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ENVIRONMENTAL PROTECTION

OFFICE OF AIR QUALITY MANAGEMENT

AIR QUALITY REGULATION PROGRAM

Air Pollution Control
Control and Prohibition of Air Pollution By Volatile Organic Compounds

Adopted Amendments:	N.J.A.C. 7:27-16.1, 16.3, 16.4,16.6, 16.7, and 16.16; and N.J.A.C. 7:27A-3.10
Proposed:	August 5, 2002, 34 N.J.R. 2489(a)
Adopted:	April 30, 2003, by Bradley M. Campbell, Commissioner, Department of Environmental Protection.
Filed:	May 1, 2003 as R.2003 d.224, **with substantive and technical changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3)
Authority:	N.J.S.A. 13:1B-3(e), 13:1D-9 and 26:2C-1 et seq., in particular 26:2C-9.2

DEP Docket Number: 20-02-07/243

Effective Date:	June 2, 2003
Operative Date:	June 29, 2003
Expiration Date:	Exempt N.J.A.C. 7:27; November 9, 2004, N.J.A.C. 7:27A.

The New Jersey Department of Environmental Protection (the Department) is adopting amendments to N.J.A.C. 7:27-16, Control and Prohibition of Air Pollution By Volatile Organic Compounds, the Department's rules governing the standards, emission limits and equipment specifications for sources of volatile organic compounds (VOC) emissions, and making related changes to the penalty code revisions at N.J.A.C. 7:27A-3. These amendments will help the State continue to make progress towards attainment of the one-hour ozone standard.

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The Department held a public hearing on September 6, 2002, at its headquarters at 401 East State Street, Trenton, New Jersey to provide interested parties the opportunity to present comments on the Department's proposed amendments. The comment period closed on September 10, 2002. The comments the Department received on the proposed amendments are summarized and responded to below in the section entitled, "Summary of Public Comments and Agency Responses."

Summary of Hearing Officer's Recommendations and Agency Response:

Chris Salmi, Acting Assistant Director of the Department's Office of Air Quality Management Program, served as the Hearing Officer at the public hearing. After reviewing the comments presented at the hearing and the written comments received by the Department, the Hearing Officer recommended that the proposed amendments be adopted with the changes described below in the Summary of Public Comments and Agency Responses and in the Summary of Agency-Initiated Changes. The Department has accepted the Hearing Officer's recommendation.

The Hearing Officer's recommendation is set forth in the hearing officer's report. A copy of the record of the public hearing (including the hearing officer's report) is available for inspection in accordance with applicable law by contacting:

Department of Environmental Protection
Office of Legal Affairs
ATTN: Docket No. 20-02-07/243
401 East State Street
PO Box 402
Trenton, New Jersey 08625-0402

Copies of this adoption document are also available from the Department's website at www.state.nj.us/dep/aqm, where Air Quality Management rules, proposals, adoptions and SIP revisions are posted.

Summary of Public Comments and Agency Responses:

The Department received oral and/or written comments on its proposed amendments from the following persons:

1. Fred Anderson, Exxon Mobil Corporation
2. J. Russel Cerchiaro, Schering-Plough Corporation
3. Exxon Mobile Downstream & Chemical (Safety, Health & Environment)
4. Marwan Fanek, Safety-Kleen Corporation
5. John Filippelli, United States Environmental Protection Agency

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6. William M. Hanna III, P.E., Environmental Resources Management (ERM)
7. Susan B. Hickey, Crompco Corporation
8. Robert A. Hunt, Mannington Mills Inc
9. Edward Kubinsky, Crompco Corporation
10. Bradley S. Martin, Dupont-Chambers Works
11. John Maxwell, New Jersey Petroleum Council
12. Charles Pedano, Crompco Corporation
13. Gary P. Rabik, Sun Company, Inc.
14. Anthony Russo, Chemistry Council of New Jersey
15. Prentiss Searless, American Petroleum Institute
16. Jim Sinclair, New Jersey Business and Industry Association
17. Brian D. Vesley, Valtek Inc. and Alliance of Automotive Service Providers.

Comments are arranged by section. If a comment does not pertain to a specific part of the rule, it has been placed under the general comment category. At the end of each comment, the specific commenter(s) are referenced by the numbers above. The comments are as follows:

General Comments:

1. COMMENT: A number of commenters expressed concerns regarding the Department's rulemaking procedures. The commenters stressed the importance of conducting stakeholder meetings, or meetings with various trade associations, business lobbies and small businesses prior to the Department's proposing a new rule or amendments in the New Jersey Register. The commenters noted that the Department did not conduct stakeholder meetings for this proposal. (8,14,16,17)

RESPONSE: Although the Department did not conduct stakeholder meetings for this proposal, the regulated community did have an opportunity to participate in the development of a number of the provisions contained within the proposal. For example, the proposed sections pertaining to solvent cleaning operations and mobile equipment repair and refinishing operations are based on the Ozone Transport Commission (OTC) model rules. The OTC held several stakeholders meetings in addition to a public hearing when the model rules were being developed. In addition, with regard to the proposed amendments concerning gasoline transfer operations, the Department held two meetings with the New Jersey Petroleum Council.

2. COMMENT: Three commenters stated that a thirty-day comment period is insufficient to digest a proposal and prepare comments. One commenter in particular felt that the Department should provide at least 60 days notice prior to conducting a public hearing on a non-emergency rule, especially if the rule would have a significant impact on small business. (14, 16, 17))

RESPONSE: The Administrative Procedure Act, N.J.S.A. 52: 14B-4, requires an agency to provide

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at least 30-days notice of and opportunity to comment on a proposed rulemaking. The notice and comment period provided for the proposal met this statutory requirement. In addition, the Department posted an unofficial copy of this proposed rulemaking on its website prior to its publication in the New Jersey Register. Finally, the Department's regulations at N.J.A.C. 7:1D-5.1 set forth a process by which individuals who require additional time to provide comments on a proposal may request additional time from the Department.

3. COMMENT: One commenter claimed that the Department's web site did not have working links allowing access to the proposal document. (17)

RESPONSE: The Department has provided, as it has with past rulemakings, several access options to the proposal. For example, the proposal was available in the county libraries in addition to the Department's field offices and web site. Copies of proposal were also available directly from the Department upon request. The Department was aware that there may have been problems accessing the proposal from its website early in the comment period. The Department corrected the problem and as far as the Department is aware, the problem only persisted for a day or two.

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

4. COMMENT: One commenter questioned why the Department had included a definition of the term "liquid condensate traps" in the proposal when the Department did not propose to require the use of such traps as part of the proposal. The commenter recommended that the Department delete the proposed definition. (3)

RESPONSE: The Department acknowledges that the term "liquid condensate traps" was not used in the proposed amendments and, therefore, is deleting the definition on adoption.

5. COMMENT: One commenter asked the Department to revise its proposed definition of the term "freeboard height" to specify that the distance from the liquid level to the top edge is the "static vertical distance from the fill line to the top edge of the machine." (4)

RESPONSE: The term "freeboard height" refers to the height of the cleaning solvent contained in the cleaning machine after parts are immersed in the machine. This level may change depending upon the size of the parts immersed. Therefore, the Department believes that it is necessary to measure the freeboard height after immersion of the parts to be cleaned. As a result, the Department will not add the suggested language.

6. COMMENT: One commenter asked the Department to clarify its definition of the term "pollution prevention." The commenter noted that there was an inconsistency between the Department's discussion of this definition in the summary and proposed rule text. Specifically, in the Summary the

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Department stated that the term "pollution prevention" would have the same definition as the definition of this term in N.J.A.C. 7:27-8.1. The rule text, however, defined the term consistent with its definition at N.J.A.C. 7:1K-1.5. (14)

RESPONSE: The Department acknowledges that it erroneously referred to N.J.A.C. 7:27-8.1, rather than N.J.A.C. 7:1K-1.5 in its discussion in the Summary of the proposed definition for the term "pollution prevention." Notwithstanding this inadvertent error, it is clear from the proposal that the Department intended to clarify that sources may utilize pollution prevention measures in order to reduce or prevent VOC emissions.

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

7. COMMENT: One commenter requested the Department to delete its proposed pollution prevention requirements at N.J.A.C. 7:27-16.1A(a)1ii because, according to the commenter, this rule proposal is not the appropriate vehicle for mandating such requirements. (14)

RESPONSE: The Department did not intend to require the implementation of additional pollution prevention measures in N.J.A.C.7:27-16.1A. Rather, the Department wanted to clarify that sources may utilize pollution prevention measures, either alone or in concert with air pollution control technology, to achieve Reasonably Available Control Technology (RACT). The Department has revised this provision on adoption accordingly to provide clarification.

N.J.A.C. 7:27-16.3 Gasoline Transfer Operations

8. COMMENT: One commenter stated that the organization he or she represents supports the Department's proposal on Gasoline Transfer Operations. (11)

RESPONSE: The Department appreciates the commenter's support for the proposed amendment.

9. COMMENT: Several commenters expressed strong support for the flexibility that the Department offered to allow facilities to choose a vapor recovery system. This approach, as outlined in N.J.A.C. 7:27-16.3(e)2, allows flexibility for a company to choose between systems certified by California Air Resources Board (CARB) prior to July 2001, after July 2001, or to choose a system that is equivalent for this purpose. The commenters also expressed strong support for the proposed stage one requirements. (1,11,15)

RESPONSE: The Department acknowledges and appreciates the support expressed by the commenters for the proposed amendments.

10. COMMENT: Two commenters expressed their full support for the Department for requiring

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the installation of pressure/vacuum valves, the imposition of annual pressure and integrity testing, and in raising the vapor recovery efficiency from 90 percent to 95 percent. They also expressed strong support for the requirement for installation of unihose dispensers at new facilities. Finally, they indicated that they supported the requirement for nozzle enhancements, i.e. requiring the valve to close when it is hung up. (11, 15)

RESPONSE: The Department acknowledges and appreciates the support expressed by the commenter.

11. COMMENT: One of the commenters stated that one of the differences in the Pressure Decay Test Method 201.3, compared to other pressure decay test methods, is that the fill cap must be removed during the test. Several other states have also recently adopted CARB Test Method 201.3 and performance of this test method has caused many facilities to purchase new drop tubes. When the test is performed with the cap off, the drop tube must hold the test pressure. If the drop tube cannot hold the test pressure, the facility will fail the test, thereby requiring an upgrade to a new drop tube that will hold the pressure. The commenter also acknowledged that the Department's economic cost analysis assumed new drop tubes would be necessary. (12)

RESPONSE: The Department acknowledges the comment and appreciates the commenter's informative input on this matter. As noted by the commenter, although the proposal did not specifically address any requirements for new drop tubes, the Department included new drop tubes in the cost estimate to be conservative, in the event that they need to be replaced to pass the pressure test. The Department was aware that CARB's requirement for new drop tubes in California was a direct result of the pressure test. The Department was not aware that it was related to the removal of the fill cap, and the Department appreciates the information.

12. COMMENT: One commenter requested that the Department revise N.J.A.C. 7:27-16.3(e)2iii(1) on adoption to allow vapor recovery systems containing replacement parts/equipment/components and /or subsequent construction modifications that were approved in either an Executive Order or an approval letter issued by CARB. The commenter stated that in some instances CARB will issue “approval letters” on components and/or minor changes to a system rather than issuing a whole new Executive Order. (3)

RESPONSE: The Department agrees with this comment and has revised this provision on adoption.

13. COMMENT: Two commenters made similar comments regarding N.J.A.C. 7:27-16.3(e)2iv. This provision would allow use of a system that is equivalent for the purpose of VOC emission control, to a CARB certified system, as long as it is approved by the Department and the USEPA. One commenter requested that the Department delete the reference to the USEPA in

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N.J.A.C. 7:27-16.3(e)2iv, while the other commenter requested that the alternate approval be done by either the Department or the USEPA. The first commenter stated that they did not understand the need to include the USEPA in the Department's review nor the level of involvement that the USEPA would have in approving a vapor recovery system deemed acceptable by the Department. (11,13)

RESPONSE: The Department appreciates the comments and suggestions. However, in situations where alternative methods of compliance may be approved by the Department, the USEPA must also approve of the alternative method because of its enforcement oversight authority.

14. COMMENT: A number of commenters requested that the Department delete N.J.A.C. 7:27-16.3 (e)5 and all other provisions referencing on-board -vapor-recovery (ORVR). According to the commenters the economic cost and effort required to comply with the ORVR provisions are not justified by the minimal environmental benefit that the provisions would achieve. The commenters stated that CARB overestimated the excess emissions caused by ORVR incompatibility for various reasons, but mainly because they tested systems without pressure/ vacuum valves. One commenter offered technical information to support this comment including a report entitled "Refueling Emission Controls at Retail Gasoline Dispensing Stations in New Jersey" dated July 17, 2002, prepared by Tech Environmental, Inc. Some commenters were concerned that a link could be drawn between the proposal and a specific CARB certified system, because there is no way to verify compliance with the proposed ORVR requirement except for testing done by CARB. Finally, the commenters noted that more than 90 percent of the vapor recovery systems in New Jersey use balance equipment that is already considered ORVR compatible. (1, 3, 11, 13, 15)

RESPONSE: Based on the comments submitted by the commenters, the Department has deleted N.J.A.C. 7:27-16.3(f)3 and all other references to ORVR compatibility. The Department agrees that CARB's estimates are based on an analysis of vapor recovery systems without pressure/vacuum valves. The Department intended for existing vapor recovery systems to comply with the ORVR compatibility provisions through the installation of pressure /vacuum valves. In addition, the Department has determined that the environmental benefit associated with the CARB ORVR compatibility provisions is less than anticipated. Whether the VOC vapors are captured by the improved vapor recovery system or ORVR, is of little consequence, because both are highly efficient at catching VOC. The Department, therefore, has determined that the ORVR provisions should be deleted on adoption.

15. COMMENT: One commenter requested that the Department delete N.J.A.C. 7:27-16.3 (e)5 and replace it with the following language: "The vapor control system shall not result in emissions in excess of the standards at (e)1.i above during the transfer of gasoline into the

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vehicular fuel tank.". (3)

RESPONSE: As discussed in response to comment 14, the Department has decided to delete proposed N.J.A.C. 7:27-16.3(e)5 and other references to ORVR compatibility on adoption. Therefore, the Department believes that the insertion of the suggested language is not necessary. In addition, the commenter's proposed language has the same meaning as N.J.A.C. 7:27-16.3(e)1i and is duplicative.

16. COMMENT: One commenter stated that N.J.A.C. 7:27-16.3(f)3 requires all vapor recovery systems to be ORVR compatible within two years from the implementation date of the proposed rule. Given the small estimated emission reductions and the potential significant expense to retrofit the systems, the commenter felt that the requirement was not justified. (11)

RESPONSE: As discussed in response to comment 14, based on this and other comments received, the Department has decided to delete N.J.A.C. 7:27-16.3(f)3.

17. COMMENT: One commenter recommended that the Department choose Alternative 1 in N.J.A.C. 7:27-16.3, Table 3A.. Table 3A sets forth the methods to be employed to test whether a facility's vapor recovery system is performing properly. The commenter stated that Alternative 1 is the test pressure specified in CARB TP-201.3. (3)

18. COMMENT: Three commenters stated that a two-inch water column test has several advantages over a five-inch and 10-inch test. According to the commenters the two-inch test is performed with the vent valves installed in their operating position. This eliminates the need to remove the vent valves and perform a separate test on the vent valve. In addition, removal of the vent valves off the vent stack can be a hazardous procedure because some of the vents are high, adjacent to houses or other businesses, or to power lines. As a result, an additional expense will be incurred by the owner/operator of systems with higher than normal vent valves (to perform a five-inch or 10-inch test.) (7, 9, 12)

RESPONSE TO COMMENTS 17 AND 18: In its proposal, the Department offered three alternative pressures for conducting the Static Pressure Performance Test, two inches of water column, five inches of water column, and 10 inches of water column. As part of the proposal, the Department asked for comments on which pressure was most appropriate for conducting the test, with the intention of choosing one of the three alternatives. The Department requested comments on the three alternatives because not all states or California air quality management districts use CARB's latest test procedures. As a result, the Department wanted input from the regulated community as to the test pressure to use. One commenter indicated support for the two inches of water column test based on an inaccurate assumption that this method did not require removal of the pressure/vacuum valve. However, as discussed in response to comment 21 below, the

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pressure/vacuum valve must be removed in order to conduct the pressure/vacuum valve test, CARB TP-201.2B, as required by N.J.A.C. 7:27-16.3, Table 3A. No other comments were received that reflect any technical differences in the tests or any differences in terms of the environmental benefits derived from a particular test. As a result, and given the Department's desire to remain consistent with CARB on this issue, the Department is adopting a pressure test which utilizes two inches of water volume.

19. COMMENT: One commenter requested that the Department retain all three alternatives in N.J.A.C. 7:27-16.3, Table 3A for conducting test method CARB TP-201.3 in order to provide flexibility to the regulated community**.** (13)

RESPONSE: The Department appreciates the commenter's suggestion. The Department, however, did not intend to offer the three pressure alternatives in the proposal as options for conducting test method CARB TP-201.3. As discussed above, the Department provided the three pressure alternatives in order to solicit input from the regulated community as to which test pressure to use. The Department, however, did not receive any comments regarding any technical differences in the tests or any differences in terms of the environmental benefits derived from a particular test. As a result, and given the Department's desire to remain consistent with CARB, the Department is adopting a pressure test which utilizes two inches of water column. Moreover, a two inches of water column test is appropriate because: 1) it is more representative of normal operating conditions; 2) a higher pressure test may result in additional air emissions during testing; 3) inducing a pressure into the system which is higher than normal operating pressures may actually cause a leak; and 4) the nozzles are not designed to operate under the higher pressures, and would not be included in the testing.

20. COMMENT: One commenter indicated that he or she did not see the need for the requirement at N.J.A.C. 7:27-16.3, Table 3A, to cap vents if the test procedure adopted is alternative number one, the two- inch water column pressure. (12)

RESPONSE: The Department agrees with the commenter. The requirement to cap vents was intended for a static pressure performance test conducted using Alternative 2 or Alternative 3. Given that the Department has decided to adopt Alternative 1 in Table 3A, the language in the table has been revised accordingly on adoption.

21. COMMENT: Three commenters indicated their preference for the two-inch test because according to the commenters, this test can be performed with the vent valves installed in their operating position. This eliminates the need to remove the vent valves, which as discussed in comment 18 can be a hazardous procedure, and performance of a separate test on these valves. (7,9,12)

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RESPONSE: The Department believes the commenters misunderstood the proposal. The vacuum pressure valve test, CARB TP-201.2B, as required in N.J.A.C. 7:27-16.3, Table 3A, requires that the vent valve be removed for testing. Although testing of the valve during performance of the TP-201.3 test will verify if the valve will hold two inches of water column, the separate valve test more thoroughly evaluates if the valve is operating properly. The Department believes that removal of the valve can be carried out in an efficient and safe manner, following proper occupational health and safety act (OSHA) requirements. For example, the valves can be installed with threaded unions or quick connects for easier removal and installation.

22. COMMENT: Three commenters requested clarification regarding whether the dynamic backpressure performance test requirement in N.J.A.C. 7:27-16.3, Table 3A, refers only to a "dry test" or whether it requires performance of both a "dry test and wet test." (7,9,12)

RESPONSE: As specified in Table 3A, the dynamic backpressure performance test should be performed in accordance with CARB test method TP-201.4, including all subsequent revisions. Therefore, the test protocols in TP-201.4 must be followed. Currently, CARB TP-201.4 requires both a "dry test" and a "wet test." Note, TP 201.4 was last revised by CARB on July 3, 2002 and can be downloaded from the CARB website at http://www.arb.ca.gov/vapor.

23. COMMENT: One commenter requested that the Department explain the objective to be achieved by N.J.A.C. 7:27-16.3(i)1iii. The commenter suggested that replacing the word "deemed" in this provision with the word "considered" might be helpful. (3)

RESPONSE: The Department appreciates the comment. The intended objective in N.J.A.C. 7:27-16.3(i)1iii, was to inform the regulated community that passing the required test in N.J.A.C. 7:27-16.3(i)1i, Table 3A, makes the tested vapor control system compliant with the regulations. In addition, the word "considered" is a synonym for the word 'deemed." The Department, therefore, has not changed the word "deemed."

24. COMMENT: Three commenters requested that the Department delete the requirement at N.J.A.C. 7:27-16.3(i)2 that vapor recovery control systems be retested when the ambient air temperature is 80 degrees Fahrenheit or greater. The commenters stated that testing of vapor recovery control systems is performed all year round. In addition, the commenters felt that the 14-day window was sufficient for owner/operators to repair and retest their systems. The commenters also noted that many owners/operators prefer testing to be conducted in the fall and winter due to the surge of business in the spring and summer and because the facility must be shut down in order to conduct stage II testing.(7, 9,12)

RESPONSE: It appears to the Department that the commenters have confused the required pressure integrity testing in N.J.A.C. 7:27-16.3(i)1 and Table 3A, with the efficiency testing

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provision in N.J.A.C. 7:27-16.3(i)2. The efficiency testing provision in N.J.A.C. 7:27-16.3(i)2, which requires the testing to be performed at 80 degrees Fahrenheit or greater, is not the same type of testing as required by the static pressure performance test, the dynamic backpressure test, or the air to liquid volume ratio test. Unlike other tests, efficiency testing is not required on a periodic basis. It is only required at the request of the Department and in accordance with test procedures approved by the Department. This requirement is not new. It existed in the rules prior to the proposal (formally N.J.A.C. 7:27-16.3(i) 4, now N.J.A.C. 7:27-16.3(i)2). The Department, however, has decided to delete the temperature requirement for efficiency testing. As discussed previously, efficiency testing is conducted in accordance with test procedures approved by the Department at the time the Department requests such testing be performed. As a result, it is no longer necessary to include the temperature requirement in the rule.

25. COMMENT: Three commenters requested clarification on the CARB Executive Order that should be referenced for the parameters and procedures for testing balance type stage II vapor recovery systems. (7,9,12)

RESPONSE: When testing a balance stage II vapor recovery system, the testing company should use the executive order that was referenced at the time the system was installed. This should be the same executive order that was referenced to test the system immediately following installation, and the same executive order that was referenced to test the system upon permit renewal, if required in the permit. If it is not possible to obtain the executive order used during installation (for example in the case of a grandfathered site), the testing company should follow the test methods using the executive order that matches the equipment at the site. The CARB executive orders can be found on the web at http://www.arb.ca.gov/vapor/eo-PhaseII.htm. If the test method, or executive order is unclear, the testing professional should contact the Department for guidance.

26. COMMENT: One commenter requested that the Department delete the phrase "including all subsequent revisions thereto," in N.J.A.C. 7:27-16.3(i)1, Table 3A. The commenter stated that it is impossible to agree to conditions that have yet to be developed. In addition, the commenter argued that all of CARB's future actions would be geared toward CARB's Enhanced Vapor Recovery System. According to the commenter, no one can assume that these future actions would be applicable to pre-EVR systems. (13)

RESPONSE: The Department has decided to incorporate by reference certain CARB test procedures. These procedures are set forth in N.J.A.C. 7:27-16.3(i)1, Table 3A. In order to ensure that these provisions remain consistent with any subsequent revisions made by CARB, the Department has also decided to incorporate by reference all subsequent revisions to these provisions. New Jersey law permits the Department to incorporate future provisions by reference because commenters have the opportunity to submit comments regarding such future provisions

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at the time they are proposed. In this case, commenters can submit comments to CARB at the time they propose changes to provisions that will be subsequently incorporated by reference into the Department's rules. Should CARB undertake an action in the future which is inconsistent with the Department's program, the Department will address such action in a future rulemaking.

27. COMMENT: Three commenters requested clarification on the testing methods required to comply with N.J.A.C. 7:27-16.3, Table 3A. The commenters wanted to know whether these testing requirements will be tied to the General Permit GP-004 "Storage and Transfer of Service Station Fuels at Gasoline Dispensing Facilities." In addition, the commenters questioned whether the amendments require testing to be performed on an annual basis or once every five years prior to renewal of the General Permit. The commenters also requested clarification on when such testing should be performed, that is, according to the anniversary of the previous test date or 90 days prior to the renewal of the permit in the fifth year. (7, 9,12)

RESPONSE: The existing General Permit requires Blockage and Pressure Drop tests to be conducted within 90 days of installation of a vapor recovery system or within 90 days prior to renewal of the General Permit. In addition to Pressure Drop (Static Pressure Performance Test) and Blockage (Dynamic Backpressure Performance Test (DBPT)) tests, the adopted rule at N.J.A.C. 7:27-16.3, Table 3A, requires a Pressure Vacuum Valve Test and an Air to Liquid Volume Ratio Test. The adopted rule at N.J.A.C. 7:27-16.3, Table 3A, (with the exception of DBPT) requires that testing be conducted within 90 days from the date of installation of the system and at least once in every 12-month period thereafter. The Department decided to require testing (with the exception of DBPT) once in every 12-month period in order to provide flexibility and to prevent stations having to be tested at the same time. The adopted rule requires DBPT once in every 36 months. The Department plans to revise the General Permit to reflect the above testing schedule.

28. COMMENT: Three commenters stated that there are many different pressure/vacuum valves and valve settings and requested that the Department clarify what pressure/vacuum valve setting is to be used. (7, 9,12)

RESPONSE: CARB has determined that the appropriate setting for these valves, based on normal operating conditions, are as follows: for pressure relief a positive pressure setting of 3.0 plus or minus 0.5 inches of water column and for vacuum relief a negative pressure setting of 8.0 plus or minus 2.0 inches of water column. More detailed specifications for these valves will be included in the revised "General Permit for the Storage and Transfer of Service Station fuels at Gasoline Dispensing Facilities."

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

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

29. COMMENT: A number of commenters expressed concerns regarding the Department's requirements in N.J.A.C. 7:27-16.3(t), 7:27-16.4(o) and 7:27-16.16(g) for the installation of total hydrocarbon continuous emissions monitors (THC) on thermal oxidizers. They claimed that installation of THCs, are costly, and not justified by the small amount (if any) of VOC emissions reductions that would result compared to the existing monitoring requirements. In addition, a number of these commenters expressed concern that, although discussed in the Summary, the Department did not address these provisions in the Economic, Environmental or Job impacts analyses. As a result, the commenters requested that Department delete all references to the installation of THCs. (2, 6, 8, 10, 14, 16)

RESPONSE: Based on the comments received, the Department has decided not to adopt the proposed revisions of monitoring requirements at N.J.A.C. 7:27-16.3(t), 7:27-16.4(o) and 7:27-16.16(g). The Department inadvertently did not propose the THCs for all thermal oxidizer provisions in the rule, notably missing section N.J.A.C. 7:27-16.7(n). The Department, therefore, is not proceeding, at this time with the requirement for replacement of all affected monitors with THCs. The Department, however, believes that THC monitoring is superior to carbon monoxide monitoring. The Department, therefore, intends to reconsider these provisions and may propose them in a future rulemaking. At that time, the Department will address the economic, environmental and jobs impacts of such provisions. The Department would like to emphasize, that the requirement in N.J.A.C. 7:27-16.16 (g) for maintenance of production records sufficient to demonstrate whether the process generates VOCs within the design parameters of the thermal oxidizer continues as an existing requirement in the rule. With regard to the use of THCs, the Department will continue to follow the procedures below:

1. Newly installed thermal oxidizers emitting VOCs that are subject to continuous emission monitors will be required to install THCs pursuant to N.J.A.C. 7:27-8.13(d)2. This is the current practice.
2. Existing sources, upon renewal of their operating certificate, will be evaluated by the regional air enforcement field staff for possible replacement of carbon monoxide monitors with THCs, as provided under N.J.A.C. 7:27-8.7 (f).

30. COMMENT: Two commenters stated that the carbon monoxide continuous emission monitors (CEM) that are currently required are very effective and work well. One commenter said that the proposed changes would have no impact on VOC emissions and argued that the actual emissions would stay unchanged while only the method of monitoring would change. (8,16)

31. COMMENT: Two commenters stated that the Department's requirements in N.J.A.C. 7:27-

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16.3(t), 7:27-16.4(o) and 7:27-16.16(g), for the installation of total hydrocarbon continuous emissions monitors, are inconsistent with the existing requirements for oxidizers in other sections such as N.J.A.C. 7:27-16.7. (8,16)

32. COMMENT: Two commenters expressed concerns about the Department's requirements in N.J.A.C. 7:27-16.3(t), 7:27-16.4(o) and 7:27-16.16(g) for the installation of total hydrocarbon continuous emissions monitors. They stated that THMs are not effective on sources that emit high boiling, semi-volatile hydrocarbons such as plasticizers. The commenters added that they are concerned of condensation of such compounds in the stack sampling train would give unreliable and inaccurate results. (8, 16)

33. COMMENT: Two commenters expressed concerns about the Department's requirements in N.J.A.C. 7:27-16.3(t), 7:27-16.4(o) and 7:27-16.16(g) for the installation of total hydrocarbon continuous emissions monitors (THCs) and the Department's handling of permits if the proposed amendments are adopted. Another commenter expressed concerns that THCs are not able to indicate compliance with the VOC destruction efficiency requirement of permit. The commenter added that THCs are technically incapable of establishing compliance with existing permit limits. (8, 16)

34. COMMENT: Two commenters requested that the Department revise the proposed language in sections N.J.A.C. 7:27-16.2(t)2, 16.4(o)2 and 16.16(g)2. One of the commenters suggested that this language be revised to require records be kept of "total hydrocarbon" emissions, rather than "carbon monoxide" emissions, as is currently required. The commenter also suggested that a facility be allowed to continue to record carbon monoxide concentrations, instead of total hydrocarbons until two years after the operative date of the amendments, if the facility's oxidizer was installed prior to the operative date of the amendments and has not been modified after the operative date of the amendments. The second commenter suggested that the Department incorporate monitoring alternatives, based on the size or design of the thermal device, into the proposed language to mitigate the impact of the new monitoring requirement. (2,10)

RESPONSE TO COMMENTS 30 to 34: The Department will consider all of these comments further, prior to proposing revisions to THCs in N.J.A.C.7:27-16.3(t), 7:27-16.4(o) and 7:27-16.16(g)in the future. See the Response to Comment 29.

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

35. COMMENT: Two commenters requested that the Department revise the proposed language in section N.J.A.C. 7:27-16.6 (j) regarding cold cleaning machines designed to contain more than two gallons of VOC and heated cleaning machines. One of the commenters requested that the Department change the triggering requirements for cold cleaning machines from "two gallons" to

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"10 gallons." The other commenter stated that "two gallons" should be based on the actual VOC fraction of the solvent used. (4,17)

RESPONSE: The Department selected the "two gallons" trigger in order to be consistent with other states, such as Pennsylvania. In addition, the Department has modified the proposed requirement on adoption to change the reference to "machine design" to "solvent usage." As discussed in the proposal Summary, the Department intended for the solvent cleaning operations provisions to be consistent with the OTC model rule and the Federal MACT rule. These rules refer to solvent usage not the design of the machine. In preparing its response to comments, the Department became aware of its erroneous reference to the design of the machine. The Department did not intend to use "design" as the parameter for this provision. Rather, the Department intended to require cold cleaning machines that use two or more gallons of solvent to comply with the rule. As a result, the Department is amending this requirement on adoption to eliminate the reference to "machine design" and replace it with "solvent usage." Finally, the Department has incorporated into this provision the language from the definition of "cold cleaning machine" referring to the VOC content of the solvent. This is being done to make clear the types of machines subject to this rule.

36. COMMENT: One commenter stated that the proposed language in section N.J.A.C. 7:27-16.6 (j)1i(1) omits an important aspect of the Ozone Transfer Commission's (OTC) model rule pertaining to "freeboard ratio" and would require a significant expenditure to retrofit many machines without a clear indication of the environmental benefit. The commenter requested that the Department revise the proposed language as follows:

1. "A freeboard ratio of 0.75 or greater, unless the machines are equipped with covers that are kept closed except when parts are being removed into or being removed from the machine"; or
2. " A freeboard ratio of 0.75 or greater, or a freeboard height not less than five inches when machines are equipped with covers that are kept closed except when parts are being placed into or being removed from the machine"; or
3. A freeboard ratio of 0.25. (4)

RESPONSE : The 0.75 freeboard ratio is consistent with the Federal Maximum Achievable Control Technology (MACT) requirements for cold and heated machines. In addition, having 0.75 freeboard ratio will result in the generation of lower emission rates during active cleaning processes. New Jersey is in non-attainment for ground level ozone and must reduce the emissions of VOC, one of the precursors of ground level ozone, in every possible way. Therefore, the Department is not reducing the proposed freeboard ratio or making the other suggested revisions.

37. COMMENT : One commenter stated that the proposed language in N.J.A.C. 7:27-16.6 (j)1iii(1) requires machines to have "working mode covers." The rule further clarifies that a

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perforated drain with a diameter not more than six inches constitutes an acceptable cover for a remote reservoir cold cleaning machine. The commenter requested that the Department revise the proposed language in N.J.A.C. 7:27-16.6(j)1iii(1) to make the requirements apply to multi-use machines. (4)

RESPONSE: The adopted language is consistent with the Federal Maximum Achievable Control Technology (MACT) requirements for cold and heated cleaning machines. The Department believes that the commenter's description of the multi-use machine is a machine that functions in one mode as a remote-reservoir cleaning machine and in a second mode operates as an immersion cleaning machine. The regulations require that if the perforated drain is removed, the machine must have a tightly-fitting working-mode cover. As proposed, the requirements already apply to multi-use machines.

38. COMMENT: One commenter requested that the Department revise N.J.A.C. 7:27-16.6 (m)1ii(1) to change the requirement regarding colorimetric detector tubes. The proposed language requires that the concentration of solvent in the exhaust of the carbon adsorber be measured weekly using a colorimetric detector tube designed to measure concentration of 100 parts per million. The commenter recommended that the Department require use of colorimetric detector tubes designed to measure concentrations up to 150 parts per million. (5)

RESPONSE: The adopted language is consistent with the Federal Maximum Achievable Control Technology (MACT) requirements for airless cleaning machines or air-tight cleaning machines. Therefore, the Department does not see a benefit in changing the adopting language as suggested by the commenter

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

39. COMMENT: One commenter requested the Department revise N.J.A.C. 7:27-16.12 (c), Table 12A, to change the emission limits for automotive primer-surfacer to 580 grams/liter and for automotive topcoat, 3-4-stage basecoat/clearcoat to 630 grams/liter. The commenter recommended these changes in order to make the rules consistent with the Federal National Auto Refinishing rules, 40 CFR 59, Subpart B. (5)

RESPONSE: The Department agrees with the commenter. In preparing its response to comments, the Department realized that it had made a mathematical error when converting lb/gallon to g/ltr. As a result, the limit for automotive primer-surfacer should have been 580, instead of 575, and for automotive top coat, 3-4 stage basecoat/clearcoat it should have been 630, instead of 625. The Department has modified the rule text on adoption accordingly.

40. COMMENT: One commenter requested that the Department revise N.J.A.C. 7:27-16.12(d). The commenter noted that New Jersey only provides one method to determine the VOC content

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of coatings. In contrast, the Federal National Auto Refinishing rules, 40 CFR 59, Subpart B, allows the use of additional methods. The commenter recommended that the Department include these additional methods as methods for determining compliance with N.J.A.C. 7:27-16.12. (5)

RESPONSE: The Department agrees with the commenter. As discussed in the proposal Summary, the Department intended for the VOC limits for coatings used in repair and refinishing operations to be consistent with the Federal limits and test methods for mobile equipment refinishing materials. The Department has modified the rule text at N.J.A.C. 7:27-16.12 (d)3 on adoption to clarify that all of the Federal test methods may be used to demonstrate compliance with the VOC limits.

41. COMMENT: One commenter stated that proposed N.J.A.C. 7:27-16.12(j) exempts certain applications from provisions N.J.A.C. 7:27-16.12 (g), (h) and (i). The commenter recommended that applications listed in (j)1 and 3 not be exempt from (h) and (i). The commenter noted that these provisions contain "good house keeping" provisions. As a result, all operations would benefit from such practices. The commenter also suggested that the Department not exempt the application of automotive touch up repair and refinishing materials from (g), if such materials are applied using spray guns. (5)

RESPONSE: While the Department believes that "good housekeeping" is important, the Department would also like to be consistent with other states' requirements in the Ozone Transport Commission at the time and further evaluate the commenter's suggestions in the context of regional air pollution control strategies. The Department may propose these suggested changes in a future rulemaking.

42. COMMENT: One commenter noted that proposed N.J.A.C. 7:27-16.12 (g) requires the use of certain spray gun cleaning equipment. The commenter recommended that the Department require training/instruction in the proper use of this cleaning equipment.(5)

RESPONSE: The Department agrees with the commenter that training/ instruction in the proper use of spray gun cleaning equipment is important. The Department may consider adding such a provision in a future rulemaking.

Summary of Agency- Initiated Changes:

In addition to the changes in response to comments explained above, the Department is making clarifying changes to the following provisions:

At N.J.A.C. 7:27-16.7(a)2, the Department has amended the language as follows: "On or after the date (which is one year after the operative date of these rules) any **[**recoating**]** **refinishing** of mobile equipment at mobile equipment repair and refinishing facilities. **Thereafter,** such [recoating and] refinishing operations shall [thereafter] be subject to the requirement at

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N.J.A.C. 7:27-16.12 **, and the refinishing requirements in N.J.A.C.7:27-16.7, Table 7A, shall no longer be applicable.**" The Department has replaced the term "recoating" with the synonymous term "refinishing." The term "refinishing" is defined in the rules, whereas the term "recoating" is not. These amendments have been made in order to clarify the rule.

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 standards analysis.

The Department has performed a comparison of the adopted new rule and amendments to N.J.A.C. 7:27-16, Control and Prohibition 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 the USEPA 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 the USEPA as being needed for New Jersey to attain the one-hour ozone standard by the mandated attainment dates. Therefore, adoption 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 adoption of the new rule and amendments do not exceed these Federal standards. Specifically, the adoption of the 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 adoption of the 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 do not exceed these Federal standards. Accordingly, Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L.1995, c.65), do not require a Federal Standards Analysis.

Full text of the adoption follows (additions to proposal indicated in boldface ***thus***; deletions from proposed indicated in brackets with asterisks ***[thus]***):

CHAPTER 27
AIR POLLUTION CONTROL

Subchapter 16. CONTROL AND PROHIBITION OF AIR POLLUTION BY VOLATILE

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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.

"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.

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"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^{o} 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.

"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.

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"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.

"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.

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. . .

"Custom topcoating" 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° C, or temperatures consistently below 0° C or solvents, detergents, abrasives or scouring agents; or corrosive atmospheres or fluids.

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

. . .

"Freeboard height" means, with respect to a solvent cleaning machine, the vertical distance 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.

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"Freeboard ratio" means, with respect to a solvent cleaning machine, a ratio of the machine's freeboard height to the width of its tank (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.

"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

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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° 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 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.

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. . .

"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" 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 (°F) (37.8 degrees Celsius (°C)) as measured by "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

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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.

. . .

"Standard conditions" means 70 degrees Fahrenheit (°F) (21.1 degrees Celcius (°C)) 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.

. . .

"Temporary operating certificate" means 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.

. . .

"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 general purposes of this subchapter are as follows:

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1. To require any stationary source operation or group of source operations located at a facility**[** to:

   i. Utilize**]****utilize* reasonably available control technology (RACT) to control VOC emissions. ***[**EPA defines**]*** RACT ***[**to mean**]******is***the lowest emission limitation that a particular source is capable of meeting by the application of air pollution control technology ***and/or pollution prevention measures*** which ***[**is**]*** ***are*** 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 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 Stationary storage tanks

(a) The provisions 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 that has a maximum capacity of 2,000 gallons (7,570 liters) or greater and is exposed to the rays of the sun unless**:**

   i. The external surface of the tank is painted and maintained white, except that this provision shall not apply to words and logograms applied to the external surface of 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;

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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.)

TABLE 2A
(No change.)

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

(f) The provisions of (b) above shall not apply to 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.

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

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1. The transfer is made**:**

   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

   ii. 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 before December 17, 1979.

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

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

   i. A vapor control system that:

      (1) Reduces the total applicable VOC emissions into the outdoor atmosphere by no less than 98 percent of the concentration of applicable VOC by volume in the air-vapor mixture displaced during the transfer of gasoline; and

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

   ii. A floating roof; and

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

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

1. The transfer is made using a vapor control system that is approved by the Department and that:
   i. Reduces the total applicable VOC emissions into the outdoor atmosphere by no less than 95 percent of the concentration of applicable VOC by volume in the air-vapor mixture displaced during the transfer of gasoline;

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and

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 ***or approval letter*** 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)**]* *June 29, 2003***, and for which a construction permit was issued by the Department after ***[**(the operative date of these amendments)**]* *June 29, 2003***, each dispensing device at a gasoline dispensing facility which dispenses more than one grade of gasoline shall utilize a unihose system for dispensing gasoline;***and***

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

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(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:

1. The provisions of (e) above shall not apply to the transfer of gasoline into a vehicular fuel tank at a gasoline dispensing facility 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)**]* *June 29, 2003***, the facility does not have any stationary storage tanks which are subject to the requirements of (d) above;***and***

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)**]* * June 29, 2005***, if construction of the dispensing device commenced prior to ***[**(the operative date of these amendments)**]* *June 29,**

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2003*; or a permit for the construction of the dispensing device was issued by the Department prior to ***[**(the operative date of these amendments); and**]*** ***June 29, 2003.***

[**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).**]

(g) For the purposes of (f)1iv above or (h) below, the average monthly throughput of a gasoline dispensing facility shall be an average of the facility's monthly throughputs between September 1, 1986, and August 31, 1987, or during 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

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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:

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

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:

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(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)

Please note: The Department has made every effort to ensure that this text is identical to the official legally effective version of this rule, set forth in the New Jersey Register. However, should there be any discrepancies between this text and the official version of the rule, the official version will prevail.

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**]* *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

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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

(j) No person shall cause, suffer, allow, or permit a delivery vessel 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:

1. The delivery vessel sustains a pressure change of less than three inches of water (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);

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

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

4. A record of certification is kept with the delivery vessel at all times and made available upon request by the Department. The record of certification shall include the name and address of the delivery vessel owner; 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.

(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 (d), 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 six inches of water (11 millimeters of mercury) gauge.

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(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.

(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

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

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

(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

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gasoline vapors is not installed and operating as designed; or

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

(p) A delivery vessel subject to the provisions of (j) above that is found to be in violation of (l) or (o) above shall be:

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

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

(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 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;

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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.

(t) The owner or operator of a gasoline loading facility 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 VOCs, 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. For a vapor control system using carbon or other adsorptive material, record the concentration of the total applicable VOCs 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.)

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(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 VOCs, 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.)

7:27-16.6 Open top tanks and 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)***]**** ***June 29, 2004**** ; 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)***]**** ***June 29, 2004****.

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

1. The tank is covered by a lid which protects the VOC vapors from drafts and

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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, that uses ***[**if it designed to contain more than**]*** ***that uses*** two gallons ***[**of**]*** ***or more of solvents containing greater than five percent*** VOC ***content by weight for the cleaning of metal parts***, 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

   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;

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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;

   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

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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:

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

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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;

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;

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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
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.

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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.

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.

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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.
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.

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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;

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

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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

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

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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

(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:

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(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.
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:

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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;

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;

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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:

(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

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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

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**

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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**
1.20	**368**
1.25	**377**
1.30	**386**
1.35	**395**
1.40	**404**

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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**
2.55	**579**
2.60	**585**
2.65	**592**
2.70	**599**

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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;

   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

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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.

(n) (No change in text.)

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 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)**]*** ***June 29, 2004*** , any ***[**recoating**]*** ***** **refinishing*** of mobile equipment at mobile equipment repair and refinishing facilities. ***[**Such recoating and**]*** ***Thereafter, such** refinishing operations shall ***[**thereafter**]*** be subject to the requirements at N.J.A.C. 7:27-16.12 ***and the refinishing requirements in Table 7A shall no longer be applicable***; and

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

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

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

Please note: The Department has made every effort to ensure that this text is identical to the official legally effective version of this rule, set forth in the New Jersey Register. However, should there be any discrepancies between this text and the official version of the rule, the official version will prevail.

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

Please note: The Department has made every effort to ensure that this text is identical to the official legally effective version of this rule, set forth in the New Jersey Register. However, should there be any discrepancies between this text and the official version of the rule, the official version will prevail.

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

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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
Glass Coating	3.0	0.36	December 31, 1987
Coating of Wood Furniture			December 31, 1987
Semitransparent stain	6.8	0.82	
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			
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.)

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

1.- 3**.** (No change.)

4. The on-site coating of 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 at N.J.A.C. 7:27-23.

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

7:27-16.12 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)**]* *June 29, 2004*** 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

	Limit

Please note: The Department has made every effort to ensure that this text is identical to the official legally effective version of this rule, set forth in the New Jersey Register. However, should there be any discrepancies between this text and the official version of the rule, the official version will prevail.

Coating Type	Pounds per gallon	Grams per liter
Automotive pretreatment	6.5	780
Automotive primer-surfacer	4.8	*[575]* ***580***
Automotive primer-sealer	4.6	550
Automotive topcoat:		
Single stage-topcoat	5.0	600
2 stage basecoat/clearcoat	5.0	600
3 or 4-stage basecoat/clearcoat	5.2	*[625]* ***630***
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;

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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

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 ***[.]* * ; and***

***3. To determine the composition of a coating in order to perform the calculations above, the reference method for VOC content is Method 24 of appendix A of 40**

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CFR part 60 except as provided in paragraph 3.i below. To determine the VOC content of a coating, the regulated entity may use Method 24 of appendix A of 40 CFR part 60, an alternative method as provided in paragraph 3.ii below, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content the Method 24 test results will govern. The Department may require the regulated entity to conduct a Method 24 analysis.

i. The Department may approve, on a case-by-case basis, a regulated entity's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings, if the alternative method is demonstrated to the satisfaction of the Department and the USEPA, to provide results that are acceptable for purposes of determining compliance with this subchapter.

ii. The USEPA Test Method 24, which is located in 40 CFR, Chapter I, Part 60, Appendix A-7, and any subsequent changes, is incorporated by reference herein. This test method can be downloaded from the following website: http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr60a_00.html."*

(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;

4. Brush coating;

5. Cotton-tipped swab application;

6. Electrodeposition coating;

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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;
    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

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(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.

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

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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 VOCs, 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.

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

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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(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(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(m)	Transfer of Gasoline (Delivery)	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3 (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 (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 (f)1i	Release of VOC	$600	$1,200	$3,000 [3]	$9,000 [3]
N.J.A.C. 7:27-16.3 (f)1ii	Overfill and Spillage	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.3 (g) 2	Records Availability	$500	$1,000	$2,500	$7,500
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) 3 or (i) 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 (n)1	Leak	$600	$1,200	$3,000	$9,000
N.J.A.C. 7:27-16.3 (n)2	Component	$800	$1,600	$4,000	$12,000
N.J.A.C. 7:27-16.3 (n)3	Spill	$2,000	$4,000	$10,000	$30,000
N.J.A.C. 7:27-16.3(k)	Vapor-Tight Delivery Vessel (Gasoline)	$600	$1,200	$3,000	$9,000

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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(o)(1)	Recertify	$200	$400	$1,000	$3,000
. . .					
N.J.A.C. 7:27-16.6(b)	Tank Lids	$500	$1,000	$2,500	$7,500 [3]
N.J.A.C. 7:27-16.6 (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(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(e)	Heated Tank	$1,000	$2,000	$5,000	$15,000
N.J.A.C. 7:27-16.6(f)	Vapor Surface Cleaner	$1,500	$3,000	$7,500	$22,500 [3]
N.J.A.C. 7:27-16.6(g)	Unheated Conveyorized Surface Cleaner	$1,000	$2,000	$5,000 [3]	$15,000 [3]
N.J.A.C. 7:27-16.6(h)	Heated Conveyorized Surface Cleaner	$1,500	$3,000	$7,500 [3]	$22,500 [3]
N.J.A.C. 7:27-16.6(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(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]
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]]
. . .					
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

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17. - 31. (No change.)

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