission rate of no more than 20 parts per million by volume (on a dry basis corrected to 3.0% oxygen), or burned properly in a smokeless flare or a direct-flame incinerator which has a destruction efficiency of at least 98% The owner or operator of an affected facility that uses a flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications, a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame

(3) Any vent gas stream that becomes subject to the provisions of paragraphs (1) or (2) of this subsection by exceeding provisions of §115.127(a) of this title (relating to Exemptions) will remain subject to the provisions of this subsection, even if throughput or emissions later fall below the exemption limits unless and until emissions are reduced to at or below the controlled emissions level existing prior to the modification and

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 of this title (relating to Control of Air Pollution By Permits for New Construction or Modification) If a standard exemption is available

for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption; or

(B) if no permit or standard exemption is required for the project, the owner/operator has given the TNRCC 30 days notice of the project in writing.

(b)-(c) (No change.)

§115.123. Alternate Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/ Fort Worth, El Paso, and Houston/Galveston areas.

(1) 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. Direct-flame incineration specified for vent gas control in this undesignated head (relating to Vent Gas Control) is not intended as an exclusive emission control method for volatile organic compounds (VOC). In no event shall a vent gas stream be direct-flame incinerated without heat recovery if the incineration will have no practical effect in reducing the emission of air contaminants or will result in an actual degradation of air quality. Alternate vapor recovery systems which achieve the percent reduction efficiencies equivalent to direct-flame incinerators, as stated in §115.122(a) of this title (relating to Control Requirements), do not require Executive Director approval

(2) The owner or operator of a vent gas stream control device with a control efficiency of at least 90% which was installed prior to the effective date of the applicable paragraphs of this undesignated head (relating to Vent Gas Control) may request an alternate reasonably available control technology (ARACT) determination. The Executive Director shall approve the ARACT if it is determined to be economically unreasonable to replace the control device with a new control device meeting the requirements of the applicable rule(s). Each ARACT approved by the Executive Director shall include a requirement that the control device be operated at its maximum efficiency. Each ARACT shall only be valid until the control device undergoes a replacement, a modification as defined in 40 Code of Federal Regulations 60.14, or a reconstruction as defined in 40 Code of Federal Regulations 60.15, at which time the replacement, modified, or reconstructed control device shall meet the requirements of the applicable rule(s). Any request for an ARACT determination shall

be submitted to the Executive Director no later than May 31, 1994. The Executive Director may direct the holder of an ARACT to reapply for their ARACT if it is more than 10 years since the date of installation of the control device and there is good cause to believe that it is now economically reasonable to meet the requirements of the applicable rule(s). Within three months of an Executive Director request, the holder of an ARACT shall reapply for their ARACT. If the reapplication for an ARACT is denied, the holder of the ARACT shall meet the requirements of the applicable rule(s) as soon as practicable, but no later than two years from the date of denial.

(b)-(c) (No change)

§115.126 Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of any facility which emits volatile organic compounds (VOC) through a stationary vent shall maintain records at the facility for at least two years and shall make such records available to representatives of the Texas Natural Resource Conservation Commission (TNRCC), United States Environmental Protection Agency (EPA), or any local air pollution control agency having jurisdiction in the area upon request. These records shall include, but not be limited to, the following.

(1) Records for each vent required to satisfy the provisions of §115.121(a)(2)-(4) of this title (relating to Emission Specifications) shall be sufficient to demonstrate the proper functioning of applicable control equipment to design specifications, including:

(A)-(B) (No change.)

(C) continuous monitoring of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions);

(D)-(E) (No change)

(2)-(3) (No change)

(b) For Victoria County, the owner or operator of any facility which emits VOC through a stationary vent shall maintain records at the facility for at least two years and shall make such records available to representatives of TNRCC, EPA, or any local air pollution control agency having jurisdiction in the area upon request. These records shall include, but not be limited to, the following

(1) Records for each vent required to satisfy the provisions of §115.121(b) of this title shall be sufficient to demonstrate the proper functioning of applicable control equipment to design specifications, including:

(A)-(B) (No change.)

(C) continuous monitoring of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title,

(D)-(E) (No change.)

(2)-(3) (No change.)

§115.127. Exemptions

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions apply

(1) A vent gas stream from a low-density polyethylene plant is exempt from the requirements of §115.121(a)(1) and (2) of this title (relating to Emission Specifications) if no more than 1.1 pounds of ethylene per 1,000 pounds (1.1 kg/1000 kg) of product are emitted from all the vent gas streams associated with the formation, handling, and storage of solidified product.

(2) Until May 31, 1995, in Brazoria, El Paso, Galveston, Jefferson, and Orange Counties, the following vent gas streams are exempt from the requirements of §115.121(a)(1) of this title

(A)-(B) (No change.)

(3) In Dallas, Harris, and Tarrant Counties, and after May 31, 1995, in ozone nonattainment counties other than Dallas, Harris, and Tarrant, the following vent gas streams are exempt from the requirements of §115.121(a)(2) of this title.

(A) (No change)

(B) until May 31, 1995, in Harris County, a vent gas stream specified in §115.121(a)(2) of this title with a concentration of volatile organic compound (VOC) less than 0.44 pounds per square inch absolute true partial pressure (30,000 parts per million), and

(C) (No change)

(4) In Harris County, and after May 31, 1995, in ozone nonattainment counties other than Harris, the following vent gas streams are exempt from the requirements of §115.121(a)(3) of this title

(A)-(C) (No change.)

(5) For synthetic organic chemical manufacturing industry (SOCMI) reactor processes and distillation operations.

(A) Any reactor process or distillation operation that is designed and operated in a batch mode is exempt from the requirements of §115.121(a)(4) of this title. For the purposes of this subparagraph, batch mode means any noncontinuous reactor process or distillation operation which is not characterized by steady-state conditions, and in which the addition of reactants does not occur simultaneously with the removal of products

(B) Any reactor process or distillation operation operating in a process unit with a total design capacity of less than 1,100 tons per year, for all chemicals produced within that unit, is exempt from the requirements of §115.121(a)(4) of this title

(C) Any reactor process or distillation operation vent gas stream with a flow rate less than 0.011 standard cubic meters per minute and a VOC concentration less than 500 parts per million by volume is exempt from the requirements of §115.121(a)(4) of this title.

(b)-(c) (No change.)

§115.129. Counties and Compliance Schedules All affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall be in compliance with this undesignated head (relating to Vent Gas Control) in accordance with the following schedules.

(1) All affected persons in Chambers, Collin, Denton, Fort Bend, Hardin, Liberty, Montgomery, and Waller Counties shall be in compliance with §115.121(a) of this title (relating to Emission Specifications), §115.122(a) of this title (relating to Control Requirements), §115.123(a) of this title (relating to Alternate Control Requirements), §115.125(a) of this title (relating to Testing Requirements), §115.126(a) of this title (relating to Monitoring and Recordkeeping Requirements), and §115.127(a) of this title (relating to Exemptions), as soon as practicable, but no later than May 31, 1995. Sections 115.121(c), 115.122(c), 115.123(c), and 115.127(c) of this title shall no longer apply in Hardin and Montgomery Counties after May 31, 1995

(2) All persons in Brazoria, El Paso, Galveston, Jefferson, and Orange Counties affected by the provisions of §115.121(a)(2) and (3) of this title and §115.127(a)(3) of this title shall be in compliance with these sections as soon as practicable, but no later than May 31, 1995

(3) All persons in Harris County affected by the provisions of §115.127(a)(3)(C) of this title shall be in compliance with this section as soon as practicable, but no later than May 31, 1995.

(4) All affected synthetic organic chemical manufacturing industry reactor process or distillation operations in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties shall be in compliance with §115.121(a)(4) of this title as soon as practicable, but no later than November 15, 1996.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993.

TRD-9332037

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

Effective date: December 3, 1993

Proposal publication date: July 9, 1993

For further information, please call: (512) 908-6087

Municipal Solid Waste Landfills

• 30 TAC §§115.152, 115.153, 115.155-115.157, 115.159

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.152. Control Requirements.

(a) For the Dallas/Fort Worth ozone nonattainment area as defined in §115.10 of this title (relating to Definitions), no person shall operate or allow the operation of a municipal solid waste landfill (MSWLF) unless each owner or operator of a MSWLF calculates the volatile organic compounds (VOC) emission rate for the landfill using the procedures provided in §60.753 of the proposed federal rules published in the May 30, 1991, *Federal Register* (58 FR 104). The VOC emission rate shall be recalculated annually. If at any time, the calculated VOC emission rate exceeds 150 Megagrams (Mg) per year, the owner or operator shall:

(1) install a gas collection and control system (GCCS) subject to the requirements of §60.752, Paragraph (b)(a)(ii) of the proposed federal rules published in

the May 30, 1991, *Federal Register* (58 FR 104). The design of the GCCS shall be subject to the approval of the Executive Director;

(2) control VOC gas emissions in one of the following ways.

(A) The total collected gas is routed to an open flare designed and operated in accordance with 40 Code of Federal Regulations, §60.18;

(B) The total collected gas is routed to a control device which reduces the total collected VOC emissions by 98% or to less than 20 parts per million by volume; or

(C) The total collected gas is routed to a gas treatment system which processes the collected gas for subsequent use or sale. The sum of all emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of subparagraph: (A) of this paragraph;

(3) operate the GCCS in compliance with §60.754 of the proposed federal rules published in the May 30, 1991, *Federal Register* (58 FR 104).

(b) The GCCS may be capped or removed if the following conditions are met.

(1) The landfill shall be no longer accepting waste and shall be permanently closed.

(2) The GCCS shall have been in continuous operation for at least 15 years.

(3) The calculated VOC emission rate shall be less than 150 Mg per year on three successive test dates. The test dates shall be no closer than three months apart, and no longer than six months apart.

115.155. Approved Test Methods. Compliance with §115.152 of this title (relating to Control Requirements) shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 Code of Federal Regulations, 60, Appendix A) for determining flow rate, oxygen concentration, or moisture, as necessary.

(2) Test Method 2E as proposed under 40 Code of Federal Regulations, 60, Appendix A, published in the May 30, 1991, *Federal Register* (58 FR 104) for designing the area of influence of the GCCS;

(3) Test Method 3C as proposed under 40 Code of Federal Regulations, 60,

Appendix A, published in the May 30, 1991, *Federal Register* (58 FR 104) for measuring the concentration of nitrogen in the landfill gas;

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

(5) Test Method 21 (40 Code of Federal Regulations, 60, Appendix A) for determining volatile organic compound leaks.

(6) Test Method 25 (40 Code of Federal Regulations, 60, Appendix A) for determining total gaseous non-methane (CH₄) organic emissions as carbon;

(7) 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;

(8) Test Method 25C as proposed under 40 Code of Federal Regulations, 60, Appendix A, published in the May 30, 1991, *Federal Register* (58 FR 104) for determining non-CH₄ organic compounds in landfill gases;

(9) Determination of true vapor pressure using American Society for Testing and Materials Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with American Petroleum Institute Publication 2517, Third Edition, 1989;

(10) Minor modifications to these test methods as approved by the Executive Director.

§115.156. Monitoring and Recordkeeping Requirements. For the Dallas/Fort Worth ozone nonattainment area, the following recordkeeping requirements shall apply.

(1) For municipal solid waste landfills, which are not subject to the requirements of §115.152 of this title (relating to Control Requirements), the owner or operator of each landfill shall maintain complete and up-to-date records sufficient to demonstrate continuous compliance with the applicable exemption criteria including, but not limited to, an annual calculation of the volatile organic compounds (VOC) emissions rate and any other necessary operational information.

(2) For municipal solid waste landfills (MSWLF), which are subject to the requirements of §115.152 of this title, the owner or operator of each landfill shall install and maintain monitors to continuously measure and record operational parameters of any emission control device installed to meet applicable control requirements. Such records must be sufficient to

demonstrate proper functioning of those devices to design specifications, including, but not limited to:

(A) the exhaust gas temperature immediately downstream for any direct-flame incinerator or enclosed flare;

(B) the gas temperature immediately upstream and downstream for any catalytic incinerator or chiller;

(C) the VOC concentration for any carbon adsorption system exhaust gas to determine if breakthrough has occurred;

(D) the gas flowrate to the combustion device;

(E) the gauge pressure at each well in the gas collection header;

(F) oxygen and nitrogen concentrations at each well in the gas collection header;

(G) the dates and reasons for any maintenance and repair of the required gas collection and control system and control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) Each owner or operator of a MSWLF shall annually submit an emissions inventory report as required by §101.10 of this title (relating to Emissions Inventory Requirements). This report shall include:

(A) calculation of the VOC emission rate;

(B) a map or plot of the landfill, providing the size and location, and identifying all areas where waste may be landfilled according to the provisions of the permit;

(C) the maximum design capacity;

(D) notification of any increase in the size of the landfill. The increase may result from:

(i) an increase in the permitted area or depth of the landfill;

(ii) a change in the operating procedures; or

(iii) any other means which will increase the maximum design capacity of the landfill; and

(E) notification of closure.

(i) For purposes of this subchapter, closure means that waste is no longer being placed in the landfill, and no additional wastes will be placed in the landfill without filing a notification of modification, as prescribed by the Texas Natural Resources Conservation Commission.

(ii) Landfills that are closed permanently between reporting periods shall report as directed by §101.10 of this title and continue reporting until the calculated VOC emission rate falls below 150 Mg per year on three successive test dates. The test dates shall be no closer than three months apart, and no longer than six months apart.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993.

TRD-9332038

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

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For further information, please call: (512) 908-6087

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Chapter C. Volatile Organic
Compound Transfers
Operations

Loading and Unloading of
Volatile Organic Compounds

• 30 TAC §§115.211, 115.212,
115.214-115.217, 115.219

The amendments are adopted under the Texas Health and Safety Code, (Vernon 1990), the Texas Clean Air Act (TCAA), and §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.211. Emission Specifications.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the following emission specifications shall apply.

(1) Emission limitations for gasoline terminals, as defined in §115.10 of this title, are as follows:

(A) until January 31, 1994 in Brazoria, El Paso, Galveston, Jefferson, and Orange Counties, volatile organic compound (VOC) emissions from gasoline terminals shall be reduced to a level not to exceed 0.67 pound of VOC from the vapor recovery system vent per 1,000 gallons (80 mg/liter) of gasoline transferred;

(B) in Dallas, Harris, and Tarrant Counties, and after January 31, 1994, in ozone nonattainment counties other than Dallas, Harris, and Tarrant, VOC emissions from gasoline terminals shall be reduced to a level not to exceed 0.33 pound of VOC from the vapor recovery system vent per 1,000 gallons (40 mg/liter) of gasoline transferred; and

(C) after November 15, 1996, VOC emissions from gasoline terminals shall be reduced to a level not to exceed 0.09 pound of VOC from the vapor recovery system vent per 1,000 gallons (10.8 mg/liter) of gasoline transferred.

(2) In Harris County, and after January 31, 1994, in ozone nonattainment counties other than Harris, the maximum loss of VOC due to product transfer at a gasoline bulk plant, as defined in §115.10 of this title, is 1.2 pounds per 1,000 gallons (140 mg/liter) of gasoline transferred.

(b) For all persons in Gregg, Nueces, and Victoria Counties, VOC emissions from gasoline terminals shall be reduced to a level not to exceed 0.67 pound of VOC from the vapor recovery system vent per 1,000 gallons (80 mg/liter) of gasoline transferred.

§115.212. Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following control requirements shall apply:

(1) Until November 15, 1996, at volatile organic compound (VOC) loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals, no person shall permit the loading of VOC with a true vapor pressure greater than or equal to 1.5 pounds per square inch absolute (psia) under actual storage conditions to transport vessels unless the vapors are processed by a vapor recovery system as defined in §115.10 of this title (relating to Definitions). The vapor recovery system shall control the VOC emissions such that the aggregate true vapor pressure of all VOC does not exceed 1.5 psia.

(2) After November 15, 1996, at VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals, no person shall permit the loading of VOC with a true vapor pressure

greater than or equal to 0.5 psia under actual storage conditions to transport vessels unless the vapors are processed by a vapor recovery system, as defined in §115.10 of this title. The vapor recovery system shall maintain a control efficiency of at least 90%.

(3) Until November 15, 1996, no person shall permit the unloading of VOC with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions from any transport vessel unless the transport vessel is kept vapor-tight at all times until the vapors remaining in the transport vessel after unloading are discharged to a vapor recovery system if the transport vessel is refilled, degassed, and/or cleaned in one of the counties in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas.

(4) After November 15, 1996, no person shall permit the unloading of VOC with a true vapor pressure greater than or equal to 0.5 psia under actual storage conditions from any transport vessel unless the transport vessel is kept vapor-tight at all times until the vapors remaining in the transport vessel after unloading are discharged to a vapor recovery system if the transport vessel is refilled, degassed, and/or cleaned in one of the counties in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas.

(5) All loading and unloading of VOC shall be conducted such that:

(A) all liquid and vapor lines shall be:

(i) equipped with fittings which make vaportight connections and which close automatically when disconnected; or

(ii) equipped to permit residual VOC in the loading line after loading is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor recovery system;

(B) there are no VOC leaks, as defined in §115.10 of this title, when measured with a hydrocarbon gas analyzer, and no liquid or vapor leaks, as detected by sight, sound, or smell, from any potential leak source in the transport vessel and transfer system (including, but not limited to, liquid lines, vapor lines, hatch covers, pumps, and valves, including pressure relief valves).

(6) When loading is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch. A means shall be

provided which prevents liquid drainage from the loading device when it is removed from the hatch of any transport vessel, or which routes all VOC emissions to a vapor recovery system.

(7) No person shall permit the loading of gasoline to a transport vessel from a gasoline terminal unless the vapors are processed by a vapor recovery system as defined in §115.10 of this title. Vapor recovery systems and loading equipment at gasoline terminals shall be designed and operated such that gauge pressure does not exceed 18 inches of water (4.5 kPa) and vacuum does not exceed six inches of water (1.5 kPa) in the gasoline tank-truck.

(8) In Dallas, El Paso, Harris, and Tarrant Counties, and after January 31, 1994, in ozone nonattainment counties other than Dallas, El Paso, Harris, and Tarrant, no person shall permit the transfer of gasoline from a transport vessel into a gasoline bulk plant storage tank, unless the following requirements are met:

(A) (No change)

(B) the only atmospheric emission during gasoline transfer is through the storage tank's pressure-vacuum relief valve resulting from emergency situations when pressures exceed the specifications in paragraph (9) (C) of this section, and

(C) the transport vessel is kept vapor-tight at all times until the vapors remaining in the transport vessel are discharged to a vapor recovery system, if the transport vessel is refilled, degassed, and/or cleaned in one of the counties in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas

(9) In Dallas, El Paso, Harris, and Tarrant Counties, and after January 31, 1994, in ozone nonattainment counties other than Dallas, El Paso, Harris, and Tarrant, no person shall permit the transfer of gasoline from a gasoline bulk plant into a transport vessel, unless the following requirements are met.

(A) the transport vessel, if equipped for top loading, has a submerged fill pipe.

(B) a vapor return line is installed from the transport vessel to the storage tank;

(C) gauge pressure does not exceed 18 inches of water (4.5 kPa) and vacuum does not exceed six inches of water (1.5 kPa) in the gasoline tank-truck tank, and

(D) the only atmospheric emission during gasoline transfer is through the storage tank pressure-vacuum relief valves resulting from emergency situations when pressures exceed the specification in subparagraph (C) of this paragraph.

(10) Any loading or unloading operation that becomes subject to the provisions of this subsection by exceeding provisions of §115.217(a) of this title (relating to Exemptions) will remain subject to the provision of this subsection, even if throughput or emissions later fall below exemption limits unless and until emissions are reduced to at or below the controlled emissions level existing prior to the modification and:

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 of this title. If a standard exemption is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption, or

(B) if no permit or standard exemption is required for the project, the owner/operator has given the TNRCC 30 days notice of the project in writing

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following control requirements shall apply.

(1) At VOC loading operations other than gasoline terminals, no person shall permit the loading of VOC with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions to a transport vessel unless the vapors are processed by a vapor recovery system as defined in §115.10 of this title. The vapor recovery system shall control the VOC emissions such that the aggregate true vapor pressure of all VOC does not exceed 1.5 psia.

(2) No person shall permit the unloading of VOC with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions from any transport vessel unless the transport vessel is kept vapor-tight at all times until the vapors remaining in the transport vessel after unloading are discharged to a vapor recovery system if the transport vessel is refilled in Gregg, Nueces, or Victoria Counties

(3) All loading and unloading of VOC shall be conducted such that:

(A) all liquid and vapor lines shall be.

(i) equipped with fittings which make vaportight connections and which close automatically when disconnected; or

(ii) equipped to permit residual VOC in the loading line after loading is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor recovery system.

(B) there are no VOC leaks, as defined in §115.10 of this title, when measured with a hydrocarbon gas analyzer, and no liquid or vapor leaks, as detected by sight, sound, or smell, from any potential leak source in the transport vessel and transfer system (including, but not limited to, liquid lines, vapor lines, hatch covers, pumps, and valves, including pressure relief valves).

(4) When loading is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch. A means shall be provided which prevents liquid drainage from the loading device when it is removed from the hatch of any transport vessel, or which routes all VOC emissions to a vapor recovery system.

(5) No person shall permit the loading of gasoline to a transport vessel from a gasoline terminal unless the vapors are processed by a vapor recovery system as defined in §115.10 of this title. Vapor recovery systems and loading equipment at gasoline terminals shall be designed and operated such that gauge pressure does not exceed 18 inches of water (4.5 kPa) and vacuum does not exceed six inches of water (1.5 kPa) in the gasoline tank-truck.

(6) All gauging and sampling devices shall be vaportight except for necessary gauging and sampling.

(c) For all persons in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties, the following requirements shall apply.

(1) At VOC loading or unloading operations other than gasoline terminals, no person shall permit the loading of VOC with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions to a transport vessel unless the vapors are processed by a vapor recovery system as defined in §115.10 of this title. The vapor recovery system shall control the VOC emissions such that the aggregate true vapor pressure of all VOC does not exceed 1.5 psia.

(2) No person shall permit the unloading of VOC with a true vapor pressure greater than or equal to 1.5 psia under

actual storage conditions from any transport vessel unless the transport vessel is kept vapor-tight at all times until the vapors remaining in the transport vessel after unloading are discharged to a vapor recovery system if the transport vessel is refilled in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, or Travis Counties.

(3) All loading and unloading of VOC shall be conducted such that:

(A) all liquid and vapor lines shall be:

(i) equipped with fittings which make vapor-tight connections and which close automatically when disconnected; or

(ii) equipped to permit residual VOC in the loading line after loading is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor recovery system.

(B) there are no VOC leaks, as defined in §115.10 of this title, when measured with a hydrocarbon gas analyzer, and no liquid or vapor leaks, as detected by sight, sound, or smell, from any potential leak source in the transport vessel and transfer system (including, but not limited to, liquid lines, vapor lines, hatch covers, pumps, and valves, including pressure relief valves).

(4) When loading is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch. A means shall be provided which prevents liquid drainage from the loading device when it is removed from the hatch of any transport vessel, or which routes all VOC emissions to a vapor recovery system.

(5) All gauging and sampling devices shall be vaportight except for necessary gauging and sampling.

§115.214 Inspection Requirements

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following inspection requirements shall apply:

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from volatile organic compounds (VOC's) transfer operations shall be conducted during each transfer by the owner or operator of the VOC loading and unloading operation or the owner or operator of the transport vessel.

(2) (No change.)

(3) In Dallas, El Paso, Harris, and Tarrant Counties, gasoline tank-truck tanks being loaded must have been leak tested within one year, in accordance with the requirements of §§115.234-115.237 and 115.239 of this title (relating to Control of Volatile Organic Compound Leaks From Transport Vessels), as evidenced by prominently displayed certification, affixed near the Department of Transportation certification plate.

(4) After January 31, 1994, in ozone nonattainment counties other than Dallas, El Paso, Harris, and Tarrant, gasoline tank-truck tanks being loaded must have been leak tested within one year, in accordance with the requirements of §§115.234-115.237 and 115.239 of this title (relating to Control of Volatile Organic Compound Leaks From Transport Vessels), as evidenced by prominently displayed certification, affixed near the Texas Department of Transportation certification plate.

(5) After November 15, 1996, all tank-truck tanks loading or unloading VOC having a true vapor pressure greater than or equal to 0.5 pounds per square inch absolute under actual storage conditions must have been leak tested within one year in accordance with the requirements of §§115.234-115.237 and 115.239 of this title (relating to Control of Volatile Organic Compound Leaks From Transport Vessels) as evidenced by prominently displayed certification affixed near the Texas Department of Transportation certification plate.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following inspection requirements shall apply:

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from VOC transfer operations shall be conducted during each transfer by the owner or operator of the VOC loading and unloading operation or the owner or operator of the transport vessel.

(2) (No change.)

§115.216 Monitoring and Recordkeeping Requirements

(a) For volatile organic compound (VOC) loading or unloading operations in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas affected by §115.211(a) and §115.212(a) of this title (relating to Emission Specifications and Control Requirements), the owner or operator shall maintain the following information at the plant as defined by its Texas Natural Resource Conservation Commission (TNRCC) air quality account number for at least two years and shall make such information available upon request to representatives of the TNRCC.

United States Environmental Protection Agency (EPA), or any local air pollution control agency having jurisdiction in the area:

(1) a daily record of the total throughput of VOC loaded at the plant as defined by its TNRCC air quality account number;

(2) for vapor recovery systems:

(A)-(B) (No change.)

(C) continuous monitoring and recording of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions); and

(D) (No change.)

(3) for gasoline terminals:

(A) a comprehensive record of all tank-trucks loaded, including the certification number of the tank-truck and the date of the last leak testing required by §115.214(a)(3)-(5) of this title (relating to Inspection Requirements);

(B) a daily record of the certification number of all tank-trucks loaded at the affected terminal,

(C) a daily record of the number of transport vessels loaded at the terminal and the quantity of gasoline loaded to each transport vessel, and

(D) (No change.)

(4) for gasoline bulk plants in Dallas, El Paso, Harris, and Tarrant Counties, and after January 31, 1994, in ozone nonattainment counties other than Dallas, El Paso, Harris, and Tarrant:

(A) a comprehensive record of all tank-trucks loaded, including the certification number of the tank-truck and the date of the last leak testing required by §115.214(a)(3) -(5) of this title,

(B) a daily record of the certification number of all tank-trucks loaded at the affected bulk plant,

(C) a daily record of the number of transport vessels loaded at the bulk plant and the quantity of gasoline loaded to each transport vessel, and

(D) (No change.)

(5) for VOC loading or unload-

ing operations other than gasoline terminals, gasoline bulk plants, and marine terminals, a daily record of each transport vessel loaded or unloaded, including:

(A) the certification number of each tank-truck loaded or unloaded and the date of the last leak testing required by §115.214(a)(5) of this title,

(B) the volume of VOC loaded to or unloaded from each transport vessel; and

(C) the vapor pressure of the VOC loaded to or unloaded from each transport vessel.

(6) Affected persons shall maintain the results of any testing conducted in accordance with the provisions specified in §115.215(a) of this title (relating to Testing Requirements).

(b) For VOC loading or unloading operations in Victoria County, the owner or operator shall maintain the following information at the plant as defined by its TNRCC air quality account number for at least two years and shall make such information available upon request to representatives of the TNRCC, EPA, or any local air pollution control agency having jurisdiction in the area:

(1) a daily record of the total throughput of VOC loaded at the plant as defined by its TNRCC air quality account number;

(2) for vapor recovery systems.

(A)-(B) (No change.)

(C) continuous monitoring and recording of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title; and

(D) (No change.)

(3) for gasoline terminals.

(A) a daily record of the number of transport vessels loaded at the terminal and the quantity of gasoline loaded to each transport vessel, and

(B) (No change.)

(4) (No change.)

(5) for VOC loading or unloading operations other than gasoline terminals, gasoline bulk plants, and marine terminals, which are exempt under §115.217(b) of this title (relating to Exemptions), a daily record of each transport vessel loaded or unloaded, including

(A) the volume of VOC loaded to or unloaded from each transport vessel; and

(B) the vapor pressure of the VOC loaded to or unloaded from each transport vessel.

§115.217. Exemptions.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions apply.

(1) Until November 15, 1996, all loading and unloading of volatile organic compounds (VOC) with a true vapor pressure less than 1.5 pounds per square inch absolute (psia) (10.3 kPa) under actual storage conditions is exempt from the requirements of §115.212(a) of this title (relating to Control Requirements)

(2) After November 15, 1996, all loading and unloading of VOC with a true vapor pressure less than 0.5 psia under actual storage conditions is exempt from the requirements of §115.212(a) of this title

(3) Until November 15, 1996, any plant, as defined by its Texas Natural Resource Conservation Commission (TNRCC) air quality account number, excluding gasoline bulk plants, having less than 20,000 gallons (75,708 liters) throughput of VOC per day (averaged over any consecutive 30-day period) with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions is exempt from the requirements of §115.212(a) of this title. The owner or operator of any VOC loading operation for which the VOC loading operation was previously exempt under §115.217(a)(2) of this title (as in effect October 16, 1992) from the control requirements of this undesignated head, and which does not otherwise qualify for exemption under this paragraph, shall.

(A) submit a plan by September 15, 1994 to achieve compliance with the control requirements of this undesignated head as soon as practicable, but no later than November 15, 1996,

(B) qualify for the exemption under paragraph (10) of this section, or

(C) apply for the exemption under paragraph (11) of this section no later than September 15, 1994.

(4) After November 15, 1996, any plant, as defined by its TNRCC air quality account number, excluding gasoline bulk plants, having less than 20,000 gallons

(75,708 liters) throughput of VOC per day (averaged over any consecutive 30-day period) with a true vapor pressure greater than or equal to 0.5 psia under actual storage conditions is exempt from the requirements of §115.212(a) of this title

(5) Until January 31, 1994, gasoline terminals located in Harris County and having less than 500,000 gallons (1,892,706 liters) throughput per day (averaged over any consecutive 30-day period) are exempt from the requirements of §115.211(a)(1)(B) of this title (relating to Emission Specifications).

(6) Until January 31, 1994, gasoline terminals located in Dallas and Tarrant Counties and having less than 100,000 gallons (378,541 liters) throughput per day (averaged over any consecutive 30-day period) are exempt from the requirements of §115.211(a)(1)(B) of this title

(7) All loading and unloading of marine vessels and all loading and unloading of liquefied petroleum gas only (regulated by the Safety Rules of the Liquefied Petroleum Gas Division of the Texas Railroad Commission) is exempt from the requirements of §115.212(a) of this title

(8) Until November 15, 1996, all loading and unloading of crude oil and condensate is exempt from the requirements of §115.212(a) of this title.

(9) Gasoline bulk plants which have a gasoline throughput less than 4,000 gallons (15,142 liters) per day averaged over any consecutive 30-day period are exempt from the provisions of §§115.211(a)(2), 115.212(a)(9), and 115.216(a)(4) of this title (relating to Emission Specifications, Control Requirements, and Monitoring and Recordkeeping Requirements).

(10) VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals are exempt from the control requirements of §115.212(a)(1) and (2) of this title if the overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 0.5 and 11 psia under actual storage conditions is at least 90%, and the following requirements are met.

(A) The owner or operator of the VOC loading operation shall submit a control plan no later than September 15, 1994, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of

VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions will be at least 90% by November 15, 1996. For each loading rack and any associated control device at the account, the control plan shall include the emission point number (EPN), the facility identification number (FIN), the calendar year 1993 throughput of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the calendar year 1993 controlled and uncontrolled emission rates.

(B) In order to maintain exemption status under this paragraph, the owner or operator of the VOC loading operation shall submit an annual report no later than March 31 of each year, starting in 1997, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions during the preceding calendar year is at least 90% after November 15, 1996. For each loading rack and any associated control device at the account, the report shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the controlled and uncontrolled emission rates for the preceding calendar year

(C) The owner or operator of the VOC loading operation shall submit an updated report no later than 30 days after the installation of an additional loading rack(s) or any change in service of a loading rack(s) from loading VOC with a true vapor pressure less than 0.5 psia to loading VOC with a true vapor pressure greater than or equal to 0.5 psia, or vice versa. The report shall be submitted to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction and shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions continues to be at least 90%.

(11) The owner or operator of a VOC loading operation subject to the control requirements of §115.212(a)(1) or (2) of this title may request an exemption determination from the Executive Director if the

overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 0.5 and 11 psia under actual storage conditions is at least 80%, and the following requirements are met

(A) Each request for an exemption determination shall be submitted to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction. Each such request shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions is at least 80%. For each loading rack and any associated control device at the account, the request shall include the emission point number (EPN), the facility identification number (FIN), the calendar year throughput of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions, the controlled and uncontrolled emission rates, and a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device.

(B) The Executive Director shall approve the exemption for specific VOC loading operations if it is determined to be economically unreasonable to control the associated emissions subject to these rules, all reasonable controls are applied, and the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 0.5 and 11 psia under actual storage conditions is at least 80%. The Executive Director may subsequently direct the holder of an exemption under this paragraph to reapply for their exemption if there is good cause to believe that it has become economically reasonable to meet the requirements of the applicable rule(s). Within three months of an Executive Director request, the holder of an exemption under this paragraph shall reapply for their exemption. If the reapplication for an exemption is denied, the holder of the exemption shall meet the requirements of the applicable rule(s) as soon as practicable, but no later than two years from the date of denial.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following exemptions apply.

(1) All loading and unloading of VOC with a true vapor pressure less than 1.5 psia (10.3 kPa) under actual storage conditions is exempt from the requirements of §115.212(b) of this title

(2) Any plant, as defined by its TNRCC air quality account number, having less than 20,000 gallons (75,708 liters) throughput of VOC per day (averaged over any consecutive 30-day period) with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions is exempt from the requirements of §115.212(b) of this title. The owner or operator of any VOC loading operation for which the VOC loading operation was previously exempt under §115.217(b)(2) of this title (as in effect October 16, 1992) from the control requirements of this undesignated head, and which does not otherwise qualify for exemption under this paragraph, shall.

(A) submit a plan by September 15, 1994, to achieve compliance with the control requirements of this undesignated head as soon as practicable, but no later than November 15, 1996.

(B) qualify for the exemption under paragraph (4) of this section, or

(C) apply for the exemption under paragraph (5) of this section no later than September 15, 1994.

(3) All loading and unloading of crude oil and condensate, all loading and unloading of marine vessels, and all loading and unloading of liquefied petroleum gas only (regulated by the Safety Rules of the Liquefied Petroleum Gas Division of the Texas Railroad Commission) is exempt from the requirements of §115.212(b) of this title.

(4) VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals are exempt from the control requirements of §115.212(b)(1) of this title if the overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 90%, and the following requirements are met:

(A) The owner or operator of the VOC loading operation shall submit a control plan no later than September 15, 1994, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions will be at least 90% by November 15, 1996. For each loading rack and any associated control device at the account, the con-

trol plan shall include the emission point number (EPN), the facility identification number (FIN), the calendar year 1993 throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the calendar year 1993 controlled and uncontrolled emission rates.

(B) In order to maintain exemption status under this paragraph, the owner or operator of the VOC loading operation shall submit an annual report no later than March 31 of each year, starting in 1997, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions during the preceding calendar year is at least 90% after November 15, 1996. For each loading rack and any associated control device at the account, the report shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the controlled and uncontrolled emission rates for the preceding calendar year.

(C) The owner or operator of the VOC loading operation shall submit an updated report no later than 30 days after the installation of an additional loading rack(s) or any change in service of a loading rack(s) from loading VOC with a true vapor pressure less than 1.5 psia to loading VOC with a true vapor pressure greater than or equal to 1.5 psia, or vice versa. The report shall be submitted to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction and shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions continues to be at least 90%.

(5) The owner or operator of a VOC loading operation subject to the control requirements of §115.212(b)(1) of this title may request an exemption determination from the Executive Director if the overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 1.5 and

11 psia under actual storage conditions is at least 80%, and the following requirements are met:

(A) Each request for an exemption determination shall be submitted to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction. Each such request shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 80%. For each loading rack and any associated control device at the account, the request shall include the emission point number (EPN), the facility identification number (FIN), the calendar year throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions, the controlled and uncontrolled emission rates, and a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device.

(B) The Executive Director shall approve the exemption for specific VOC loading operations if it is determined to be economically unreasonable to control the associated emissions subject to these rules, all reasonable controls are applied, and the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 80%. The Executive Director may subsequently direct the holder of an exemption under this paragraph to reapply for their exemption if there is good cause to believe that it has become economically reasonable to meet the requirements of the applicable rule(s). Within three months of an Executive Director request, the holder of an exemption under this paragraph shall reapply for their exemption. If the reapplication for an exemption is denied, the holder of the exemption shall meet the requirements of the applicable rule(s) as soon as practicable, but no later than two years from the date of denial.

(c) For all persons in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties, the following exemptions apply

(1) All loading and unloading of VOC with a true vapor pressure less than 1.5 psia (10.3 kPa) under actual storage conditions is exempt from the requirements of §115.212(c) of this title.

(2) Any plant, as defined by its TNRCC air quality account number, having less than 20,000 gallons (75,708 liters) throughput of VOC per day (averaged over any consecutive 30-day period) with a true

vapor pressure greater than or equal to 1.5 psia under actual storage conditions is exempt from the requirements of §115.212(c) of this title. The owner or operator of any VOC loading operation for which the VOC loading operation was previously exempt under §115.217(c)(2) of this title (as in effect October 16, 1992) from the control requirements of this undesignated head, and which does not otherwise qualify for exemption under this paragraph, shall:

(A) submit a plan by September 15, 1994, to achieve compliance with the control requirements of this undesignated as soon as practicable, but no later than November 15, 1996;

(B) qualify for the exemption under paragraph (4) of this section; or

(C) apply for the exemption under paragraph (5) of this section no later than September 15, 1994.

(3) All loading and unloading of crude oil and condensate, all loading and unloading of marine vessels, and all loading and unloading of liquefied petroleum gas only (regulated by the Safety Rules of the Liquefied Petroleum Gas Division of the Texas Railroad Commission) are exempt from the requirements of §115.212(c) of this title.

(4) VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals are exempt from the control requirements of §115.212(c)(1) of this title if the overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 90%, and the following requirements are met.

(A) The owner or operator of the VOC loading operation shall submit a control plan no later than September 15, 1994, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions will be at least 90% by November 15, 1996. For each loading rack and any associated control device at the account, the control plan shall include the emission point number (EPN), the facility identification number (FIN), the calendar year 1993 throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual

storage conditions, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the calendar year 1993 controlled and uncontrolled emission rates.

(B) In order to maintain exemption status under this paragraph, the owner or operator of the VOC loading operation shall submit an annual report no later than March 31 of each year, starting in 1997, to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions during the preceding calendar year is at least 90% after November 15, 1996. For each loading rack and any associated control device at the account, the report shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the controlled and uncontrolled emission rates for the preceding calendar year.

(C) The owner or operator of the VOC loading operation shall submit an updated report no later than 30 days after the installation of an additional loading rack(s) or any change in service of a loading rack(s) from loading VOC with a true vapor pressure less than 1.5 psia to loading VOC with a true vapor pressure greater than or equal to 1.5 psia, or vice versa. The report shall be submitted to the TNRCC Austin Office (Office of Air Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction and shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions continues to be at least 90%

(5) The owner or operator of a VOC loading operation subject to the control requirements of §115.212(c)(1) of this title may request an exemption determination from the Executive Director if the overall control of emissions at the account from the loading of VOC (excluding VOC loading into marine vessels and VOC loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 80%, and the following requirements are met.

(A) Each request for an exemption determination shall be submitted to the TNRCC Austin Office (Office of Air

Quality), the appropriate TNRCC Regional Office, and any local air pollution control program with jurisdiction. Each such request shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 80%. For each loading rack and any associated control device at the account, the request shall include the emission point number (EPN), the facility identification number (FIN), the calendar year throughput of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions, the controlled and uncontrolled emission rates, and a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device.

(B) The Executive Director shall approve the exemption for specific VOC loading operations if it is determined to be economically unreasonable to control the associated emissions subject to these rules, all reasonable controls are applied, and the overall control of emissions at the account from the loading of VOC with a true vapor pressure between 1.5 and 11 psia under actual storage conditions is at least 80%. The Executive Director may subsequently direct the holder of an exemption under this paragraph to reapply for their exemption if there is good cause to believe that it has become economically reasonable to meet the requirements of the applicable rule(s). Within three months of an Executive Director request, the holder of an exemption under this paragraph shall reapply for their exemption. If the reapplication for an exemption is denied, the holder of the exemption shall meet the requirements of the applicable rule(s) as soon as practicable, but no later than two years from the date of denial.

§115.219. Counties and Compliance Schedules.

(a) All affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall be in compliance with this undesignated head (relating to Loading and Unloading of Volatile Organic Compounds) in accordance with the following schedules

(1)-(3) (No change.)

(4) All affected persons in Brazoria, Galveston, Jefferson, and Orange Counties shall be in compliance with §§115.212(a)(8) and (9), 115.214(a)(4), and 115.216(a)(4) of this title as soon as practicable, but no later than January 31, 1994.

(5) All affected persons in Harris County shall be in compliance with §115.217(a)(5) of this title as soon as practicable, but no later than January 31, 1994.

(6) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.217(a)(6) of this title as soon as practicable, but no later than January 31, 1994.

(7) All affected persons shall be in compliance with §§115.211(a)(1)(C), 115.212(a)(2) and (4), 115.214(a)(5), and 115.217(a)(2) and (4) of this title as soon as practicable, but no later than November 15, 1996.

(8) All loading and unloading of crude oil and condensate shall be in compliance with §§115.211(a), 115.212(a), 115.213(a), 115.214(a), 115.215(a), 115.216(a), and 115.217(a) of this title as soon as practicable, but no later than November 15, 1996.

(9) All persons affected by the deletion of the allowance for nonvapor-tight conditions during sampling and gauging shall be in compliance as soon as practicable, but no later than November 15, 1996.

(10) All affected persons shall be in compliance with §115.216(a)(5) of this title as soon as practicable, but no later than May 31, 1994.

(b) All affected persons in Gregg, Nueces, and Victoria Counties shall be in compliance with §115.216(b)(5) of this title as soon as practicable, but no later than May 31, 1994.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993

TRD-9332039

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

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For further information, please call (512) 908-6087

◆ ◆ ◆
**Filling of Gasoline Storage
Vessels (Stage I) for Motor
Vehicle Fuel Dispensing
Facilities**

- 30 TAC §§115.222, 115.226,
115.227, 115.229

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), and §382.017 which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA

§115.222. *Control Requirements.* For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, a vapor balance system will be assumed to comply with the specified emission limitation of §115.221 of this title (relating to Emission Specifications) if the following conditions are met:

(1) the container is equipped with a submerged fill pipe as defined in §115.10 of this title (relating to Definitions). The path through the submerged fill pipe to the bottom of the tank shall not be obstructed by a screen, grate, or similar device whose presence would preclude the determination of the submerged fill pipe's proximity to the tank bottom while the submerged fill tube is properly installed,

(2)-(4) (No change.)

(5) until the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities), the only atmospheric emission during gasoline transfer into the storage container is through a storage container vent line equipped either with an orifice no greater than 3/4 inch (1.9 cm) internal diameter or a pressure-vacuum relief valve set to open at a pressure of no less than eight ounces per square inch (3.4 kPa),

(6) after the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title, the only atmospheric emission during gasoline transfer into the storage container is through a storage container vent line equipped with a pressure-vacuum relief valve set to open at a pressure of no more than eight ounces per square inch (3.4 kPa) or in accordance with the facility's Stage II system as defined in the California Air Resources Board (CARB) Executive Order(s) for the facility,

(7) the delivery vessel is kept vapor-tight at all times until the captured vapors are discharged to a vapor recovery system, if the delivery vessel is refilled, degassed, and/or cleaned in one of the counties in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston Areas,

(8) the gauge pressure in the tank-truck tank does not exceed 18 inches of water (4.5 kPa) or vacuum exceed six inches of water (1.5 kPa);

(9) no leak, as defined in §115.010 of this title, exists from potential leak sources when measured with a combustible gas detector,

(10) any storage tank installed after November 15, 1993, which is required to install Stage I control equipment shall be equipped with a non-coaxial Stage I connection. In addition, any modification to a

storage tank existing prior to November 15, 1993, requiring excavation of the top of the storage tank shall be equipped with a non-coaxial Stage I connection, even if the original installation utilized coaxial Stage I connections. At any facility for which a Stage II system was installed prior to November 15, 1993, the Stage I system utilized must be consistent with the relevant requirements of the CARB Executive Order for the Stage II system installed at that facility; and

(11) any motor vehicle fuel dispensing facility that becomes subject to the provisions of paragraphs (1)-(10) of this section by exceeding the throughput limits of §115.227 of this title (relating to Exemptions) shall have 120 days to come into compliance and will remain subject to the provisions of this subsection, even if its gasoline throughput later falls below exemption limits. However, if gasoline throughput exceeds the exemption limit due to a natural disaster or emergency condition for a period not to exceed one month, upon written request, the Executive Director may grant a facility continued exempt status

§115.226. *Recordkeeping Requirements.* For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of any motor vehicle fuel dispensing facility subject to the control requirements of this section shall:

(1) maintain a record at the facility site of the dates on which gasoline was delivered to the dispensing facility and the leak test certification number, required by §115.224(2) of this title (relating to Inspection Requirements), of each delivery vessel from which gasoline was transferred to the facility. The records shall be kept for a period of two years; and

(2) maintain for a period of two years.

(A) a record of the results of any testing conducted at the motor vehicle fuel dispensing facility in accordance with the provisions specified in §115.225 of this title (relating to Testing Requirements), and

(B) a record of gasoline throughput for each calendar month since January 1, 1991 until such time as the facility installs a Stage II vapor recovery system as required by §§115.241-115.249 of this title (relating to Stage II Vapor Recovery).

§115.227. *Exemptions.* For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions shall apply.

(1) Stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons (3,785 liters), at facilities for which construction began prior to November 15, 1992, are exempt from §115.221 of this title (relating to Emission Specifications) and §115.222 of this title (relating to Control Requirements)

(2) Transfers to stationary storage tanks located at a facility which has dispensed no more than 10,000 gallons of gasoline in any calendar month after January 1, 1991, and for which construction began prior to November 15, 1992, are exempt from §115.221 of this title and §115.222 of this title.

(3) Transfers to the following stationary receiving containers are exempt from the requirements of this undesignated head (relating to Stage I Filling of Gasoline Storage Vessels):

(A) containers used exclusively for the fueling of implements of agriculture; and

(B) storage tanks equipped with external floating roofs, internal floating roofs, or their equivalent.

§115.229. Counties and Compliance Schedules.

(a) All affected persons in Chambers, Collin, Denton, Fort Bend, Hardin, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall be in compliance with this undesignated head (relating to Stage I Filling of Gasoline Storage Vessels) as soon as practicable, but no later than the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities) or January 31, 1994, whichever occurs first.

(b) All affected facilities in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties which have dispensed more than 10,000 gallons of gasoline in any calendar month after January 1, 1991, but less than 120,000 gallons of gasoline per year, and for which construction began prior to November 15, 1992, shall be in compliance with this undesignated head (relating to Stage I Filling of Gasoline Storage Vessels) as soon as practicable, but no later than the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title or January 31, 1994, whichever occurs first

(c) All facilities in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson,

Liberty, Montgomery, Orange, Tarrant, and Waller Counties affected by §115.222(1) of this title, regarding the prohibition of any obstruction in the submerged fill pipe, shall be in compliance with the prohibition on submerged fill pipe obstructions as soon as practicable, but no later than:

(1) the time of Stage II vapor recovery system installation for any facility at which the Stage II installation occurred after November 15, 1993; and

(2) November 15, 1994, for any facility which has installed Stage II controls as of November 15, 1993.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993

TRD-9332040

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

Effective date December 3, 1993

Proposal publication date July 9, 1993

For further information, please call (512) 908-6087

**Control of Volatile Organic
Compound Leaks From
Transport Vessels**

**• 30 TAC §§115.234-115.237,
115.239**

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the TNRC with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.235. Approved Test Methods. For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following testing requirements shall apply.

(1) The owner or operator of any tank-truck which loads or unloads at any gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility, or other volatile organic compound loading or unloading facility shall cause each such tank to be tested annually to ensure that the tank is vapor-tight.

(2)-(3) (No change.)

(4) Where applicable, the test methods described in 49 Code of Federal Regulations, 180.407 for test and inspection of specification cargo tanks are acceptable alternatives to the test methods described in paragraph (3) of this section

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on November 10, 1993.

TRD-9332041

Mary Ruth Holder
Director, Legal Services
Texas Natural Resource
Conservation
Commission

Effective date: December 3, 1993

Proposal publication date July 9, 1993

For further information, please call: (512) 908-6087

**Control of Vehicle Refueling
Emissions (Stage II) at Mo-
tor Vehicle Fuel Dispensing
Facilities**

• 30 TAC §§115.241-115.249

These amendments are adopted under the Texas Health and Safety Code (VERNON 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.242. Control Requirements. For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas affected by this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities), a vapor recovery system will be assumed to comply with the specified emission limitation of §115.241 of this title (relating to Emission Specifications) if the following conditions are met.

(1) The facility is equipped with a Stage II vapor recovery system that has been certified by a California Air Resources Board (CARB) Executive Order concerning Stage II vapor recovery systems as of August 1993, except that:

(A) Stage II vapor recovery balance systems which include vapor check valves in a location other than the nozzle shall not be installed; and

(B) Stage II vapor recovery systems which include dual-hang (non-coaxial) hoses shall not be installed;

(2) All underground piping must be installed by a person holding a valid License A as defined in §334.401-334.428 of this title (relating to Underground Storage Tank Contractor Registration and Installer Licensing). Piping specifications shall be in compliance with the applicable

CARB Executive Order(s) for the Stage II vapor recovery system. For any facility newly constructed after November 15, 1993, or at any facility undergoing a major modification to the Stage II vapor recovery system after November 15, 1993, the following requirements shall apply where piping specifications are not provided in the applicable CARB Executive Order(s).

(A) All underground piping shall be constructed of rigid material and conform to the technical standards for new piping defined by §334.45(c)(1)(A)-(C) and (3) of this title (relating to Technical Standards for New Piping), and §334.45(e)(1) of this title.

(B) Non-corrosive piping or cathodically protected metallic piping shall be used. In the event metallic piping is used, the applicable portions of the general requirements for corrosion protection defined by §334.49(a)(1)-(5) and (c)(1)-(4) of this title (relating to Corrosion Protection) shall apply.

(C) Minimum slope on vapor piping shall be one eighth of an inch per foot from the dispenser to the storage tank.

(D) Vapor piping on balance systems shall be not less than two inches in diameter, and when there are more than four fueling points connected to one vapor line, the minimum vapor piping size shall be three inches in diameter. For the purposes of this paragraph, a single nozzle dispenser shall constitute one fueling point and a multi-nozzle dispenser shall constitute two fueling points.

(E) Riser piping shall have a minimum inside diameter of one inch. Riser piping is defined as the predominantly vertically oriented vapor recovery piping that enters the gasoline dispenser base, which connects the dispenser mounted piping with the buried vapor recovery piping that leads to one or more storage tanks.

(F) If a fire protection agency with jurisdiction requires a vapor shear valve on the vapor return line at the base of a dispenser, the shear valve shall be CARB-certified and/or UL listed.

(3) The owner or operator shall maintain the Stage II vapor recovery system in proper operating condition, as specified by the manufacturer and/or any applicable CARB Executive Order(s), and free of defects that would impair the effectiveness of the system, including, but not limited to:

(A) absence or disconnection of any component that is a part of the approved system;

(B) a vapor hose that is crimped or flattened such that the vapor passage is blocked, or the backpressure through the vapor system exceeds the value as certified in the approved system's CARB Executive Order(s);

(C) a nozzle boot that is torn in one or more of the following ways:

(i) a triangular-shaped or similar tear more than 0.5 inches on a side;

(ii) a hole more than 0.5 inches in diameter; or

(iii) a slit more than 1.0 inch in length;

(D) for balance nozzles, a faceplate that is damaged such that the capability to achieve a seal with a fill pipe interface is affected for a total of at least one-fourth of the circumference of the faceplate;

(E) for booted nozzles in vacuum assist type systems, a flexible cone for which a total of at least one-fourth of the cone is damaged or missing.

(F) a nozzle shut-off mechanism that malfunctions in any manner,

(G) vapor return lines, including such components as swivels, anti-recirculation valves, and underground piping, that malfunction, are blocked, or are restricted such that the pressure decay and/or dynamic backpressure through the line exceeds the value as certified in the approved system's CARB Executive Order(s),

(H) a vapor processing unit that is inoperative or defective,

(I) a vacuum producing device that is inoperative or defective;

(J) pressure/vacuum relief valves, vapor check valves, or Stage I dry breaks that are inoperative or defective; and

(K) any equipment defect that is identified in a CARB certification of an approved system as substantially impairing the effectiveness of the system in reducing refueling vapor emissions.

(4) No gasoline leaks, as detected by sampling, sight, sound, or smell,

exist anywhere in the dispensing equipment or Stage II vapor recovery system.

(5) Upon identification of any of the defects described in paragraphs (3) and (4) of this section, the owner or operator or his or her representative shall remove from service all dispensing equipment for which vapor recovery has been impaired. The impaired equipment shall remain out of service until such time as the equipment has been properly repaired, replaced, or adjusted, as necessary. Once repaired, the equipment may be returned to service by the owner or operator or his or her representative.

(6) Upon identification of any of the defects described in paragraphs (3) and (4) of this section, any inspector with jurisdiction shall tag the impaired equipment out-of-order. The "Out-of-Order" tag shall state "use of this device is prohibited under state law, and unauthorized removal of this tag or use of this equipment will constitute a violation of the law punishable by a maximum civil penalty of up to \$25,000 per day or a maximum criminal penalty of \$50,000 and/or up to 180 days in jail." The impaired equipment shall remain out of service until such time as the equipment has been properly repaired, replaced, or adjusted, as necessary. Once repairs are completed, the "Out-of-Order" tag may be removed, and the equipment shall be returned to service by the owner or operator or facility representative upon notification to the agency that originally tagged the equipment out-of-service in the following manner: verbal notification prior to placing the equipment back in service followed by written notification received by the agency within 10 days of placing the equipment back in service. For the purposes of this paragraph, "facility representative" has the meaning ascribed to it in §115.248(i) of this title (relating to Training Requirements).

(7) No person shall repair, modify, or permit the repair or modification of the Stage II vapor recovery system or its components such that they are different from their approved configuration, and only original equipment manufacturer (OEM) parts or CARB-certified non-OEM aftermarket parts shall be used as replacement parts.

(8) No person shall tamper with, or permit tampering with, any part of the Stage II vapor recovery system in a manner that would impair the operation or effectiveness of the system.

(9) The owner or operator of a motor vehicle fuel dispensing facility shall post operating instructions conspicuously on the front of each gasoline dispensing pump equipped with a Stage II vapor recovery system. These instructions shall, at a minimum, include

(A) a clear description of how to correctly dispense gasoline using the system.

(B) a warning against attempting to continue to refuel after initial automatic shutoff of the system (an indication that the vehicle fuel tank is full), and

(C) the telephone number of the Texas Natural Resource Conservation Commission (TNRCC) Stage II Vapor Recovery Hotline (1-800-533-3AIR) to be used for questions, comments, or the reporting of any problems experienced with the system

(10) Any motor vehicle fuel dispensing facility that becomes subject to the provisions of this undesignated head by exceeding the throughput limits of §115 247, §115 249(2), or §115 249(3) of this title (relating to Exemptions, and Counties and Compliance Schedules) shall have 120 days to come into compliance and will remain subject to the provisions of this undesignated head even if its gasoline throughput later falls below throughput limits, except that

(A) At a facility exempted under §115 247(2) of this title for which an exceedance occurred between January 1, 1991, and November 15, 1992, the owner or operator may petition the Executive Director to permit a continuance of the facility's exempt status provided that the average monthly throughput calculated from January 1, 1991, to November 15, 1992, remained below 10,000 gallons. If exempt status is continued by the Executive Director, the annual verification of exempt status as required in §115 247(2) of this title must be fulfilled

(B) At a facility exempted under §115 247(2) of this title or having an extended compliance schedule under §115 249(3) of this title, for which an exceedance occurred for any consecutive 30-day period due to an emergency condition or natural disaster after November 15, 1992, the owner or operator may petition the Executive Director to permit the continuance of the facility's exempt status or extended compliance schedule status. If exempt or extended compliance schedule status is continued by the Executive Director, the requirement of annual verification of the status as stated in §115 247(2) of this title must be fulfilled

(11) Any facility having installed Stage II vapor recovery system(s) or component(s) previously certified by CARB via an Executive Order, for which

certification has been revoked by CARB, as of August 1993, must install and have operational, a different approved system(s) or component(s) as referenced in §115 242(1) of this title (relating to Emission Specifications) as soon as practicable, but no later than three years from the date that CARB revoked the certification

(12) After November 15, 1993, the owner or operator shall provide written notification of any Stage II vapor recovery system installation to the appropriate TNRCC Regional Office and any local air pollution program at least 30 days prior to start of construction. The information in the notification shall include, but is not limited to

(A) facility name, location (physical and mailing address), name, address, and phone number of owner(s) and operator(s); name and phone number of owner's representative, name, address, and phone number of contractor(s), and the TNRCC Petroleum Storage Tank Division Facility ID number and Owner ID number (if known).

(B) proposed start date, and

(C) type of Stage II system to be installed, including CARB Executive Order number(s) and the number of gasoline nozzles at the facility

§115 243 Alternate Control Requirements For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas affected by this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities), alternate methods of complying with §115 242(1) of this title (relating to Control Requirements) may be approved by the Executive Director if

(1) emission reductions are demonstrated to be substantially equivalent, and

(2) the Stage II vapor recovery system has been certified by the California Air Resources Board (CARB)

§115 244 Inspection Requirements For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of any motor vehicle fuel dispensing facility subject to the control requirements of this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities) shall conduct daily inspections of the Stage II vapor recovery system for the defects specified in §115 242(3) and (4) of this title

(relating to Control Requirements) as follows.

(1) For all systems, the daily inspections shall include the applicable portions of §115 242(4)(3)(A)-(F),(H)-(I), and (K) and of this title.

(2) For assist systems that utilize a processor, indicating mechanisms designed by the Stage II vapor recovery equipment manufacturer to verify proper operation shall be inspected daily. Examples of these indicating mechanisms include flame detection sensors, remote (from the processor) visual or audible displays indicating system operation, or other means as described in the applicable Executive Order for the system

(3) For all systems, the components listed in §115. 242(3)(J) of this title shall be inspected at least monthly

(4) For all systems, the components listed in §115 242(G) of this title shall be inspected at least annually

§115 245 Testing Requirements. For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with §115 241 and §115 242 of this title (relating to Emission Specifications and Control Requirements) shall be determined at each facility within 30 days of installation of the Stage II equipment by testing as follows

(1) Stage II vapor recovery systems shall successfully meet the performance criteria proper to the system by successfully completing the following testing requirements utilizing the test procedures as found in the Texas Natural Resource Conservation Commission *Stage II Vapor Recovery Test Procedure Handbook* (August 1993).

(A) For balance and assist systems:

(i) the manifolding or interconnectivity of the vapor space shall be consistent with the Executive Order requirements for the installed system,

(ii) the sum of the vapor leaks in the system shall not exceed acceptable limits for the system as defined in the pressure decay test,

(iii) the maximum acceptable backpressure through a given vapor path shall not exceed the limits as found in the backpressure/liquid blockage test applicable for the vapor path for the system, and

(iv) the maximum gasoline flow rate through the nozzle shall not exceed the limits found in the Executive Order for the system

(B) For bootless nozzle assist systems, the volume-to-liquid ratio (V/L ratio) shall be within acceptable limits

(C) Each system shall meet minimum performance criteria specific to the individual system as defined in the California Air Resources Board Executive Order. The criteria and test methods contained in the *TNRCC Stage II Vapor Recovery Test Procedure Handbook* (August 1993) specified in subparagraph (A) of this paragraph shall take precedence for applicable tests where performance criteria exist in both the Executive Order and the *Stage II Vapor Recovery Test Procedure Handbook*, otherwise, the Executive Order specific criteria shall take precedence

(D) The owner or operator or his or her representative shall provide written notification to the appropriate TNRCC regional office and any local air pollution program with jurisdiction of the testing date and who will conduct the test. The notification must be received by the agency at least 10 working days in advance of the test, and the notification must contain the information and be in the format as found in the *TNRCC Stage II Vapor Recovery Test Procedure Handbook* (August 1993). Notification may take the form of a facsimile or telecopier transmission, as long as the facsimile is received by TNRCC and any local air pollution program with jurisdiction at least 10 working days prior to the test and it is followed up within two weeks of the transmission with a written notification. The owner or operator or his or her representative shall give at least 24-hour notification to the appropriate TNRCC regional office and any local air pollution program with jurisdiction if a scheduled test is cancelled. In the event that the test cancellation is not anticipated prior to 24-hours before the scheduled test, the owner or operator or his or her representative shall notify the appropriate TNRCC regional office and any local air pollution program with jurisdiction as soon in advance of the scheduled test as is practicable

(2) Pressure decay testing shall be conducted annually and in accordance with the test procedures referenced in §115 245(1) of this title (relating to Testing Requirements)

(3) Verification of proper operation of the Stage II equipment shall be performed at least every five years or upon major system replacement or modification, whichever occurs first. The verification shall include all functional tests that were required for the initial system test. The owner or operator or his or her representative shall provide written notification to the appropriate TNRCC Regional Office and any local air pollution program with

jurisdiction of the testing date and who will conduct the test. The notification must be received by the agency at least 10 working days in advance of the test, and the notification must contain the information and be in the format as found in the *TNRCC Stage II Vapor Recovery Test Procedure Handbook* (August 1993). Notification may take the form of a facsimile or telecopier transmission, as long as the facsimile is received by the TNRCC and any local air pollution program with jurisdiction at least 10 working days prior to the test and it is followed up within two weeks of the transmission with a written notification. The owner or operator or his or her representative shall give at least 24-hour notification to the appropriate TNRCC regional office and any local air pollution program with jurisdiction if a scheduled test is cancelled. In the event that the test cancellation is not anticipated prior to 24-hours before the scheduled test, the owner or operator or his or her representative shall notify the appropriate TNRCC regional office and any local air pollution program with jurisdiction as soon in advance of the scheduled test as is practicable. For the purposes of this paragraph, a major system replacement or modification is defined as

(A) the repair or replacement of any stationary storage tank equipped with a Stage II vapor recovery system,

(B) the replacement of an existing CARB-certified Stage II vapor recovery system with a system certified by CARB under a different CARB Executive Order; or

(C) the repair or replacement of any part of a piping system attached to a stationary storage tank equipped with a Stage II vapor recovery system, excluding the repair or replacement of piping which is accessible for such repair or replacement without excavation or modification of the vapor recovery equipment

(4) Minor modifications of these test methods may be approved by the Executive Director

(5) All required tests shall be conducted either in the presence of a TNRCC or local program inspector with jurisdiction, or by a person who is registered with TNRCC by successfully completing a TNRCC proficiency test relating to Stage II Vapor Recovery Test Procedures and Methods. The requirement to be registered shall begin on November 15, 1993, or 60 days after TNRCC has established the registry, whichever occurs later. TNRCC may remove an individual from the registry of testers for any of the following causes

(A) TNRCC can demonstrate that the individual has failed to conduct the test(s) properly in at least three separate instances, or

(B) the individual falsifies test results for tests conducted to fulfill the requirements of §115 245 of this title.

(6) The owner or operator or his or her representative shall submit the results of all tests required by §115 245 of this title to the appropriate TNRCC regional office and any local air pollution control program with jurisdiction within 10 working days of the completion of the test(s) using the format specified in the *TNRCC Stage II Vapor Recovery Test Procedure Handbook* (August 1993). For purposes of on-site recordkeeping, the Test Procedures Cover Results Cover Sheet, properly completed with the summary of the testing, are acceptable. The detailed results from each test conducted along with a properly completed summary sheet, as provided for in the *Stage II Vapor Recovery Test Procedure Handbook*, shall be submitted to the appropriate TNRCC regional office and any local air pollution control program with jurisdiction

§115 246 Recordkeeping Requirements For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of any motor vehicle fuel dispensing facility subject to the control requirements of this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities) shall maintain the following records:

(1) a copy of the California Air Resources Board (CARB) Executive Order(s) for the Stage II vapor recovery system and any related components installed at the facility,

(2) a copy of any owner or operator request for Executive Director approval pursuant to §115 243 of this title (relating to Alternate Control Requirements) and any Executive Director approval issued pursuant to §115 243 of this title;

(3) a record of any maintenance conducted on any part of the Stage II equipment, including a general part description, the date and time the equipment was taken out of service, the date of repair or replacement, the replacement part manufacturer's information, a general description of the part location in the system (e.g., pump or nozzle number, etc.), and a description of the problem,

(4) proof of attendance and completion of the training specified in §115 248 of this title (relating to Training Requirements), with the documentation of all Stage II training for each employee to be

maintained as long as that employee continues to work at the facility;

(5) a record of the results of testing conducted at the motor vehicle fuel dispensing facility in accordance with the provisions specified in §115.245 of this title (relating to Testing Requirements);

(6) a record of the results of the daily inspections conducted at the motor vehicle fuel dispensing facility in accordance with the provisions specified in §115.244 of this title (relating to Inspection Requirements); and

(7) all records shall be maintained for at least two years, except that the CARB Executive Order(s) specified in paragraph (1) of this section, any applicable alternate method of control requirement approval specified in paragraph (2) of this section, and testing results specified in paragraph (5) of this section shall be kept on-site indefinitely. These records shall be:

(A) kept on-site at facilities ordinarily manned during business hours, and made immediately available for review upon request by authorized representatives of the Texas Natural Resource Conservation Commission (TNRCC), the United States Environmental Protection Agency (EPA), or any local air pollution control program with jurisdiction; or

(B) made available for review at the site by authorized representatives of TNRCC, EPA, or any local air pollution control program with jurisdiction within 48 hours after being requested by the representative for facilities ordinarily unmanned during business hours.

§115.247 Exemptions. For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following are exempt from the requirements of this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities).

(1) gasoline dispensing equipment used exclusively for the fueling of aircraft, watercraft, or implements of agriculture; and

(2) any motor vehicle fuel dispensing facility for which construction began prior to November 15, 1992, and which has a monthly throughput of less than 10,000 gallons of gasoline. For the purposes of this paragraph, the monthly throughput shall be based on the maximum monthly gasoline throughput for any calendar month after January 1, 1991. To maintain a facility's exempt status under this paragraph, the owner or operator must submit the facility's monthly gasoline throughput on an annual basis no later than January 31 of each year

to the appropriate Texas Natural Resource Conservation Commission regional office and any local air pollution control program with jurisdiction.

§115.248. Training Requirements. For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas affected by this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities), the following training requirements apply.

(1) The owner or operator of a motor vehicle fuel dispensing facility shall ensure that at least one facility representative receive training and instruction in the operation and maintenance of the Stage II vapor recovery system by successfully completing a training course approved by the Texas Natural Resource Conservation Commission (TNRCC). Such successful completion shall constitute certification of the facility representative. Each such facility representative is then responsible for making every current and future employee aware of the purposes and correct operating procedures of the system. The required training shall be completed as soon as practicable prior to the initiation of operation of the facility's Stage II equipment. The following additional requirements apply to the designation of the facility representative:

(A) For normally unattended facilities such as unattended card-lock facilities, or for normally unattended refueling facilities not open to the public, a single person may fulfill the facility representative role at more than one facility.

(B) For facilities normally attended, a single person shall not fulfill the facility representative role at more than one facility at a time.

(2) If the facility representative who received the approved training is no longer employed at that facility, another facility representative must successfully complete approved training within three months of the departure of the previously trained employee.

(3) A TNRCC approved training course will include, but is not limited to, the following:

(A) federal and state Stage I and Stage II regulations (including enforcement consequences of noncompliance) and vapor recovery health effects and benefits;

(B) equipment operation and function of each type of vapor recovery system;

(C) general overview of maintenance schedules and requirements for Stage II vapor recovery equipment;

(D) general overview of structure and content of California Air Resources Board (CARB) Executive Orders; and

(E) recordkeeping and inspection requirements for Stage I and Stage II vapor recovery systems.

(4) TNRCC may revoke approval of a training course if the training provider:

(A) fails to administer the training course as proposed in the application made to TNRCC to provide such training; or

(B) fails to notify TNRCC of upcoming courses in writing at least 21 days prior to the date of the training as to the date, time, and place the training is to be held, or in the event of a scheduled course cancellation, fails to notify TNRCC at least 24 hours in advance of the cancellation, except:

(i) for all training providers, if conditions exist such that 24-hour notice of course cancellation is impossible or impracticable, notice must be given to TNRCC as soon as practicable, preferably prior to the time the course was originally scheduled, and

(ii) for training courses provided at no charge to the persons who attend, such as company-provided inhouse training, the 21-day advance notice shall not apply, and advance notice of upcoming courses is only required when such notice is requested, in writing, by TNRCC.

§115.249. Counties and Compliance Schedules. All affected persons in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Hardin, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties shall be in compliance with this undesignated head (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities) according to the following schedules:

(1) as soon as practicable, but no later than May 15, 1993, or upon initial start-up, whichever is later, for facilities for which construction began after November 15, 1990,

(2) as soon as practicable, but no later than November 15, 1993, for facilities with a monthly throughput of at least 100,000 gallons of gasoline. For the pur-

poses of this paragraph, the monthly throughput shall be based on the maximum monthly gasoline throughput for any calendar month after January 1, 1991;

(3) as soon as practicable, but no later than November 15, 1994, for all other facilities, except that individual independent small business marketers of gasoline (ISBMG), as defined in §115.10 of this title (relating to Definitions), may petition the Executive Director for an extension of the compliance deadline to December 22, 1998, or until one or more of the facility's gasoline storage tanks are replaced and/or equipped with corrosion protection as required by the Petroleum Storage Tank (PST) Division of the Texas Natural Resource Conservation Commission (TNRCC), whichever occurs first, provided that the petition is submitted no later than January 15, 1994, and approved by the Executive Director. The availability of an extended compliance schedule for independent small business marketers of gasoline only applies to individual facilities for which the monthly gasoline throughput is less than 50,000 gallons per month, based on the maximum monthly gasoline throughput for any calendar month after January 1, 1991. In order for the station to maintain ISBMG compliance date extension status under this paragraph, the facility shall not exceed the 50,000 gallons per month gasoline throughput limit, and the owner or operator shall submit the facility's monthly gasoline throughput on an annual basis no later than January 31 of each year to the appropriate TNRCC Regional Office and any local air pollution control program with jurisdiction until such time as the Stage II vapor recovery system is installed; and

(4) if more than one of the compliance schedules in paragraphs (1)-(3) of this section applies to a facility, the earliest compliance schedule shall take precedence

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

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Mary Ruth Holder
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For further information, please call. (512) 908-6087

Subchapter D. Petroleum Refining and Petrochemical Processes

Fugitive Emission Control in Petroleum Refineries

• 30 TAC §115.324

The amendment is adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA.

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Fugitive Emission Control in Synthetic, Organic, Chemical Polymer, Resin, and Methyl Tert-Butyl Ether Manufacturing Processes

• 30 TAC §115.334

The amendment is adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA

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Fugitive Emission Control in Natural Gas/Gasoline Processing Operations

• 30 TAC §115.344

The amendment is adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA.

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Fugitive Emission Control in Petrochemical Refining and Petrochemical Processes

• 30 TAC §§115.352-115.357, 115.359

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.352. *Control Requirements.* For the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), no person shall operate a petroleum refinery; a synthetic organic chemical, polymer, resin, or methyl tert-butyl ether manufacturing process; or a natural gas/gasoline processing operation as defined in §115.10 of this title, without complying with the following requirements.

(1) No component shall be allowed to have a volatile organic compound (VOC) leak for more than 15 days after the leak is found which exceeds the following:

(A) a VOC concentration greater than 500 parts per million by volume (ppmv) above background as methane, propane, or hexane, or the dripping or exuding of process fluid based on sight, smell, or sound for all components except pump seals and compressor seals;

(B) a VOC concentration greater than 10,000 ppmv above background as methane, propane, or hexane, or the dripping or exuding of process fluid based on sight, smell, or sound for all pump seals and compressor seals.

(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 shutdown. Repairs to all accessible valves found leaking shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained.

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

(4) Except for safety pressure relief valves, no valves shall be installed or operated at the end of a pipe or line containing VOC 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, and when closing the line, the upstream valve shall be closed first.

(5) Construction of new and reworked piping, valves, and pump and compressor systems shall conform to applicable American National Standards Institute, American Petroleum Institute, American Society of Mechanical Engineers, or equivalent codes.

(6) New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

(7) To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Valves elevated more than two meters above a support surface will be considered nonaccessible. Nonaccessible valves shall be identified in a list to be made available upon request.

(8) New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on new piping smaller than two inches in

diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas tested or hydraulically tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance.

(9) For valves equipped with rupture discs, a pressure gauge or an equivalent device or system shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity, but no later than the next process shutdown. Equivalent devices or systems shall be identified in a list to be made available upon request and have been approved by the methods required by §115.353 of this title (relating to Alternate Control Requirements).

§115.353. Alternate Control Requirements. For all affected persons in the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas, 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.

§115.354. Inspection Requirements. All affected persons in the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas, shall conduct a monitoring program consistent with the following provisions:

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

(A) process drains,

(B) nonaccessible valves as identified in §115.352(7) of this title (relating to Control Requirements); and

(C) unsafe to monitor valves. An unsafe to monitor valve is a valve that the owner or operator determines is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (2) of this subsection. Valves which are unsafe to monitor shall be identified in a list made available upon request. If an unsafe to monitor valve is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times

(2) measure each calendar quarter (with a hydrocarbon gas analyzer) the emissions from all:

(A) compressor seals;

(B) pump seals;

(C) accessible valves; and

(D) pressure relief valves in gaseous service.

(3) inspect weekly, by visual, audible, and/or olfactory means, all flanges;

(4) measure (with a hydrocarbon gas analyzer) the emissions from any component within five days after a potential leak is detected by sight, sound, or smell;

(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) the emissions from any component that was found leaking. The repair and maintenance of accessible valves shall include the simultaneous use of a hydrocarbon gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being repaired or maintained;

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

(8) the monitoring schedule of paragraphs (1)-(3) of this section may be modified to require an increase in the frequency of monitoring in a given process area if the Executive Director of the Texas Natural Resource Conservation Commission (TNRCC) determines that there is an excessive number of leaks in that process area;

(9) after completion of the required annual and quarterly inspections for a period of at least two years, the operator of a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or a natural gas/gasoline processing operation may request in writing to TNRCC 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.

(A) 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.

(B) 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.

§115.355. Approved Test Methods. For all affected persons in the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas, compliance with this undesignated head (relating to Fugitive Emission Control in Petroleum Refining and Petrochemical Processes) shall be determined by applying the following test methods, as appropriate:

(1) Test Method 21 (40 CFR 60, Appendix A) for determining volatile organic compound leaks;

(2) determination of true vapor pressure using American Society for Testing and Materials Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for 68 degrees Fahrenheit (20 degrees Celsius) in accordance with API Publication 2517, Third Edition, 1989;

(3) minor modifications to these test methods approved by the Executive Director; or

(4) equivalent determinations using published vapor pressure data or accepted engineering calculations

§115.356. Monitoring and Recordkeeping Requirements. All affected persons in the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas, shall have the following recordkeeping requirements.

(1) maintain a components monitoring log which 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 the component was monitored;

(E) the results of the monitoring (in parts per million by volume);

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

(G) if a component is found leaking

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

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

(iii) the date and instrument reading of the recheck procedure after a leaking component is repaired, and

(iv) those leaks that cannot be repaired until a unit shutdown,

(H) the total number of components checked and the total number of components found leaking, and

(I) the test method used

(2) records of the visual, audible, and olfactory inspections of flanges are not required unless a leak is detected,

(3) maintain all monitoring records for at least two years and make them available for review upon request by authorized representatives of TNRCC, U.S. Environmental Protection Agency, or local air pollution control agencies.

§115.357. Exemptions. For all affected persons in the Beaumont/Port Arthur, El Paso, and Houston/Galveston areas, the following exemptions shall apply

(1) Components which contact a process fluid containing VOCs having a true vapor pressure equal to or less than 0.044 pounds per square inch absolute (0.3 kPa) at 68 degrees Fahrenheit (20 degrees Celsius) are exempt from the requirements of §115.354 of this title (relating to Inspection Requirements) if the components are inspected visually according to the inspection schedules specified within this same section

(2) Sealless/leakless valves (including, but not limited to, bellows and diaphragm valves), storage tank valves, pressure relief valves equipped with a rupture disc or venting to a control device, components in continuous vacuum service, and valves that are not externally regulated (such as in-line check valves) are exempt from the requirements of this undesignated head

(3) Compressors in hydrogen service are exempt from the requirements of §115.354 of this title if the owner or operator demonstrates that the percent hydrogen

content can be reasonably expected to always exceed 50.0% by volume.

(4) All pumps and compressors which are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.354 of this title. These seal systems may include, but are not limited to, dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned or magnetic driven pumps) may be used to satisfy the requirements of this paragraph.

(5) Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations.

(6) Components at a petroleum refinery, synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, which contact a process fluid that contains less than 10% VOC by weight and components at a natural gas/gasoline processing operation which contact a process fluid that contains less than 10% VOC by weight are exempt from the requirements of this undesignated head.

(7) Facilities with less than 250 components in VOC service are exempt from the requirements of this undesignated head

(8) Components in ethylene, propane, or propylene service, not to exceed 5.0% of the total components, may be classified as non-repairable beyond the second repair attempt at 500 ppmv. These components will remain in the fugitive monitoring program and be repaired when the concentration of VOC is greater than 10,000 ppmv for more than 15 days after the leak is found. For the purposes of this undesignated head, components which contact a process fluid with greater than 85% ethylene, propane, or propylene by weight are considered in ethylene, propane, or propylene service, respectively

§115.359. Counties and Compliance Schedules. All affected persons in Brazoria, Chambers, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall be in compliance with §115.352 of this title (relating to Control Requirements), §115.353 of this title (relating to Alternate Control Requirements), §115.354 of this title (relating to Inspection Requirements), §115.355 of this title (relating to Testing Requirements), §115.356 of this title (relating to Monitoring and Recordkeeping Requirements), and §115.357 of this title (relating to Exemptions) as soon as practicable, but no later than November 15, 1996.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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908-6087

Subchapter E. Solvent-Using Processes

Surface Coating Processes

• 30 TAC §§115.421, 115.422, 115.426, 115.427, 115.429

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA

§115.421 Emission Specifications.

(a) No person in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions) may cause, suffer, allow, or permit volatile organic compound (VOC) emissions from the surface coating processes as defined in §115.10 of this title affected by paragraphs (1)-(12) of this subsection to exceed the specified emission limits. These limitations are based on the daily weighted average of all coatings delivered to each coating line, except for those in paragraph (10) of this subsection which are based on paneling surface area and those in paragraph (11) of this subsection which are based on the VOC content of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured, blended, and/or repackaged for use in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, or Houston/Galveston areas

(1)-(7) (No change.)

(8) Automobile and light-duty truck coating

(A) (No change.)

(B) Until July 31, 1994, in Dallas and Tarrant Counties, VOC emissions from the coatings or solvents used in automobile and truck refinishing shall be

based on an assumed 65% transfer efficiency from all application equipment, unless otherwise specified, in an alternate means of control approved by the Executive Director in accordance with §115.910 of this title (relating to Alternate Means of Control), and shall not exceed the following limits, as delivered to the application system:

(i) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for primers or primer/surfacers;

(ii)-(vii) (No change.)

(C) After July 31, 1994, VOC emissions from the coatings or solvents used in automobile and truck refinishing shall not exceed the following limits, as delivered to the application system:

(i) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for primers or primer/surfacers, as defined in §115.10 of this title.

(ii) 5.5 pounds per gallon (0.66 kg/liter) of coating (minus water and exempt solvent) for precoat, as defined in §115.10 of this title.

(iii) 6.5 pounds per gallon (0.66 kg/liter) of coating (minus water and exempt solvent) for pretreatment, as defined in §115.10 of this title.

(iv) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for single-stage topcoats.

(v) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for basecoat/clearcoat systems, as defined in §115.10 of this title.

(vi) 5.2 pounds per gallon (0.62 kg/liter) of coating (minus water and exempt solvent) for three-stage systems, as defined in §115.10 of this title.

(vii) 7.0 pounds per gallon (0.84 kg/liter) of coating (minus water and exempt solvent) for specialty coatings, as defined in §115.10 of this title.

(viii) 6.0 pounds per gallon (0.72 kg/liter) of coating (minus water and exempt solvent) for sealers, as defined in §115.10 of this title, and

(ix) 1.4 pounds per gallon (0.17 kg/liter) of wipe-down solutions, as defined in §115.10 of this title

(D) Additional control requirements for automobile and truck refinishing operations are referenced in §115.422 of this title (relating to Control Requirements)

(9)-(10) (No change.)

(11) Architectural coatings. Any coating sold or offered for sale as an architectural coating shall have the date of manufacture clearly marked on each container, and the VOC content shall not exceed the following limits:

(A)-(I) (No change.)

(12) (No change.)

(b) (No change.)

§115.426. Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following recordkeeping requirements shall apply.

(1) Any person affected by §115.421(a) of this title (relating to Emission Specifications) shall satisfy the following recordkeeping requirements

(A) (No change.)

(B) Records shall be maintained of the quantity and type of each coating and solvent consumed during the specified averaging period. Such records shall be sufficient to calculate the applicable weighted average of VOC for all coatings. As an alternative to the recordkeeping requirements of this subparagraph, automobile and truck refinishing operations affected by §115.421(a)(8)(B)-(C) of this title may substitute the recordkeeping requirements specified in the applicable standard exemption for automobile and truck refinishing operations as referenced in §116.211 of this title (relating to Standard Exemption List).

(C)-(D) (No change.)

(2) The owner or operator of any surface coating facility which utilizes a vapor recovery system approved by the Executive Director in accordance with §115.423(a)(3) of this title (relating to Alternate Control Requirements) shall:

(A) install and maintain monitors to accurately measure and record operational parameters of all required control devices, as necessary, to ensure the proper functioning of those devices in accordance with design specifications, including.

(i) -(ii) (No change.)

(iii) continuous monitoring of carbon adsorption bed exhaust, and

(iv) (No change.)

(B)-(C) (No change.)

(3)-(4) (No change.)

(b) For Gregg, Nueces, and Victoria Counties, the following recordkeeping requirements shall apply.

(1) Any person affected by §115.421(b) of this title shall satisfy the following recordkeeping requirements.

(A) (No change.)

(B) Records shall be maintained of the quantity and type of each coating and solvent consumed during the specified averaging period. Such records shall be sufficient to calculate the applicable weighted average of VOC for all coatings.

(C)-(D) (No change.)

(2) The owner or operator of any surface coating facility which utilizes a vapor recovery system approved by the Executive Director in accordance with §115.423(b)(3) of this title shall:

(A) install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications, including:

(i)-(ii) (No change.)

(iii) continuous monitoring of carbon adsorption bed exhaust; and

(iv) (No change.)

(B)-(C) (No change.)

(3) (No change.)

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Offset Lithographic Printing
• 30 TAC §§115.442, 115.443,
115.445, 115.446, 115.449

The amendments are adopted under the Texas Health and Safety Code (Version 1990), the Texas Clean Air Act (TCAA)

§382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.442. Control Requirements For the El Paso area as defined in §115.10 of this title (relating to Definitions), the following control requirements shall apply.

(1) No person shall operate or allow the operation of an offset lithographic printing line that uses solvent-containing ink, unless volatile organic compound (VOC) emissions are limited by one of the following.

(A) Any person who owns or operates a heatset web offset lithographic printing press that uses alcohol in the fountain solution shall maintain total fountain solution alcohol to 5.0% or less (by volume). Alternatively, a standard of 10.0% or less (by volume) alcohol may be used if the fountain solution containing alcohol is refrigerated to less than 60 degrees Fahrenheit.

(B) Any person who owns or operates a nonheatset web offset lithographic printing facility which prints newspaper and that use alcohol in the fountain solution shall eliminate the use of alcohol in the fountain solution. Alternatively, nonalcohol additives or alcohol substitutes can be used to accomplish the total elimination of alcohol use.

(C) Any person who owns or operates a nonheatset web offset lithographic printing facility which does not print newspaper and that use alcohol in the fountain solution shall maintain the use of alcohol at 5.0% or less (by volume). Alternatively, a standard of 10.0% or less (by volume) alcohol may be used if the fountain solution is refrigerated to less than 60 degrees Fahrenheit.

(D) Any person who owns or operates a sheetfed offset lithographic printing facility shall maintain the use of alcohol at 10.0% or less (by volume). Alternatively, a standard of 12.0% or less (by volume) alcohol may be used if the fountain solution is refrigerated to less than 60 degrees Fahrenheit.

(E) Any person who owns or operates any type of offset lithographic printing press shall be considered in compliance with this regulation if the only VOCs in the fountain solution are in nonalcohol additives or alcohol substitutes, so that the concentration of VOCs in the fountain solution is 3.0% or less (by weight). The fountain solution shall not contain any isopropyl alcohol.

(F) Any person who owns or operates an offset lithographic printing press shall reduce VOC emissions from cleaning solutions by one of the following methods.

(i) using cleaning solutions with a 50% or less (as used) VOC content; or

(ii) using cleaning solutions with a 70% or less (as used) VOC content and incorporating a towel handling program which ensures that all waste ink, solvents, and cleanup rags shall be stored in closed containers until removed from the site by a licensed disposal/cleaning service.

(2) No person shall operate or allow the operation of a heatset offset lithographic printing press unless VOC emissions from the press dryer exhaust vent are reduced 90% by weight or a maximum dryer exhaust outlet concentration of 20 ppmv is maintained, whichever is less stringent when the press is in operation.

§115.445. Approved Test Methods. For the El Paso area, compliance shall be determined by applying the following test methods, as appropriate.

(1) Test Methods 1-4 (40 Code of Federal Regulations (CFR) 60, Appendix A) for determining flow rates;

(2) Test Method 24 (40 CFR 60, Appendix A) for determining the volatile organic compound content and density of printing inks and related coatings;

(3) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon. To prevent condensation, the probe and filter should be heated to the gas stream temperature, typically closer to 350 degrees Fahrenheit;

(4) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(5) United States Environmental Protection Agency (EPA) guidelines series document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," EPA-450/3-84-011, as in effect December, 1984, or

(6) additional performance test procedures described in 40 CFR 60.444

§115.446. Monitoring and Recordkeeping Requirements For the El Paso Area, the following monitoring and recordkeeping requirements shall apply

(1) The owner or operator of a heatset offset lithographic printing press shall install, calibrate, maintain, and operate a temperature monitoring device, according to the manufacturer's instructions, at the outlet of the control device. The temperature monitoring device shall be equipped with a continuous recorder and shall have an accuracy of 0.5 degrees Fahrenheit

(2) The owner or operator of any offset lithographic printing press shall install and maintain monitors to continuously measure and record operational parameters of any emission control device installed to meet applicable control requirements on a regular basis. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature of direct-flame incinerators and/or the gas temperature immediately upstream and downstream of any catalyst bed,

(B) the total amount of volatile organic compound (VOC) recovered by a carbon adsorption or other solvent recovery system during a calendar month,

(C) the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions), to determine if breakthrough has occurred, and

(D) the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) The dryer pressure shall be maintained lower than the press room air pressure such that air flows into the dryer at all times. A 100% emissions capture efficiency for the dryer shall be demonstrated using an air flow direction measuring device

(4) The owner or operator of any offset lithographic printing press shall monitor fountain solution alcohol concentration with a refractometer or a hydrometer that is corrected for temperature at least once per eight-shift or once per batch, whichever is longer. The refractometer or hydrometer shall have a visual, analog, or digital readout with an accuracy of 0.5% VOC. A standard solution shall be used to calibrate the refractometer for the type of alcohol used in the fountain. The VOC content of the fountain solution may be monitored with a conductivity meter if it is determined that a refractometer or hydrometer cannot be used for the type of VOCs in the fountain solution. The conductivity me-

ter reading for the fountain solution shall be referenced to the conductivity of the incoming water.

(5) The owner or operator of any offset lithographic printing press using refrigeration equipment on the fountain shall monitor the temperature of the fountain solution reservoir at least once per hour

(6) For any offset lithographic printing press with continuous cleaning equipment, flow meters are required to monitor water and cleaning solution flow rates. The flow meters shall be calibrated so that the VOC content of the mixed solution complies with the requirements of §115.442 of this title (relating to Control Requirements)

(7) The owner or operator of any offset lithographic printing press shall maintain the results of any testing conducted at an affected facility in accordance with the provisions specified in §115.445 of this title (relating to Testing Requirements).

(8) The owner or operator of any offset lithographic printing press shall maintain all records at the affected facility for at least two years and make such records available upon request to representatives of the Texas Natural Resource Conservation Commission, the United States Environmental Protection Agency, or the local air pollution agency having jurisdiction in the area

§115.449 Counties and Compliance Schedules. All affected persons in El Paso County shall be in compliance with §115.442 of this title (relating to Control Requirements), §115.443 of this title (relating to Alternate Control Requirements), §115.445 of this title (relating to Testing Requirements), and §115.446 of this title (relating to Monitoring and Recordkeeping Requirements) as soon as practicable, but no later than November 15, 1996

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

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Subchapter F. Miscellaneous Industrial Sources

Degassing or Cleaning of Stationary and Transport Vessels

• 30 TAC §§115.541-115.547,
115.549

The amendments are adopted under the Texas Health and Safety Code, (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.541. Emission Specifications. For all persons in the Beaumont/Port Arthur and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the following emission specifications shall apply to degassing during or in preparation of cleaning.

(1) For all stationary volatile organic compound (VOC) storage tanks with a nominal storage capacity of 1 million gallons or more.

(A) No person shall permit VOC emissions with a vapor space partial pressure greater than or equal to 0.5 pounds per square inch absolute (psia) (3.4 Kpa) under actual storage conditions unless the vapors are processed by a vapor control system

(B) The vapor control system shall maintain a control efficiency of at least 90%

(C) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, shall originate from the degassing or cleaning operations.

(D) The intentional bypassing of a vapor control device used during degassing or cleaning is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device shall be repaired as soon as practical

(2) For all VOC transport vessels, as defined in §115.10 of this title, with a nominal storage capacity of 8,000 gallons or more

(A) No person shall permit VOC emissions with a vapor space partial pressure greater than or equal to 0.5 psia (3.4 Kpa) under actual storage conditions unless the vapors are processed by a vapor control system

(B) The vapor control system shall maintain a control efficiency of at least 90%.

(C) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, shall originate from the degassing or cleaning operations.

(D) The intentional bypassing of a vapor control device used during degassing or cleaning is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device shall be repaired as soon as practical.

(E) All VOC transport vessels, as defined in §115.10 of this title, shall be kept vapor-tight at all times until the vapors remaining in the vessel are discharged to a vapor control system.

(3) For all VOC marine vessels, as defined in §115.10 of this title, with a nominal storage capacity of 10,000 barrels (420,000 gallons) or more.

(A) No person shall permit VOC emissions with a vapor space partial pressure greater than or equal to 0.5 psia (3.4 Kpa) under actual storage conditions unless the vapors are processed by a vapor control system.

(B) The vapor control system shall maintain a control efficiency of at least 90%.

(C) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, shall originate from the degassing or cleaning operations.

(D) The intentional bypassing of a vapor control device used during degassing or cleaning is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device shall be repaired as soon as practical.

(E) All VOC marine vessels, as defined in §115.10 of this title, shall have all cargo tank closures properly secured, or maintain a negative pressure within the tank when a closure is opened, and shall have all pressure/vacuum relief valves operating within certified limits as specified by classification society or flag state until the vapors are discharged to a vapor control system if the vessel is de-

gassed or cleaned

§115.542. Control Requirements.

(a) For all persons in the Beaumont/Port Arthur and Houston/Galveston areas, the following control requirements shall apply to stationary storage tanks and transport vessels.

(1) No person shall permit the degassing or cleaning of volatile organic compounds (VOC) a stationary storage tank or VOC transport vessel unless the vapors are processed by a vapor control system.

(2) When degassing or cleaning is effected through the hatches of a VOC transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch. A means shall be provided to minimize liquid drainage from the degassing or cleaning device when it is removed from the hatch of any VOC transport vessel or to accomplish drainage before such removal.

(3) When degassing or cleaning is effected through the hatches or manways of stationary VOC storage tanks, all lines shall be equipped with fittings which make vapor-tight connections and which are closed when disconnected, or equipped to permit residual VOC in the line to discharge into a recovery or disposal system after degassing or cleaning is complete.

(4) Degassing and cleaning equipment shall be designed and operated to prevent avoidable VOC leaks.

(5) Vapors shall be routed to the control device until a turnover of at least four vapor space volumes has occurred, or four turnovers of the vapor space under a floating roof, or the partial vapor pressure is less than 0.5 psia (19,000 ppmw expressed as methane or 34,000 ppmv). After one of these conditions has been satisfied, the storage vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process.

(b) For all persons in the Beaumont/Port Arthur and Houston/Galveston areas, the following control requirements shall apply to VOC marine vessels.

(1) No person shall permit the degassing or cleaning of a VOC marine vessel unless the vapors are processed by a vapor control system.

(2) When degassing or cleaning is effected through the hatches of a VOC marine vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch, or a negative pressure inside the cargo tank shall

be maintained. A means shall be provided to minimize liquid drainage from the degassing or cleaning device and line when they are removed from the hatch of any marine transport vessel or to accomplish drainage before such removal.

(3) Degassing and cleaning equipment must be designed and operated to prevent avoidable VOC leaks.

(4) Vapors shall be routed to the control device until the VOC marine vessel is stripped liquid-free and a turnover of at least four vapor space volumes has occurred, the partial vapor pressure is less than 0.5 psia (19,000 ppmv or 34,000 ppmw expressed as methane), or the concentration of VOC is less than 20% of lower explosion limit. After one of these conditions has been satisfied, the VOC marine vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process.

§115.544. Inspection Requirements. For all persons in the Beaumont/Port Arthur and Houston/Galveston areas, the following inspection requirements shall apply.

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from volatile organic compound (VOC) transfer operations shall be conducted during each degassing or cleaning operation by the owner or operator of the VOC degassing and cleaning facility.

(2) VOC degassing or cleaning through the affected transfer lines shall be discontinued when a leak is observed and the leak cannot be repaired within a reasonable length of time. The intentional bypassing of a vapor control device during cleaning or degassing is prohibited.

§115.545. Approved Test Methods. For the Beaumont/Port Arthur and Houston/Galveston areas, compliance with §115.541 and §115.542 of this title (relating to Emission Specifications) shall be determined by applying the following test methods, as appropriate.

(1) Test Methods 1-4 (40 Code of Federal Regulations (CFR) 60, Appendix A) for determining flow rates.

(2) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography.

(3) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon.

(4) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis.

(5) additional test procedures described in 40 CFR 60.503 b, c, and d, for determining compliance for bulk gasoline terminals;

(6) Test Method 21 (40 CFR 60, Appendix A) for determining volatile organic compound leaks;

(7) determination of true vapor pressure using ASTM Test Method D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989;

(8) Test Method 27 (40 CFR 60, Appendix A) for determining tank-truck leaks,

(9) determination of cargo tank pressurization method described in 40 CFR 61.304(f), or

(10) minor modifications to these test methods approved by the Executive Director

§115.546. Monitoring and Recordkeeping Requirements For facilities in the Beaumont/Port Arthur and Houston/Galveston Areas affected by §115.541 and §115.542 of this title (relating to Emission Specifications and Control Requirements), the owner or operator of any volatile organic compound (VOC) degassing or cleaning facility shall maintain the following information at the facility for at least two years and shall make such information available upon request to representatives of the Texas Natural Resource Conservation Commission, United States Environmental Protection Agency, or any local air pollution control agency having jurisdiction in the area

(1) for vessel degassing or cleaning operations

(A) a record of the type and number of all VOC transport vessels, stationary VOC storage tanks, and VOC marine vessels which are degassed or cleaned at the affected facility,

(B) the chemical name and estimated liquid quantity of VOC contained in each vessel prior to degassing or cleaning, and

(C) the chemical name and estimated liquid quantity of VOC removed from each vessel,

(2) for vapor control systems

(A) continuous monitoring and recording of the exhaust gas tempera-

ture immediately downstream of a direct-flame incinerator,

(B) continuous monitoring and recording of the inlet and outlet gas temperature of a catalytic incinerator,

(C) continuous monitoring and recording of the exhaust gas VOC concentration for carbon adsorption systems that contain facilities to regenerate the carbon bed directly, as defined in §115.10 of this title (relating to Definitions), or periodic monitoring of the exhaust gas VOC as specified by 40 CFR 61.354(d), of any carbon adsorption system that does not regenerate the carbon bed directly, to determine breakthrough, and

(D) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities,

(3) the results of any leak inspection and repair conducted in accordance with the provisions specified in §115.544 of this title (relating to Inspection Requirements),

(4) the results of any testing conducted in accordance with the provisions specified in §115.545 of this title (relating to Approved Test Methods)

§115.547 Exemptions For all persons in the Beaumont/Port Arthur and Houston/Galveston areas, the following exemptions apply

(1) Degassing or cleaning any vessel with a vapor space partial pressure less than 0.5 pounds per square inch absolute (3.4 Kpa) of volatile organic compound (VOC) under actual storage conditions is exempt from the requirements of this undesignated head

(2) Degassing or cleaning any VOC transport vessel with a nominal storage capacity of less than 8,000 gallons, or any stationary VOC storage tank with a nominal storage capacity of less than 1 million gallons, or any VOC marine vessel with a nominal storage capacity of less than 10,000 barrels (420,000 gallons), is exempt from the requirements of this undesignated head

(3) Any stationary VOC storage tank during preventative maintenance, root repair, primary seal inspection, or removal and installation of a secondary seal, if product is not moved in or out of the storage tank, emissions are minimized, and the repair is completed within seven calendar days

(4) Any VOC marine vessel which has sustained damage which prevents a cargo tanks opening from being properly secured, the onboard vapor recovery system to be inoperative, or the pressure/vacuum relief valves from operating within certified limits as specified by classification society or flag state are exempt from §115.541(3) and §115.542(b) of this title (relating to Emission Specification and Control Requirements); however, all reasonable measures will be taken to minimize VOC emissions.

(5) Any oceangoing, self-propelled VOC marine vessel is exempt from the degassing or cleaning requirements of this undesignated head

§115.549 Counties and Compliance Schedules. All affected persons in the Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall be in compliance with this undesignated head, as soon as practicable, but no later than November 15, 1996.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

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Subchapter G. Consumer-Related Sources

Utility Engines

• 30 TAC §115.621, §115.625

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides TNRCC with the authority to adopt rules consistent with the policy and purposes of the TCAA

§115.621 Control Requirements

(a) Beginning January 1, 1996, no person shall sell, offer for sale, lease, or offer to lease any utility engine or equipment powered by a utility engine which does not satisfy the following emission standards

**Exhaust Emission Standards
(grams per brake horsepower-hour)**

<u>Calendar Year</u>	<u>Engine Class</u>	<u>Hydro-carbon plus oxides of nitrogen</u>	<u>Hydro-carbon</u>	<u>Carbon monoxide</u>	<u>Oxides of nitrogen</u>	<u>Part.</u>
1996-98	I	12.0	-	300	-	0.9 *
	II	10.0	-	300	-	0.9 *
	III	-	220	600	4.0	-
	IV	-	180	600	4.0	-
	V	-	120	300	4.0	-
1999 & later	I, II	3.2	-	100	-	0.25 +
	III, IV, V	-	50	130	4.0	0.25 +

- * - Diesel engines only
- + - Diesel and two cycle engines only
- I - Engines less than 225 cubic centimeters (cc) displacement.
- II - Engines greater than or equal to 225 cc displacement.
- III - Hand held lawn and garden and utility equipment engines less than 20 cc displacement.
- IV - Hand held lawn and garden and utility equipment engines 20 cc to less than 50 cc displacement.
- V - Hand held lawn and garden and utility equipment engines greater than or equal to 50 cc displacement.

(b) The Executive Director shall certify each class of utility engine for sale in Texas based on the following criteria.

(1) ability of the engine to meet the emission standards in subsection (a) of this section, and

(2) consumer warranty provisions adequate to cover a two-year period from the date of original purchase from the engine or equipment distributor

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

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Subchapter J. Administrative Provisions

Alternate Means of Control

• 30 TAC §115.910

The amendment is adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382 017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA

§115.910 Procedure

(a) Any person affected by any control requirement of this chapter may request the Executive Director to approve alternate methods of control. The Executive Director shall approve such alternate methods of control if it can be demonstrated that such control will result in substantially equivalent emission reductions as the methods of control specified in this regulation. Approval by the United States Environmental Protection Agency is not required.

(b) For persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the Executive Director, after consultation with appropriate local governmental agencies, may exempt a specific compound or a specific vent gas stream

from the application of this chapter (Chapter 115) if it can be demonstrated that the emissions from the compound or specific vent gas stream will not make a significant contribution to air contaminants in the atmosphere

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority

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Compliance and Control Plan Requirements

• 30 TAC §§115.930, 115.932, 115.940

The amendments are adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.940. Equivalency Determination. Upon final adoption of any volatile organic compound program of general applicability by the United States Environmental Protection Agency (EPA), the Executive Director may review the provisions of the EPA program and the corresponding state program to determine the essential equivalency of the two programs. If the Executive Director determines that the EPA program is essentially equivalent to the requirements for this chapter, the Executive Director will state by notice published in the *Texas Register* that the regulated community will be considered to be in compliance with the new EPA program if they are in compliance with the applicable provisions of this chapter. Conversely, the regulated community will be considered to be in compliance with the applicable provisions of this chapter if they are in compliance with the new EPA program. Notice of intent to publish such equivalency determination shall be provided to the appropriate EPA regional office 45 days prior to publication. The Executive Director shall review any objection from EPA prior to final publication. Each affected company must file a notice of intent to inform the state which program they intend to use. The Executive Director will then inform the EPA regional office of each notice of intent.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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General Permits

• 30 TAC §115.950

The amendment is adopted under the Texas Health and Safety Code (Vernon 1990), the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission with the authority to adopt rules consistent with the policy and purposes of the TCAA.

§115.950. Standard Construction Permit for Volatile Organic Compounds (VOC) Control Projects.

(a) In lieu of complying with the permitting requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification), any person who installs VOC abatement equipment or implements a VOC control technique in order to comply with the requirements of this chapter shall be entitled to a standard permit under the following conditions.

(1) Installation of the control equipment or implementation of the control technique must not result in an increase in the facility's production capacity unless the capacity increase occurs solely as a result of the requirement to install the control equipment or implement the control technique on existing units required to meet applicable emission limitations. Any production capacity increase resulting from the installation of control equipment or implementation of control techniques shall not be utilized until the owner or operator obtains any necessary authorization pursuant to §116.110 of this title (relating to Applicability).

(2) Any emission increase of an air contaminant other than VOC shall be a direct result of installing VOC abatement equipment or implementing a VOC control technique.

(3) If installation of VOC abatement equipment or implementation of a VOC control technique will result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area, a person claiming a standard permit shall submit information sufficient to demonstrate that the following conditions will be met:

(A) Considering the VOC reductions that will result from implementation of the requirements of this part, the emissions increase shall not cause or contribute to a violation of any national ambient air quality standard.

(B) The emissions increase shall not cause or contribute to a violation of any Prevention of Significant Deterioration (PSD) of Air Quality regulation increment.

(C) The emissions increase shall not cause or contribute to a violation of a visibility limitation.

(4) For purposes of this undesignated head, "significant net increase" means an increase of emissions equal to or greater than the amount specified in the MAJOR MODIFICATION column of Table I of §101.1 of this title (relating to Definitions).

(5) Notice of the intent to be covered by a standard permit shall be filed with the Agency before a standard permit can be claimed. Such notice should be filed on or before the compliance date of the applicable rule. Information required under paragraph (3) of this subsection must be submitted no later than 14 days prior to the commencement of construction for the installation of VOC abatement equipment or implementation of a VOC control technique.

(b) Unless notified by the Executive Director to the contrary, any person who submits notice of the intent to be covered by the standard permit is authorized to emit the increase in the quantity of pollutants emitted or change in the type of pollutants emitted under the terms and conditions of this permit 14 days after the date that the notice of intent is postmarked, if all required submissions have been made. The Executive Director may deny coverage under this permit at any time upon a determination that the terms and conditions of this permit are not being met and may require submittal of a permit or permit amendment application for a permit under Chapter 116 of this title. Emissions covered by a standard permit must comply with all rules and regulations of the Texas Natural Resources Conservation Commission.

(c) For purposes of compliance with the PSD and nonattainment new source review provisions of Chapter 116 of this title, an increase that satisfies the requirements for a standard permit shall not constitute a physical change or a change in the method of operation. For purposes of compliance with the Standards of Performance for New Stationary Sources regulations promulgated by the United States Environmental Protection Agency at 40 Code of Federal Regulations (CFR) 60.14, an increase that satisfies the requirements for a standard permit shall satisfy the requirements of 40 CFR 60.14(e)(5).

(d) All representations made in association with a notice of intent to claim a standard permit become conditions upon

which the VOC abatement equipment covered by the standard permit shall be constructed and operated or the VOC control technique implemented. It shall be unlawful for any person to vary from such representations if the change in conditions will affect that person's right to claim a standard permit under this section. Any change in conditions such that a person is no longer

eligible to claim a standard permit under this section requires submission of a permit or permit amendment application for a permit under Chapter 116 of this title.

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