

82 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989; or

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

§115.139. Counties and Compliance Schedules.

(a) All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties shall be in compliance with this undesignated head concerning water separation in accordance with the following schedules.

(1) All affected persons shall be in compliance with all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates).

(2) All persons in Dallas and Tarrant Counties affected by the provisions of §15.131(a)(3) of this title (relating to Emission Specifications) shall be in compliance with this section as soon as practicable but no later than August 31, 1990.

(3) All persons in Dallas and Tarrant Counties required to implement controls as a result of the removal of the exemptions specified in §115.137(a) (3) of this title (relating to Exemptions) shall be in compliance as soon as practicable but no later than August 31, 1990.

(4) All persons affected by the provisions of §115.136 of this title (relating to Recordkeeping) shall be in compliance:

(A) in Dallas and Tarrant Counties as soon as practicable but no later than August 31, 1990; and

(B) in Brazoria, El Paso, Galveston, Harris, Jefferson, and Orange Counties as soon as practicable but no later than December 31, 1990.

(b) All affected persons in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties shall be in compliance with this undesignated head (concerning water separation) in accordance with all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates).

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 January 26, 1990.

TRD-9000975

Allen Eli Bell
Executive Director
Texas Air Control Board

Effective date: February 19, 1990

Proposal publication date: July 28, 1990

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

Subchapter C. Volatile Organic Compound Marketing Operations

Loading and Unloading of Volatile Organic Compounds

*** 31 TAC §§115.211-115.217, 115.219**

The Texas Air Control Board (TACB) adopts new §§115.211-115.217 and §115.219. Sections 115.212, 115.214, 115.215, and 115.219 are adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3646). Sections 115.211, 115.213, 115.216, and 115.217 are adopted without changes and will not be republished.

The new §115.211, concerning emission specifications, establishes the maximum level of acceptable emissions from specified sources. The new §115.212, concerning control requirements, defines the type of control or technologies required to achieve necessary emission reductions. The new §115.213, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.214, concerning inspection requirements, identifies the components needing inspection and the frequency they are to be inspected. The new §115.215, concerning testing requirements, identifies the test methods which must be used to determine compliance and enables the TACB executive director to approve minor modifications to the methods. The new §115.216, concerning recordkeeping requirements, describes the information which must be maintained by affected facilities in order to ensure continuous compliance and improve the effectiveness of enforcement. The new §115.217, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.219, concerning counties and compliance schedules, establishes the final compliance dates for applicable controls in specified counties. These sections are part of a series of additions to Chapter 115 proposed primarily to satisfy United States Environmental Protection Agency (EPA) requirements for Phase I of the Post-1987 State Implementation Plan (SIP) revisions for ozone. The TACB also has adopted a comprehensive restructuring of Chapter 115 to promote greater clarity and to eliminate inconsistencies resulting from numerous independent revisions over the past several years.

The Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, §5(c)(1), requires categorization of comments as being for or against a proposal. A commenter who suggested any changes in the proposal is categorized as against the proposal; a commenter who agreed with the

proposal in its entirety is classified as being for the proposal. Twelve commenters opposed the proposal, while no one testified in support.

Six commenters; Galveston-Houston Association for Smog Prevention and five individuals; recommended control of volatile organic compound (VOC) emissions from ship and barge loading and unloading operations. The TACB staff recognizes that the loading and unloading of ships and barges represents a significant source of uncontrolled VOC emissions. In addition, the staff recently participated in a national committee which examined cost-effectiveness and safety issues related to such controls and determined that ship and barge emission controls could be reasonable and cost-effective in certain situations. While potential controls on these operations will certainly be considered in the development of Post-1987 SIP strategies, certain technical and legal issues must first be resolved. These include: determining situations in which it is technically and economically reasonable to retrofit existing ships and barges with necessary equipment; the potential for imposing unacceptable restrictions on interstate and international trade; and coordinating the limits of jurisdiction which the coast guard currently exercises in all ship and barge activities. Also, there are indications that EPA may elect to preempt states, authority to enact potentially dissimilar programs in different areas of the country.

One individual suggested that the exemption for "gauging" not allow operators to open the hatches of tank-trucks which have dropped a full load. Since these trucks may be assumed to be empty, there is no apparent need for any measurement. While the gauging of empty tank-trucks does appear to be unnecessary in most cases, visual verification of the delivery may sometimes be required. Emissions from the hatch of a tank-truck during gauging are relatively small as long as the actual transfer of product has been discontinued.

One individual recommended that provisions which prohibit leaks during VOC transfer operations should include both liquid and gaseous leaks and that no allowance for avoidable leaks should be provided. The rule, as proposed, already prohibits any gaseous or liquid leaks or leaks from all liquid or vapor lines. No additional clarification appears warranted. While the avoidability of leaks will be critically considered in any enforcement action associated with this rule, it is unreasonable not to recognize the potential for truly unavoidable circumstances.

One individual suggested that storage tank pressure relief valves be vented to a control device and that the pressure settings for all such valves should be specified in the rule. The potential emission reductions from the control of pressure relief valves on storage tanks at loading operations have not been estimated. This recommendation, as well as other potential controls on vents at VOC loading facilities, may be considered in subsequent rulemaking. However, establishing appropriate settings for pressure relief valves may be a reasonable means of minimizing emissions from these devices at this time.

Two commenters, the Sierra Club and one individual, recommended a limit of 1,000 parts per million (ppm) for the determination of a leak at gasoline terminals, rather than the current limit of 100% of the lower explosive limit (LEL). The recognized definition of a VOC leak is 10,000 ppm; well above the level recommended by the commenters. The LEL of gasoline is approximately 14,000 ppm. Revising the requirement to specify the currently recognized by 10,000 ppm definition would adequately satisfy both safety and emission control concerns. Most leaks during loading or unloading will be detected by sight, sound, or smell and are required to be repaired before product transfer is continued.

One commenter, EPA, suggested that annual monitoring of vapor balance systems be conducted. The annual leak testing of gasoline tank-trucks is required by §115.234, concerning control of volatile organic compounds leaks from gasoline tank-trucks, in accordance with EPA Test Method 27 (40 Code of Federal Regulations (CFR) 60, Appendix A). The method specifies testing of both the tank-truck tank and its associated vapor transfer lines and connectors to ensure that adequate emission control is achieved using a vapor balance or vapor recovery system. Repeating the requirement in the rule appears to be redundant.

Two commenters, the Sierra Club and one individual, questioned the effectiveness of inspection requirements that are to be performed routinely by facility operators or tank-truck drivers. Many of the TACB rules contain self-monitoring and recordkeeping requirements by facility personnel. The requirement notifies the facility of the responsibility for the detection and repair of leaks, and the TACB enforcement personnel may periodically observe the operations to confirm compliance. The inspection for leaks at unmanned facilities would be the sole responsibility of the tank-truck driver.

One commenter, EPA, indicated that leak detection and repair requirements should apply at all VOC loading and unloading facilities, not just gasoline terminals and bulk plants. Specified leaks are prohibited at all loading and unloading facilities and inspections should already be conducted, at least informally, to ensure compliance. Clarification of this requirement in the rule appears reasonable.

One commenter, El Paso City-County Health District, suggested requiring leak check certification information be painted on the tanker and that the driver carry documentation of the test results. A sticker indicating annual leak test certification is already required to be placed on the tank-truck near the Department of Transportation sticker. No additional evidence of the leak check appears warranted.

One commenter, Texas Chemical Council, objected to the requirement for daily recording of total VOC throughput at a loading facility and recommended monthly or annual records instead. The requirement for daily recording of total throughput is primarily intended to document the eligibility of specific sources for certain exemptions. However, enforcement personnel must also be able to calculate emissions from controlled sources based on daily operations in order to determine compliance.

One commenter, Rohm and Haas Texas Inc., indicated that less specific records may be adequate to demonstrate the proper functioning of applicable direct-flame incinerators, chillers, or catalytic incinerators. Measuring the outlet temperature of a direct-flame incinerator and comparing it against design parameters is a simple and direct means of determining if the device is operating to design specification. A comparison of the inlet and outlet temperatures is necessary to make a similar determination for both chillers and catalytic incinerators since the temperature change, rather than the absolute temperature, is more indicative of effectiveness. While other alternative monitoring and recordkeeping measures may be appropriate, insufficient information was provided in the testimony to warrant changes to the proposal. However, additional information may be considered for future rulemaking or as an alternate means of control.

One commenter, the City of Fort Worth, suggested combining paragraphs describing the recordkeeping requirements of gasoline terminals and bulk plants since the provisions were identical. These requirements were separated to be consistent with existing requirements and to allow for the revision of specific requirements in the future for one type of source without affecting the other, if warranted.

One individual objected to all proposed exemptions for loading and unloading operations. The exemptions in this proposed rule correspond directly with existing exemptions and primarily serve to define the various types of affected facilities as established in control guidelines published by EPA.

The new sections are adopted under the Texas Clean Air Act (TCAA) §382.017, which provides the TACB with the authority to make rules consistent with the policy and purposes of the TCAA.

§115.212. Control Requirements.

(a) For all persons in the counties referenced in §115.219(a) of this title (relating to Counties and Compliance Schedules), the following control requirements shall apply.

(1) No person shall permit the loading or unloading of volatile organic compounds (VOC) to or from any facility other than gasoline terminals unless the vapors are processed by a vapor recovery system as defined in §115.010 of this title (relating to Definitions).

(2) When loading or unloading is effected through the hatches of a tank-truck or trailer or railroad tank car 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 prevent liquid drainage from the loading device when it is removed from the hatch of any tank-truck, trailer, or railroad tank car, or to accomplish complete drainage before such removal. When

loading or unloading is effected through means other than hatches, all loading and vapor lines shall be:

(A) equipped with fittings which make vapor-tight connections and which close automatically when disconnected; or

(B) equipped to permit residual VOC in the loading line to discharge into a recovery or disposal system after loading is complete. All gauging and sampling devices shall be vapor-tight except for necessary gauging and sampling.

(3) Vapor recovery systems and loading equipment at gasoline terminals must be designed and operated to meet the following conditions.

(A) Gauge pressure must not exceed 18 inches of water (4.5 kPa) and vacuum must not exceed six inches of water (1.5 kPa) in the gasoline tank-truck.

(B) No VOC leaks, as defined in §115.010 of this title (relating to Definitions), shall be allowed from any potential leak source when measured with a portable combustible gas detector.

(C) No avoidable liquid or gaseous leaks, as detected by sight, sound, or smell, shall exist during loading and unloading operations.

(4) No person in Harris County shall permit the transfer of gasoline from a transport vessel into a gasoline bulk plant storage tank unless the following requirements are met:

(A) a vapor return line is installed from the storage tank to the transport vessel;

(B) there are no leaks, as detected by sight, sound, or smell, in the transfer system, which includes liquid lines, vapor lines, hatch covers, and pumps, or in the transport vessel's pressure-vacuum relief valves resulting from emergency situations when pressures exceed the specifications in paragraph (5)(D) of this subsection;

(C) 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 (5)(D) of this subsection;

(D) all gauging and sampling devices are vapor-tight except during necessary gauging and sampling; and

(E) the transport vessel is kept vapor-tight at all times (except when gauging) until the captured vapors are discharged properly during the transport vessel's next refill.

(5) No person in Harris County shall permit the transfer of gasoline from a gasoline bulk plant into a delivery tank-truck tank unless the following requirements are met:

(A) the tank-truck tank, if equipped for top loading, has a submerged fill pipe;

(B) there are no gasoline leaks, as detected by sight, sound, or smell, between the storage tank connections and the delivery truck;

(C) a vapor return line is installed from the delivery truck to the storage tank;

(D) 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;

(E) there are no vapor leaks, as detected by sight, sound, or smell, in the transfer system, which includes liquid lines, vapor lines, hatch covers, and pumps or in the delivery truck's pressure-vacuum relief valves;

(F) 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 (D) of this paragraph; and

(G) all gauging and sampling devices are vapor-tight except during gauging or sampling.

(b) For all persons in the counties referenced in §115.219(b) of this title (relating to Counties and Compliance Schedules), the following requirements shall apply.

(1) No person shall permit the loading or unloading to or from any loading facility of VOC unless such facility is equipped with a vapor recovery system as defined in Subchapter A of this chapter (relating to Definitions).

(2) When loading or unloading is effected through the hatches of a tank-truck or trailer or railroad tank car with a loading arm equipped with a vapor collecting 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 prevent liquid drainage

from the loading device when it is removed from the hatch of any tank-truck, trailer, or railroad tank car, or to accomplish complete drainage before such removal.

(3) When loading or unloading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected or shall be equipped to permit residual VOC in the loading line to discharge into a recovery or disposal system after loading is complete.

(4) All gauging and sampling devices shall be vapor-tight except for necessary gauging and sampling.

§115.214. Inspection Requirements. For all persons in the counties referenced in §115.219(a) of this title (relating to Counties and Compliance Schedules), the following inspection requirements shall apply.

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from volatile organic compound (VOC) dispensing operations shall be conducted during each transfer by the owner or operator of the VOC loading and unloading facility or the owner or operator of the tank-truck.

(2) VOC loading or unloading through the affected transfer lines shall be discontinued immediately when a leak is observed and shall not be resumed until the observed leak is repaired.

(3) Gasoline tank-truck tanks being loaded in Dallas, El Paso, Harris, and Tarrant Counties must have been leak tested within one year, in accordance with the requirements of the undesignated head of this subchapter (relating to Control of Volatile Organic Compound Leaks From Gasoline Tank-Trucks), as evidenced by prominently displayed certification, affixed near the Department of Transportation certification plate.

§115.215. Testing Requirements. For the counties referenced in §115.219(a) of this title (relating to Counties and Compliance Schedules), compliance with §115.212(a) 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 rates, as necessary;

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

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

(4) 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;

(5) additional test procedures described in 40 Code of Federal Regulations 60.503 c, d, e, and f;

(6) Test Method 21 (40 Code of Federal Regulations 60, Appendix A) for determining volatile organic compound leaks;

(7) determination of true vapor pressure using the American Society of Testing and Materials Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989; or

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

§115.219. Counties and Compliance Schedules.

(a) All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties shall be in compliance with this undesignated head concerning loading and unloading of volatile organic compounds in accordance with the following schedules:

(1) all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates);

(2) the following additional compliance schedules.

(A) All persons affected by the provisions of §115.216(a)(1) and (3) of this title (relating to Recordkeeping Requirements) shall be in compliance with this section:

(i) in Dallas and Tarrant Counties as soon as practicable but no later than August 31, 1990; and

(ii) in Brazoria, El Paso, Galveston, Harris, Jefferson, and Orange Counties as soon as practicable but no later than December 31, 1990.

(B) All persons in Harris County affected by the provisions of §115.216(a)(1), (2), and (4) of this title (relating to Recordkeeping Requirements) shall be in compliance with this section no later than December 31, 1990.

(b) All affected persons in Aransas, Bexar, Calhoun, Hardin, Matagorda, Montgomery, San Patricio, and Travis Counties shall be in compliance with this undesignated head concerning loading and

unloading of volatile organic compounds in accordance with all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates).

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 January 26, 1990.

TRD-9000974 Allen Eil Bell
Executive Director
Texas Air Control Board

Effective date: February 19, 1990

Proposal publication date: July 28, 1990

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

Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities

• 31 TAC §§115.221-115.227, 115.229

The Texas Air Control Board (TACB) adopts new §§115.221-115.227 and §115.229. Sections 115.222, 115.225, and 115.229 are adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3649). Sections 115.221, 115.223, 115.224, 115.226, and 115.227 are adopted without changes and will not be republished.

The new §115.221, concerning emission specifications, establishes the maximum level of acceptable emissions from specified sources. The new §115.222, concerning control requirements, clarifies that leaks specified in paragraph (3) are to be "detected by sight, sound, or smell" and redefines leak in paragraph (6) to conform to the definition in §115.010, rather than 100% of the lower explosive limit (LEL). The new §115.223, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.224, concerning inspection requirements, identifies the components needing inspection and the frequency they are to be inspected. The new §115.225, concerning testing requirements, specifies that only minor modifications to test methods may be approved by the executive director. The new §115.226, concerning recordkeeping requirements, describes the information which must be maintained by affected facilities in order to ensure continuous compliance and improve the effectiveness of enforcement. The new §115.227, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.229, concerning counties and compliance schedules, to identify the effective date of revisions. These sections are part of a series of additions to Chapter 115 proposed primarily to satisfy United States Environmental Protection Agency (EPA) requirements for Phase I of the Post-1987 State Implementation Plan revisions for

ozone. The TACB also has adopted a comprehensive restructuring of Chapter 115 to promote greater clarity and to eliminate inconsistencies resulting from numerous independent revisions over the past several years.

The Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, §5(c)(1), requires categorization of comments as being for or against a proposal. A commenter who suggested any changes in the proposal is categorized as against the proposal; a commenter who agreed with the proposal in its entirety is classified as being for the proposal. Five commenters opposed the proposal, while no one testified in support.

One commenter, Southwestern Bell, suggested using Texas Water Commission data regarding underground storage tanks to document the presence of Stage I vapor recovery systems at affected facilities. While information regarding the presence of required control equipment is important in determining the effectiveness of Stage I controls, compliance with the rule is dependent on the proper and conscientious use of this equipment. Records required by another agency which include applicable information specified in these rules may be used to satisfy the proposed recordkeeping requirements.

One individual suggested that inspections during each transfer include checks for both liquid and vapor gasoline leaks. The rule, as proposed, already prohibits any gaseous or liquid leaks in the liquid transfer or vapor balance systems. Furthermore, requirements call for inspection for liquid leaks, visible vapors, or odor. No additional clarification appears warranted.

One individual objected to allowing the opening of tank-truck hatches for the purpose of gauging. Emissions from the hatch of a tank-truck during gauging are relatively small as long as the actual transfer of product has been discontinued. No practical alternative to visual gauging currently exists.

One individual suggested that a concentration limit be established to define a leak within the context of this rule, rather than the current limit of 100% of the LEL. The recognized definition of a volatile organic compound leak is 10,000 parts per million (ppm); well above the level recommended by the commenters. The LEL of gasoline is approximately 14,000 ppm. Revising the requirement to specify the recognized 10,000 ppm definition would adequately satisfy both safety and emission control concerns. Most leaks during loading or unloading will be detected by sight, sound, or smell and are required to be repaired before product transfer is continued.

One individual questioned the effectiveness of inspection requirements that are to be performed routinely by the tank-truck driver during delivery and recommended that the owner or operator of the station receiving the gasoline be responsible for ensuring compliance. Three commenters; El Paso City-County Health District (EPCCHD), the Sierra Club, and one individual; further suggested that a leak check certification displayed on the tank-truck must be verified before delivery is made and the tank-truck driver provide documentation of the leak test

results, upon request. Many of the TACB rules contain self-monitoring and recordkeeping requirements by facility personnel. The requirement notifies the tank-truck company of its responsibility for the detection and repair of leaks, and TACB enforcement personnel may periodically observe the operations to confirm compliance. Since the personnel at many dispensing facilities are unqualified to perform leak detection inspections or would be unable to leave other duties unattended during delivery, the only practical means of achieving any degree of oversight requires tank-truck drivers to perform this function. A leak test certification sticker must be displayed on the truck and can be readily observed by enforcement personnel.

One commenter, Southwestern Bell, objected to proposed provisions which require the verification and recordkeeping of leak test certification and the dates of gasoline deliveries in conjunction with delivery of gasoline to motor vehicle fuel dispensing facilities because the same information is already required for compliance with regulations for loading and unloading operations in 31 TAC 334.48(c). Documentation of compliance must be ensured throughout the entire gasoline marketing distribution system, therefore, some requirements may appear to be duplicative. However, much of the same information may be used to comply with a number of similar rules. For example, only one leak test certification is needed for each tank-truck each year to satisfy all associated requirements in Regulation V. Records required by another agency which include applicable information specified in these rules may be used to satisfy the proposed recordkeeping requirements.

One individual recommended requiring records on the results of each visual inspection for leaks during delivery operations. Often the personnel attending fuel dispensing facilities are not capable, authorized, or available to maintain accurate records regarding leak inspections. While a log could be maintained by the tank-truck driver, it would be difficult to ensure or verify the completeness or accuracy of the information recorded. Furthermore, most leaks detected during transfers will most likely be corrected by minor adjustments such as reseating delivery lines onto connectors.

One commenter, EPA, recommended that the size exemption for storage tanks at fuel dispensing facilities built after January 1, 1979, be lowered to 250 gallons in order to satisfy EPA guidelines for reasonably available control technology. The TACB staff has determined that the current exemption of 1,000 gallons represents a minimum level of significance for emissions from these sources and can find no specific reference to a 250 gallon size limitation for this type of facility in published EPA guidelines. However, EPA guidelines do recognize an acceptable exemption based on a total throughput of 120,000 gallons per year. During recent discussions, EPA has agreed that the 1,000 gallon exemption is consistent with the annual throughput exemption since a tank of this size, under normal operations, would not be expected to market more than this volume of gasoline.