The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

ENVIRONMENTAL PROTECTION

OFFICE OF AIR QUALITY MANAGEMENT

AIR QUALITY REGULATION PROGRAM

Air Pollution Control

Control and Prohibition of Air Pollution By Volatile Organic Compounds

Proposed Amendments:	N.J.A.C. 7:27-16.1, 16.3, 16.4, 16.5, 16.6, 16.7, 16.16, 16.17, and 16.21; N.J.A.C. 7:27A-3.10
Proposed New Rule:	N.J.A.C. 7:27-16.12
Authorized By:	Bradley M. Campbell, Commissioner, Department of Environmental Protection.
Authority:	N.J.S.A. 13:1B-3(e), 13:1D-9 and 26:2C-1 et seq., in particular 26:2C-9.2
Calendar Reference:	August 5, 2002 published elsewhere in the issue of the New Jersey Register
DEP Docket Number:	20-02-07/243
Proposal Number:	PRN 2002- 277

A **public hearing** concerning this proposal will be held on September 6, 2002, at 10:00 A.M. at:
New Jersey Department of Environmental Protection
401 E. State Street
Hearing Room--First Floor, East Wing
Trenton, New Jersey

Submit written comments, identified by the DEP Docket Number given above, by close of business on September 10, 2002 to:

Stacey P. Roth, Esq.
Attn: DEP Docket No.20-02-07/ 243
Office of Legal Affairs

The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

New Jersey Department of Environmental Protection
PO Box 402
Trenton, N.J. 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone submitting written comments also include a diskette containing an electronic version, preferably in Word or WordPerfect format, of the written comments with the submission. Also, it is requested (but not required) that anyone submitting oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

Interested persons may obtain a copy of the proposed amendments through the following methods:

1. The proposed amendments may be downloaded electronically from the Department's Air Quality Regulations web site at http://www.state.nj.us/dep/aqm/.

2. The proposed amendments may be requested from the Department by e-mailing lmcgee@dep.state.nj.us, or by telephoning (609) 777-1345.

3. The proposed amendments may be inspected during normal office hours at the Department's Public Information Center at 401 E. State in Trenton, or at one of the Department's Regional Enforcement Offices at the following locations:

Central Regional Office:
Horizon Center
Route 130, Bldg. 300
Robbinsville, NJ 08625-0407

Metropolitan Region:
2 Babcock Place
West Orange, NJ 07052-5504

Northern Region:
1259 Route 46 East, Bldg. 2
Parsippany, NJ 07054-4191

Southern Region:
One Port Center
2 Riverside Drive, Suite 201
Camden, NJ 08103

4. The proposed amendments may be inspected at one of the following public libraries:

Trenton Public Library
120 Academy Street
Trenton, NJ 08608

Atlantic City Public Library
1 North Tennessee Avenue
Atlantic City, NJ 08401

Newark Public Library
5 Washington Street
Newark, NJ 07102-0630

Alexander Library
Rutgers University
169 College Avenue

The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

New Brunswick, NJ 08901

Camden Free Public Library
418 Federal Street
Camden, NJ 08103

New Brunswick Free Public Library
60 Livingston Avenue
New Brunswick, NJ 08901

Joint Free Public Library
Morrison and Morris County
1 Miller Road
Morrison, NJ 07960

Burlington City Library
23 West Union Street
Burlington, NJ 08016

Perth Amboy Public Library
193 Jefferson Street
Perth Amboy, NJ 08861

Freehold Public Library
28 ½ East Main Street
Freehold, NJ 07728

Toms River Public Library
101 Washington Street
Toms River, NJ 08753

Somerville Public Library
35 W. End Avenue
Somerville, NJ 08876

Penns Grove/ Carney's Point Public Library Association
222 SouthBroad Street
Penns Grove, NJ 08069

Burlington County Library
Pioneer Blvd. and Woodlane Road
Mt. Holly, NJ 08060

The agency proposal follows:

Summary

The Department of Environmental Protection (the Department) is proposing new rules and amendments at N.J.A.C. 7:27-16, Control and Prohibition of Air Pollution By Volatile Organic Compounds, which set forth the requirements and procedures for the control and prohibition of air pollution by volatile organic compounds (VOCs). The Department is also proposing related amendments at N.J.A.C. 7:27A-3.10, Air Administrative Procedures and Penalties. These new rules and amendments would establish new requirements for solvent cleaning operations, mobile equipment repair and refinishing operations, and gasoline transfer operations, in order to prevent or decrease emissions of VOCs from these operations. While this proposal includes new and amended rules regarding VOC emissions for all three types of operations because of the similarity of the subject matter, each set of proposed VOC emissions controls is unique to the particular type of operation. The rules to be put in place regarding VOC emissions from solvent cleaning operations are not dependent on the rules to be put in place for mobile equipment repair and refinishing operations, which, likewise, are not dependent on the rules to be put in place for gasoline transfer operations.

Background

The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

Ozone is a highly reactive gas formed in the lower atmosphere or troposphere from the chemical reaction involving oxides of nitrogen (NO_x), and volatile organic compounds (VOC) in the presence of sunlight. At elevated levels, it causes a variety of human health effects as well as damage to crops and materials. The ozone NAAQS was established by the United States Environmental Protection Agency (EPA) pursuant to the Federal Clean Air Act, 42 U.S.C. §§7401-7671q, to set health and welfare standards for air pollutants. New Jersey was not in attainment for the ozone NAAQS, based on a March 2, 1995 EPA memorandum, and submitted an Ozone SIP submittal on December 31, 1996, entitled "Meeting the Requirements of the Alternative Ozone Attainment Demonstration Policy Phase-I Ozone SIP Submittal." Because New Jersey's ozone attainment plan was found inadequate, in a December 29, 1997, EPA memorandum, the EPA required New Jersey to prepare and submit, for its approval, an amendment to its Ozone SIP.

On August 31, 1998, New Jersey submitted the requested amendment to its Ozone SIP to the EPA. This amendment was entitled "Attainment and Maintenance of the Ozone National Ambient Air Quality Standards-Meeting the Requirements of the Alternative Ozone Attainment Demonstration Policy." EPA examined this revised SIP submittal, especially the uncertainties in the projections summarized therein, and determined that New Jersey would need to commit to implementing even further emission reductions in order to achieve attainment for ozone. On December 16, 1999, EPA published a notice in the Federal Register (64 Fed. Reg. 70380) proposing approval of New Jersey's SIP submittal, contingent upon New Jersey's committing to adopt and submit additional measures necessary to secure additional reductions.

EPA had found that a number of other states, including Connecticut, Delaware, Maryland, New York and Pennsylvania, had shortfalls in their ozone SIP submittals. EPA published a notice in the Federal Register on December 16, 1999, indicating that it was appropriate for states in the Ozone Transport Region (OTR) to develop regional strategies to meet the need for additional emission reductions. The Ozone Transport Commission (OTC) was established pursuant to the1990 amendments to the Federal Clean Air Act (CAA). The OTC is comprised of representatives from the twelve states and Washington D.C. within the OTR. The OTC's mission, in part, is to undertake the development of control measures which can be applied within the region to make progress toward attaining the NAAQS for various air contaminants including ozone. Because six OTC member states had been found by EPA to have shortfalls in their Ozone SIP commitments, the OTC members agreed to work together to develop control measures which they could use to obtain additional emission reductions. This agreement was formally set forth in a "Memorandum of Understanding Among the States of the Ozone Transport Commission Regarding the Development of Specific Control Measures to Support Attainment and Maintenance of the Ozone National Ambient Air Quality Standards (MOU)," which was approved by the OTC on June 1, 2000. Subsequently the OTC developed model rules for six control measures. These model rules may be found on the Ozone Transport Commission's website at: http://www.sso.org/otc/Publications/pub2.htm.

In order to address the VOC emission shortfalls in its ozone SIP, the Department, on April 26, 2000, submitted another ozone SIP revision to EPA in which it committed to proposing new rules and/or amendments based on all six of the OTC model rules. The new rules and amendments proposed herein encompass two of the six model rules (those for solvent cleaning operations and mobile equipment repair and refinishing operations). The Department intends to address the other

four measures separately in other rule proposals. The Department is also proposing to update and revisions its existing Gasoline Transfer Operation rules.

The new solvent cleaning operations provisions at N.J.A.C.7:27- 16.6 would replace, one year after the operational date of these amendments, most of the existing provisions pertaining to open top tanks and surface cleaners. The existing rules provide equipment standards and operating requirements for unheated and heated surface cleaning machines. These rules are based on EPA's Control Technology Guidance (CTG) issued in November 1977 concerning both vapor and cold solvent cleaning operations. The proposed new provisions would establish more stringent equipment standards, such as requiring the installation of automated covers and hoists, and more stringent operating requirements, such as requiring the use of low volatility solvents. These new provisions are based on the more recent Maximum Achievable Control Technology (MACT) (59 Fed. Reg 61801, 40 CFR 63 Subpart T) standards issued by EPA in December 2, 1994.

The new provisions pertaining to surface coating operations at mobile equipment repair and refinishing facilities at N.J.A.C. 7:27-16.12 would replace, with more stringent requirements, the standards in the existing rules at N.J.A.C. 7:27-16.7 for the refinishing of mobile equipment such as cars and trucks. These new rules require the use of coating application equipment which has higher transfer efficiency and lower rates of coating waste. Such equipment includes high volume low pressure (HVLP) spray guns and enclosed spray gun cleaning equipment. These provisions will also require minimal training of persons who perform coating operations and VOC limits for coatings used in repair and refinishing operations that are consistent with the federal limits for mobile equipment refinishing materials.

The gasoline transfer operations provisions in this proposal would amend the existing provisions at N.J.A.C. 7:27-16.3. The existing rule requires that the gasoline vapors resulting from the transfer of gasoline into a vehicle fuel tank must be controlled by a vapor control system that is approved by the Department. The Department has in the past relied on certification of vapor control equipment carried out by the California Air Resources Board (CARB), in determining which equipment is approvable. However, CARB in 2001 modified its certification procedures (see CARB document entitled "Vapor Recovery Certification Procedures," CP-201, as amended on April 28, 2000, February 1, 2001, June 1, 2001 and July 25, 2001 available CARB's website: www.arb.ca.gov/vapor). The Department is proposing herein to continue to rely on the CARB standards, but to adopt its requirements only in part. CARB's new certification procedures would require the costly installation of new equipment such as drop tube overfill protection devices and liquid condensate traps, which would entail substantial construction work such as digging up a station's storage tanks and underground piping. CARB's new certification procedures also include technology-forcing requirements such as advanced nozzle designs and in -station diagnostics, which are unproven technologies. The Department does not propose to require those components of CARB's new performance standards and specifications as a basis for approving vapor control equipment in New Jersey which are technology forcing or too costly. However, it does intend to incorporate the more readily available, cost and environmentally effective elements of CARB's new requirements. The proposed amendments would increase the required efficiency of the equipment that controls the release of gasoline vapors during the transfer of gasoline to a gasoline dispensing facility's (GDFs) gasoline storage tanks, from 90 to 98 percent. The proposed amendments would

also seek to reduce vapor leaks caused by the incompatibility of a new vehicle's on-board refueling vapor recovery (ORVR) system with the types of nozzles currently used at approximately 10 percent of New Jersey's gas stations. The proposed amendments would require the installation of pressure/vacuum relief valves on atmospheric vent pipes, maintenance of a GDF's vapor recovery system to ensure that such system is vapor tight and leak free, and annual testing of the vapor recovery system at a GDF to ensure its integrity. If a GDF's vapor recovery system does not pass the pressure integrity test, the system would have to be repaired. The proposed amendments would also require the use of unihoses at new stations. A unihose is a single hose per dispenser used for dispensing different grades of gasoline. While these amendments would primarily affect gasoline dispensing facilities, they will also impact gasoline loading facilities and gasoline delivery vessels. The Department is proposing to revise the existing provisions pertaining to gasoline loading facilities and delivery vessels. The proposed amendments would require that delivery vessels, except railroad tank cars or marine tank vessels, must sustain certain pressure levels and pressure and vacuum tests must be performed on the delivery vessel. The amendments would also revise existing certification requirements.

In addition to satisfying Federal Clean Air Act requirements, these proposed new rules and amendments would address the Department's "Clean Air" goals and the milestone in its Strategic Plan to meet the National Clean Air Act standards for ozone and air pollutants throughout the State by 2007.

A more detailed explanation of the proposed new rules and amendments follows:

N.J.A.C. 7:27-16.1 Definitions

These proposed amendments would add definitions at N.J.A.C. 7:27-16.1 for 22 new terms based on the definitions in the OTC model rule for solvent cleaning The Department is proposing to add the terms "airless cleaning system" and "air-tight cleaning system," which refer to solvent cleaning machines that are sealed prior to the introduction of solvent or solvent vapor into the cleaning chamber and are maintained at pressure to preserve the seal during all cleaning and drying cycles. The Department is also proposing to add the term "automated parts handling system," which refers to a mechanical device that carries parts and/or baskets containing parts into the solvent cleaning machine. The Department is also proposing to add a number of terms used to specify a particular type of solvent cleaning machine, including: "batch vapor cleaning machine," "cold cleaning machine," "immersion cold cleaning machine," "in-line vapor cleaning machine," "remote reservoir cold cleaning machine," "solvent cleaning machine," and "vapor cleaning machine." The Department is also proposing to add a definition of the term "carbon adsorber," which refers to a bed of activated carbon which adsorbs the solvent vapors when an air/solvent or gas/vapor stream is routed into this carbon bed.

Additional new definitions that the Department is proposing to add include the term "dwell," which refers to the holding of parts after cleaning within the freeboard area of a solvent cleaning machine, as well as several terms that describe different periods in the operation of a solvent cleaning machine, including: "down time," "dwell time" and "idle time." The term "freeboard chiller," which is defined in the existing rule, is proposed to be deleted. This term would be replaced with the new

term "freeboard refrigeration device," which refers to a set of secondary coils, mounted in the freeboard area of a solvent cleaning machine, that carry a refrigerant or other chilled substance to provide chilled air blanketed above the solvent vapor. The amendments would revise the definition of "freeboard height" to clarify the difference between "cold cleaning machine freeboard height" and "vapor cleaning machine freeboard height." In addition the amendments would revise the definition of "freeboard ratio" to make this definition consistent with the definition of "freeboard ratio" in the model rule. The Department is proposing to add a definition of the term "primary condenser," which refers to a series of cooling coils on a vapor cleaning machine through which a chilled substance is circulated or recirculated to provide continuous condensation of rising solvent vapors. The Department is also proposing to add definitions of the following terms: "reduce room draft," which refers to decreasing the flow or movement of air across the top of the freeboard area of a solvent cleaning machine; "solvent/air interface," which is the interface between the concentrated solvent vapor layer and the air in solvent cleaning machine; "superheated vapor system," which is a vapor cleaning system in which the solvent vapor is heated to a temperature that is at least ten degrees Fahrenheit above the solvent's boiling point; "vapor up control switch," which refers to a control switch that is thermostatically controlled and that shuts off or prevents condensate from being sprayed when there is no vapor; and "working mode cover," which is a cover or part of the machine's design that shields the machine's openings to prevent the escape of solvent vapors emissions while parts are being cleaned in the machine.

These proposed amendments would also add definitions for 16 new terms based on the definition of these terms in the OTC model rule for mobile equipment repair and refinishing (MERR). The Department is proposing to add a definition of the term "airless spray," which refers to a spray coating method in which the coating is atomized by forcing it through a small nozzle opening at high pressure. The Department is also proposing to define a number of terms which specify different types of coatings used in repairing and refinishing mobile equipment, including: "automotive elastomeric coating," "automotive impact resistant coating," "automotive jambing clear coat," "automotive lacquer," "automotive low-gloss coating," "automotive multi-colored topcoat," "automotive pretreatment," "automotive primer-sealer," "automotive primer-surfacer," "automotive specialty coating," and "automotive topcoat." Because the term "historic motor vehicle" is used in the definition of "automotive specialty coating," a definition for "historic motor vehicle" is proposed. The Department is also proposing to add definitions of the terms "automotive touch up repair and refinish," which refers to the application of automotive topcoat finish materials to cover minor finishing imperfections, and "mobile equipment," which refers to equipment that may be driven or is capable of being driven on a roadway.

These proposed amendments would also add definitions for six new terms pertaining to gasoline transfer operations. Specifically, the Department is proposing to add definitions for the following terms "CARB," which is an acronym that refers to the California Air Resources Board; "fuel blend," which refers to a mixture of gasoline or other fuels, with one or more other substances; "liquid condensate trap," which is a trap used at a gasoline dispensing facility to collect liquid that condenses in the vapor return line and ensures that the vapor return line will not be blocked by the accumulation of liquid; "nozzle/dispenser compatibility," which refers to having a nozzle and its gasoline dispenser designed in such a way that the vapor check valve and hold-open latch are closed when the nozzle is hung properly on the dispenser; "on-board refueling vapor recovery (ORVR),"

which refers to a system for vapor recovery that is built into the vehicle and that captures the gasoline vapors created during the transfer of gasoline to the vehicle's fuel tank; and "unihose," which is a gasoline dispensing system that has a single hose and nozzle per dispenser side which is used for dispensing all grades of gasoline.

The proposed amendments would also add a number of new definitions to N.J.A.C. 7:27-16 for terms that are also used elsewhere in Chapter 27. These definitions would be consistent with the definitions for those terms found elsewhere in the chapter. The amendments would add a definition of the term "fuel" which is the same as the definition of this term at N.J.A.C. 7:27-3.1, in the Control and Prohibition of Smoke from Combustion of Fuel, N.J.A.C. 7:27-4.1, in the Control and Prohibition of Particles from Combustion of Fuel and N.J.A.C. 7:27-6.1, Control and Prohibition of Particles from Manufacturing Processes subchapter. The amendments would also add a definition of the term "hazardous air pollutant" or "HAP" which is the same as the definition of this term at N.J.A.C. 7:27-8.1, Permits and Certificates for Minor Facilities (and Major Facilities without an Operating Permit). The amendments would add a definition of the term "hydrocarbons" or "HC" which is the same as the definition of this term at N.J.A.C. 7:27-15.1, in the Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles subchapter. The amendments would also add a definition of the term "pollution prevention" which is the same as the definition of this term at N.J.A.C. 7:27-8.1.

In addition to the changes identified above, these proposed amendments would add an explanation of the acronym "psi," which means pounds per square inch and would revise two existing definitions to make them consistent with the definition of the same terms in other subchapters. The amendments would revise the definition of the term "Reid vapor pressure" or "RVP" to make it the same as the definition of this term at N.J.A.C. 7:27-17.1, in the Control and Prohibition of Air Pollution By Toxic Substances subchapter. The amendments would also revise the definition of the term "temporary operating certificate" so that it has the same definition as set forth at N.J.A.C. 7:27-8.1.

Finally, the proposed amendments would amend and recodify certain existing definitions to make the defined term consistent with the terminology actually used in the rule text. The term "custom topcoating of automobiles and light duty trucks" is proposed to be replaced with the term "custom topcoating." The term " refinishing of automobiles and light duty trucks" is proposed to be replaced with the term "refinishing." The term "surface coating for insulation of magnet wire" is proposed to be replaced with the term "magnet wire coating." The term "surface coating of automobiles and light-duty trucks" is proposed to be replaced with the term "automobile or light duty truck surface coating operation." The term "surface coating of cans" is proposed to be replaced with "can coating." The term "surface coating of coils" is proposed to be replaced with "coil coating." The term "surface coating of fabrics" is proposed to be replaced with the term "fabric coating." The term "surface coating of flat wood paneling" is proposed to be replaced with the term "coating of flat wood paneling." The term "surface coating of glass" is proposed to be replaced with the term "glass coating" The term "surface coating of large appliances" is proposed to be replaced with the term "large appliance coating." The term "surface coating of leather" is proposed to be replaced with the term "leather coating." The term "surface coating of metal furniture" is proposed to be replaced with the term "metal furniture coating." The term "surface coating of miscellaneous metal parts and products" is proposed to be replaced with the term "coating of miscellaneous metal parts and

products." The term "surface coating of paper" is proposed to be replaced with the term "paper coating." The term "surface coating of pipe" is proposed to be replaced with the term "pipe coating" and the term "surface coating of wood furniture" is proposed to be replaced with the term "coating of wood furniture."

N.J.A.C. 7:27-16.1A Purpose, scope, applicability, and severability

N.J.A.C. 7: 27-16.1A establishes procedures concerning the control and prohibition of air pollution by VOCs. This section summarizes the general purposes of N.J.A.C. 7:27-16. In addition to the existing general purposes currently set forth in this section, the amendments would add subparagraphs indicating that pollution prevention measures should be implemented at any stationary source operation located at a facility in order to reduce or prevent VOC emissions. In addition, the amendments would establish standards and emissions limits for certain vessels, including, but not limited to, delivery vessels, which may carry or transport substances containing VOCs.

N.J.A.C. 7:27-16.2 Stationary storage tanks

N.J.A.C. 7:27-16.2 establishes the provisions which apply to stationary storage tanks. The amendments would change the heading of this section from "Storage of volatile organic compounds" to "Stationary storage tanks" in order to clarify that the section applies to stationary storage tanks. The proposal would also reorganize current subsection (a) into two subsections (a) and (b). Subsection (a) would be revised to establish that N.J.A.C. 7:27-16.2 applies to stationary storage tanks. Current paragraph (a)1 and subsection (b) both prohibit the storage of applicable VOC in stationary storage tanks under specified circumstances. The proposal would combine current paragraph(a)1 and current subsection (b) and recodify them as subsection (b). As a result, subsection (b) would make clear that any stationary storage tank with a capacity of 2,000 gallons (7,570 liters) or greater containing VOCs shall not be exposed to the rays of the sun unless the external surface of the tank is painted and maintained white, or an equivalent method of emission control approved by the Department is used. In subsection (f), the modifier "stationary" is proposed to be added before the term "storage tank" to make it clear that the requirements in proposed subsection (b) shall not apply to a stationary storage tank unless that tank meets the certain requirements in subsection (f).

N.J.A.C. 7:27-16.3 Gasoline transfer operations

N.J.A.C. 7: 27-16.3 applies to any gasoline transfer operation and to the storage, transportation and dispensing of gasoline. The amendments would add a new subsection (a) and would recodify the provisions currently in subsection (a) as subsection (b). New subsection (a) would clarify that the provisions of this subsection are applicable to gasoline transfer operations where gasoline is stored, transported or dispensed for the refueling of vehicles or for use in any other type of operation. In addition, this new subsection would make clear that it applies to other type of operations such as agricultural, aviation, industrial, commercial, construction and marine operations.

New subsection (b) identifies three operations that are exempted from the requirements of this section: 1) loading of gasoline as cargo into a marine vessel; 2) transfer of gasoline into a stationary storage tank during construction ballasting; and 3) transfer of gasoline into or from portable fuel

containers. Two of these exemptions are given in the current rule at subsections (p) and (n), and are proposed to be recodified as paragraphs (b) 1 and 2, respectively.

New subsection (c) prohibits the transfers of gasoline, unless the following requirements are met: 1) the transfer is made through a submerged fill pipe or by some other means approved by the Department as being equally or more effective in reducing total applicable VOC emissions into the outdoor atmosphere during transfer; or 2) the manufacturing process vessel was installed prior to December 17, 1979. If the receiving vessel is a stationary storage tank, the submerged pipe must be permanently affixed to the tank. The amendments would reorganize these requirements into separate provisions for clarity.

Subsection (d) prohibits the transfer of gasoline from a delivery vessel into a stationary storage tank unless certain conditions are met. The amendments would recodify current subsection (c) as subsection (d), and would separate out these conditions into two distinct provisions. The first condition, set forth at paragraph (d)1, pertains to the emission controls required for the storage tank. Three of the five controls allowed under the current rule are proposed to be deleted. The forth control in the current rules (a vapor control system) would be recodified at subparagraph (d)1i as one of the two controls that would be accepted under the amendments. Sub-subparagraph (d)1i(1) would increase the control efficiency that must be achieved by the storage tank's vapor control system from 90 percent to 98 percent. A new sub-subparagraph (d)1i(2) would specify that the vapor control system must have pressure/vacuum valves that are designed to remain closed during the gasoline transfer installed on each atmospheric vent. The fifth control in the current rules (a floating roof) would be retained as the second of the two controls that would be accepted under the amendments, and would be recodified as subparagraph (d)1ii. In addition, paragraph (d)2 sets forth the second condition that the storage tank must meet and requires that the tank satisfy the requirements of N.J.A.C. 7:27-16.2.

The amendments would delete the provisions currently in subsections (d) and (e), including Table 3A, and recodify them at subsections (l) and (m), with amendments, as discussed below.

The amendments would recodify existing subsection (f) as subsection (e). This subsection sets forth the requirements that must be met before gasoline may be transferred into a vehicular tank. The subsection is proposed to be reorganized so as to set forth these requirements as distinct provisions. The first requirement, set forth in paragraph (e)1, would continue to require that a transfer be made using a vapor control system that is approved by the Department and contains the following characteristics: 1) it reduces the total VOC emissions by no less than 95 percent, by weight; and 2) it prevents overfilling and spillage.

In addition, the amendments would add four new requirements that must be met. In paragraph (e)2, the amendments would establish that each component of the vapor recovery system must have been certified by CARB prior to July 25, 2001, according to its Vapor Recovery Certification Procedure CP-201 as adopted on April 12, 1996; or been certified by CARB on or after July 25, 2001, according to its Vapor Recovery Certification Procedure CP-201 as adopted on July 25, 2001 and as subsequently amended, or was certified by CARB prior to July 25, 2001 and any replacement parts/equipment/components and any subsequent construction modifications must have

been approved in an executive order issued by CARB on or after July 25, 2001 and do not decrease the VOC emission control efficiency of the system. This provision also clarifies that a vapor recovery system certified by the Department and EPA to be equivalent to a CARB certified system would also be acceptable. In new paragraph (e)3, the amendments establish that new gasoline facilities must utilize unihose systems on each of their gasoline dispensing devices that dispense more than one grade of gasoline, unless such facility was issued a construction permit by the Department prior to the operative date of the adopted amendments. In new paragraph (e)4, the amendments list the requirements that each dispensing device must meet. Specifically, the nozzle of each dispensing device must have a check valve; at facilities with a vacuum assist vapor control system, the nozzle must be equipped with a splash guard; and each dispensing device and its nozzle must be designed such that the nozzle and its vapor boot fit into the housing in which it is hung on the dispensing device, and the nozzle's vapor check valve remains closed when the nozzle is properly hung on the dispensing device. Lastly, in new paragraph (e)5, the amendments would add the requirement that vapor control systems be compatible with any vehicles' on-board refueling vapor recovery (ORVR) systems.

The amendments would recodify existing subsection (g) as new subsection (f). New subsection (f) would set forth the exclusions from the prohibition in subsection (e). New paragraph (f)1 would set forth the exclusions from the prohibitions against transferring gasoline into a vehicular fuel tank. The first-listed exclusion contains the original provisions of subsection(g), excluding the refueling of marine vehicles at marinas, with revisions. This exclusion is recodified at subparagraph (f)1i. The amendments would also add three new exclusions in subparagraphs (f)1ii through iv. The first of these new exclusions is for the transfer of gasoline into a stationary storage tank with a maximum capacity that is less than 2,000 gallons (7,570 liters). The second is for the refueling of an aircraft. The third is for the transfer of gasoline at a facility which both has an average monthly throughput of equal or less than 10,000 gallons (37,850 liters) and, if the facility commenced operation after the operative date of these amendments, does not have any stationary storage tanks with a maximum capacity of 2,000 gallons or greater.

The amendments at new subsection (f) would list two additional exclusions from the specific provisions of subsection (e). Paragraph (f)2 would delay the requirements of N.J.A.C. 7:27-16.3(e)4 at a gasoline dispensing facility for two years after the operative date of the amendments if the construction of the dispensing device commenced prior to or a permit for the construction of the dispensing device was issued by the Department prior to the operative date of these amendments. Paragraph (f)3 would delay the requirements of N.J.A.C. 7:27-16.3(e)5 for two years after the operative date of the amendments if construction of the vapor control system commenced prior to or a permit for the construction of the vapor control system was issued by the Department prior to the operative date of these amendments.

The amendments would recodify existing subsection (h) as new subsection (g) and reorganize this provision to clarify for purposes of subparagraph (f)1iv and subsection (g) that a gasoline dispensing facility's throughput must be an average of the facility's monthly throughputs between September 1, 1986 and August 31, 1987 or during any subsequent period of 12 consecutive months.

The amendments would recodify in a new subsection (h) provisions that are currently promulgated at subsection (r), with amendments. These provisions set forth the procedures an owner or operator of a gasoline dispensing facility should follow, if the facility is one that was initially exempt from the requirements of subsection(e), but subsequently becomes subject to subsection(e) because its average monthly throughput increases, on or after March 28, 1992, to a level that exceeds 10,000 gallons (37,850 liters).

The amendments would add a new subsection (i) which sets forth the testing requirements for gasoline dispensing facilities. Paragraph (i)1 would establish the tests to be used by the owner or operator of a gasoline dispensing facility to demonstrate that a facility's vapor control system is performing properly and the schedule for such testing. The tests to be used are set forth in Table 3A and include a static pressure performance test, pressure vacuum valve test, dynamic back pressure performance test and an air to liquid volume ratio test. The Department is proposing to use and incorporate into its rules by reference CARB's test methods for these tests. With regard to the Static Pressure Performance test, the Department is proposing three alternative pressures to be used in conducting this test. These three pressure alternatives are two, five, and 10 inches of water column. The public is invited to comment on which of these pressures is most appropriate for conducting the required test. The amendments at subparagraph (i)1ii would provide a Departmental address from which copies of the required test procedures may be obtained. Subparagraph (i)1iii would establish the criteria to be applied to determine if a vapor control system has passed a test. Subparagraphs (i)1iv and v would provide the procedures to be followed if a facility fails any test or retest.

Testing provisions, currently codified at N.J.A.C. 7:27-16.3(c)4 are proposed to be recodified in paragraph (i)2, with amendments. These provisions pertain to the demonstration of the efficiency of a gasoline dispensing facility's vapor control system. Additionally, the amendments at paragraph(i)3 would require compliance with the recordkeeping requirements in subsection (s) for all testing performed.

The amendments would revise subsection (i) and recodify it as new subsection (j). This subsection prohibits delivery vessel having a maximum capacity of 2000 gallons or greater, except for railroad tank cars or marine tank vessels, from containing gasoline unless certain requirements are met. These requirements are set forth in paragraphs (j)1,2, 3, and 4. The amendments recodify existing paragraph (i)1 as (j)1 and 2. These provisions require that a delivery vessel sustain a specified pressure change under specified conditions and that pressure and vacuum tests be performed on a gasoline delivery vessel at least once in every 12- month period to confirm that the requirements of paragraph (j)1 have been met. The existing provisions at paragraphs (i)2 and 3 have been recodified as paragraphs (j)3 and 4. These provisions have been amended to clarify that a certification indicating the identification number of the vessel and date the delivery vessel last passed the pressure and vacuum tests must be affixed to the vessel and a record of the certification must be kept with the delivery vessel at all times.

The amendments would also revise existing subsection (j) and recodify these provisions as new subsection (k). The revised subsection would clarify that transfers of gasoline to or from a delivery vessel subject to provisions of N.J.A.C. 7:27-16.3(d), (l) or (m) are prohibited if the vessel is being loaded or unloaded under specific pressures. In addition, the references to other provisions

in this subsection have been revised to reflect the recodification of these provisions as part of this proposal.

The amendments would recodify and amend the text, which was previously promulgated at subsection (m), as new subsection (l). This subsection requires that delivery vessels be vapor-tight at all times while containing VOCs, except during emergency conditions, gauging, or venting through a vapor control system approved by the Department.

The amendments would also relocate text, which was previously codified at subsection (d), within new subsection (m). This section, as amended, would prohibit the transfer of gasoline or other substances into a gasoline vapor laden delivery vessel unless, the gasoline transfer operation is conducted at a gasoline dispensing facility which is equipped with a vapor control system and test meets the requirements of subsection (n), is properly connected to the delivery vessel and is properly operated throughout the duration of the transfer operation; or the delivery vessel is being used for the purpose of holding gasoline from a storage tank during a period in which the storage tank is undergoing repair or maintenance.

The amendments would recodify the text previously codified at subsection (e), including former Table 3A, at new subsection (n) and Table 3B, with minor clarifying amendments. The amendments would also recodify the text which was previously promulgated at subsection (k), at subsection (o), with minor clarifying amendments.

The amendments would recodify the text at new subsection (o), with minor clarifying amendments, which was previously codified at subsection (k).

The amendments would recodify existing subsection (o) as subsection (p) and add paragraphs(p)1 and 2. Specifically, these provisions require that if a delivery vessel which is subject to the provisions of subsection (j) is found to be in violation of subsections (l) or (o), it must be repaired, and certified within 15 days, or the vessel shall be removed from service until the requirements of subsections (l) and (o) are met in full.

The amendments would propose new subsection (q). New subsection (q) prohibits the transfer of gasoline at a gasoline loading facility, a delivery vessel or at a gasoline dispensing facility which is required to have a vapor recovery system, unless the vapor recovery system meet the applicable requirements of subsections of (d), (e), (m) or (n); all of its hoses, piping, connections, fitting and manholes must be vapor tight and leak free, except when gauging or sampling is being performed; it must be maintained and kept free of defects which could impair its effectiveness; it must be constructed out of materials that will not degrade when exposed to gasoline; and it must be operated properly whenever gasoline is stored, transferred, and/or dispensed.

The amendments would recodify the text in existing subsection (r) at new subsection (h) and would reserve subsection (r) for future rulemakings.

The amendments would add a new subsection (s), that sets forth the recordkeeping requirements for a gasoline dispensing facility. The amendments require that the owner or operator

of a gasoline dispensing facility must maintain the records of: 1) monthly throughput of gasoline; and 2) if the facility is required the test a vapor control system pursuant to N.J.A.C. 7:27-16.3(i), performance test information including the date, name of the testing company, test method used and the results of each test performed.

The amendments would amend subsection (s), and recodify this subsection as new subsection (t), to clarify that it is the owner or operator of a gasoline loading facility who is required to comply with the subsection's requirements. In addition, the amendments would add regenerative thermal oxidizers and catalytic oxidizers to the equipment for which records regarding the operating temperature at the exit of the combustion chamber and the hydrocarbon concentration in the flue gas must be maintained on a continuous basis or at a frequency approved by the Department in writing. The Department is also proposing to replace "carbon monoxide" in the provision with the term "total hydrocarbon". In subparagraph (t)2i, the amendments would require that facility shall record the total hydrocarbon concentration. The amendments would also require that if the oxidizer was installed prior to the operative date of these amendments and has not been modified after the operative date of these amendments, the facility is allowed to continue to record carbon monoxide concentration instead of total hydrocarbons until two years after the operative date of these amendments. In subparagraph (t)2ii, the amendments would replace the phrase "any control apparatus" with the phrase "a vapor control system."

N.J.A.C. 7:27-16.4 VOC transfer operations, other than gasoline

The amendments would revise subsection (o), which sets forth the recordkeeping requirements that must be carried out by the owner or operator of a gasoline loading facility. Specifically, at subparagraph (o)2i, the amendments would specify that the recordkeeping requirements of the provision apply to regenerative thermal oxidizers and catalytic oxidizers, as well as thermal oxidizers. The amendments would require that records be kept of "total hydrocarbon" emissions, rather than "carbon monoxide" emissions, as is currently required. The amendments would also require that owner or operator of facility shall record the total hydrocarbon concentration. The amendments would also require that if the oxidizer was installed prior to the operative date of these amendments and has not been modified after the operative date of these amendments, the facility is allowed to continue to record carbon monoxide concentration instead of total hydrocarbons until two years after the operative date of these amendments.

N.J.A.C. 7:27-16.6 Open top tanks and solvent cleaning operations

The amendments would change the existing heading of this section from "Open top tanks and surface cleaners" to "Open top tanks and solvent cleaning operations." In addition, the amendments would add a new subsection (a) and would recodify existing subsections (a) through (h) as subsections (b) through (i). New subsection (a) would clarify that N.J.A.C. 7:27-16.6 applies to open tanks and surface cleaners, which contain VOCs and to solvent cleaning operations. In addition new paragraph(a)1 would explain that the existing provisions recodified as subsections (b) through (i) would cease to apply, as of one year after the operative date of these amendments. Proposed new paragraph (a)2 would explain that new provisions being proposed at subsections (j) through (m), to replace the existing provisions recodified at subsections (b) through (i), would go into effect one year

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after the operative date of these amendments.

New subsection (b) would prohibit the use of VOCs in an open top tank unless one of three conditions is met. The proposal would reorganize subsection (b) into separate and distinct provisions for each condition. New paragraph (b)1 would set forth the condition, currently in subsection (a), that a tank be covered by a lid which protects the VOC vapors from drafts and diffusion when the tank is not in active use. Two additional conditions, which are currently promulgated in the existing rule at subsection (o), will be recodified as paragraphs (b)2 and 3. These conditions are that the tank is used solely for the application of electrophoretic dip prime coating to automobiles and light duty trucks; or that the tank is used in a waste water treatment system, and the VOC emitted from the tank does not exceed a concentration of 5,000 parts per million by volume measured at any point above the liquid surface at the height of the tank lip.

The Department is not proposing any changes, except recodification, for subsections (c) through (i). Proposed new subsection (j) would set forth the provisions that apply to cold cleaning machines, that contain more than two gallons of VOC and heated cleaning machines. Paragraph (j)1 would specify the conditions under which solvent may be added to a cold cleaning or a heated cleaning machine, as well as the minimum requirements for such machines. Paragraph (j)2 would set forth the operating procedures for a cold cleaning or a heated cleaning machine. Paragraph (j)3 would establish a prohibition against using any solvent that has a vapor pressure of one millimeter of mercury or greater at 20 degrees centigrade (68 degrees fahrenheit) in a cold cleaning or a heated cleaning machine. Paragraph (j)4 would require that the owner or operator of a cold cleaning or a heated cleaning machine to maintain certain information for at least two years; such information includes the name and address of the person selling the solvent, an invoice, bill of sale or a certificate that corresponds to a number of sales, a list of VOC(s) and their respective concentration in the solvent, information about each VOC, the solvent's product number assigned by the manufacturer and the vapor pressure of solvent measured in millimeters of mercury at twenty degrees centigrade.

Proposed new subsection (k) would set forth the provisions that apply to a batch vapor cleaning machine. Paragraph (k)1would specify the conditions under which solvent may be added to a batch vapor cleaning machine and the conditions under which the machine may be operated. Paragraph (k)2 would establish that one of the 10 listed control options must be implemented, in order to operate a batch vapor cleaning machine with a solvent/air interface area of 13 square feet or less. Paragraph (k)3 would set forth similar control options requirements to the provisions in paragraph (k)2 for batch vapor cleaning machine with a solvent/air interface area greater than 13 square feet. Paragraph (k)4 would provide the operating procedures required for batch vapor cleaning machines.

Proposed new subsection (l) would set forth the provisions that apply to an in-line vapor cleaning machine. Paragraph (l)1 would establish the conditions under which solvent may be added to an in-line vapor cleaning machine and under which the machine is permitted to be operated. Paragraph (l)2 would prohibit operation of an in-line vapor cleaning machine unless one of three listed control options is implemented. Paragraph (l)3 would establish the operating procedures required for a batch vapor cleaning machine.

Proposed new subsection (m) would set forth the provisions that apply to an airless cleaning machine or an air-tight cleaning machine. Paragraph (m)1 would establish the conditions under which solvent may be added to an airless cleaning machine or an air-tight cleaning machine and the conditions under which the machine is permitted to be operated. Paragraph (m)2 would require that the owner or operator of an airless cleaning machine or air-tight cleaning machine maintain a log of all additions or deletions of VOC containing solvents for the machine. Paragraph (m)3 would require an owner or operator to demonstrate compliance with a monthly emission limit and would explain how the applicable emission limit is to be determined. Paragraph (m)4 would establish the operating procedures required for an airless cleaning machine or air-tight cleaning machine.

The amendments would recodify at subsection (n) existing subsection (i) which sets forth requirements for oil-water separators. The amendments also propose to delete existing subsections (j) through (o) which pertain to written instructions for the operation, inspection and maintenance of open top tanks and surface cleaners, because these provisions are no longer required as a result of the amendments.

N.J.A.C. 7:27-16.7 Surface coating and graphic arts operations

The amendments would revise the "surface coating and graphic arts operations" provisions at N.J.A.C. 7:27-16.7. Specifically, the amendments would change the title of Table 7A from "Automobile and Light Duty Truck Surface Coating Operations Control Criteria and Compliance Dates" to "Automobile or Light Duty Truck Surface Coating Operations at Original Equipment Manufacturing Facilities Control Criteria and Compliance Dates," to make clear that the standards contained in this table apply to coating operations at original equipment manufacturing facilities.

The amendments would also change the names of types of operations given in Table 7B for consistency of style and to make use of defined terms. Specifically, the phrase "miscellaneous metal parts and products" would be changed to "coating of miscellaneous metal parts and products," the phrase "flat wood paneling" would be changed to "coating of flat wood paneling," the phrase "wood furniture" would be changed to "coating of wood furniture," and the phrase "coating for metal and concrete pipe" would be changed to "pipe coating."

In subsection (l), existing paragraph (l)4 would be revised to indicate that coatings used in the on-site coating of stationary structures would be subject to the provisions of N.J.A.C. 7:27-23.3.

N.J.A.C. 7:27-16.12 Surface coating operations at mobile equipment repair and refinishing facilities

A new rule is proposed at N.J.A.C. 7:27- 16.12 on surface coating operations at mobile equipment repair and refinishing facilities. Subsection (a) would establish that this section applies to any surface coating operations performed at mobile equipment repair and refinishing facilities, and to the owners and operators of such facilities. Subsection (b) would set forth three exemptions from the requirements of this section. Specifically paragraph (b)1 would establish that this section would not be applicable to refinishing or repair operations subject to the standards set forth at N.J.A.C. 7:27-16.7. Paragraph (b)2 would establish that this section would not be applicable to an original

equipment surface coating operation at an automobile assembly plant. Paragraph (b)3 would establish that this section would not be applicable to a refinishing or repair operation performed by a person who is not compensated for such operations.

Subsection (c) would prohibit anyone from applying coatings to mobile equipment or mobile equipment components if the VOC content of the coatings exceed the limits set forth in new Table 12A.

Subsection (d) sets forth the equation to be used to calculate the VOC content of coatings for the purposes of determining compliance with the limits set forth in Table 12A. Subsection (e) sets forth the documentation that the owner or operator of a mobile equipment repair and refinishing facility is required to keep as well as the requirement that this documentation be readily available at the facility.

Subsection (f) would specify the application techniques which must be used for applying any coating listed in Table 12A. In paragraph (f)10, the new rule would permit the use of a technique, other than the ones listed in paragraphs (f)1 through 9, if the owner or operator demonstrates to the Department that the VOC emissions from this application method do not exceed the emission that would result from the use of the high volume low pressure (HVLP) spray method or from the electrostatic spray application method, and the Department and EPA have affirmed in writing that they are satisfied with the demonstration and that they approve this coating application method.

Subsection (g) would establish the requirement, for owners and operators of coating operations subject to this section, to use one of the four listed methods for cleaning spray guns. Subsections (h) and (i) would set forth additional measures that an owner or operation of a facility subject to this section must carry out for the purposes of pollution prevention. These measures include housekeeping measures set forth at subsection (h) and training requirements set forth at subsection (i).

Subsection (i) would set forth a list of coating operations that are exempt from the requirements of subsections (g), (h) and (i). These operations include the application of coatings through certain airbrush application methods, the application of coatings sold in nonrefillable aerosol containers, and the application of automobile touch-up repair and refinish materials.

N.J.A.C. 7:27-16.16 Other source operations

The amendments would revise the "other source operations" provisions at N.J.A.C. 7:27-16.16. In subsection (b), the amendments would clarify that the provisions of N.J.A.C. 7:27-16.16 do not apply to any source operation that is defined as an insignificant source operation at N.J.A.C. 7:27-8.2 or 22.1. Paragraph (g)2 would be revised to specify that the subsection's recordkeeping requirement applies to regenerative thermal oxidizers and catalytic oxidizers, as well as thermal oxidizers. In addition, amendments to paragraph (g)2 would also require that records be kept of "total hydrocarbon" emissions, rather than "carbon monoxide" emissions, as is currently required. The amendments would also require that facility shall record the total hydrocarbon concentration. The amendments would also require that if the oxidizer was installed prior to the operative date of

these amendments and has not been modified after the operative date of these amendments, the facility is allowed to continue to record carbon monoxide concentration instead of total hydrocarbons until two years after the operative date of these amendments.

Other changes to N.J.A.C. 7:27-16

In addition to the changes described above, the amendments would make a number of additional technical changes to N.J.A.C. 7:27-16 to correct punctuation, to revise citations, to ensure consistent use of terms and maintain consistent style of presentation, to present requirements in the singular rather than the plural, and to enhance the clarity of the provisions.

N.J.A.C. 7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

The amendments would revise the civil administrative penalties provisions at N.J.A.C. 7:27A-3.10(m)16 in order to recodify the citations for the existing penalty classes to reflect the reorganization of provisions in N.J.A.C. 7:27-16 as a result of these amendments. As part of this recodification, the Department is not proposing to change the penalty amounts for these violations. The amendments would also establish five new classes of penalties for the new solvent cleaning provisions proposed at N.J.A.C. 7:27-16.6(j) through (m). These classes are "cold cleaning machine," "heated cleaning machine," " batch vapor cleaning machine," " in-line vapor cleaning machine" and "airless cleaning machine or air-tight cleaning machine." The penalty amounts have been set similar to existing penalty amounts. Likewise, the amendments would also establish six new classes of penalties for the new provisions proposed at N.J.A.C 7:27-16.12 that apply to surface coating operations performed at mobile equipment repair and refinishing facilities. These classes are "maximum VOC content of coatings," "contents of coating," " documentation of VOC content calculations," "coating application techniques," "spray gun cleaning methods"and "additional measures."

Social Impact

Adoption of the proposed new rule and amendments would have a beneficial social impact for the State's residents, and for persons who work in the State or who visit the State for business and recreational purposes because these new rules and amendments are expected to improve the State's air quality and reduce VOC emissions. In particular, the Department expects that the amendments will be beneficial to employees within the regulated communities, as their exposure to VOC fumes from the gasoline transfer operations, solvent cleaning operations and coating operations where they work will likely be reduced as a result of these amendments. The Department also expects the amendments to be beneficial to individuals who are allergic to or otherwise sensitive to substances in the emissions that are proposed to be controlled by the amendments.

The operations that are proposed to be regulated contribute to the presence of VOC in the atmosphere. VOC is a precursor to the formation of ground-level ozone. As discussed below, elevation of the concentration of atmospheric ozone causes a variety of human health effects as well as damage to crops and materials. Adoption of the proposed new rules and amendments would not

only aid the State in attaining and maintaining the NAAQS for ozone, by reducing VOC emissions, but would also help avoid potential adverse health and economic impacts as discussed below.

Ground level ozone is a health concern in New Jersey. Studies[1] have shown that ozone, a known respiratory irritant, has severe and debilitating effects on lung capacity and can have detrimental effects on respiration. Even at low levels, ozone can cause healthy individuals to experience breathing difficulty, chest pains, coughing and irritation to the nose, throat and eyes. For individuals who already experience respiratory problems or who are predisposed to respiratory ailments, these symptoms can become much more severe, forcing those individuals to alter their lifestyles to avoid unnecessary exposure. In addition, chronic ozone exposure studies performed on laboratory animals[2] indicate that long-term exposure to ozone affects lung physiology and morphology. These studies suggest that individuals exposed to ozone for prolonged periods of time can experience chronic respiratory injuries resulting in premature or accelerated aging of their lung tissue.

In its notice of proposed rulemaking, "Finding of Significant Contribution and Rulemaking for certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," the EPA notes that breathing elevated levels of ground-level ozone can:

A. Decrease lung function, primarily in children when active outdoors;

B. Increase respiratory symptoms, such as coughing and chest pain upon inhalation, particularly in highly sensitive individuals;

C. Increase hospital admissions and emergency room visits for respiratory problems among children and adults with pre-existing respiratory diseases, such as asthma;

D. Cause inflammation of the lungs;

E. Cause possible long-term damage to the lungs; and

F. Promote allergic reactions.

Additionally, elevated ozone levels are predicted to cause premature death, the onset of new asthma cases, and asthma attacks. (EPA, Final tier 2 Rule: Air Quality Estimation, Selected Health and Welfare Benefit Method and Benefits Analyses Results, EPA 420-e-99-032. December 1999.)

In addition to its effects on human health, ground-level ozone adversely affect crops and ecosystems and damages certain man-made materials, such as textile fibers, dyes, and paints.

The class of air pollutants known as $PM_{2.5}$ consists of minute particulate matter of 2.5 microns or less equivalent aerodynamic diameter. VOCs have also been found to participate in the formation of $PM_{2.5}$, either through condensation of the VOCs or through complex reactions of VOCs with other compounds in the atmosphere. These fine particulates are known as secondary organic aerosols.

Initial monitoring data[3] indicates that these secondary organics can be a significant component of total fine particulates, particularly in urban areas. Fine particulates have been associated with a number of adverse health effects, including premature mortality and aggravation of respiratory and cardiovascular disease.[4] The proposed new rules and amendments would also have the positive social impact of reducing the formation of fine particulates.

The amendments will also be protective of public health by reducing exposure to carcinogens and other hazardous air pollutants. The proposed gasoline transfer operation provisions, at N.J.A.C. 7:27-16.3, would curtail the emission of gasoline vapors. Hazardous air pollutants in gasoline include benzene, toluene, xylenes, ethylbenzene, hexane and methyl tertiary butyl ether. Reducing emission of gasoline vapors will have the social benefit of reducing exposure to these pollutants. Likewise, the proposed solvent cleaning operations provisions at N.J.A.C. 7:27-16.6 and the new surface coating operations at N.J.A.C. 7:27-16.12 will also reduce exposure to hazardous air pollutants. Surface coating and solvent cleaning operations use coatings and cleaning fluids which contain hazardous air pollutants such as ethyl acetate, ethyl benzene, ethylene glycol, methanol and methyl ethyl ketone, toluene and xylenes. Another compound which may be used in these operations is perchloroethylene, which is classified as a hazardous air pollutant, even though it is not classified as a VOC. By regulating the emission control efficiency of coating applications and solvent cleaning operations, the amendments would also reduce human exposure to these substances.

Economic Impact

The proposed new rule and amendments will not impose substantial additional costs on the affected parties and will result in economic benefits for some. The specific economic impacts of the three major components of the new rule and amendments are discussed separately below.

Economic impact of the amendments to the gasoline transfer operations provisions at N.J.A.C. 7:27-16.3

The amendments to the gasoline transfer provisions at N.J.A.C. 7:27-16.3 would primarily impact the owners or operators of gasoline dispensing facilities. There are approximately 3,800 retail gasoline dispensing facilities in New Jersey. It is estimated that about 10 percent of these facilities have “vacuum assist” vapor recovery systems, and the remainder have “vapor balance” systems.

Although the Department has relied on the new certification standards and procedures issued by CARB as a model in developing these proposed new rule and amendments, the Department has utilized CARB’s approach selectively and is not proposing to require the more costly and technology-forcing elements of CARB’s new standards and procedures. Higher-cost measures, such as those that would entail digging up and modifying underground structures solely to meet the new requirements, are not being proposed. Similarly, technology-forcing elements, which have not yet been designed, built and/or pilot tested, are also not being proposed. Rather this proposal incorporates lower cost and readily available measures, which many owners and operators have already undertaken voluntarily at their facilities.

One focus of the proposed amendments is ensuring the proper maintenance and timely repair of vapor control systems. While this would entail an additional cost for facilities that are not already maintained to the standard the amendments would require, it would also provide a corresponding economic benefit for firms that provide maintenance and repair services. To confirm that adequate maintenance and repair of vapor control systems is being performed, the amendments would require annual testing to verify the integrity of the vapor control systems. This testing requirement would impose moderate costs on owners and operators of gasoline dispensing facilities. Typically these costs would be $700.00 to $ 900.00 annually, depending on whether the facility's vapor control system is a vapor balance system or a vapor assist system. While this testing will be a cost for facility owners and operators, when gasoline transfer operations are maintained so as to be more leak-free, their owners and operators will experience the positive impact of reducing inadvertent product loss, because the recaptured gasoline vapors are condensed back to liquid form and recovered, and are again available for sale. For testing contractors, the annual testing requirement would have a positive impact on the level of demand for their services.

Additionally, in meeting these new requirements, some owners and operators may incur capital costs for installing items such as pressure/vacuum valves and boots on the nozzles of vapor assist systems. These costs are expected to be low, approximately $145.00 per valve and $10.00 per nozzle, respectively. These requirements, however, would have a positive economic impact on equipment manufacturers and distributors who would produce and supply nozzles and other equipment which meet the new standards.

The Department has performed an analysis to estimate the costs of the proposed amendments for the owners and operators of these facilities. In performing this analysis, the Department separately calculated the costs for gasoline dispensing facilities with "vapor balance" vapor control systems and those with "vapor assist" vapor control systems. The Department assumed that all capital costs would be incurred in the first year and that thereafter the primary additional cost would be for the on-going annual testing. The Department estimated the costs for five different categories of gasoline dispensing facilities, based on the size of their gasoline throughput.

A summary of the Department's estimate of the costs is shown in Table 1 below. This summary table presents the results of the cost analysis in three ways: 1. estimated total costs in dollars per facility, which include initial capital costs and annual testing costs; 2. estimated cost effectiveness of the amendments, given in dollars per pound of VOC reduced; and 3. estimated cost in cents per gallon of gasoline dispensed. Additional details on how these estimates were derived are set forth in a report titled "Economic Impact Analysis and Estimated VOC Emission Reductions." This report may be downloaded from the Department's website at www.dep.state.nj/dep, or requested by telephoning (609) 777-1345.

Table 1
Cost Analysis Summary for GDFs
Based on Proposed Amendments To
the Gasoline Transfer Operation Provisions at NJAC16.3(1)

Gasoline Dispensing Facility Type Based on Average Gasoline Throughput	Total	Average per GDF

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Throughput (gallons per year)	**GDF1 Up to 158,796**	**GDF2 158,796 to 450,000**	**GDF3 450,000 to 900,000**	**GDF4 900,000 to 1,800,000**	**GDF5 1,800,000 to 3,600,000**		
Estimated Total Costs per Facility, first year[20,(3),(4)]							
Vapor Balance Systems ($)	2,149	2,149	2,149	2,149	2,149	4,849,995	**2,149**
Vapor Assist Systems ($)	2,379	2,389	2,419	2,449	2,509	643,700	**2,429**
Total						**5,493,695**	
Estimated Cost Effectiveness, first year							
Estimated Cost Effectiveness ($/pound of VOC reduced)	3.81	1.23	0.53	0.18	0.01	**0.36**	
Estimated Cost per gallon of gasoline dispensed (cents/gal)	1.04	0.34	0.15	0.05	0.00	**0.10**	
Estimated Total Costs per Facility, second and subsequent years							
Vapor Balance Systems ($)	700	700	700	700	700	2,383,290	
Vapor Assist Systems ($)	900	900	900	900	900	340,470	
Total						**2,723,760**	
Estimated Cost Effectiveness, second and subsequent years [5]							
Estimated Cost Effectiveness ($/pound of VOC reduced)	1.81	0.53	0.18	0.00	-0.08	0.09	
Estimated Cost per gallon of gasoline dispensed (cents/gal)	0.49	0.14	0.05	0.00	-0.02	0.02	

Notes:

[1] Calculation Methodology based on methodology given in " CARB Enhanced Vapor Recovery Initial Statement of Reasons for Proposed Amendments to the Vapor Recovery Certification and Test Procedures for Gasoline Loading and Motor Vehicle Gasoline Refueling at Service Stations," Appendix E, February 4, 2000.

[2] Total costs include capital costs and [annual] first-year testing costs. The cost estimate conservatively assumes all new equipment costs in the first year.

[3] Estimated capital costs and annual costs per facility do not account for gasoline recovery credit

[4] Annual testing costs conservatively assume that the Dynamic Backpressure testis performed annually, instead of once every 3 years, as actually required.

[5] Costs assumed for the second and subsequent years are for annual testing

As shown in Table 1, the Department estimates that the total cost to these facilities of implementing the gasoline transfer provision amendments at N.J.A.C. 7:27-16.3 will average less than one tenth of one penny per gallon of gasoline dispensed, and for some facilities will result in cost savings in future years. Also shown in Table 1, the Department estimates that the cost effectiveness of these amendments will average less than one half dollar per pound of VOC reduced or $720.00 per ton of VOC reduced in the first year, and $180.00 per ton of VOC reduced in the second and subsequent years. These costs are low relative to the costs imposed in prior amendments to N.J.A.C. 7:27-16 for retrofitting delivery vessels, which ranged from $2,000 to $10,000 per ton of VOC removed. See 25 N.J.R. 3365(1993).

The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

Economic impact of amendments to the provisions for open top tanks and solvent cleaning operations at N.J.A.C. 7:27-16.6

The amendments to the solvent cleaning operations provisions at N.J.A.C. 7:27-16.6 would primarily impact the owners or operators of facilities with such operations. Vapor cleaning machines (including batch and in-line vapor cleaning machines, and airless or air-tight cleaning machines) are generally used in manufacturing operations in such areas as the electronics industry and high quality metal machining and finishing operations. Cold cleaning machines are more commonly used in automobile repair and maintenance facilities and in industrial maintenance shops. In New Jersey approximately 3,500 facilities are expected to be affected by these amendments.

The amendments would establish standards for solvent cleaning equipment for specified classes of vapor cleaning machines and operating practices and reporting requirements for the owners and operators of such equipment. They would also establish limits on the volatility of solvents that may be used in cold cleaning machines and new required operating practices for such machines.

The vapor cleaning equipment and operating practices at some facilities may already meet the proposed new requirements. For example, industry officials have told the Department that the owners and operators of most cold cleaning operations have already made the conversion to use of low volatility solvents. This makes economic sense, because although the cost for the low volatility solvents are generally higher than the cost for high volatility solvents, there is less evaporative loss of low volatility solvents. As a result, the actual cost associated with the use of low volatility solvents is reduced.

At facilities where the vapor cleaning equipment and operating practices currently do not meet the proposed new requirements, the owners and operators would need to take steps to bring their solvent cleaning operations into compliance. To meet the new requirements, such owners and operators may be able to simply upgrade their existing solvent cleaning equipment, by purchasing and installing items such as automated covers (typically $4,000 to $5,000 per cover) and hoists (typically $2,000 to $3,500 per installation). The Department believes that most owners and operators would be able to comply with the amendments in this way, but some owners and operators may prefer, or find it necessary, to buy and install new solvent cleaning equipment. Equipment vendors estimate that the cost of such new equipment will be approximately 35 percent higher than the cost of vapor cleaning machines that meets the current rules.[5] Two equipment suppliers have told the Department that new equipment would typically cost between $6,000 and $200,000, depending on the type and the capacity of the solvent cleaning machine.

In 2001, the consulting firm of E.H. Pechan & Associates, Inc., prepared a report for the Ozone Transport Commission entitled "Control Measure Development Support Analysis on Ozone Transport Commission Model Rules." This Pechan[6] report estimated that the cost of reducing a ton of VOC emissions from a cold cleaning operation, through the measures set forth in the OTC model rules on solvent cleaning operations, to be $ 1,400.00. The cost increase would be offset by the reduced evaporative loss of solvent which would result from the required use of lower volatility solvents, thereby reducing the need to purchase additional solvent. The Pechan report concluded that implementation of these new low volatility solvent requirements for cold cleaning machines and operating and equipment requirements for vapor cleaning machines in solvent cleaning operations would result in a 66 percent reduction in VOC emissions from such facilities.

The proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 N.J.R. for the official text of the proposal.

Economic impact of the new rules for surface coating operations at mobile equipment repair and refinishing facilities provisions at N.J.A.C. 7:27-16.12

The proposed new rule for surface coating operations at mobile equipment repair and refinishing facilities at N.J.A.C. 7:27-16.12 would primarily impact the owners or operators of body shops which range in size from small, one or two employees, to larger shops with 20 or more employees. In New Jersey approximately 1,600 small businesses are expected to be affected by the proposed new rule.

Some of the affected facilities already have the equipment needed to comply with the new rule and amendments. As a result, these new rule and amendments are not expected to have an impact on these facilities. Owners and operators of facilities that are not already in compliance with the new rule and amendments, however, would incur capital costs in complying with the proposed new rule and amendments. These costs would arise primarily from the acquisition of high volume low pressure (HVLP) spray guns which typically cost between $500.00- $600.00. This compares to a cost of approximately $400.00 for the air-atomized spray guns which could be used under the current rules.

In addition, in order to comply with the proposed new rule and amendments, some owners and operators would need to maintain their facilities to a higher standard and/or follow new procedures as they carry out their operations. These owners and operators would be required to make use of spray gun cleaning equipment that minimizes solvent loss. While use of commercially available spray gun cleaning equipment is preferable, the new rule and amendment would allow for the use of other kinds of containers for spray gun cleaning, as long as the container is closed when not in use. The cost of spray gun cleaning systems ranges from $725.00 to $2,235.00.[7]

The Pechan report discussed above also estimated the cost per ton of VOC reduced as a result of the use of HVLP spray guns and a gun cleaning system. The Pechan report estimated these costs as $1,534. The Pechan report concluded that the use of HVLP spray guns and spray gun cleaning systems in surface coating operations at mobile equipment repair and refinishing facilities would result in a 35 percent reduction in VOC emissions from such facilities.[8]

The costs associated with the purchase of HVLP spray guns, however may be offset somewhat by savings in paint achieved through the use of these guns. Low pressure spray guns reduce the amount of paint sprayed during painting operations. As a result, it is estimated that the use of HVLP spray guns could reduce paint use by approximately 50 percent.[9] This decrease in paint usage will also result in the need to replace paint booth filters less frequently. The Pechan report estimates that the payback period to recover the additional equipment costs for high volume low pressure spray gun is approximately one to two years.[10]

Environmental Impact

The Department expects the proposed new rule and amendments to have a significant and positive environmental impact. The primary environmental benefit expected will be a reduction in the emission of VOCs, which are precursor emissions that lead to the formation of tropospheric (ground level) ozone.

Estimated Statewide VOC emission reductions from the implementation of the gasoline transfer operations provisions proposed at N.J.A.C. 7:27-16.3 are 5,300 tons per year (14.5 tons per day, ozone season) by year 2007. Estimated Statewide VOC emission reductions from the implementation of the solvent cleaning operation provisions at N.J.A.C. 7:27-16.6 are 1,460 tons per year (four tons per day, ozone season) by year 2005. Estimated Statewide VOC emission reductions from implementation of the proposed new rule and amendments at N.J.A.C. 7:27-16.12 for surface coating operations at mobile equipment repair and refinishing facilities are 3,285 tons per year(nine tons per day, ozone season) in 2005.

As discussed earlier, ground level ozone is inhaled by people and animals and comes into contact with crops and other vegetation, as well as man-made structures and surfaces. This exposure can cause a variety of adverse effects. In addition to the health effects discussed in the Social Impact statement above, ground-level ozone interferes with various plants' ability to produce and store nutrients.[11] This causes the plants to become more susceptible to disease, insects, other pollutants and harsh weather. This impacts annual crop production throughout the United States, resulting in significant losses, and injures native vegetation and ecosystems. Ground-level ozone also damages certain man-made materials, such as textile fibers, dyes, and paints.[12] The proposed new rules and amendments will have a positive environmental impact by reducing emissions of VOC, thereby reducing the formation of ground level ozone.

The class of air pollutants known as $PM_{2.5}$ consists of minute particulate matter of 2.5 microns or less equivalent aerodynamic diameter. VOCs have also been found to be a source of $PM_{2.5}$ formation, either through condensation of the VOCs or complex reactions of VOCs with other compounds in the atmosphere. These fine particulates are known as secondary organic aerosols. Initial monitoring data indicates that these secondary organics can be a significant component of total fine particulates, particularly in urban areas.[13],[14] By reducing the levels of ozone precursors, the new rules and amendments would have the indirect positive environmental impact of reducing the formation of these particles in the atmosphere. As discussed in the Social Impact statement above, fine particulates have been associated with adverse health effects, including premature mortality and aggravation of respiratory and cardiovascular disease.

The amendments will also have the positive environmental impact of reducing the emissions of certain carcinogens and other hazardous air pollutants. For example, the amendments proposed at N.J.A.C. 7:27-16.3, concerning gasoline transfer operations, will result in a reduction of emissions of hazardous air pollutants.[15] Hazardous air pollutants in gasoline include benzene, toluene, xylenes, ethylbenzene, hexane and methyl tertiary butyl ether. Likewise, the proposed amendments to the solvent cleaning operations provisions at N.J.A.C. 7:27-16.6 and proposed new rules at N.J.A.C. 7:27-16.12 for surface coating operations at mobile equipment repair and refinishing facilities would also reduce emission of hazardous air pollutants. Such operations use fluids which contain hazardous air pollutants such as ethyl acetate, ethyl benzene, ethylene glycol, methanol and methyl ethyl ketone, toluene, xylenes, and perchloroethylene. By requiring a higher level of VOC control efficiency for these coating and solvent cleaning operations, the proposed amendments would also reduce their hazardous air pollutant emissions.

The proposed amendments would also have beneficial impacts on soil and groundwater. The proposed amendments to the gasoline transfer operations rule at N.J.A.C. 7:27-16.3 would help prevent

gasoline spills and leakage and, thereby, decrease soil and groundwater contamination by constituents of gasoline such as benzene, toluene, xylenes, ethylbenzene, methyl tertiary butyl ether and tertiary butyl alcohol. The amendments would also require more vigilant maintenance of vapor control systems at gasoline dispensing facilities. Poorly maintained or worn vapor recovery piping or vapor control system equipment can result in leakage of condensed vapors and other liquids. Underground piping may develop leaks or cracks over time due to settlement of the backfill material. The gasoline released through such leaks can infiltrate into the soil and groundwater through cracks in the concrete and asphalt ground surface or in the underground piping. The proposed testing requirements would alert owners and operators to malfunctioning systems, and other proposed provisions would require that identified problems be addressed. Also the proposed requirements for check valves located in nozzles would minimize spillage of liquid gasoline due to overfilling. The proposed unihose design for gasoline dispensers would also help minimize potential sources of leaks as well.

Federal Standards Analysis

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65) require State agencies that adopt, readopt or amend State regulations which exceed any federal standards or requirements to include in the rulemaking document a Federal Standard Analysis.

The Department has performed a comparison of the proposed new rule and amendments to N.J.A.C. 7:27-16, Control and Prohibitions of Air Pollution By Volatile Organic Compounds, to analogous Federal regulations, namely National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 63; Reasonably Achievable Control Technology (RACT), 40 CFR Part 62; and Maximum Achievable Control Technology (MACT), 40 CFR Part 63. These Federal regulations have been promulgated pursuant to the Federal Clean Air Act (CAA) and set forth the substantive Federal standards. The new rule and amendments are needed to fulfill a requirement, imposed by EPA pursuant to the Federal Clean Air Act, 42 U.S.C. §§7401 et seq., that New Jersey adopt sufficient control measures to address additional emission reductions identified by EPA as being needed for New Jersey to attain the 1-hour ozone standard by the mandated attainment dates. Therefore, proposal of these new rules and amendments is necessary for the State to comply with Federal requirements. Based on its review of these Federal regulations, the Department has determined that, generally, the proposed new rule and amendments do not exceed these federal standards. Specifically, the proposed new rule and amendments regarding solvent cleaning operations are based on the Federal Maximum Achievable Control Technology (MACT) standard for solvent vapor degreasers, 40 CFR Part 63 Subpart T, and do not exceed these existing federal requirements. In addition, the proposed new rule and amendments on mobile equipment repair and refinishing operations would require that refinishing materials meet the Federal VOC limits,40 CFR Part 59, subpart B-National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings, therefore, the amendments clearly do not exceed these Federal standards. Accordingly, Executive Order No.27(1994) and N.J.S.A. 14B-1etseq. do not require a Federal Standards Analysis.

Jobs Impact

The proposed new rule and amendments are expected to have a very small, but positive impact on employment and jobs in New Jersey. With the few exceptions noted below, the Department does not anticipate that the new rule and amendments would cause a noticeable change in business creation,

elimination or expansion, or business competitiveness in New Jersey. The moderate costs expected to be incurred by gasoline loading and dispensing facilities, by facilities with solvent cleaning operations, and by mobile equipment repair and refinishing facilities with surface coating operations to comply with the proposed new rule and amendments are not anticipated to affect their operations in such a way as to significantly affect employment.

Since the owners and operators of some gasoline dispensing facilities and gasoline loading facilities would have to upgrade their vapor recovery system equipment to comply with the amendments to N.J.A.C. 7:27-16.3, manufacturers of equipment that meets the specified standards could experience increased demand, while manufacturers of equipment that does not meet the specified standards are likely to experience decreased demand. Similarly, the owners and operators of solvent cleaning facilities and of mobile equipment repair and refinishing facilities with surface coating operations may likewise need to upgrade their equipment to comply with the new rule and amendments at N.J.A.C. 7:27-16.6 and 16.12, respectively. As a result, manufacturers of solvent cleaning equipment, spray guns, and spray gun cleaning equipment which meet the proposed new standards may experience increased demand, whereas non-complying equipment is likely to decrease in demand. The effect on demand for equipment as a result of the proposed new rule and amendments is not expected overall to have a significant impact on employment.

The gasoline transfer operation amendments at N.J.A.C. 7:27-16.3 would require the performance of annual testing of gasoline dispensing facilities' vapor control systems. The resulting demand for testing services may result in some testing companies expanding their staffs to meet this need. In addition, this regular testing would identify malfunctioning systems which would have to be repaired. This may increase the demand for replacement parts and for repair services. Manufacturers of such parts and providers of such services may need to hire a modest number of additional workers to meet this demand.

As a result of the new provisions proposed at N.J.A.C. 7:27-16.6 and 16.12, the owners and operators of solvent cleaning facilities may have to use different solvents. This may result in a shift in demand from one solvent supplier to another if the current supplier is unable to provide the owner /operator with compliant solvents. This may result in an impact in the number of workers employed by a particular solvent supplier. However given that an existing supplier may be asked to meet his or her demands, such impact may be negligible, if it occurs at all.

Agriculture Industry Impact

Pursuant to P.L. 1998, c. 48, adopted on July 2, 1998, the Department has evaluated the proposed new rule and amendments making to determine the nature and extent of its impact on the agriculture industry.

The Department expects the proposed new rule and amendments to have a significant and positive impact on the State's agriculture industry. As discussed above, one of the primary environmental benefits expected to result from the proposed rule and amendments will be a reduction in emissions of VOCs, which are precursors to the formation of tropospheric (ground level) ozone. Ground-level ozone interferes with various plants' ability to produce and store nutrients.[16] This impairs the growth and development of some plants and may cause them to become more susceptible to disease, insects, other

pollutants and harsh weather. This impacts annual crop production throughout the United States, resulting in significant losses, and injures native vegetation and ecosystems. The proposed new rules and amendments will have a positive impact on agriculture by reducing emissions of VOC from gasoline transfer, solvent cleaning and mobile equipment repair and refinishing operations, thereby reducing the formation of ground level ozone.

The improved maintenance and housekeeping practices at gasoline dispensing facilities required by the proposed new rules and amendments will also reduce the spillage of gasoline to ground and will reduce leakage of gasoline and other additives such as methyl tert butyl ether (MTBE) into the ground water. As a result, these provisions should decrease and prevent groundwater contamination from gasoline dispensing facilities. This should also have a positive impact on agriculture in New Jersey.

Regulatory Flexibility Statement

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping, and other compliance requirements that the proposed amendments and new rule would impose upon small businesses. The Regulatory flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 fulltime employees." Based upon this definition, the Department does expect that small businesses will be subjected to additional requirements by the proposed amendments and new rule. The amendments to N.J.A.C. 7:27-16.3 and 16.6 would apply to approximately 3,800 gasoline dispensing facilities and other gasoline transfer operations, and approximately 3,500 facilities with solvent cleaning operations, respectively. The proposed new rule at N.J.A.C. 7:27-16.12 would apply to approximately 1,600 mobile equipment repair and refinishing facilities with surface coating operations. Many of these facilities are small businesses.

The amendments and new rule would impose some testing, recordkeeping, and reporting requirements on the affected facilities. Owners and operators of gasoline dispensing facilities will need to hire professional service provider to perform annual testing of their vapor control systems and to maintain the records that document when testing was performed, the name of the testing company, the test method used, and the test results. Typically these costs would be$700.00 to $900.00 annually, depending on whether the facility's vapor control system is a vapor balance system or a vapor assist system. If a gasoline dispensing facility fails its annual testing, and fails a subsequent retest, this second failure would need to be reported to the Department.

The owners and operators of most facilities with solvent cleaning operations would not be subject to additional new testing, recordkeeping, and reporting requirements. In fact the proposed amendments would relieve them of the current responsibilities to draft and submit, for Departmental approval, written instructions for the operation, inspection and maintenance of their solvent cleaning equipment; to notify the Department of any change in these written instructions, and to train their staff to follow the written procedures. However, the owner or operator of an airless cleaning machine or air-tight cleaning machine would be required to maintain a log of the additions and deletions of VOC containing solvent for each machine, including the weight of the solvent contained in activated carbon or other sorbent material used to control emissions from the cleaning machine. Such owner or operator would also be required to demonstrate that the monthly emissions from the machine, based on a three-month rolling average, are

equal to or less than the allowable limit that would be established in the new rules. The facilities will not need to hire professional services in order to comply with these proposed new regulations.

The owner or operator of a surface coating operation at a mobile equipment repair and refinishing facility would be required to document the VOC content of each coating used and make this documentation available to the Department upon request. The owner or operator of a surface coating operation would also be required to implement certain housekeeping measures. The facilities will not need to hire professional services in order to comply with these professional new requirements.

The initial capital costs and annual compliance costs that the new rule and amendments would impose are discussed in detail in the Economic Impact statement above. In developing this proposal the Department attempted, where feasible and appropriate, to ease the economic impact on the affected businesses. For example, in the proposed gasoline transfer operation amendments, the Department has elected to include only the more low cost and cost effective measures that CARB has approved for gasoline dispensing operations. In both the proposed gasoline transfer operation amendments and the solvent cleaning amendments, the Department has sought to ease the cost and burden of compliance by allowing an additional year (and in some cases two years) to meet certain proposed new standards. For example, the proposed amendments to N.J.A.C. 7:27-16.6 would allow the owners or operators of facilities where solvent cleaning operations are performed, an additional year to comply so that they would have adequate time for equipment upgrades or replacement. Similarly, the proposed new rule at N.J.A.C. 7:27-16.12 would provide facilities, where mobile equipment repair and refinishing operations are performed, one year to comply with the new requirements.

The Department has also sought to ease the burden on small businesses in cases where their potential for VOC emissions were low. For example, in the gasoline transfer operation provisions at N.J.A.C. 7:27-26.3, facilities with storage tanks that hold less than 2,000 gallons of gasoline are exempted from the requirement to control emissions from the filling and unloading of gasoline from the tank with a vapor control system. In the solvent cleaning provisions at N.J.A.C. 7:27-26.6, small cold cleaning equipment which holds two gallons of VOC or less would be exempt from the proposed requirements. Similarly, the amendments at N.J.A.C. 7:27-12(i) exempt refinishing or repair operations from certain cleaning and housekeeping requirements, if the coating is applied by use of an airbrush the coatings is sold in non-refillable aerosol containers, or the coating consists of automotive touch-up repair and refinish materials.

However, given these accommodations, and given the moderate cost of the proposed new rule and amendments as compared to the overall benefits attributable to thenew rule and amendments, the Department has determined that the effect of proposal on small businesses is reasonable. Moreover, no further exemption from coverage can be provided to small businesses, if the full effect of these amendments is to be achieved. Owners, operators, and employees of small businesses will enjoy the environmental, health, and other social benefits of the new rule and amendments. Furthermore, securing the VOC emission reductions that would be realized through the new rule and amendments is required by the EPA pursuant to the Federal Clean Air Act. Failure to achieve these reductions could subject New Jersey to economic sanctions, which would adversely affect all businesses in the State including small businesses.

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the August 5, 2002 New Jersey Register for the official text of the proposal.

Smart Growth Impact

Executive Order No. 4 (2002) requires State agencies which adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the proposed rule on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan). The proposed new rules and amendments to the State's Control and Prohibition of Air Pollution By Volatile Organic Compounds rules do not relate to the State's official land use and development policies in a way that would either encourage or discourage any development or redevelopment in this State contrary to the guiding principles of the State Plan. As a result, the Department does not expect this rulemaking to have an impact on the State's achievement of smart growth.

Footnotes

1. A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997
2. Ibid
3. Ibid
4. 61 Fed. Reg. 65637
5. Wolf, 2002: Ultronix Inc.,
6. E.H. Pechann & Associates, Inc. "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules."
7. Uni-Ram Corporation.
8. Opcit note 7
9. Ibid
10. Ibid
11. A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997
12. Ibid
13. Amar, Pravee, NESCAUM's Progress Report on "Determination of Fine Particles Concentrations and Chemical Composition in the Northeastern United States, 1995."
14. NESCAUM, Regional Haze and Visibility in the Northeast and Mid-Atlantic States, draft report, November 30, 2000.
15. Hazardous Air Pollutants Listed in CAA Title III, Sec. 112 (b)
16. A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997

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Full text of the proposal follows(additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

CHAPTER 27
AIR POLLUTION CONTROL

Subchapter 16. CONTROL AND PROHIBITION OF AIR POLLUTION BY VOLATILE ORGANIC COMPOUNDS

7:27-16.1 Definitions

The following words and terms, as used in this subchapter, have the following meanings, unless the content clearly indicates otherwise.

. . .

"Airless cleaning system" means a solvent cleaning machine that operates under vacuum and seals at a differential pressure of 0.50 pounds per square inch or less, prior to the introduction of solvent or solvent vapor into the cleaning chamber, and maintains this differential pressure under vacuum during all cleaning and drying cycles.

"Airless spray" means a spray coating method in which the coating is atomized by forcing it through a small nozzle opening at high pressure. The coating is not mixed with air before it exits from the nozzle opening.

"Air-tight cleaning system" means a solvent cleaning machine that seals at a differential pressure of 0.50 pounds per square inch or less, prior to the introduction of solvent or solvent vapor into the cleaning chamber, and maintains this differential pressure during all cleaning and drying cycles.

. . .

"Automated parts handling system" means, with respect to a solvent cleaning machine, a mechanical device that carries parts and/or baskets containing parts at a controlled speed from the initial loading of soiled or wet parts through the removal of the cleaned or dried parts.

"Automobile or light duty truck surface coating operation" means the application, flash-off, and curing of the primer, topcoat, and repair coat on the main body and other exterior sheetmetal of any passenger car or passenger car derivative capable of seating 15 or fewer passengers, or any motor vehicle rated at 8,500 pounds (3,856 kilograms) gross vehicle weight or less which is designed primarily for purposes of transportation of property, or a derivative of such vehicle including, but not limited to, pick-ups, vans, and window vans. This term includes the entire coating application system, including all spray booths, flash-off areas, and ovens in which surface coating formulations within the same spray primer, topcoat, or repair operation category are applied, dried and cured.

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"Automotive elastomeric coating" means a coating designed for application over surfaces of flexible mobile equipment and mobile equipment components, such as elastomeric bumpers.

"Automotive impact resistant coating" means a coating designed to resist chipping caused by road debris.

"Automotive jambing clear coat" means a fast-drying, ready-to-spray clear coat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

"Automotive lacquer" means a thermoplastic coating applied directly to the bare metal surfaces of mobile equipment and mobile equipment components which dries primarily by solvent evaporation, and which is resoluble in its original solvent.

"Automotive low-gloss coating" means a coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.

"Automotive multi-colored topcoat" means a topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, including, but not limited to, cargo beds and other surfaces of trucks and other utility vehicles.

"Automotive pretreatment" means a primer that contains a minimum of 0.5 percent acid, by weight, that is applied directly to the bare metal surfaces of mobile equipment and mobile equipment components to provide corrosion resistance and to promote adhesion of subsequent coatings.

"Automotive primer-sealer" means a coating applied to mobile equipment and mobile equipment components prior to the application of a topcoat to provide corrosion resistance, to promote adhesion of subsequent coatings, to promote color uniformity, and to promote the ability of the undercoat to resist penetration by the topcoat.

"Automotive primer-surfacer" means a coating applied to mobile equipment and mobile equipment components prior to the application of a topcoat for the purpose of:

1. Filling surface imperfections in the substrate;
2. Providing corrosion resistance; and
3. Promoting adhesion of subsequent coatings.

"Automotive specialty coating" means a coating which has been determined by the Department to have only specialized, relatively low-volume uses. This term includes but is not limited to, elastomeric coatings, adhesion promoters, low gloss coatings, bright metal trim repair coatings, jambing clear coats, impact resistant coatings, rubberized asphaltic underbody coatings, uniform finish blenders, or weld-through primers applied to automotive surfaces and lacquer topcoats applied to a historic motor vehicle.

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“Automotive topcoat” means a coating or a series of coatings applied over an automotive primer-surfacer, automotive primer-sealer or existing finish on the surfaces of mobile equipment and mobile equipment components for the purpose of protection or beautification.

“Automotive touch up repair and refinish” means an application of automotive topcoat to cover minor finishing imperfections which are equal to or less than one inch in diameter.

. . .

“Batch vapor cleaning machine” means a vapor cleaning machine in which the individual parts or a set of parts that are being cleaned move through the entire cleaning cycle before new parts are introduced into the cleaning machine. The term includes, but is not limited to, solvent cleaning machines, such as ferris wheel cleaners or cross rod machines, that clean multiple loads simultaneously and that are manually loaded.

. . .

"Can coating" means exterior and interior spray coating in two-piece can lines; interior and exterior coating in sheet coating lines for three-piece cans; side seam spray coating and interior spray coating in can fabricating lines for three-piece cans; and sealing compound application and sheet coating in end coating lines.

. . .

“CARB” means the California Air Resources Board.

“Carbon adsorber” means a bed of activated carbon into which an air/solvent, gas/vapor or liquid stream is routed and which adsorbs certain compound(s) found in the stream onto the carbon.

. . .

“Coating of flat wood paneling" means the coating of hardwood, plywood, particle board, and hardboard paneling, excluding the coating of exterior siding, tile board, or particle board used in furniture manufacturing.

“Coating of miscellaneous metal parts and products" means the application of any coating, excluding an adhesive, to any metal part or product including, but not limited to, large and small farm machinery, small appliances, office machinery, vending machines, industrial machinery, metal-covered doors, door frames, and electrical machinery.

“Coating of wood furniture” means the application of any surface coating formulation to any furnishing made of wood or a composite of wood including, but not limited to, kitchen cabinets, equipment cabinets, household furniture and office furniture.

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"Coil coating" means the coating of any flat metal sheet or strip available in rolls or coils.

"Cold cleaning machine" means a solvent cleaning machine, containing and/or using an unheated liquid which contains greater than five percent VOC or five percent HAP by weight, into which parts are placed for the purpose of removing dirt, grease, oil or other contaminants and coatings from the surfaces of the parts. This term includes both immersion cold cleaning machines and remote reservoir cold cleaning machines. The term does not include vapor cleaning machines and machines which do not have a solvent/air interface, such as airless and air-tight cleaning systems.

. . .

"Custom topcoating [of automobiles and light duty trucks**]"** means**, with respect to automobiles and light duty trucks,** the application of surface coating formulations, except during original equipment manufacturing, to the main body or other exterior areas of any passenger car or any motor vehicle capable of seating 15 or fewer passengers or any motor vehicle rated at 8,500 pounds (3,856 kilograms) gross weight or less which is designed for purposes of transportation of property, or a derivative of such vehicle including, but not limited to, pick-ups, vans, and window vans, to achieve a finish that meets individual specifications, including, but not limited to, custom color, design, or gloss. It shall not include the use of adhesion promoters, zinc phosphate pretreatments, uniforming finishes or blenders, specialty primers for plastics, or low reflective accessory coatings.

. . .

"Down time" means, with respect to a solvent cleaning machine, the period when a solvent cleaning machine is not cleaning parts and the sump heating coils, if present, are turned off.

. . .

"Dwell" means, with respect to the operation of a solvent cleaning machine, the holding of parts after cleaning within the freeboard area and above the solvent vapor zone of a solvent cleaning machine, to allow solvent to drain from the parts or the basket holding the parts back into the solvent cleaning machine.

"Dwell time" means, with respect to the operation of a batch vapor cleaning machine or an in-line vapor cleaning machine, the period of time which begins when a parts basket is placed above the vapor zone of the vapor cleaning machine and which ends when solvent dripping ceases.

. . .

"Extreme performance coating" means a coating formulated for and exposed to harsh environmental conditions including, but not limited to: outside weather conditions all of the time, or temperatures consistently above 95**[**o**]**º C, or temperatures consistently below 0**[**o**]**ºCor solvents, detergents, abrasives or scouring agents; or corrosive atmospheres or fluids.

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"Fabric coating" means the application of any surface coating formulation, except ink and plastisol, to a textile substrate in a fabric coating line.

. . .

[**"Freeboard chiller"** means a heat exchanger mounted on a surface cleaner freeboard to provide a chilled air layer immediately above the VOC vapor space to reduce VOC emissions.]

"Freeboard height" means**, with respect to a solvent cleaning machine,** the vertical distance [from either the VOC liquid level to the lip of an unheated open top surface cleaner or from the interface of the VOC vapor with the air to the lip of a vapor surface cleaner.] **determined as follows:**

1. **For a cold cleaning machine, the distance from the solvent- containing liquid to the top edge of the machine; or**

2. **For a vapor cleaning machine, the distance from the top of the solvent vapor layer to the top edge of the machine.**

"Freeboard ratio" means**, with respect to a solvent cleaning machine,** a ratio of the **machine's** freeboard height to the [tank] width **of its tank** [or] **(that is, to the tank's** narrower dimension at the tank lip**)**.

"Freeboard refrigeration device" means a set of secondary coils mounted in the freeboard area of a solvent cleaning machine that carries a refrigerant or other chilled substance to provide a chilled air blanket above the solvent vapor. This term includes a solvent cleaning machine's primary condenser, if it is capable of maintaining a temperature in the center of the chilled air blanket of not more than 30 percent of the boiling point for the solvent used.

"Fuel" means solid, liquid or gaseous materials used to produce useful heat by burning.

. . .

"Glass coating" means the application of any surface coating formulation to a glass surface, such as those of glass lamps or bulbs.

. . .

"Hazardous air pollutant" or "HAP" means an air contaminant listed in or pursuant to subsection (b) of section 112 of the Clean Air Act (42 U.S.C. §7412).

"Historic motor vehicle" means any motor vehicle which is at least 25 years old and which is owned as a collectors item and used solely exhibition and education purposes by the owner.

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“Hydrocarbons” or “HC” means any compound or mixture of compounds whose molecules consist of atoms of hydrogen and carbon only.

“Idle time” means, with respect to a solvent cleaning machine, the period when a solvent cleaning machine is not actively cleaning parts, but the sump heating coil, if present, is turned on.

“Immersion cold cleaning machine” means a cold cleaning machine in which the part or parts to be cleaned are immersed in the solvent during the cleaning process.

. . .

“In-line vapor cleaning machine” means a vapor cleaning machine that uses an automated parts handling system, typically a conveyor, to automatically provide a supply of parts to be cleaned and which is fully enclosed except for the conveyor inlet and exit portals.

. . .

"Large appliance coating" means the application of any coating to the component parts of large appliances including, but not limited to, doors, cases, lids, panels, and interior supports of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dish washers, trash compactors, air conditioners, and other associated products.

. . .

"Leather coating" means the application of any surface coating formulation to a leather substrate in a leather coating line.

“Light liquid” means a fluid with vapor pressure greater than 0.044 pounds per square inch absolute (2.27 millimeters of mercury) at 68**[**o**]**º F.

. . .

“Liquid condensate trap” means a trap used at a gasoline dispensing facility to collect liquid that condenses in the vapor return line in a manner that allows it to be evacuated and ensures that the vapor return line will not be blocked by the accumulation of liquid.

. . .

"Magnet wire coating" means the application of electrically insulating varnish or enamel to aluminum or copper wire.

. . .

"Metal furniture coating" means the coating in a metal furniture coating line of any metal

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part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a piece of furniture.

"Mobile equipment" means equipment which may be driven or is capable of being driven or pulled on a roadway including, but not limited to, automobiles, trucks, including truck cabs, truck bodies and truck trailers, buses, motorcycles, camper shells, mobile cranes, bulldozers, street cleaning machines, golf carts, ground support vehicles used in support of aircraft activities at airports, and farm equipment.

. . .

"On-board refueling vapor recovery" or "ORVR" means a system located on the vehicle used for the recovery of gasoline vapors created during the transfer of gasoline to the vehicle's fuel tank.

. . .

"Paper coating" means:

1. The application of any coating, excluding plastisol, uniformly distributed across the web, which is put on paper, or on pressure-sensitive tapes regardless of the substrate, including paper, fabric, or plastic film;

2. Related web coating processes on plastic film including, but not limited to, typewriter ribbons, photographic film, and magnetic tape; or

3. Decorative coating on metal foil including, but not limited to, gift wrap and packaging.

This term does not include any graphic arts operation.

"Pipe coating" means the application of any coating to a pipe comprised of any material except plastic.

. . .

"Pollution prevention" shall have the same meaning as defined for this term at N.J.A.C. 7:1K-1.5.

. . .

"Primary condenser" means, with respect to a vapor cleaning machine, a series of circumferential cooling coils located in the machine through which a chilled substance is circulated or recirculated to provide continuous condensation of rising solvent vapors, to create a concentrated vapor zone.

. . .

"Psi" means pounds per square inch.

. . .

"Reduce room draft" means, with respect to the operation of a solvent cleaning machine, to decrease the flow or movement of air across the top of the freeboard area of the solvent cleaning machine to less than 50 feet per minute (15.2 meters per minute) by methods including, but not limited to, redirecting fans and/or air vents, moving the machine to a corner or other area in the room where there is less flow or movement of air, or constructing a partial or complete enclosure around the machine.

"Refinishing [of automobiles and light duty trucks]" means**, with respect to automobiles and light duty trucks,** the recoating of the main body or other exterior areas of any passenger car or passenger car derivative capable of seating 15 or fewer passengers or any motor vehicle rated at 8,500 pounds (3,856 kilograms) gross weight or less which is designed primarily for purposes of transportation**,** of property, or a derivative of such vehicle including, but not limited to, pick-ups, vans, and window vans. It shall not include the use of adhesive promoters, zinc phosphate pretreatments, uniforming finishes or blenders, specialty primers for plastics, or low reflective accessory coatings.

. . .

"Reid vapor pressure" or "RVP" means the absolute vapor pressure of a petroleum product in pounds per square inch (**or** kilopascals) at 100 degrees Fahrenheit (**[**○**]**ºF) (37.8 degrees Celsius (**[**○**]**ºC)) as measured by **[**"Method 1 - Dry RVP Measurement Method" or "Method 2 - Herzog Semi-Automatic Method"**]** **"Method 3- Evacuated Chamber Method"** promulgated at 40 CFR 80, Appendix E; or any other **equivalent** test method approved in advance in writing by the Department and the EPA.

"Remote reservoir cold cleaning machine" means a cold cleaning machine in which liquid solvent is pumped into a sink-like work area where the cleaning of parts occurs, and from which the solvent is immediately drained back into an enclosed container or reservoir, so that no solvent is allowed to pool in the work area.

. . .

"Solvent/air interface" means, with respect to a solvent cleaning machine, the interface between the concentrated solvent vapor layer and the air. For a vapor cleaning machine, this contact point is defined as the plane at the mid-line height of the primary condenser coils. For a cold cleaning machine, this contact point is defined as the plane of contact between the liquid solvent and the air.

"Solvent cleaning machine" means a device or piece of equipment that uses solvent, in a liquid or vapor state, to remove contaminants, such as dirt, grease, oil, and coatings, from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, vapor cleaning machines, cold cleaning machines, and airless and air-tight cleaning systems.

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. . .

“Standard conditions” means 70 degrees Fahrenheit ([o]ºF) (21.1 degrees Celcius ([o]ºC)) and one atmosphere pressure (14.7 pounds per square inch absolute or 760.0 millimeters of mercury).

. . .

“Superheated vapor system” means, with respect to a vapor cleaning machine, a system that heats the solvent vapor to a temperature that is at least ten degrees Fahrenheit above the solvent’s boiling point. In such a system parts are held in the superheated vapor and then exit the machine.

. . .

["Surface coating for insulation of magnet wire" means the application of electrically insulating varnish or enamel to aluminum or copper wire.**]**

. . .

["Surface coating of automobiles and light-duty trucks" means the application, flash-off, and curing of prime, topcoat, and repair coat on main body and other exterior sheetmetal of any passenger car or passenger car derivative capable of seating 15 or fewer passengers or any motor vehicle rated at 8,500 pounds (3,856 kilograms) gross weight or less which is designed primarily for purposes of transportation of property, or a derivative of such vehicle including, but not limited to, pick-ups, vans, and window vans. This term means an entire coating application system, including all spray booths, flash-off areas, and ovens in which surface coating formulations within the same spray prime, topcoat, or repair operation category are applied, dried and cured.

"Surface coating of cans" means exterior coating and interior spray coating in two-piece can lines; interior and exterior coating in sheet coating lines for three-piece cans; side seam spray coating and interior spray coating in can fabricating lines for three-piece cans; and sealing compound application and sheet coating in end coating lines.

"Surface coating of coils" means the coating of any flat metal sheet or strip available in rolls or coils.

"Surface coating of fabrics" means the application of any surface coating formulation, except ink and plastisol, applied to a textile substrate in a fabric coating line.

"Surface coating of flat wood paneling" means the coating of hardwood, plywood, particle board, and hardboard paneling, excluding the coating of exterior siding, tile board, or particle board used in furniture manufacturing.

"Surface coating of glass" means the application of any surface coating formulation to glass lamps or bulbs.

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"Surface coating of large appliances" means the application of any coating to the component parts including, but not limited to, doors, cases, lids, panels, and interior supports of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dish washers, trash compactors, air conditioners, and other associated products.

"Surface coating of leather" means the application of any surface coating formulation to a leather substrate in a leather coating line.

"Surface coating of metal furniture" means the coating in a metal furniture coating line of any metal part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

" Surface coating of miscellaneous metal parts and products" means the application of any coating, excluding an adhesive, to any metal part or product not elsewhere classified including, but not limited to, large and small farm machinery, small appliances, office machinery, vending machines, industrial machinery, metal-covered doors, door frames, and electrical machinery.

"Surface coating of paper" means the application of any coating, excluding plastisol, uniformly distributed across the web, which is put on paper, or on pressure-sensitive tapes regardless of substrate (including paper, fabric, or plastic film); related web coating processes on plastic film including, but not limited to, typewriter ribbons, photographic film, and magnetic tape; and decorative coating on metal foil including, but not limited to, gift wrap and packaging. This term does not include any graphic arts operation.

"Surface coating of pipe" means the application of any coating to a pipe of any composition, except plastic.

"Surface coating of wood furniture" means the application of any surface coating formulation to any furnishing made of wood or a composite of wood including, but not limited to, kitchen cabinets, equipment cabinets, household furniture and office furniture.**]**

. . .

"Temporary operating certificate" means **[**a "Certificate to Operate Control Apparatus or Equipment" issued by the Department pursuant to the Air Pollution Control Act of 1954, specifically N.J.S.A. 26:2C-9.2, which is valid for a period not to exceed 90 days**]** **an operating certificate with a term shorter than five years, issued pursuant to N.J.A.C. 7:27-8.7(d)**.

. . .

"Unihose" means, with respect to a gasoline dispenser at a gasoline dispensing facility, a dispenser which has only one hose and one nozzle per dispenser side which is used for dispensing all grades of gasoline.

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. . .

"Vapor cleaning machine" means a solvent cleaning machine that uses either solvent vapor generated by boiling liquid solvent or heated liquid solvent as part of the cleaning or drying cycle. This term includes both batch vapor cleaning machines and in-line vapor cleaning machines, but does not include cold cleaning machines and machines which do not have a solvent/air interface, such as airless and air-tight cleaning systems.

. . .

"Vapor up control switch" means, with respect to a vapor cleaning machine, a thermostatically controlled switch which shuts off or prevents condensate from being sprayed when there is no vapor. On in-line vapor cleaning machines the switch also prevents the conveyor from operating when there is no vapor.

. . .

"Working mode cover" means, with respect to a solvent cleaning machine, any cover or other element of the machine's design that shields the machine's openings from outside air disturbances while parts are being cleaned in the machine.

. . .

7:27-16.1A Purpose, scope, applicability, and severability

(a) This subchapter establishes requirements and procedures concerning the control and prohibition of air pollution by volatile organic compounds **(VOC)**. The **[**purpose**]** **general purposes** of this subchapter **[**is to**]** **are as follows:**

1. To require any stationary source operation or group of source operations**[**,**]** located **[**within a contiguous area and under common control to implement**]** **at a facility to**:

i. Utilize reasonably available control technology (RACT) to control VOC emissions. EPA defines RACT to mean the lowest emission limitation that a particular source is capable of meeting by the application of air pollution control technology which is reasonably available considering technological and economic feasibility. Specific applicability thresholds are provided throughout the subchapter. Carbon monoxide limits are included for combustion sources, in order to control VOC emissions, which are also products of incomplete combustion; **and**

ii. Implement pollution prevention measures to reduce or prevent VOC emissions; and

2. To establish standards and emission limits for certain vessels which contain VOCs

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and which may be carried or transported or are otherwise capable of being moved, including delivery vessels.

(b) - (g) (No change.)

7:27-16.2 [Storage of volatile organic compounds] Stationary storage tanks

(a) **[**General**]** **The** provisions **[**are:

1.**]of this section shall apply to stationary storage tanks.**

(b) No person shall cause, suffer, allow, or permit the **following:**

1. The storage of any applicable VOC in any stationary storage tank **[**having**]** **that has** a maximum capacity of 2,000 gallons (7,570 liters) or greater **and is** exposed to the rays of the sun unless **[**the**]:**

i. The external surface of the tank is painted and maintained white **[**or an equivalent method of emission control approved by the Department is used.**], except that this provision**

[2. The provisions of (a)1 above**]** shall not apply to words and logograms applied to the external surface of **[**a**]** **the** storage tank for purposes of identification provided such symbols do not cover more than 20 percent of the external surface area of the tank's sides and top or more than 200 square feet (18.6 square meters), whichever is less [.] **; or**

ii. An equivalent method of emission control approved by the Department is used;

[(b) No person shall cause, suffer, allow, or permit the**]**

2. The storage of any applicable VOC in any stationary storage tank having a maximum capacity of 10,000 gallons (37,850 liters) or greater unless such stationary storage tank is equipped with control apparatus as determined in accordance with the procedures for using Table 2A or as approved by the Department as being equally or more effective in preventing the emission of a VOC into the outdoor atmosphere.

Procedure for Using Table 2A
(No change.)

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TABLE 2A
(No change.)

(c) -(e) (No change.)

(f) The provisions of [(a)] **(b)** above shall not apply to [any] **a stationary** storage tank**, if the tank is**:

1.-2. (No change.)

(g) -(k) (No change.)

7:27-16.3 Gasoline transfer operations

(a) This section shall apply to any gasoline transfer operation and to the storage, transportation, and dispensing of gasoline for the refueling of vehicles or for use in any other type of operation including, but not limited to, agricultural, aviation, industrial, commercial, construction, and marine operations.

(b) This section shall not apply to the following:

1. The loading of gasoline as cargo into a marine tank vessel. Marine tank vessel loading operations that occur in New Jersey or in New Jersey coastal waters are subject to the provisions at N.J.A.C. 7.27-16.5;

2. The transfer of gasoline into a stationary storage tank during construction ballasting; and

3. The transfer of gasoline into or from portable fuel containers.

[(a)]**(c)** No person shall cause, suffer, allow, or permit the transfer of gasoline into [any] **a** receiving vessel having a maximum capacity of 2,000 gallons (7,570 liters) or greater**,** unless [such] **the following requirements are met:**

1. The transfer is made [through]**:**

i. Through a submerged fill pipe**. If the receiving vessel is a stationary storage tank (either above ground or underground), the submerged fill pipe shall be permanently affixed to the tank;** or [by]

ii. By some other means approved by the Department as being equally or more effective in [preventing the emission of any] **reducing total applicable** VOC **emissions** into the outdoor atmosphere during transfer[. Such submerged fill pipe shall be permanently affixed to any underground storage tank of 2,000 gallons

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(7,570 liters) or greater total capacity into which gasoline is transferred .**]; or**

[(b)**] 2. [**The provisions of (a)above shall not apply to**] The** manufacturing process **[**vessels**] vessel was** installed before December 17, 1979.

[(c)**] (d)** No person shall cause, suffer, allow, or permit the transfer of gasoline from **[**any **] a** delivery vessel into any stationary storage tank having a maximum capacity of 2,000 gallons (7,570 liters) or greater unless **[**such**]:**

1. The storage tank is equipped **[**with**]** and operating **with** one of the following **emission** controls:

[1. A vapor balance system with all atmospheric vents positively closed during transfer;

2. A vapor balance system with a conservation vent adjusted to remain closed during transfer;

3. A vapor balance system with a hole of 1/4 inch (6.4 millimeters) or less in diameter in the cap on the atmospheric vent;**]**

[4**]i.** A vapor control system **[**which**] that:**

(1) Reduces the total applicable VOC emissions into the outdoor atmosphere by no less than **[**90**] 98** percent **of** the concentration of applicable VOC **by volume** in the air-vapor mixture displaced during the transfer of gasoline**[**. Upon the request of the Department, any owner or operator utilizing a vapor control system shall demonstrate to the satisfaction of the Department achievement of this efficiency through testing performed when the ambient air temperature is 80 degrees Fahrenheit (°F) (27 degrees Celcius (°C)) or greater; or**]; and**

(2) Includes a pressure/vacuum relief valve on each atmospheric vent which remains closed during the gasoline transfer; or

[5]**ii.** A floating roof; **and**

2. The storage tank meets the requirements of N.J.A.C. 7:27-16.2.

[(d) No person shall cause, suffer, allow or permit the transfer of any substance into any gasoline vapor laden delivery vessel having a maximum capacity of 2,000 gallons (7,570 liters) or greater unless such delivery vessel is connected to control apparatus installed and operated in accordance with the provisions of (e) below.

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(e) No person shall cause, suffer, allow, or permit the transfer or loading of gasoline or any other substance into any gasoline vapor laden delivery vessel except at a facility that is equipped with and operating a control apparatus in accordance with the following provisions:

1. Facilities loading 15,000 gallons (56,775 liters) of gasoline or less per day shall be equipped with and operating a vapor balance system or other control apparatus of equal or higher efficiency. Such vapor balance system shall have no open vent to the atmosphere during transfer and shall not return the vapors to any tank equipped with a floating roof.

2. Facilities loading more than 15,000 gallons (56,775 liters) of gasoline per day shall be equipped with and operating a vapor control system which:

   i. Prevents VOC emissions to the outdoor atmosphere from exceeding the maximum allowable emissions as determined from Table 3A; or

   ii. Reduces the total VOC emissions to the outdoor atmosphere by no less than 90 percent by weight.

TABLE 3A

EMISSION STANDARDS FOR GASOLINE LOADING FACILITIES

LOADING MORE THAN 15,000 GALLONS (56,775 LITERS) PER DAY

Concentration of VOC in Gas Displaced from Delivery Vessel, Volume Percent		**Maximum Allowable Emissions per Volume Unit Loaded**	
Greater Than	**But Not Greater than**	**Pounds per Ten Thousand Gallons**	**Milligrams per Liter**
50	--	6.7	80
40	50	5.8	70
30	40	5.0	60
20	30	4.2	50
15	20	3.8	45
0	15	3.3	40

3. The daily loading rate shall be calculated on the basis of the daily average rate during the month with the highest throughput in the last 12 months of operation.**]**

[(f)**]****(e)** Except as provided in **[**(g)**]** **(f) and (h)** below, no person shall cause, suffer, allow, or permit the transfer of gasoline into any gasoline laden vehicular fuel tank **[**unless such person complies with (h) and (r) below, and**]****,** unless the **following requirements are met**:

1. **The** transfer is made using a vapor control system that is approved by the Department and that **[**is designed, operated, and maintained so as**]**:

[1.**]** **[**To prevent the release**]** **i. Reduces the total applicable VOC emissions** into the outdoor atmosphere **[**of**]** **by** no less than 95 percent **[**by weight**]** of the **concentration of applicable** VOC **by volume** **[**generated by dispensing**]** **in the air-vapor mixture displaced during the transfer of** gasoline **[**at the facility**]**; and

[2.**]** **[**To prevent**]** **ii.** **Prevents** overfilling and spillage**[**.**]****;**

2. **If the transfer is made at a gasoline dispensing facility, the vapor recovery system shall be one of the following:**

i. **A system that was certified by CARB prior to July 25, 2001;**

ii. **A system that has been certified by CARB on or after July 25, 2001;**

iii. **A system that was certified by CARB prior to July 25, 2001; and any replacement parts/equipment/components and any subsequent construction modifications:**

(1) **Are approved in an Executive Order issued by CARB on or after July 25, 2001; and**

(2) **Do not decrease the VOC emission control efficiency of the system; or**

iv. **A system that is equivalent for the purpose of VOC emission control to a CARB certified system and that is approved by the Department and EPA;**

3. **At a gasoline dispensing facility which was constructed on or after** *(the operative date of these amendments)***, and for which a construction permit was issued by the Department after** *(the operative date of these amendments)***, each dispensing device at a gasoline dispensing facility which dispenses more than one grade of gasoline shall utilize a unihose system for dispensing gasoline;**

4. **Each dispensing device at a gasoline dispensing facility shall meet the following**

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requirements:

i. Each nozzle shall have a check valve located in the nozzle;

ii. At a facility with a vacuum assist vapor control system, each nozzle shall be equipped with a splash-guard that prevents spillage during refueling; and

iii. Each dispensing device and its nozzle(s) shall be designed to be compatible, such that:

(1) The nozzle together with its vapor boot fits into the housing in which it is hung on the dispensing device; and

(2) The nozzle's vapor check valve remains in the closed position when the nozzle is properly hung on the dispensing device; and

5. The vapor control system shall be compatible with any vehicles' on-board refueling vapor recovery systems (ORVR) such that the interaction between the vapor control system and a vehicle's ORVR shall not result in emissions from the vapor control system in excess of the standards at (e)1i above, during the transfer of gasoline into the vehicular fuel tank(s).

(f) Notwithstanding (e) above, the provisions of (e) above shall not apply as follows:

[(g)**]** **1.** The provisions of **[**(f)**]** **(e)** above shall not apply to **the transfer of gasoline into a vehicular fuel tank at** a gasoline dispensing facility **[**with an average monthly throughput of 10,000 gallons (37,850 liters) or less or to any gasoline dispensing devices**]** **if:**

i. The facility is located at a marina **and** used exclusively for **the** refueling of marine vehicles**[**.**]**;

ii. The maximum capacity of each gasoline stationary storage tank at the facility is less than 2,000 gallons (7,570 liters);

iii. The vehicle being refueled is an aircraft; or

iv. The facility meets the following:

(1) The facility does not have, and has never had, for any twelve-month period subsequent to February 6, 1989, an average monthly throughput of greater than10,000 gallons (37,850 liters), determined in accordance with (g) below; and

(2) If the gasoline dispensing facility commenced operation after *(the operative date of these amendments)***, the facility does not have any stationary storage tanks which are subject to the requirements of (d) above;**

2. The provisions of (e)4 above shall not apply to dispensing devices at a gasoline dispensing facility until *(the date which is two years after the operative date of these amendments)***, if construction of the dispensing device commenced prior to** *(the operative date of these amendments)***; or a permit for the construction of the dispensing device was issued by the Department prior to** *(the operative date of these amendments)***; and**

3. The provisions of (e)5 above shall not apply to the vapor control system at a gasoline dispensing facility until *(the date which is two years after the operative date of these amendments)***, if construction of the vapor control system commenced prior to** *(the operative date of these amendments)***; or a permit for the construction of the vapor control system was issued by the Department prior to** *(the operative date of these amendments)***.**

[(h)**][**Any person subject to the provisions**] (g) For the purposes** of (f)**1iv** above **[**shall comply with the following provisions:

1. The**] or (h) below, the** average monthly throughput **of a gasoline dispensing facility** shall be **[**based on the**] an** average of the **facility's** monthly throughputs between September 1, 1986, and August 31, 1987, or during **[**the most recent twelve months of operation, whichever is greater; and

2. Documentation of the monthly throughput shall be made available upon request by the Department**] any subsequent period of twelve consecutive months**.

(h) If a gasoline dispensing facility, which has been exempt from the provisions of (e) above pursuant to (f)1ii, but which on or after March 28, 1992, becomes subject to (e) because the facility's average monthly throughput increases such that it exceeds 10,000 gallons (37,850 liters) during at least one12-month period, the owner or operator shall ensure that no gasoline is dispensed at the facility unless the requirements of (e) above are met in accordance with the following schedule:

1. Within three months of the facility's having an average monthly throughput of more than 10,000 gallons of gasoline, the owner or operator shall submit to the Department a completed application for a permit and certificate, pursuant to N.J.A.C. 7:27-8, for the construction, installation, and operation of a vapor control system and any other modifications needed for the facility to meet the requirements of (e) above;

2. Within nine months of the facility's having an average monthly throughput of more than 10,000 gallons of gasoline, the owner or operator shall commence construction to comply with (e) above, in accordance with the permit issued by the Department pursuant to N.J.A.C. 7:27-8; and

3. Within 18 months of the facility's having an average monthly throughput of more than 10,000 gallons of gasoline, the owner or operator shall achieve compliance with (e) above.

(i) The owner or operator of a gasoline dispensing facility shall perform the following tests:

1. The owner or operator shall demonstrate the facility's vapor control system is performing properly, as follows:

i. Each of the tests set forth in Table 3A below, that are applicable to the facility, shall be conducted in accordance with the schedule for testing given in the table.

ii. The tests required to be performed pursuant to (i)1i above shall be conducted utilizing the applicable CARB test method cited in Table 3A (except that the Static Pressure Performance Test shall be modified as indicated in Table 3A) which are incorporated herein by reference or utilizing some other method approved by the Department and USEPA. A copy of any CARB procedure cited in Table 3A may be downloaded from CARB's website at http://www.arb.ca.gov/vapor or obtained from the Department at the following address:

New Jersey Department of Environmental Protection
Bureau of Technical Services
PO Box 437
380 Scotch Road
West Trenton, NJ 08525-0437

iii. A vapor control system shall be deemed to have passed a test conducted pursuant to i above if it meets the performance standards and specifications which are set forth in CARB's Vapor Recovery Certification Prodedure (CP - 201), as amended, and which are applicable to the test. A copy of CARB's Vapor Recovery Certification Procedure may be downloaded from CARB's website at http://www.arb.ca.gov/vapor or obtained from the Department at the following address:

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iv. If the vapor control system at a facility fails any test required to be performed pursuant to (i)1 above, the owner or operator shall have the system repaired and retested within 14 days of failure of the test.

v. If the vapor control system fails any retesting required to be performed pursuant to(i)1 iv above, the following procedures shall be followed:

(1) The owner or operator shall notify the Department in writing within 72 hours of the failure. Such notification shall be submitted to the applicable regional office of the Department at the following address:

New Jersey Department of Environmental Protection
Bureau of Minor Source Investigation
Central Regional Office Air and Environmental Quality Compliance and Enforcement
Horizon Center, PO Box 407
Robbinsville, NJ 08625-0407

(2) The owner or operator shall have the system repaired and retested in accordance with a compliance plan approved by the Department;

2. Upon the request of the Department, the owner or operator shall demonstrate the efficiency of the facility's vapor control system in reducing the total applicable VOC emissions released from the facility into the outdoor atmosphere, as required pursuant to (d)1i(1) and/or (e)1i above, in accordance with test procedures approved by the Department. Such testing shall be performed when the ambient air temperature is 80 degrees Fahrenheit (○F) (27 degrees Celsius (○C)) or greater; and

3. A record of the performance of each of the tests, and of the results obtained, shall be maintained in accordance with (s) below.

Table 3A
Methods for Testing Performance
Of Gasoline Dispensing Facilities

Test	Applicability	Required Testing Schedule	Test Method (CARB Citation)

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Static Pressure Performance Test	**Applies to any facility required to have a vapor control system under (e) above**	**Within 90 days from the date of installation of the system and at least once in every 12 month period thereafter**	**CARB TP-201.3, including all subsequent revisions thereto, which are incorporated herein by reference except that:** ***Alternative 1:*** **i. The vapor control system shall be tested at two inches of water column; and** ***Alternative 2:*** **i. The vapor control system shall be tested at five inches of water column; and** ***Alternative 3:*** **i. The vapor control system shall be tested at ten inches of water column; and** **ii. During the testing the vents shall be sealed.**
Pressure Vacuum Valve Test	**Applies to any facility required to have a vapor control system under (e) above**	**Within 90 days from the date of installation of the system and at least once in every 12 month period thereafter**	**CARB TP-201.2B, including all subsequent revisions thereto, which are incorporated herein by reference**
Dynamic Backpressure Performance Test	**Applies to any facility required to have a vapor control system under (e) above**	**Within 90 days from the date of installation of the system and at least once in every 36 month period thereafter**	**CARB TP-201.4, including all subsequent revisions thereto, which are incorporated herein by reference**
Air to Liquid Volume Ratio Test	**Applies to any facility with a vacuum assist vapor control system under (e) above**	**Within 90 days from the date of installation of the system and at least once in every 12 month period thereafter**	**CARB TP-201.5, including all subsequent revisions thereto, which are incorporated herein by reference**

[(i)]**(j)** No person shall cause, suffer, allow, or permit [any] a delivery vessel [except railroad tank cars or marine tank vessels,] having a maximum capacity of 2,000 gallons (7,570 liters) or greater, except if it is a railroad tank car or marine tank vessel, to contain gasoline unless [such delivery vessel]:

1. [Sustains] **The delivery vessel sustains** a pressure change of less than three inches of water ([6]**six** millimeters of mercury) in five minutes when pressurized to 18 inches of water (34 millimeters of mercury) and evacuated to six inches of water (11 millimeters of mercury) [, as tested]**;**

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2. Pressure and vacuum tests are performed on the delivery vessel at least once in every 12-month period **[**for leaks**],** in accordance with test procedures specified by the Department, **to determine whether or not the requirements of (j)1 above are met** ; **[**and**]**

[2.**]** Has a certification**] 3. A Certification is** affixed to the delivery vessel in a prominent location, which indicates the identification number of the vessel and the date the vessel last passed the pressure and vacuum tests; and

[3. Has a**]4. A** record of certification **[**which shall be**] is** kept with the delivery vessel at all times and made available upon request by the Department. The record of certification shall include the **[**test title,**] name and address of the** delivery vessel owner **[**and address,**]; the** delivery vessel identification number**[,]; and, for each test performed, the test method used,** the testing location, date of test, tester's name and signature, and test results.

[(j)**](k)** No person shall cause, suffer, allow, or permit a transfer of gasoline, to or from a delivery vessel, if the transfer is subject to the provisions of **[**(c)**,](d), [**and (e)**] above, and (l) or (m) below, and** if the delivery vessel being loaded is under a pressure in excess of 18 inches of water (34 millimeters of mercury) gauge or the delivery vessel being unloaded is under a vacuum in excess of **[**6**] six** inches of water (11 millimeters of mercury) gauge.

(l) Except as provided in (p) below, no person shall cause, suffer, allow, or permit the transport or transfer of gasoline in a delivery vessel having a maximum capacity of 2,000 gallons (7,570 liters) or greater unless such vessel is vapor-tight at all times while containing any VOC except during:

1. Emergency conditions;

2. Gauging; or

3. Venting through a vapor control system approved by the Department.

[(k) No person shall cause, suffer, allow, or permit any transfer of applicable VOC, which transfer is subject to the provisions of (c) or (f) above, if any components of the delivery vessel designed for preventing the release of applicable VOC vapors are not installed and operating as designed. Any loading or unloading transfer operations must cease immediately if:

1. On and after May 31, 1995, the delivery vessel being loaded or unloaded, any control apparatus or other equipment serving the transfer operation has a leak that:

   i. Results in a concentration of VOC greater than or equal to 100 percent of the lower explosive limit of propane when measured at a distance within 1.0 inch

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(2.54 centimeters) of the source; or

ii. Is a liquid leak; or

2. The transfer results or would result in a liquid leak of applicable VOC.**]**

[(l)**]** The provisions of (d) above shall not apply to delivery vessels used for less than one month**]** **(m) No person shall cause, suffer, allow, or permit the transfer of gasoline or any other substance into a gasoline vapor laden delivery vessel having a maximum capacity of 2,000 gallons (7,570 liters) or greater, unless:**

1. The transfer operation is conducted at a gasoline loading facility equipped with a vapor control system which meets the requirement of (n) below, the vapor control system is properly connected to the delivery vessel, and the vapor control system is properly operated throughout the duration of the transfer operation; or

2. The delivery vessel is being used for the purpose of holding gasoline from a storage tank during a period in which the storage tank is undergoing repair or maintenance **and the duration of this use is limited to less than one month**.

(n) No person shall cause, suffer, allow, or permit the transfer or loading of gasoline or any other substance into any gasoline vapor laden delivery vessel except at a gasoline loading facility that is equipped and operating with a vapor control system in accordance with the following provisions:

1. At a facility where the daily loading rate does not exceed 15,000 gallons (56,775 liters) of gasoline per day, as determined in accordance with (n)3 below, the facility shall be equipped and operating with a vapor balance system or some other vapor control system of equal or higher efficiency. Such vapor balance system shall not have a vent that is open to the atmosphere during transfer and shall not return the vapors to a tank equipped with a floating roof;

2. At a facility where the daily loading rate exceeds, or may exceed, 15,000 gallons (56,775 liters) of gasoline per day, as determined in accordance with (n)3 below, the facility shall be equipped and operating with a vapor control system which:

i. Prevents applicable VOC emissions to the outdoor atmosphere from exceeding the maximum allowable emissions as determined from Table 3B below; or

ii. Reduces the total applicable VOC emissions to the outdoor atmosphere by no less than 90 percent by weight; and

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3. For the purposes of (n)1 and 2 above, a gasoline loading facility's daily loading rate shall be its average daily rate during the month in which the facility had its highest monthly throughput in the last 12 months of operation.

TABLE **3B**

EMISSION STANDARDS FOR GASOLINE LOADING FACILITIES LOADING MORE THAN 15,000 GALLONS (56,775 LITERS) PER DAY

Concentration of Applicable VOC in Gas Displaced from Delivery Vessel, Volume Percent		**Maximum Allowable Emissions per Volume Unit Loaded**	
Greater Than	**But Not Greater than**	**Pounds per Ten Thousand Gallons**	**Milligrams per Liter**
50	--	6.7	80
40	50	5.8	70
30	40	5.0	60
20	30	4.2	50
15	20	3.8	45
0	15	3.3	40

[(n) The provisions of (c) above shall not apply to a storage tank during construction ballast.**]**

(o) Except as provided in (p) below, no person shall cause, suffer, allow, or permit any transfer of gasoline, subject to the provisions of (d), (e), (m), or (n) above, if:

1. The delivery vessel being loaded or unloaded, or the vapor control system or other equipment serving the transfer operation, has:

i. A vapor leak which results in a concentration of applicable VOC greater than or equal to 100 percent of the lower explosive limit of propane, when measured at a distance of 1.0 inch (2.54 centimeters) or less from the location of the leak; or

ii. A liquid leak;

2. Any component of the delivery vessel designed for preventing the release of gasoline vapors is not installed and operating as designed; or

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3. Commencing or continuing the transfer would result in a liquid gasoline spill.

[(o) Any] **(p) A** delivery vessel subject to the provisions of [(i)]**(j)** above **that is** found **to be** in violation of [(k)]**(l)** or [(m)]**(o)** above shall be [repaired]**:**

1. Repaired and a new certification, in accordance with (j)3 and 4 above, shall be affixed to the delivery vessel within 15 days [and shall be recertified]**; or**

2. Removed from service until (l) and (o) above are met in full.

[(p) The provisions of this section shall not apply to the loading of gasoline as cargo into any marine tank vessel. Marine tank vessel loading operations occurring in New Jersey or in New Jersey coastal waters are subject to the provisions of N.J.A.C. 7:27-16.5.

(q) Any new gasoline dispensing facility shall install equipment meeting the requirements of (f) above prior to the use of that facility for dispensing gasoline.

(r) Any person responsible for an existing gasoline dispensing facility which had not previously been required to install a vapor recovery system pursuant to (f) above and which has an average monthly throughput, as determined by (h) above, of greater than 10,000 gallons as of, or after, March 28, 1992 shall comply with the following schedule:

1. Within three months of exceeding the average monthly throughput of 10,000 gallons, the applicant, pursuant to N.J.A.C. 7:27-8, shall submit a completed permit application to the Department which meets the requirements of (f) above;

2. Within nine months of exceeding the average monthly throughput of 10,000 gallons, construction of the equipment and control apparatus in accordance with the approved "Permit to Construct, Install, or Alter Control Apparatus or Equipment" shall commence; and

3. Within 18 months of exceeding the average monthly throughput of 10,000 gallons, compliance with (f) above shall be achieved.]

(q) No person shall cause, suffer, allow, or permit the transfer of gasoline at a gasoline loading facility, into or from a delivery vessel, or at a gasoline dispensing facility, which is required to have a vapor control system pursuant to (d)1i, (e)1i, (m), or (n) above unless:

1. The vapor control system is designed to meet the applicable requirements in (d), (e), (m), or (n) above;

2. All hoses, piping, connections, fittings and manholes serving the vapor control system are vapor tight and leak free, except when gauging or sampling is being

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performed;

3. The vapor control system, including any component thereof, is maintained in proper operating condition and kept free of defects that could impair the effectiveness of the system;

4. The vapor control system is constructed out of materials that will not become degraded when exposed to any grade of gasoline which may be stored, transferred, and/or dispensed; and

5. The vapor control system is operated properly whenever gasoline is stored, transferred, and/or dispensed.

(r) (Reserved.)

(s) The owner or operator of a gasoline dispensing facility shall maintain the following records at the facility:

1. A record of the monthly throughput of gasoline;

2. If the facility is required to test a vapor control system pursuant to (i) above:

i. Documentation of the performance of each test required pursuant to (i) above, including the date, name of the testing company and the test method used; and

ii. A record of the results of each test performed pursuant to (i) above.

[(s)**]** Any person responsible for any**](t) The owner or operator of a** gasoline loading facility **[**subject to (e)1, 2, or 3**]** **with a vapor control system pursuant to (n)** above shall maintain the following records **at the facility**:

1. (No change.)

2. On a continuous basis or at a frequency approved by the Department in writing:

i. For any thermal oxidizer, **regenerative thermal oxidizer, and catalytic oxidizer** used to control the emission of **applicable** VOC**s,** record the operating temperature at the exit of the combustion chamber and the **following:**

(1) The total hydrocarbon concentration in the flue gas emitted to the outdoor atmosphere; or

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(2) **Until** *(the date which is two years after the operative date of these amendments)***, if the oxidizer was installed prior to** *(the operative date of these amendments)* **and has not been modified after** *(the operative date of these amendments)***, the** carbon monoxide concentration in the flue gas emitted to the outdoor atmosphere; or

ii. For **[**any control apparatus**] a vapor control system** using carbon or other adsorptive material, record the concentration of the total **applicable** VOC**s** in the flue gas emitted to the outdoor atmosphere; or, provided that the owner or operator confirms daily that the automatic switching between carbon beds is functioning in accordance with permit conditions, record the date of carbon bed replacement; and

3. (No change.)

7:27-16.4 VOC transfer operations, other than gasoline

(a) - (n) (No change.)

(o) The owner or operator of any VOC loading facility subject to (f) above shall maintain the following records:

1. (No change.)

2. On a continuous basis or at a frequency approved by the Department in writing:

i. For any thermal oxidizer**, regenerative thermal oxidizer and catalytic oxidizer** used to control the emission of VOC**s**, record the operating temperature at the exit of the combustion chamber and the **following:**

(1) **The total hydrocarbon concentration in the flue gas emitted to the outdoor atmosphere; or**

(2) **Until** *(the date which is two years after the operative date of these amendments)***, if the oxidizer was installed prior to** *(the operative date of these amendments)* **and has not been modified after** *(the operative date of these amendments)***, the** carbon monoxide concentration in the flue gas emitted to the outdoor atmosphere; or

ii. (No change.)

3. (No change.)

(p) - (q) (No change.)

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7:27-16.6 Open top tanks and [surface cleaners] solvent cleaning operations

(a) This section shall apply to open top tanks and surface cleaners which contain VOC and to solvent cleaning operations, except that:

1. The provisions of (b) through (i) below shall not apply on and after *(the date which is one year after the operative date of these amendments)* **; and**

2. The provisions of (j) through (m) shall not apply until *(the date which is one year after the operative date of these amendments)***.**

[(a)**] (b)** No person shall cause, suffer, allow, or permit the use of any VOC in an unheated or heated open top tank unless **[**such**] :**

1. The tank is covered by a lid which protects the VOC vapors from drafts and diffusion when the tank is not in active use**[.] ;**

2. The tank is an open top tank used solely for the application of electrophoretic dip prime coatings to automobiles and light duty trucks; or

3. The tank is an open top tank used in a waste water treatment system, and the VOC emitted from the tank does not exceed a concentration of 5,000 parts per million by volume measured at any point above the liquid surface at the height of the tank lip.

Recodify existing (b)-(h) as (c)- (i) (No change in text.)

(j) The following provisions shall apply to a cold cleaning machine, if it designed to contain more than two gallons of VOC, and to any heated cleaning machine:

1. No person shall add solvent to a cold cleaning machine or a heated cleaning machine, or cause, suffer, allow, or permit the machine to be operated, unless the following requirements are met:

i. If the machine is an immersion cold cleaning machine or heated cleaning machine, it shall have:

(1) A freeboard ratio of 0.75 or greater; and

(2) A visible fill line and a high level liquid mark;

ii. The machine shall have: a permanent, conspicuous label placed in a prominent location on the machine setting forth the applicable provisions of the operating requirements in paragraph (j)2 below; and

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iii. The machine shall be equipped with:

(1) A tightly fitting working-mode cover that completely covers the machine's opening and that shall be kept closed at all times except when parts are being placed into or being removed from the machine or when solvent is being added or removed. For a remote reservoir cold cleaning machine which drains directly into the solvent storage reservoir, a perforated drain with a diameter of not more than six inches shall constitute an acceptable cover; and

(2) If the machine is a heated cleaning machine, a thermostat;

2. A person shall operate a cold cleaning machine or a heated cleaning machine in accordance with the following procedures:

i. The solvent level in the machine shall not exceed the fill line when there are no parts in the machine for cleaning and shall not exceed the high level liquid mark during cleaning operations;

ii. Flushing of parts with a solvent spray, using a spray head attached to a flexible hose or other flushing device, shall be performed only within the freeboard area of the machine. The solvent spray shall be a continuous fluid stream, not an atomized or shower spray, and shall be under a pressure that does not exceed ten pounds per square inch gauge;

iii. Parts being cleaned shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts shall be positioned so that solvent drains directly back into the machine;

iv. When the machine's cover is open, the machine shall not be exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between one and two meters (between 3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;

v. Sponges, fabric, leather, paper products and other absorbent materials shall not be cleaned in the machine;

vi. When a pump-agitated solvent bath is used, the agitator shall be operated to produce a rolling motion of the solvent with no observable splashing of solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used;

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vii. Spills during solvent transfer and use of the machine shall be cleaned up immediately, and the wipe rags or other sorbent material used shall be immediately stored in covered containers for disposal or recycling;

viii. Waste solvent shall be collected and stored in a closed container. The closed container may contain a device that allows pressure relief, provided that it does not allow liquid solvent to drain from the container;

ix. Work area fans shall be located and positioned so that they do not blow across the opening of the degreaser unit; and

x. If the machine is a heated cleaning machine, the solvent shall be maintained at a temperature that is below its boiling point;

3. A person shall not use, in a cold cleaning machine or a heated cleaning machine, any solvent that has a vapor pressure of one millimeter of mercury or greater, measured at 20 degrees centigrade (68 degrees Fahrenheit); and

4. A person who owns or operates a cold cleaning machine or a heated cleaning machine shall maintain, for not less than two years after the date of purchase of solvent for use in the machine, the information specified below and shall, upon the request of the Department or its representative, provide the information to the Department:

i. The name and address of the person selling the solvent. An invoice, bill of sale, or a certificate that corresponds to a number of sales, if it has the seller's name and address on it, may be used to satisfy this requirement;

ii. A list of VOC(s) and their concentration information in the solvent;

iii. Information about each VOC listed pursuant ii above. A Material Safety Data Sheet (MSDS) may be used to satisfy this requirement;

iv. The solvents product number assigned by the manufacturer; and

v. The vapor pressure of the solvent measured in millimeters of mercury at 20 degrees centigrade (68 degrees Fahrenheit).

(k) The following provisions apply to a batch vapor cleaning machine:

1. No person shall add solvent to a batch vapor cleaning machine or cause, suffer, allow or permit the machine to be operated, unless the following requirements are met:

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i. The machine shall have a freeboard ratio of 0.75 or greater;

ii. The machine shall have a permanent, conspicuous label placed in a prominent location on the machine setting forth the applicable provisions of the operating requirements in (k)4 below;

iii. The machine shall be equipped with:

(1) Unless the machine is fully enclosed, a tightly fitting working-mode cover. The cover shall be kept closed at all times except when parts are being placed into or being removed from the machine or when solvent is being added or removed. The cover shall:

(A) Completely cover the machine's opening;

(B) Be free of cracks, holes and other defects;

(C) Be able to be readily opened and closed without disturbing the vapor zone. If the opening is greater than ten square feet, the cover shall be opened and closed by a powered mechanism; and

(D) If the machine has a lip exhaust, extend below the level of the lip exhaust;

(2) A safety switch (thermostat and condenser flow switch) which shuts off the sump heat if the coolant is not circulating;

(3) A control switch which shuts off the spray pump if vapor is not present in the vapor section in the machine;

(4) A primary condenser; and

(5) A device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils or if the vapor level in the machine rises above the height of the primary condenser;

iv. The machine shall have an automated parts handling system which moves the parts and/or parts baskets at a speed of 11 feet (3.4 meters) per minute or less when the parts are entering or exiting the vapor zone. If the parts basket and parts being cleaned occupy more than 50 percent of the solvent/air interface area, the speed of the parts basket or parts shall not exceed three feet (one meter) per minute;

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v. If the machine has a lip exhaust, it shall be designed and operated so that:

(1) The collected solvent vapors pass through a properly operated and maintained carbon adsorber; and

(2) The concentration of VOC in the effluent from the adsorber does not exceed 100 parts per million;

vi. The machine shall be free from the influence of any local exhaust ventilation system unless the ventilation system is equipped with a control device that:

(1) Collects at least 90 percent by volume of the VOC vapors leaving the machine; and

(2) Reduces VOC concentration in the exhaust by at least 95 percent by volume; and

vii. The machine shall be free from the influence of any positive pressure source located within 20 feet (6.1 meters) of the tank rim unless the machine is equipped with a control device that:

(1) Collects at least 90 percent by volume of VOC vapors leaving the machine; and

(2) Reduces VOC concentration in the exhaust by at least 95 percent by volume;

2. No person shall cause, suffer, allow, or permit a batch vapor cleaning machine with a solvent/air interface area of 13 square feet or less to be operated, unless one of the control options listed in Table 6A below is implemented;

TABLE 6A
CONTROL OPTIONS FOR BATCH VAPOR CLEANING MACHINES WITH A SOLVENT/AIR INTERFACE AREA OF 13 SQUARE FEET OR LESS

Number of Option	Control Option

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1. **A working-mode cover; freeboard ratio of 1.0; and superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

2. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

3. **A working-mode cover; and a freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point.**

4. **Reduced room draft; a freeboard ratio of 1.0 ;and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

5. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and reduced room draft.**

6. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and a freeboard ratio of 1.0.**

7. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and to ensure that the dwell time is less than 35 percent of the dwell time determined for the part or parts.**

8. **Reduced room draft; sufficient dwell time to ensure that liquid solvent on and in the parts vaporizes within the machine confines or drains back into the machine rather than into the work area; and a freeboard ratio of 1.0.**

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9. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and a carbon adsorber which reduces solvent emissions in the exhaust to a level not to exceed 100 parts per million at any time.**

10. **A freeboard ratio of 1.0; a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine; and a carbon adsorber which reduces solvent emissions in the exhaust to a level not to exceed 100 part per million at any time.**

3. **No person shall cause, suffer, allow, or permit a batch vapor cleaning machine with a solvent/air interface area of greater than 13 square feet to be operated, unless one of the control options listed in Table 6B below is implemented;**

TABLE 6B
CONTROL COMBINATIONS FOR BATCH VAPOR CLEANING MACHINES WITH A SOLVENT/AIR INTERFACE AREA GREATER THAN 13 SQUARE FEET

Number of Option	Control Option
1.	A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; a freeboard ratio of 1.0; and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.
2.	Sufficient dwell time to ensure that liquid solvent on and in the parts vaporizes within the machine confines or drains back into the machine rather than into the work area; a freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and reduced room draft. Dwell time shall not be less than 35 percent of the dwell time determined for the part or parts.

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3. **A working mode cover; freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

4. **Reduced room draft; a freeboard ratio of 1.0; and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

5. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; reduced room draft; and a superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine.**

6. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; reduced room draft; and a freeboard ratio of 1.0.**

7. **A freeboard refrigeration device operated to ensure that the chilled air blanket temperature is no greater than 30 percent of the solvent's boiling point; a superheated vapor system; and a carbon adsorber which reduces solvent emissions in the exhaust to a level not to exceed 100 parts per million at any time.**

4. **A person shall operate a batch vapor cleaning machine in accordance with the following procedures:**

i. **During startup of the batch vapor cleaning machine the primary condenser shall be turned on before the sump heater;**

ii. **Flushing or spraying of parts with a solvent spray, using a spray head attached to a flexible hose or other flushing device, shall be performed within the vapor zone of the machine or within a section of the machine that is not exposed to the ambient air. The solvent spray shall be a continuous fluid stream, not an atomized or shower spray, and shall be under a pressure that does not exceed 10 pounds per square inch gauge;**

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iii. Parts being cleaned shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. A superheated vapor system shall be an acceptable alternate technology;

iv. When the machine's cover is open, the machine shall not be exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between one and two meters (between 3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;

v. Sponges, fabric leather, paper products and other absorbent materials shall not be cleaned in the machine;

vi. Spills during solvent transfer and use of the machine shall be cleaned up immediately or the machine shall be shut down. Wipe rags or other sorbent material used shall be immediately stored in covered containers for disposal or recycling;

vii. Waste solvent, still bottoms and sump bottoms shall be collected and stored in closed containers. The closed containers shall contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container;

viii. Work area fans shall be located and positioned so that they do not blow across the opening of the machine;

ix. During shutdown of the machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off;

x. When solvent is added to or drained from the machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface;

xi. The working and downtime covers shall be closed at all times except when parts are entering or exiting from the machine, duringmaintenance of the machine when the solvent has been removed, or during addition of solvent to the machine;

xii. If a lip exhaust is used on an open top vapor degreaser, the ventilation rate shall not exceed 20 cubic meters per minute per square meter ($m^3/min/m^2$) (that is, 65 cubic feet per minute per square foot ($ft^3/min/ft^2$)) of degreaser open area; and

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xiii. The machine shall be maintained as recommended by the manufacturer of the equipment or by using alternate maintenance practices that have been demonstrated to the Department's satisfaction to achieve the same or better results as those recommended by the manufacturer.

(l) The following provisions apply to an in-line vapor cleaning machines:

1. No person shall add any VOC containing solvent to an in-line vapor cleaning machine or cause, suffer, allow, or permit the machine to be operated unless the following requirements are met:

i. The machine shall have a freeboard ratio of 0.75 or greater;

ii. The machine shall have a permanent, conspicuous label placed in a prominent location on the machine setting forth the applicable provisions of the operating requirements in (l)3 below;

iii. The machine shall be equipped with:

(1) Unless the machine is fully enclosed, a tightly fitting cover that shall be kept closed at all times except for when parts are being placed into or being removed from the machine or when solvent is being added or removed. The cover shall:

(A) Completely cover the machine's opening;

(B) Be free of cracks, holes and other defects;

(C) Be able to be readily opened and closed without disturbing the vapor zone. If the opening is greater than ten square feet, the cover shall be opened and closed by a powered mechanism; and

(D) If the machine has a lip exhaust, extend below the level of the lip exhaust;

(2) A safety switch (thermostat and condenser flow switch) which shuts off the sump heat if the coolant is not circulating;

(3) A control switch which shuts off the spray pump if vapor is not present in the vapor section in the machine;

(4) A primary condenser; and

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(5) A device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils or if the vapor level in the machine rises above the height of the primary condenser;

iv. The machine shall have an automated parts handling system which moves the parts or parts basket at a speed of 11 feet (3.4 meters) per minute or less when the parts are entering or exiting the vapor zone. If the parts basket or parts being cleaned occupy more than 50 percent of the solvent/air interface area, the speed of the parts basket or parts shall not exceed three feet (one meter) per minute;

v. If the machine has a lip exhaust, it shall be designed and operated so that:

(1) Collected solvent vapors pass through a properly operated and maintained carbon adsorber; and

(2) The concentration of VOC in the effluent from the adsorber does not exceed 100 parts per million;

vi. The machine shall be protected from drafts, when not in active use, by the installation of covers over the conveyor inlet and conveyor outlet ports and over any other openings; and

vii. The machine shall be protected from drafts, when in active use, by the installation of a silhouette cutout or hanging flaps to minimize the effective openings around the conveyor inlet and conveyor outlet parts;

2. No person shall cause, suffer, allow, or permit an in-line vapor cleaning machine to be operated unless one of the control options listed in Table 6C below is implemented:

TABLE 6C

CONTROL OPTIONS FOR IN-LINE VAPOR CLEANING MACHINES

Number of Option	Control Option
1.	A superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine; and a freeboard refrigeration device.

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2. A freeboard refrigeration device; and a carbon adsorber.

3. A superheated vapor system to heat the parts and evaporate liquid solvent on the parts before they are withdrawn from the cleaning machine; and a carbon adsorber.

3. A person shall operate an in-line cleaning machine in accordance with the following procedures:

i. During startup of the machine the primary condenser shall be turned on before the sump heater;

ii. Flushing or spraying of parts with a solvent spray, using a spray head attached to a flexible hose or other flushing device, shall only be performed within the vapor zone of the machine or within a section of the machine that is not exposed to the ambient air. The solvent spray shall be a continuous fluid stream, not an atomized or shower spray, and shall be under a pressure that does not exceed 10 pounds per square inch gauge;

iii. Parts being cleaned shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. A superheated vapor system shall be an acceptable alternate technology;

iv. When the machine's cover is open, the machine shall not be exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between one and two meters (between 3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;

v. Sponges, fabric, leather, paper products and other absorbent materials shall not be cleaned in the machine;

vi. Spills during solvent transfer and use of the machine shall be cleaned up immediately or the machine shall be shut down. Wipe rags or other sorbent material used shall be immediately stored in covered containers for disposal or recycling;

vii. Waste solvent, still bottoms and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container;

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viii. Work area fans shall be located and positioned so that they do not blow across the opening of the machine;

ix. During shutdown of the machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off;

x. When solvent is added to or drained from the machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface;

xi. The working and downtime covers shall be closed at all times except when parts are entering or exiting from the machine, during maintenance of the machine when the solvent has been removed, and during addition of solvent to the machine;

xii. If a lip exhaust is used on an open top vapor degreaser, the ventilation rate shall not exceed 20 cubic meters per minute per square meter ($m^3/min/m^2$) (that is, 65 cubic feet per minute per square foot ($ft^3/min/ft^2$)) of degreaser open area;

xiii. The machine shall be maintained as recommended by the manufacturer of the equipment or by using alternate maintenance practices that have been demonstrated to the Department's satisfaction to achieve the same or better results as those recommended by the manufacturer; and

xiv. Openings shall be minimized during operation so that entrances and exits silhouette workloads with an average clearance between the parts and the edge of the degreaser opening of less than 10 centimeter (4 inches) or less than 10 percent of the width of the opening.

(m) The following provisions shall apply to an airless cleaning machine or air-tight cleaning machine:

1. No person shall add solvent to an airless cleaning machine or an air-tight cleaning machine, or cause, suffer, allow, or permit the machine to be operated unless the following requirements are met:

i. The machine shall have a permanent, conspicuous label placed in a prominent location on the machine setting forth the applicable provisions of the operating requirements in (m)4 below; and

ii. The machine shall have a carbon adsorber that shall:

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(1) Measure and record the concentration of solvent in the exhaust of the carbon adsorber weekly with a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of solvent to air at an accuracy of ± 25 parts per million (ppm) by volume. These measurements and recordings shall be conducted while the solvent cleaning machine is in working mode and venting to the adsorber; and

(2) Maintain and operate the machine and adsorber so that emissions from the adsorber exhaust not more than 100 ppm by volume measured while the machine is in the working mode and is venting to the adsorber;

2. The owner or operator of an airless cleaning machine or air-tight cleaning machine, shall maintain for each machine a log of all additions and deletions of VOC containing solvent, including the weight of the solvent contained in any activated carbon or other sorbent material used to control emissions from the cleaning machine;

3. The owner or operator of the machine shall demonstrate that the monthly emissions from the machine, based on a three-month rolling average, are equal to or less than the allowable limits set forth in Table 6D below or, if the volume of the cleaning machine exceeds 2.95 cubic meters, by the use of the following equation:

$$EL = 330\ (vol)^{0.6}$$

Where:

EL= the three-month rolling average monthly emission limit, based on kilograms per/month.

vol= the capacity of machine, given in cubic meters

TABLE 6D
EMISSION LIMITS FOR CLEANING MACHINES
WITHOUT A SOLVENT/AIR INTERFACE

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Cleaning Capacity (m^3)	**Emission Limit, Based On A 3-Month Rolling Average (kg/month)**
0.00	**0.0**
0.05	**55**
0.10	**83**
0.15	**106**
0.20	**126**
0.25	**144**
0.30	**160**
0.35	**176**
0.40	**190**
0.45	**204**
0.50	**218**
0.55	**231**
0.60	**243**
0.65	**255**
0.70	**266**
0.75	**278**
0.80	**289**
0.85	**299**
0.90	**310**
0.95	**320**
1.00	**330**
1.05	**340**
1.10	**349**
1.15	**359**

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1.20	**368**
1.25	**377**
1.30	**386**
1.35	**395**
1.40	**404**
1.45	**412**
1.50	**421**
1.55	**429**
1.60	**438**
1.65	**446**
1.70	**454**
1.75	**462**
1.80	**470**
1.85	**477**
1.90	**485**
1.95	**493**
2.00	**500**
2.05	**508**
2.10	**515**
2.15	**522**
2.20	**530**
2.25	**537**
2.30	**544**
2.35	**551**
2.40	**558**
2.45	**565**
2.50	**572**

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2.55	**579**
2.60	**585**
2.65	**592**
2.70	**599**
2.75	**605**
2.80	**612**
2.85	**619**
2.90	**625**
2.95	**632**

4. A person shall operate an airless cleaning machine or air-tight cleaning machine in accordance with the following procedures.

i. Parts being cleaned shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. A superheated vapor system shall be an acceptable alternate technology;

ii. Sponges, fabric, leather, paper products and other absorbent materials shall not be cleaned in the machine;

iii. Spills during solvent transfer and use of the machine shall be cleaned up immediately or the machine shall be shut down. Wipe rags or other sorbent material used shall be immediately stored in covered containers for disposal or recycling;

iv. Waste solvent, still bottoms and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container;

v. Work area fans shall be located and positioned so that they do not blow across the opening of the machine;

vi. When solvent is added to or drained from the machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface;

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vii. The working and downtime covers shall be closed at all times except when parts are entering or exiting from the machine, during maintenance of the machine when the solvent has been removed, and during addition of solvent to the machine; and

viii. The machine shall be maintained as recommended by the manufacturer of the equipment or using alternate maintenance practices that have been demonstrated to the Department's satisfaction to achieve the same or better results as those recommended by the manufacturer.

[(i)**]****(n)** (No change in text.)

[(j) No person shall cause, suffer, allow, or permit the use of any VOC in an open top tank or surface cleaner unless such use follows written operating, inspection and maintenance instructions prepared in accordance with guidelines issued by the Department.

(k) Any person subject to the provisions of (j) above shall maintain a training program to ensure that all personnel associated with the use or operation of the open top tank or surface cleaner understand and follow the specified [procedure] procedures.

(l) Copies of operating instructions and maintenance instructions must be located at the open top tank or surface cleaner. Copies shall be supplied to the Department when requested and must be accompanied by similar documents supplied by the equipment manufacturer, with explanations for differences between the two.

(m) The written procedures required by this Section shall be submitted to the Department upon request within 10 days of the receipt of such request; such procedure shall be subject to review and approval by the Department. If, in the opinion of the Department, such procedure does not fulfill the requirements of this section, the Department may state its reason for disapproval and order the preparation of an amended procedure within the time period specified in the order. If the person responsible fails within the time period specified in the order to submit an amended procedure which, in the opinion of the Department, fulfills the said requirements, the Department may revise the procedure accordingly. Such revised procedure will thereafter be that which the person responsible must carry out.

(n) Any person subject to the provisions of this section shall notify the Department in writing within 15 days of any revision or alteration of a procedure approved pursuant to the provisions of (j) above. Such written notification shall include a detailed description of the changes in the procedure and the reasons therefor. Such amended procedure shall be subject to review and approval by the Department.

(o) The provisions of (a) above shall not apply to:

1. Open top tanks used solely for the application of electrophoretic dip prime coatings to

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automobiles and light duty trucks;

2. Open top tanks used in a waste water treatment system, provided the VOC emitted from such tanks does not exceed a concentration of 5,000 parts per million by volume measured at any point above the liquid surface at the height of the tank lip.**]**

7:27-16.7 Surface coating and graphic arts operations

(a) The provisions of this section **shall** apply to any surface coating operation or graphic arts operation to which any control criteria set forth in Table 7A, 7B, 7C or 7D applies **[.]**, **except for the following:**

1. Any **[**other**]** surface coating operation or graphic arts operation located at a major VOC facility and having the potential to emit three pounds per hour or more of VOC shall **instead** be subject to the provisions of N.J.A.C.7:27-16.17**;**

2. On or after *(the date which is one year after the operative date of these rules)***, any recoating of mobile equipment at mobile equipment repair and refinishing facilities. Such recoating and refinishing operations shall thereafter be subject to the requirements at N.J.A.C. 7:27-16.12; and**

3. Any surface coating operation or graphic arts operation exempted under (l) below.

(b) - (f) (No change.)

TABLE 7A
AUTOMOBILE **[**AND**]** **OR** LIGHT DUTY TRUCK SURFACE COATING OPERATIONS
AT ORIGINAL EQUIPMENT MANUFACTURING FACILITIES
CONTROL CRITERIA AND COMPLIANCE DATES

Type of Operation	**Maximum Allowable VOC Content Per Volume of Coating (Minus Water)**		
	Pounds Per Gallon	**Kilogram Per Liter**	**Final Compliance Date**
Prime			
Electrophoretic dip prime	1.2	0.14	December 31, 1982
Spray Prime	2.8	0.34	December 31, 1984

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Type of Operation	Maximum Allowable VOC Content Per Volume of Coating (Minus Water)		
	Pounds Per Gallon	Kilogram Per Liter	Final Compliance Date
Topcoat			
Spray Topcoat	2.8	0.34	December 31, 1986
Repair	4.8	0.58	December 31, 1986
Custom Topcoating	5.0	0.60	June 15, 1990
Refinishing			
Base Coat	6.0	0.75	June 15, 1990
Clear Coat	4.4	0.54	June 15, 1990
All others	5.0	0.60	June 15, 1990

TABLE 7B

MISCELLANEOUS SURFACE COATING OPERATIONS
CONTROL CRITERIA AND COMPLIANCE DATES

Type of Operation	Maximum Allowable VOC Content per Volume of Coating (minus water)		
	Pounds per Gallon	Kilogram per Liter	Final Compliance Date
Group I			
.....			
Large Appliance Coating	2.8	0.34	December 31, 1981

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Type of Operation	Maximum Allowable VOC Content per Volume of Coating (minus water)		Final Compliance Date
	Pounds per Gallon	Kilogram per Liter	
Coating of Miscellaneous Metal Parts and Products			December 31, 1983
Clear Coating	4.3	0.52	
Air-dried Coating	3.5	0.42	
Extreme Performance Coating	3.5	0.42	
All other coatings	3.0	0.36	
Coating of Flat Wood Paneling			December 31, 1983
Printed hardwood plywood panels and particleboard panels	2.7	0.32	
Natural finish hardwood plywood	3.3	0.40	
Group II	3.6	0.43	
Leather Coating	5.8	0.70	December 31, 1987
Urethane Coating	3.8	0.45	December 31, 1987
Tablet Coating	5.5	0.66	December 31, 1987
Glass Coating	3.0	0.36	December 31, 1987
Coating of Wood Furniture			December 31, 1987
Semitransparent stain	6.8	0.82	

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Type of Operation	Maximum Allowable VOC Content per Volume of Coating (minus water)		Final Compliance Date
	Pounds per Gallon	Kilogram per Liter	
Wash Coat	6.1	0.73	
Opaque Stain	4.7	0.56	
Sealer	5.6	0.67	
Pigment Coat	5.0	0.60	
Clear Topcoat	5.6	0.67	
Group III			
[Coatings**]** **Pipe Coating** for Metal and Concrete Pipe			
Clear coating	4.3	0.52	May 31, 1995, except December 31, 1983 for metal pipe coating
Air-dried coating	3.5	0.42	
Extreme performance coating	3.5	0.42	
All other coatings	3.0	0.36	

TABLES 7C AND 7D
(No change.)

(g) - (k) (No change.)

(l) The provisions of this section shall not apply to:

1.- 3. (No change.)

4. The on-site coating of **[**assembled**]** **stationary** structures such as, but not limited to, equipment used for manufacturing processes, storage tanks, bridges, and swimming pools. **The coatings used in such on-site coating operations are subject to the provisions**

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at N.J.A.C. 7:27-23.

(m) - (q) (No change.)

7:27-16.12 [(Reserved)] Surface coating operations at mobile equipment repair and refinishing facilities

(a) This section shall apply on or after *(the date which is one year after the operative date of these amendments)* **to surface coating operations performed at mobile equipment repair and refinishing facilities, and to the owners and operators of such facilities.**

(b) Notwithstanding the requirements of (a) above, this section shall not apply to the following refinishing or repair operations:

1. A refinishing or repair operation which is subject to the standards set forth at N.J.A.C. 7:27-16.7;

2. An original equipment surface coating operation at an automobile assembly plant; or

3. A refinishing or repair operation performed by a person who does not receive compensation for the application of the coating.

(c) No person shall apply any coating, including but not limited to an automotive pretreatment coating, automotive primer-surface coating, automotive primer-sealer, automotive topcoat, or any automotive specialty coating, that contains VOC in excess of the applicable limits specified in Table 12A,below, to mobile equipment or mobile equipment components.

Table 12A
MAXIMUM ALLOWABLE VOC CONTENT OF COATINGS
USED FOR MOBILE EQUIPMENT REPAIR OR REFINISHING

Coating Type	Limit	
	Pounds per gallon	Grams per liter
Automotive pretreatment	6.5	780
Automotive primer-surfacer	4.8	575
Automotive primer-sealer	4.6	550

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Automotive topcoat:		
Single stage-topcoat	**5.0**	**600**
2 stage basecoat/clearcoat	**5.0**	**600**
3 or 4-stage basecoat/clearcoat	**5.2**	**625**
Automotive multi-colored Topcoat	**5.7**	**680**
Automotive specialty	**7.0**	**840**

(d) For the purpose of determining compliance with the limits set forth in Table 12A above, the VOC content of a coating applied, or to be applied, as part of an mobile equipment repair and refinishing operation, shall be calculated as follows:

1. The VOC content of a coating shall be calculated in accordance with the following equation:

$$VOC = \frac{Wv + Wa - Ww - Wn}{V + Va - Vw - Vn}$$

Where:

VOC = The VOC content of a given coating, given in pounds per gallon (lbs/gal) or grams per liter (g/l) as applicable;

Wv = Mass of total volatiles, given in pounds or grams as applicable;

Wa = Mass of total VOC in additives or other materials that are added to the coating prior to its application, given in pounds or grams as applicable;

Ww = Mass of the water in coating (if any), given in pounds or grams as applicable;

Wn = Mass of any non-VOC solvent in the coating , given in pounds or grams as applicable;

V = Volume of coating, given in gallons or liters as applicable; and

Va = Volume of VOC-containing additives or other materials that are added to the coating prior to its application, given in gallons or liters as applicable;

Vw = Volume of the water in coating (if any), given in gallons or liters as applicable; and

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Vn = Volume of any non-VOC solvent in the coating , given in gallons or liters as applicable; and

2. The VOC content of a multi-stage topcoat shall be calculated in accordance with the following equation:

$$VOCmulti = \frac{VOCbc + \sum_{i=0}^{M} VOCmci + 2(VOCcc)}{M + 3}$$

Where:

VOCmulti = VOC content of multistage topcoat, given in pounds per gallon or grams per liter, as applicable;

VOCbc = VOC content of basecoat, given in pounds per gallon or grams per liter, as applicable;

VOCmci = VOC content of a given midcoat, given in pounds per gallon or grams per liter, as applicable;

VOCcc = VOC content of the clear coat, given in pounds per gallon or grams per liter, as applicable;

i = A given midcoat; and

M = Total number of midcoats.

(e) The owner or operator of a surface coating operation subject to (c) above shall keep a record at the facility of the VOC content of each coating used, calculated in accordance with (d) above. Such records shall be readily available upon request by the Department.

(f) To apply any of the coating types listed in Table 12A above, the owner or operator of a surface coating operation subject to (c) above shall use only one or more of the following application techniques:

1. Flow/curtain coating;

2. Dip coating;

3. Roller coating;

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4. Brush coating;

5. Cotton-tipped swab application;

6. Electrodeposition coating;

7. High volume low pressure (HVLP) spraying;

8. Electrostatic spray;

9. Airless spray; and/or

10. Any other coating application method, provided that:

i. The owner or operator has submitted a demonstration to the Department and EPA that the VOC emissions resulting from this application method do not exceed the emissions that would result from either the HVLP or electrostatic spray application method; and

ii. Both the Department and EPA have affirmed in writing that they are satisfied with the demonstration and approve the use of the coating application method.

(g) To clean a spray gun used to apply coating(s) at a mobile equipment repair and refinishing facility, the owner or operator of a facility subject to this section shall use one of the following methods:

1. An enclosed spray gun cleaning system that is kept closed when not in use;

2. An unatomized discharge of the remaining coating in the spray gun into a paint waste container that is kept closed when not in use;

3. Disassembly of the spray gun and cleaning of the spray gun in a vat that is kept closed when not in use; or

4. An atomized spray of solvent used for cleaning, into a paint waste container that is fitted with a device designed to capture atomized solvent emissions.

(h) The owner or operator of a mobile equipment repair and refinishing facility subject to this section shall implement the following housekeeping measures:

1. The following materials shall be stored in nonabsorbent, nonleaking containers:

i. Fresh coatings;

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ii. Used coatings;
iii. Solvents, including cleaning solvents;
iv. VOC-containing additives;
v. Other VOC-containing materials that are added to the coating prior to application;
vi. VOC-containing waste materials; and
vii. Cloth, paper, or absorbent applicators, moistened with any of the materials listed in (h)1i through vi above;

2. The containers referenced at (h)1 above shall be kept closed at all times except when being filled or emptied; and

3. Handling and transfer procedures shall minimize spills during the transfer of the following:
i. Coatings;
ii. Solvents, including cleaning solvents;
iii. VOC-containing additives
iv. Other VOC-containing materials that are added to the coating prior to application; and
v. VOC-containing waste materials.

(i) The owner or operator of a mobile equipment repair and refinishing facility subject to this section shall ensure that any person who applies coatings at the mobile equipment repair and refinishing facility has completed training in the proper use and handling of the following in order to minimize the emission of air contaminants:

1. Coatings;
2. Solvents, including cleaning solvents;
3. VOC-containing additives
4. Other VOC-containing materials that are added to the coating prior to application; and
5. VOC-containing waste materials.

(j) The following coating applications are exempt from the requirements of (g), (h) and (i) above:

1. The application of a coating through use of an airbrush application method for stenciling, lettering, and other identification marking;

2. The application of a coating sold in nonrefillable aerosol containers; and

3. The application of automotive touch-up repair and refinishing materials.

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7:27-16.16 Other source operations

(a) (No change)

(b) Source operations to which this section apply are not limited to those involved in manufacturing and include, without limit, the following: agitators, autoclaves, bakery ovens, blenders, centrifuges, distillation processes, driers, extruders, fermentation processes, fiberglass boat or vessel manufacturing operations, fiberglass product manufacturing operations, foam blowing operations, fumigation chambers, mills, mixers, ovens, reactors, receivers, roasters, sterilization operations, and synthetic fiber manufacturing operations. **The provisions of this section do not apply to any insignificant source operation as defined in N.J.A.C. 7:27- 8.2 or 22.1.**

(c)-(h) (No change)

(g) Any person responsible for a source operation subject to (c) above shall maintain the following records for each source operation:

1. (No change)

2. For any source operation that has a thermal oxidizer, **regenerative thermal oxidizer or catalytic oxidizer** used to control the emission of VOC**s**, record on a continuous basis or at a frequency approved in writing by the Department the operating temperature at the exit of the combustion chamber and the **following:**

i. **The total hydrocarbon concentration in the flue gas emitted to the outdoor atmosphere; also maintain production records sufficient to demonstrate whether the processes conducted generate VOC emissions within the design parameters of the thermal oxidizer; or**

ii. **Until** *[the date which is two years after the operative date of these amendments]***, if the oxidizer was installed prior to** *[the operative date of these amendments]* **and has not been modified after** *[the operative date of these amendments]***, the** carbon monoxide concentration in the flue gas emitted to the outdoor atmosphere; also maintain production records sufficient to demonstrate whether the processes conducted generate VOC emissions within the design parameters of the thermal oxidizer;

3.- 4. (No change)

Chapter 27 A AIR ADMINISTRATION PROCEDURES AND PENALTIES
Subchapter 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS.

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7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a) - (l) (No change.)

(m) The violations of N.J.A.C. 7:27 and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter in N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have on legal effect.

CIVIL ADMINISTRATIVE PENALTY SCHEDULE

1. - 15. (No change.)

16. The violations of N.J.A.C. 7:27-16, Control and Prohibition of Air Pollution by Volatile Organic Compounds (VOC), and the civil administrative penalty amounts for each violation, per source, are as set forth in the following table:

Citation	**Class**	**First Offense**	**Second Offense**	**Third Offense**	**Fourth and Each Subsequent Offense**
N.J.A.C. 7:27-16.2**[**(a)**]****(b)**	External Surface	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.2(b)	Control Apparatus	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.2(c)	Vapor Control System	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.2(d)	Gauging/ Sampling	$500	$1,000	$2,500 [3]	$7,500 [3]
N.J.A.C. 7:27-16.2(g)	Floating Roof	$2,000	$4,000	$10,000 [3]	$30,000 [3]
N.J.A.C. 7:27-16.2(h)	Seal-Envelope	$2,000	$4,000	$10,000 [3]	$30,000 [3]
N.J.A.C. 7:27-16.2(i)	Roof Openings	$600	$1,200	$3,000 [3]	$9,000 [3]
N.J.A.C. 7:27-16.2(k)	Records	$500	$1,000	$2,500 [3]	$7,500 [3]
N.J.A.C. 7:27-16.3**[**(a)**]****(c)**	Submerged Fill (Gasoline)	$600	$1,200	$3,000 [3]	$9,000 [3]
N.J.A.C. 7:27-16.3(c)	Transfer of Gasoline	$600	$1,200	$3,000 [3]	$9,000 [3]
N.J.A.C. 7:27-16.3**[**(d)**]** **(m)**	Transfer of Gasoline (Delivery)	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3**[**(e)1**]** **(n)1**	Loading 15,000 gallons or less per day	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.3**[**(e)2**]** **(n)2**	Loading more than 15,000 gallons per day	$5,000	$10,000	$25,000 [3]	$50,000 [3]
N.J.A.C. 7:27-16.3**[**(e)1**]** **(f)1i**	Release of VOC	$600	$1,200	$3,000 [3]	$9,000 [3]
N.J.A.C. 7:27-16.3**[**(e3)**]** **(f)1ii**	Overfill and Spillage	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.3**[**(h)2**]** **(g) 2**	Records Availability	$500	$1,000	$2,500	$7,500

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Citation	**Class**	**First Offense**	**Second Offense**	**Third Offense**	**Fourth and Each Subsequent Offense**
N.J.A.C. 7:27-16.3(i) **2**	Pressure Testing	$500	$1,000	$2,500	$7,500
N.J.A.C. 7:27-16.3(i)**[2]** **3** or (i)**[3]** **4**	Certification Display	$100	$200	$500	$1,500
N.J.A.C. 7:27-16.3(j)	Transfer Pressure	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3**[**(k)1**]** **(n)1**	Leak	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3**[**(k)2**]** **(n)2**	Component	$800	$1,600	$4,000	$12,000
N.J.A.C. 7:27-16.3**[**(k)3**]** **(n)3**	Spill	$2,000	$4,000	$10,000	$30,000
N.J.A.C. 7:27-16.3**[**(m)3**]**(**k)**	Vapor-Tight Delivery Vessel (Gasoline)	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3(o)**(1)**	Recertify	$200	$400	$1,000	$3,000
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N.J.A.C. 7:27-16.6**[**(a)**]**(b)	Tank Lids	$500	$1,000	$2,500	$7,500 [3]
N.J.A.C. 7:27-16.6**[**(b)**]**(c)	Unheated Surface Cleaner 25 square feet or less	$500	$1,000	$2,500 [3]	$7,500 [3]
N.J.A.C. 7:27-16.6**[**(c)**]**(d)	Unheated Surface Cleaner greater than 25 square feet	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.6**[**(d)**]**(e)	Heated Tank	$1,000	$2,000	$5,000	$15,000
N.J.A.C. 7:27-16.6**[**(e)**]**(f)	Vapor Surface Cleaner	$1,500	$3,000	$7,500	$22,500 [3]
N.J.A.C. 7:27-16.6**[**(f)**]**(g)	Unheated Conveyorized Surface Cleaner	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.6**[**(g)**]**(h)	Heated Conveyorized Surface Cleaner	$1,500	$3,000	$7,500 [3]	$22,500 [3]
N.J.A.C. 7:27-16.6**[**(h)**]**(i)	Conveyorized Vapor Surface Cleaner	$2,000	$4,000	$10,000 [3]	$30,000 [3]
N.J.A.C. 7:27-16.6(j)	**Cold Cleaning Machine**	**$1,000**	**$2,000**	**$5,000 [3]**	**$15,000 [3]**
N.J.A.C. 7:27-16.6(j)	**Heated Cleaning Machine**	**$1,000**	**$2,000**	**$5,000 [3]**	**$15,000 [3]**
N.J.A.C. 7:27-16.6(k)	**Batch Vapor Cleaning Machine**	**$1,500**	**$3,000**	**$7,500 [3]**	**$22,500 [3]**
N.J.A.C. 7:27-16.6(l)	**In-line Vapor Cleaning Machine**	**$1,500**	**$3,000**	**$7,500 [3]**	**$22,500 [3]**
N.J.A.C. 7:27-16.6(m)	**Airless Cleaning Machine or Air-Tight Cleaning Machine**	**$2,000**	**$4,000**	**$10,000 [3]**	**$30,000 [3]**
N.J.A.C. 7:27-16.6**[**(i)**]**(f)	Oil-Water Separator	$500	$1,000	$2,500 [3]	$7,500 [3]
[N.J.A.C. 7:27-16.6(j)	Written Instructions	$200	$400	$1,000	$3,000 [3]
N.J.A.C. 7:27-16.6(k)	Training Program	$500	$1,000	$2,500	$7,500 [3]
N.J.A.C. 7:27-16.6(l)	Copies of Instructions	$300	$600	$1,500	$4,500 [3]

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Citation	**Class**	**First Offense**	**Second Offense**	**Third Offense**	**Fourth and Each Subsequent Offense**
N.J.A.C. 7:27-16.6(m)	Submittal	$300	$600	$1,500	$4,500 [3]
N.J.A.C. 7:27-16.6(n)	Notification	$200	$400	$1,000	$3,000 [3]]

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N.J.A.C. 7:27-16.12(c)	**Maximum VOC Content Of Coatings**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.12(d)	**Contents Of Coating**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.12(e)	**Documentation Of VOC Content Calculations**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.12(f)	**Coating Application Techniques**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.12(g)	**Spray Gun Cleaning Methods**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.12(h)	**Additional Measures**	**$1,000**	**$1,500**	**$2,000**	**$2,500**
N.J.A.C. 7:27-16.13(a)	Flares	$1,200 [3]	$2,400 [3]	$6,000 [3]	$18,000 [3]
N.J.A.C. 7:27-16.13(b)	Submittal	$300	$600	$1,500	$4,500
N.J.A.C. 7:27-16.13(c)	Log	$500	$1,000	$2,500	$7,500

17. - 31. (No change.)

(n) - (p) (No change.)

1. A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997

2. Ibid

3. Ibid

4. 61 Fed. Reg. 65637 (December 13, 1996)

5. Wolf, 2002: Ultronix Inc.,

6. E.H. Pechan & Associates, Inc., "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules."

7. Uni-Ram Corporation.

8. Ibid.

9. Ibid.

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11. A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997.
10. Ibid
12. Ibid.

13. Amar, Pravee, NESCAUM's Progress Report on "Determination of Fine Particles Concentrations and Chemical Composition in the Northeastern United States, 1995."

14. NESCAUM, Regional Haze and Visibility in the Northeast and Mid-Atlantic States, draft report, November 30, 2000.

15. Hazardous Air Pollutants Listed in CAA Title III, Sec. 112(b)

16. A USEPA Fact Sheet on the 8-hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards , July 1997.