

PART Env-Wm 1404 VOLATILE ORGANIC COMPOUNDS (VOCs): GASOLINE DISPENSING FACILITIES, BULK GASOLINE PLANTS, AND CARGO TRUCKS

Statutory Authority: RSA 125-C:4, I(a), RSA 125-C:6, II, XIV, RSA 125-C:11, I, RSA 125-C:12, IV

REVISION NOTE:

Document #5446, effective 8-17-92, adopted a new rule numbered as Part Env-A 1205. The existing rules Env-A 1205, 1206, 1207, 1208, and 1209 were renumbered by Document #5446 as, respectively, Env-A 1206, 1207, 1208, 1209, and 1210. The texts of these 5 rules now numbered as Env-A 1206 through Env-A 1210 were not part of Document #5446, and the effective dates of these 5 rules were therefore not changed by Document #5446. Thus Document #5446 does not supersede prior filings for the 5 rules now numbered as Env-A 1206 through Env-A 1210.

Subsequent filings affecting Env-A 1205 are:

#6188, effective 2-22-96, EXPIRED 2-22-04  
#8048, INTERIM, effective 2-25-04  
#8141, effective 8-21-04

Document #8141 readopted with amendments and renumbered Env-A 1205 as Env-Wm 1404. Document #8141 supersedes all prior filings for Env-A 1205.

Env-Wm 1404.01 Purpose. The purpose of this part is to regulate emissions of volatile organic compounds (VOCs) from gasoline storage tanks, gasoline dispensing facilities, bulk gasoline plants, and cargo trucks in accordance with sections 182(b)(3) and 184 of the Clean Air Act, as amended.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.02 Scope. This part shall apply to certain gasoline storage tanks, gasoline dispensing facilities, bulk gasoline plants, and cargo trucks.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.03 Definitions.

(a) “Air contaminant” means “air contaminant” as defined in RSA 125-C:2, II, namely “soot, cinders, ashes, any dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.”

(b) “Annual” means a time period from January 1 of a calendar year through December 31 of the same year.

(c) “Applicant” means a person who requests a permit or other form of license.

(d) “Assist system” means a type of stage II system which uses a vacuum pump to assist the transfer of displaced vapors from a motor vehicle gasoline tank into a gasoline storage tank at a gasoline dispensing facility.

(e) “Balance system” means a type of stage II system which relies on a tight seal between the nozzle and the vehicle fill port which causes the displacement and transfer of vapors from a motor vehicle fuel tank into a gasoline storage tank.

(f) “Bulk gasoline plant” means a gasoline storage and distribution facility with a daily throughput of less than 76,000 liters (20,000 gallons) which receives gasoline from bulk terminals by cargo truck, stores gasoline in tanks, and subsequently dispenses gasoline via cargo trucks to local farms, businesses, and gasoline dispensing facilities.

- (g) “Bulk terminal” means a gasoline storage and distribution facility with a daily throughput of greater than 76,000 liters (20,000 gallons) and subsequently dispenses gasoline via cargo truck to a bulk gasoline plant.
- (h) “Cargo truck” means any motor vehicle designed for transporting or delivering gasoline.
- (i) “Certified vapor recovery system” means a vapor recovery system configured and operated as specified in Env-Wm 1404.37.
- (j) “Coaxial system” means a type of stage I system which consists of a tube within a tube. The fill tube, which is submerged in the gasoline storage tank, delivers the gasoline through the inner tube. The vapors from the gasoline storage tank are returned via the interstice surrounding the fill tube. A single coupling services both the gasoline and vapor recovery hoses.
- (k) “Emission” means “emission” as defined in RSA 125-C:2, VIII, namely “a release into the outdoor air of air contaminants.”
- (l) “Fleet facility” means a gasoline dispensing facility servicing vehicles owned or operated as a unit such as a rental car agency.
- (m) “Gasoline” means motor fuel containing any petroleum distillate where the Reid vapor pressure of the fuel is greater than 4.0 pounds per square inch (psi).
- (n) “Gasoline dispensing facility” means any stationary facility which dispenses gasoline directly into the fuel tank of a motor vehicle, motorized water vessel, or airplane.
- (o) “Leak free” means a system where no more than 3 drops per minute of gasoline is leaked while the system is pressurized.
- (p) “Lower explosive limit (LEL)” means the lowest concentration of a gas or vapor percentage by volume in air that burns or explodes if an ignition source is present at ambient temperature.
- (q) “Manifold” means the interconnection of gasoline storage tanks via a tank vent piping system at a gasoline dispensing facility.
- (r) “Motor vehicle” means an on-road vehicle powered by an internal combustion engine.
- (s) “Onboard refueling vapor recovery (ORVR)” means a vapor recovery system, required by 40 CFR 86, located within a motor vehicle which collects the vapors accumulated in the fuel tank during refueling, as well as new fuel vapors generated during the refueling process, before the fuel vapors escape into the atmosphere.
- (t) “ORVR compatible” means a stage II system designed for use with both ORVR and non-ORVR equipped vehicles.
- (u) “Owner or operator” means “owner or operator” as defined in 40 CFR §51.100, namely “any person who owns, leases, operates, controls, or supervises a facility, building, structure, or installation which directly or indirectly result or may result in emissions of any air pollutant for which a national standard is in effect.”
- (v) “Poppeted dry break” means a stage I coupling equipped with a poppet valve preventing vapors in a gasoline storage tank from escaping when a vapor return hose is not connected.
- (w) “Pressure/Vacuum (PV) vent cap” means a relief valve installed on a stage I or stage II system and designed to open at specific pressure and vacuum settings to protect the system from excessive pressure or vacuum.
- (x) “Reid vapor pressure” means the absolute vapor pressure as determined by the American Society for Testing and Materials (ASTM), test method D323-99a.

(y) “Responsible official” means “responsible official” as defined in 40 CFR §70.2, namely “one of the following:

(1) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

- a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
- b. The delegation of authority to such representatives is approved in advance by the permitting authority;

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(3) For a municipality, State, Federal, or other public agency, either a principal executive officer or ranking elected official. For the purposes of this part [definition], a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected sources:

- a. The responsible official in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated there under are concerned; and
- b. The responsible official for any other purposes under [40 CFR] part 70.”

(z) “Significant modification” means any construction or alteration of a stage I or stage II system other than normal upkeep or maintenance.

(aa) “Stage I” or “stage I system” means one of the following:

- (1) For gasoline dispensing facilities and cargo trucks delivering gasoline to the facilities, the stage I equipment installed such that gasoline vapors displaced from the gasoline storage tank are recovered and fed back into the cargo truck during gasoline delivery; or
- (2) For bulk gasoline plants and cargo trucks transferring gasoline at the plants, a closed system that allows for the recovery of vapors displaced during the loading or unloading of gasoline at the plant.

(ab) “Stage I equipment” means all components in a stage I system including but not limited to dry breaks, two-point fill adaptors, coaxial fill adaptors, PV vent caps, vent piping, manifold piping, and gasoline storage tanks on which the stage I controls are located.

(ac) “Stage II” or “stage II system” means the stage I and the stage II equipment installed at a gasoline dispensing facility such that gasoline vapors displaced from a motor vehicle fuel tank are recovered into the facility’s gasoline storage tank during refueling of the motor vehicle as configured and operated as specified in Env-Wm 1401.37.

(ad) “Stage II equipment” means all components and connections in a stage II system including but not limited to vapor return piping, coaxial hoses through which the vapor flows, gasoline nozzles, vapor pumps, and gasoline dispensers, as applicable.

(ae) “Submerged fill tube” means a tube used to load or deliver gasoline into a gasoline storage tank with a gasoline discharge which is totally submerged during the gasoline delivery to avoid agitation of the gasoline.

(af) “Swivel adaptor” means a device mounted on the fill riser pipe and vapor return riser of a gasoline storage tank, which prevents loosening or over-tightening of the adaptor by means of a swivel-type mechanism.

(ag) “Test tee fitting” means a branched connection located in the vapor return piping below the dispenser for purposes of testing the vapor return piping.

(ah) “Throughput” means the amount of gasoline dispensed by a gasoline dispensing facility or bulk gasoline plant.

(ai) “Topping off” means attempting to dispense additional gasoline into a motor vehicle fuel tank after a vapor recovery dispensing nozzle has automatically shut off, thereby preventing the dispensing of any more gasoline. This term does not include the filling of a motor vehicle fuel tank where the nature and configuration of the vehicles fill pipe causes the premature shut off of the dispensing nozzle.

(aj) “Two-point system” means a type of stage I system which uses a vapor return connection at the gasoline storage tank or at the manifold that is independent of the fill connection. Separate connections are made for both the gasoline and vapor recovery hoses. This is also known as a “dual-point system.”

(ak) “Ullage” means the empty volume of the gasoline storage tank system containing liquid gasoline. For vapor recovery systems, ullage is expressed as accumulated gallons of empty volume for all of the gasoline storage tanks in a certified vapor recovery system.

(al) “Vapor tight” means equipment or a system where there is no loss of vapors, as determined by ensuring that the concentration of vapors at a potential leak source is not equal to or greater than 100 percent of the LEL when measured with a combustible gas detector, calibrated with hexane or equivalent, at a distance of one inch from the [Source](#).

[Source](#). (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env-Wm 1404.04 Submerged Fill Tube Requirements.

(a) The owner or operator of a gasoline storage tank with a capacity equal to or greater than 250 gallons shall:

- (1) Equip the tank with a submerged fill tube;
- (2) Install the submerged fill tube with a clearance of 6 inches between the bottom of the tank and the bottom of the submerged fill tube; and
- (3) Utilize a submerged fill tube to fill the tank.

[Source](#). (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env-Wm 1404.05 Applicability of Stage I Requirements For Gasoline Dispensing Facilities and Bulk Gasoline Plants.

(a) The owner or operator of a gasoline storage tank at either a gasoline dispensing facility or a bulk gasoline plant shall comply with the stage I requirements of Env-Wm 1404.05 through Env-Wm 1404.16 if:

- (1) The tank has a capacity equal to or greater than 1,100 gallons of gasoline; or
- (2) The total annual throughput of the facility or plant is equal to or greater than 120,000 gallons of gasoline per year.

(b) Once a facility or plant meets the applicability criteria specified in (a)(2), above, the owner or operator shall be subject to the stage I requirements even if a reduction in annual throughput occurs which would otherwise exempt the owner or operator from these requirements.

(c) For a gasoline dispensing facility, if the owner or operator is subject to both (a), above, and Env-Wm 1404.17, below, then the owner or operator shall comply with the requirements specified in Env-Wm 1404.17 through Env-Wm 1404.28.

(d) The owner or operator of a cargo truck which delivers to a gasoline dispensing facility or bulk gasoline plant shall comply with the stage requirements of Env-Wm 1404.29 through Env-Wm 1404.35 if the cargo truck:

(1) Delivers gasoline to any gasoline dispensing facility or bulk gasoline plant which meets one of the applicability criteria for stage I as stated in Env-Wm 1404.05; or

(2) Receives gasoline from a bulk gasoline plant which meets the applicability criteria for stage I as stated in Env-Wm 1404.05.

(e) For a cargo truck receiving gasoline from a bulk gasoline loading terminal as defined in Env-A 1204.03(k), the owner or operator shall comply with the vapor recovery requirements in Env-A 1204.40.

(f) Stage I controls shall be installed to collect vapors during the delivery of gasoline to the storage tank at airports and marinas meeting the applicability requirements in (a), above.

(g) Within 3 years of the effective date of these rules, the owner or operator of a bulk terminal or a bulk gasoline plant shall comply with stage I requirements in accordance with Env-Wm 1404.05.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env-Wm 1404.06 Stage I Physical Requirements.

(a) The owner or operator of a gasoline storage tank subject to Env-Wm 1404.05 at a gasoline dispensing facility or a bulk gasoline plant shall:

(1) Install, maintain, and operate a stage I system that is a certified vapor recovery system or a department approved alternative as specified in Env-Wm 1404.36;

(2) Operate a stage I system to recover at least 95% of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher;

(3) Label each PV vent cap with the cap's rated pressure and vacuum relief setting;

(4) Position the label specified in (3), above, so that it is visible from ground level;

(5) Equip a stage I system with a submerged fill tube as specified in Env-Wm 1404.04;

(6) Equip each vent pipe on an underground or aboveground gasoline storage tank with a PV vent cap;

(7) For a two-point system:

a. Install a poppetted dry break on the vapor return connection; and

b. Equip the poppetted dry break with a properly sealed adaptor cap attached at all times, except when gasoline is being delivered; and

(8) Install a fill adaptor cap with a properly sealed gasket attached at all times, except when gasoline is being delivered, on the stage I system.

(b) Unless otherwise specified for a certified vapor recovery system, the owner or operator shall install PV vent caps on an underground gasoline storage tank as follows:

- (1) For pressure, 13.8 inches water column pressure (8.0 oz/in<sup>2</sup>); and
  - (2) For vacuum, 0.9 inches water column vacuum (0.5 oz/in<sup>2</sup>).
- (c) Any failed fill adaptor shall be replaced with a swivel adaptor.
- (d) Unless otherwise specified for a certified vapor recovery system, the owner or operator shall install PV vent caps on an aboveground gasoline storage tank as follows:

- (1) For pressure, the lower of the following two values:
  - a. A pressure setting of 10% of the maximum allowable working pressure of the tank; or
  - b. A pressure setting of 13.9 inches water column pressure (8.0 oz/in<sup>2</sup>); and
- (2) For vacuum, 3.0 inches water column vacuum (1.7 oz/in<sup>2</sup>).

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.07 Stage I Maintenance Requirements. The owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant subject to Env-Wm 1404.05 shall:

- (a) Maintain and properly operate stage I equipment as specified by the manufacturer or Env-Wm 1404;
- (b) Maintain stage I equipment, except PV vent caps, to be leak free and vapor tight;
- (c) Conduct monthly maintenance inspections of all stage I equipment at the facility or plant as specified in Env-Wm 1404.08; and
- (d) Conduct an annual maintenance inspection of all stage I equipment at the facility or plant as specified in Env-Wm 1404.09.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.08 Stage I Monthly Maintenance Inspections.

- (a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or bulk gasoline plant subject to Env-Wm 1404.05 shall perform monthly maintenance inspections.
- (b) During a monthly maintenance inspection, the owner or operator shall:
  - (1) Check all vent risers for visible damage and repair as necessary;
  - (2) Check each PV vent cap and if the cap is missing or damaged, replace the cap;
  - (3) Remove and discard, in accordance with Env-Wm 1404.10(c) and Env-Ws 421, any gasoline, water, or debris present in each spill bucket as specified in Env-Wm 1401.25;
  - (4) Check each coaxial fill adaptor cap, two-point fill adaptor cap, and dry break adaptor cap for the presence of a gasket and tightness of fit;
  - (5) If any coaxial fill adaptor cap, two-point fill adaptor cap, or dry break adaptor cap can be easily rotated by hand when in place or if a gasket is missing or damaged, repair or replace the cap or gasket;
  - (6) Check each coaxial fill adaptor, two-point fill adaptor, and dry break adaptor for tightness and tighten with a wrench any adaptor that can be hand rotated; and

(7) For a two-point system:

- a. Check that the dry break adaptor gasket on the poppet valve of the dry break adaptor makes a continuous seal with the adaptor's valve seat and if a continuous seal is not present, repair or replace the dry break adaptor; and
- b. Check that the poppet valve depresses evenly across the valve seat of the dry break adaptor and that it reseats properly and if not, repair or replace the dry break.

(c) The owner or operator shall document each monthly maintenance inspection, including all findings and repairs made, with records kept in accordance with Env-Wm 1404.15.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.09 Stage I Yearly Maintenance Inspection.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant subject to Env-Wm 1404.05 shall perform a yearly maintenance inspection:

- (1) No later than September 30 of each calendar year; and
- (2) At least 10 months between each inspection.

(b) During the yearly maintenance inspection, the owner or operator shall:

- (1) Perform all items specified in Env-Wm 1404.08(b), above;
- (2) With the exception of swivel adaptors, remove all adaptors from their riser pipes, apply gasoline resistant thread sealant to cleaned threads, thread the adaptors back onto the riser pipe, and tighten in accordance with the manufacturer's recommendations;
- (3) Replace or permanently plug each drain valve located in each spill bucket;
- (4) Verify that adaptor caps and dust covers are not in contact with overlying access covers; and
- (5) Measure the distance between the tank bottom and the submerged fill tube end to confirm compliance with Env-Wm 1404.04(a)(2) and if necessary, modify the submerged fill tube.

(c) The owner or operator shall document each annual maintenance inspection, including all findings and repairs made, with records kept in accordance with Env-Wm 1404.15.

(d) If a stage I test is successfully performed in accordance with Env-Wm 1404.11 and Env-Wm 1404.12 within the calendar year for which a yearly maintenance inspection is due, then the department shall not require the owner or operator to comply with requirements of this section.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.10 Stage I Operational Requirements.

(a) No person shall transfer or allow the transfer of gasoline into a gasoline storage tank at a gasoline dispensing facility or into or out of a bulk gasoline plant subject to Env-Wm 1404.05 unless the facility or plant is operating with a stage I system or department approved alternative, as specified in Env-Wm 1404.36.

(b) No person shall deliberately or negligently vent any captured vapors to the atmosphere.

(c) No person shall deliberately or negligently mishandle gasoline such that it would result in evaporation into the atmosphere, including but not limited to spilling, discarding into a sewer, or storing in an open container.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.11 Stage I Testing Requirements.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or bulk gasoline plant subject to Env-Wm 1404.05, but not subject to Env-Wm 1404.17, shall perform stage I testing within 30 days of:

- (1) Failing to perform 2 monthly maintenance inspections, as specified in Env-Wm 1404.08, in any given calendar year;
- (2) Failing to perform the yearly maintenance inspection by September 30 as specified in Env-Wm 1404.09; or
- (3) The stage I system is not functioning as designed.

(b) The owner or operator of a facility or plant which does not successfully pass all of the criteria during a stage I test shall:

- (1) Perform a successful stage I retest within 30 days of the test failure; and
- (2) Retest only those portions of the original test which failed the applicable criteria if the modifications performed to repair the facility or plant have not altered the portion of the system which passed the original test.

(c) The owner or responsible official of each facility or plant being tested or retested shall notify the department in writing:

- (1) No later than 15 days prior to performing the test of the planned test date, test time, and if applicable, the testing consultant being used; and
- (2) Within 15 days of the completion of each test performed, as to the specific test results, and if a test failed, the specific actions to be taken to correct the problem and the next planned test time and date.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.12 Stage I Testing Procedures.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or bulk gasoline plant shall verify that stage I test procedures consist of the following:

- (1) A PV vent cap test for pressure and vacuum as specified in (b), (c), and (d), below;
- (2) A pressure decay test as specified in (e) and (f), below; and
- (3) A submerged fill tube measurement as specified in (g), below.

(b) The owner or operator shall conduct a PV vent cap test for pressure and vacuum:

- (1) That remotely subjects the PV vent cap to the pressure or vacuum setting of the PV vent cap;
- (2) Uses testing apparatus that has a gauge capable of reading to 0.5 inches water column pressure and vacuum to measure the pressure or vacuum being imposed on each PV vent cap;
- (3) For a pressure test, measures the point at which the PV vent cap opens and starts to vent the pressure; and



(4) For a vacuum test, measures the point at which the PV vent cap opens to draw air into the valve.

(c) The PV vent cap shall pass the pressure and vacuum tests specified in (b), above, if:

(1) The pressure relief point determined in (b)(3), above, occurs within 2.0 inches above or below the PV vent cap setting; and

(2) The vacuum relief point determined in (b)(4), above, occurs within 0.5 inches above or below the PV vent cap setting.

(d) If the PV vent cap fails either the pressure or vacuum test as specified in (b) and (c), above, the owner or operator shall replace the PV vent cap with a PV vent cap that passes both the pressure and vacuum tests.

(e) Following the PV vent cap test specified in (b), (c), and (d), above, the owner or operator shall perform a pressure decay test on the gasoline storage tank system in accordance with California Air Resources Board (CARB) Vapor Recovery Test Procedure, TP-201.3, as amended March 17, 1999, except as listed in (f), below.

(f) The owner or operator shall perform the pressure decay test required in (e), above:

(1) At 10 inches water column pressure; and

(2) With the minimum allowable final pressure after the system has been pressurized to 10 inches water column and held for 5 minutes as specified in table 1404-1, below:

Table 1404-1 Minimum Allowable Pressure

Ullage (gallons)	Minimum Allowable Pressure (inches water column)	Ullage (gallons)	Minimum Allowable Pressure (inches water column)
500	3.70	5,000	9.30
600	4.50	6,000	9.38
700	5.20	7,000	9.46
800	5.80	8,000	9.52
900	6.20	9,000	9.56
1,000	6.50	10,000	9.60
1,250	7.05	11,000	9.62
1,500	7.50	12,000	9.64
1,750	7.90	13,000	9.66
2,000	8.20	14,000	9.68
2,250	8.35	15,000	9.70
2,500	8.50	16,000	9.71
2,750	8.60	17,000	9.71
3,000	8.70	18,000	9.72
3,250	8.80	19,000	9.73
3,500	8.90	20,000	9.73
3,750	9.00	21,000	9.74
4,000	9.10	22,000	9.75
4,250	9.15	23,000	9.75
4,500	9.20	24,000	9.76
4,750	9.25	25,000	9.77

(g) The owner or operator shall install and document that the submerged fill tube distance between the tank bottom and the submerged fill tube end meets the requirements of Env-Wm 1404.04.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.13 Stage I Notification Requirements.

(a) The owner or operator of a gasoline storage tank subject to Env-Wm 1404.05 at a gasoline dispensing facility or bulk gasoline plant shall submit a Form Env-Wm 1404-A, "Stage I Vapor Recovery Notification" to the department pursuant to the following:

- (1) At least 30 days prior to any construction, installation, or significant modification involving a stage I system;
- (2) Within 10 days after a change of any of the items specified in Env-Wm 1404.14; and
- (3) At least 10 days prior to a change in usage from gasoline to non-gasoline or non-gasoline to gasoline.

(b) The department shall inform such owner or operator within 30 days of receipt if the notification does not sufficiently include the information required in Env-Wm 1404.14, below.

(c) If the department is not able to determine the effectiveness or design of the equipment or system being constructed, installed, or significantly modified, the department shall request additional information in order to make such determination.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.14 Form Env-Wm 1404-A, Stage I Vapor Recovery Notification.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant, only subject to Env-Wm 1404.05, shall complete and submit to the department a Form Env-Wm 1404-A, "Stage I Vapor Recovery Notification", including the following information:

(1) Regarding the facility or plant, the facility or plant's:

- a. Name;
- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. Site number;

(2) Regarding each owner of the facility or plant, the owner's:

- a. Name;
- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. E-mail address;

(3) Regarding a contact person responsible for the stage I system at the facility or plant, the contact person's:

- a. Name;
- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. E-mail address;

(4) A description of stage I equipment, including but not limited to, the two-point or coaxial stage I system and if there is a two-point system, specify whether the dry break adaptor is located on the manifold or on the tank;

(5) The number of gasoline storage tanks and the grade of gasoline in each tank; and

(6) The date when construction, installation, or significant modification of the facility or plant occurred.

(b) The owner or responsible official shall verify:

(1) The form is signed and dated; and

(2) The form is certified by the individual's signature that the information on the form is true and correct to the best of the individual's knowledge and belief, subject to the penalty for making unsworn false statements under RSA 641:3.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.15 Stage I Recordkeeping and Reporting Requirements.

(a) The owner or operator of a gasoline storage tank subject to Env-Wm 1404.05 at a gasoline dispensing facility or a bulk gasoline plant shall maintain on site current Env-Wm 1404 rules and provide to the department upon request the following:

(1) All records of installation;

(2) Bulk liquid receipts;

(3) All information pertinent to equipment failures, repairs, and maintenance;

(4) A record of each monthly maintenance inspection as specified in Env-Wm 1404.08 with a description of all repair work completed on the stage I system;

(5) A record of each annual maintenance inspection as specified in Env-Wm 1404.09 with a description of all repair work completed on the stage I system; and

(6) A copy of all stage I vapor recovery notification forms as specified in Env-Wm 1404.14 submitted to the department.

(b) The owner or operator of a gasoline storage tank subject to Env-Wm 1404.05 at a gasoline dispensing facility or a bulk gasoline plant shall maintain on site the manual entitled, "New Hampshire Department of Environmental Services Gasoline Vapor Recovery Test Procedures and Inspection Manual."

(c) The owner or operator shall retain indefinitely all records of installation.

(d) The owner or operator shall retain for 3 years the records required to be kept by (a)(3), (a)(4), (a)(5), (a)(6), and (a)(7), above.

(e) With the exception of facilities equipped with a stage II system, by April 30 of each year, the owner or operator of a gasoline storage tank subject to Env-Wm 1404.05 at a gasoline dispensing facility in Hillsborough, Merrimack, Rockingham, or Strafford county shall submit to the department facility throughput information for the previous calendar year.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.16 Compliance Schedule for Stage I Systems.

(a) The owner or operator of an existing gasoline dispensing facility or bulk gasoline plant shall meet the applicable stage I requirements of Env-Wm 1404.05.

(b) When the annual throughput of the facility is equal to or greater than 120,000 gallons of gasoline per year is attained, the owner or operator of an existing gasoline dispensing facility or bulk gasoline plant shall comply with the requirements of Env-Wm 1404.05 through Env-Wm 1404.16 within 180 days from the date the facility becomes subject to this part.

(c) The owner or operator of the following facility or plant shall comply with the requirements of Env-Wm 1404.05 through Env-Wm 1404.16 upon commencement of operation:

- (1) Each new gasoline dispensing facility or bulk gasoline plant which begin operation after the effective date of this part and are subject to Env-Wm 1404.05; and
- (2) Each existing facility subject to Env-Wm 1404.05 undergoing tank and piping significant modifications.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.17 Applicability of Stage II Requirements.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility shall comply with the stage II requirements of Env-Wm 1404.18 through Env-Wm 1404.28 if the facility:

- (1) Meets the applicability criteria in Env-Wm 1404.05 for a stage I system;
- (2) Is located in Hillsborough, Merrimack, Rockingham, or Strafford county; and
- (3) Meets one of the following criteria:
  - a. The facility has an annual throughput for any year which is equal to or greater than 420,000 gallons; or
  - b. The facility was constructed after November 15, 1990, regardless of the amount of throughput.

(b) Once a facility meets the applicability criteria in (a)(3)a. or (a)(3)b., above, the owner or operator shall be subject to the stage II requirements even if a reduction in annual throughput occurs which would otherwise exempt the owner or operator from these requirements.

(c) The owner or operator of a facility servicing only motorized water vessels, airplanes, or agricultural equipment shall be exempt from this part.

(d) The owner or operator of a fleet facility subject to (a), above, shall be exempt from the requirements of this part if the owner or operator can demonstrate to the department that 90% of the vehicles in the fleet are equipped with ORVR. The owner or operator of a fleet facility claiming this exemption shall submit an annual report to the department demonstrating that the fleet continues to meet this criterion.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.18 Stage II Physical Requirements.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall:

- (1) Install, maintain, and operate a stage II system that is a certified vapor recovery system or a department approved alternative as specified in Env-Wm 1404.36;
- (2) Operate a stage II system to recover at least 95% of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher;
- (3) Use a two-point system at all assist system facilities;
- (4) Label each PV vent cap with the cap's rated pressure and vacuum relief settings;
- (5) Position the label specified in (4), above, so that it is visible from ground level;
- (6) Equip a stage II system with a submerged fill tube as specified in Env-Wm 1404.04; and
- (7) Equip each vent pipe on an underground or aboveground gasoline storage tank with a PV vent cap.

(b) Unless otherwise specified for a certified vapor recovery system, the owner or operator shall install a stage II system with a PV vent cap setting as follows:

- (1) For pressure, 3.0 inches water column pressure (1.7 oz/in<sup>2</sup>); and
- (2) For vacuum, 8.0 inches water column vacuum (4.6 oz/in<sup>2</sup>).

(c) Prior to performing the dynamic back pressure test, the owner or operator of each stage II facility, which is required to perform a dynamic back pressure test, shall permanently install a test tee fitting at each dispenser. The test tee fitting shall be equipped with a plug securely threaded into the branch connection and is easily accessible to allow for testing of the vapor return piping.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.19 Stage II Maintenance Requirements.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall:

- (1) Maintain and properly operate stage II equipment, as specified by the manufacturer or by the department;
- (2) With the exception of PV vent caps, stage II equipment shall be leak free, vapor tight, and operate properly;
- (3) Conduct monthly maintenance inspections of all stage II equipment at the facility as specified in Env-Wm 1404.20;
- (4) Conduct an annual maintenance inspection of all stage II equipment at the facility as specified in Env-Wm 1404.21;
- (5) Tag any gasoline dispenser nozzle as "Out of Order" if the nozzle is connected to a stage II system not operating as specified in Env-Wm 1404.37; and
- (6) For a balance system, perform the following maintenance routine once per day of facility operation:
  - a. Remove each nozzle from its dispenser holder;

- b. Extend the hose to create a straight section of sloping hose section between the high point of the hose and the nozzle;
- c. Pull back the nozzle bellows to open the nozzle vapor valve; and
- d. Drain all residual liquid gasoline out of the vapor portion of the nozzle and hose into a container approved for gasoline storage.

(b) No person shall use or permit the use of equipment marked “Out of Order” until it has been repaired, replaced, or adjusted, as necessary.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.20 Stage II Monthly Maintenance Inspections.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall perform monthly maintenance inspections.

(b) During a monthly maintenance inspection, the owner or operator shall:

- (1) Check all vent risers for visible damage and repair as necessary;
- (2) Check each PV vent cap and if the cap is missing or damaged, replace the cap;
- (3) Remove and discard, in accordance with Env-Wm 1404.22(c) and Env-Ws 421, any gasoline, water, and debris present in each spill bucket as specified in Env-Wm 1401.25;
- (4) Check each coaxial fill adaptor cap, two-point fill adaptor cap, and dry break adaptor cap for the presence of a gasket and tightness of fit;
- (5) If any coaxial fill adaptor cap, two-point fill adaptor cap, or dry break adaptor cap can be easily rotated by hand when in place or if the gasket is missing or damaged, replace or repair the cap or gasket;
- (6) Check each coaxial fill adaptor, two-point fill adaptor, and dry break adaptor for tightness and if either adaptor can be hand rotated, tighten with a wrench;
- (7) For a two-point system:
  - a. Check that the dry break adaptor gasket on the poppet valve of the dry break adaptor makes a continuous seal with the valve seat of the adaptor and if a continuous seal is not present, repair or replace the dry break adaptor; and
  - b. Check that the poppet valve depresses evenly across the valve seat and that it reseats properly and if not, repair or replace the dry break;
- (8) For a balance system:
  - a. Check each hose in and around each dispenser for tears, leaks, holes, or defects of any kind and replace any hoses containing any tear longer than a half inch or any hole greater than a quarter inch in diameter;
  - b. Check each nozzle bellow for tears, leaks, holes, or defects of any kind and replace any bellows containing any tear longer than a half inch or any hole greater than a quarter inch in diameter; and
  - c. Check each nozzle bellow’s faceplate for continuity with a minimum of 3 quarters of the bellows faceplate sealed against the vehicle fill pipe during fueling operation and replace any bellows faceplate not meeting that criterion; and
- (9) For an assist system:

- a. Check each hose for kinks or crimps and replace all defective sections;
- b. Check each nozzle spout for looseness and tighten or replace as necessary;
- c. Check each vapor return hole on the nozzle spout for blockage or obstruction and replace the nozzle or spout if the number of unobstructed holes does not meet the requirements for a specific stage II system; and
- d. If a splash or vapor guard is required, check each splash or vapor guard for integrity and replace if the guard is missing or damaged.

(c) The owner or operator shall document the monthly maintenance inspection, including all findings and repairs made, with records kept in accordance with Env-Wm 1404.26.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.21 Stage II Yearly Maintenance Inspection.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall perform a yearly maintenance inspection:

- (1) No later than September 30 of each calendar year; and
- (2) At least 10 months between each inspection.

(b) During the yearly maintenance inspection, the owner or operator shall:

- (1) Perform all items specified in Env-Wm 1404.20(b), above;
- (2) With the exception of swivel adaptors, remove all adaptors from their riser pipes, apply gasoline resistant thread sealant to cleaned threads, thread the adaptors back onto the riser pipe, and tighten in accordance with the manufacturer's recommendations;
- (3) Replace or permanently plug each drain valve located in each spill bucket;
- (4) Verify that adaptor caps and dust covers are not in contact with overlying access covers; and
- (5) Measure the distance between the tank bottom and the submerged fill tube end to confirm compliance with Env-Wm 1404.04(b) and if necessary, modify the submerged fill tube.

(c) The owner or operator shall document each yearly maintenance inspection, including all findings and repairs made, with records kept in accordance with Env-Wm 1404.26.

(d) The owner or operator may substitute a successful pressure decay test performed in accordance with Env-Wm 1404.24 within the calendar year for which the yearly maintenance is due for the yearly maintenance requirements of this section.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.22 Stage II Operational Requirements.

(a) No owner/operator shall transfer or allow the transfer of gasoline from a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.18 into a motor vehicle fuel tank unless the facility is operating with a stage II system or department approved alternative in accordance with Env-Wm 1404.36.

(b) No person shall deliberately or negligently vent any captured vapors to the atmosphere.

(c) No person shall deliberately or negligently mishandle gasoline such that it would result in evaporation into the atmosphere, including but not limited to spilling, discarding into a sewer, or storing in an open container.

(d) The owner or operator of a gasoline dispensing facility using a stage II system shall post in a conspicuous location in the gasoline dispensing area:

- (1) A warning that topping off is prohibited because it could result in spillage or return of gasoline into the gasoline storage tank; and
- (2) The department telephone number for reporting difficulties with stage II equipment and equipment malfunctions.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.23 Stage II Testing Requirements. The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall comply with the following testing requirements:

- (a) Test the stage II system as specified in Env-Wm 1404.24 at least once every 3 years.
- (b) Perform the stage II tests specified in Env-Wm 1404.24 at the following times:
  - (1) No later than 15 days after completion of installation of a new stage II system;
  - (2) No later than 15 days after completion of any significant modification to an existing stage II system;
  - (3) Within 90 days prior to the expiration date of any stage II permit issued in accordance with Env-Wm 1404.27; and
  - (4) No later than 30 days following an inspection by the department demonstrating that a facility does not meet the requirements of this section and the applicable stage II system or a department approved alternative in accordance with Env-Wm 1404.36.
- (c) Prior to any stage II testing, submit a completed notification form as specified in Env-Wm 1404.25.
- (d) Complete the following steps for any facility tested as required in (a) and (b), above, which does not successfully pass all of the criteria in the applicable vapor recovery tests:
  - (1) Perform a successful stage II retest within 30 days of the test failure; and
  - (2) Retest only those portions of the original test which failed the applicable criteria if the modifications performed to repair the facility or plant have not altered the portion of the system which passed the original test.
- (e) Comply with the following requirements:
  - (1) No later than 7 working department days prior to performing the test, notify the department by facsimile, letter, or e-mail of the planned test date, test time, and testing consultant being used, if applicable;
  - (2) Within 30 days of the completion of the test, notify the department by facsimile, letter, or e-mail of the specific test results and data collected during the testing; and
  - (3) The owner shall report to the department any test failure within 24 hours, unless the cause is immediately determined and corrected and the failure did not result in a release of vapors to the environment.



(f) Schedule testing to be conducted on non-holiday weekdays between the hours of 8:00 a.m. and 4:00 p.m., unless otherwise arranged with the department.

(g) Conduct tests with oversight by the department; otherwise, the test shall be invalid for purposes of fulfilling the requirements of (a) and (b), above. If the department is unable to witness the test, the department shall grant permission for the tester to proceed with the test.

(h) Conduct testing at facilities with complete stage II installations and where backfill, pavement, and concrete work around stage II equipment is completed; and

(i) Conduct testing at a facility only if all volumetric liquid gasoline measuring devices at each dispenser have been calibrated in accordance with the requirements of the bureau of weights and measures of the new hampshire department of agriculture, markets, and food.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.24 Stage II Testing Procedures.

(a) The owner or operator shall perform the following tests in accordance with the California Air Resources Vapor Board (CARB) Test Procedure TP 201.3 Pressure Decay dated March 17, 1999, TP 201.4 Dynamic Back pressure dated July 3, 2002, TP 201.5 Air to Liquid Ratio dated February 1, 2001 and Env-Wm 1404.37, or a department approved alternative as set forth in Env-Wm 1404.36:

(1) For a balance systems:

- a. The pressure decay test performed in accordance with TP 201.3; and
- b. The dynamic back pressure test performed in accordance with TP 201.4 on each nozzle;

(2) For bootless nozzle systems:

- a. The pressure decay test performed in accordance with TP 201.3;
- b. The dynamic back pressure test performed in accordance with TP 201.4 test tee fitting location described in Env-Wm 1404.18(c); and
- c. The air-to-liquid ratio (A/L) test performed in accordance with TP 201.5;

(3) For Healy Model 400 ORVR compatible booted nozzle system utilizing a central vacuum unit:

- a. The pressure decay test procedure performed in accordance with CARB executive order G-70-186 or G-70-187;
- b. The Healy vacuum integrity test; and
- c. The Healy fillneck vapor pressure regulation fueling test;

(4) For Healy Model 600 bootless or booted nozzle system and Healy Model 800 booted nozzle system with the Healy/Franklin VP 1000 vapor pump or equivalent shall undergo the testing specified below:

- a. The pressure decay test procedure performed in accordance with CARB G-70-191;
- b. The dynamic back pressure test at the test tee fitting location described in Env-Wm 1404.18(c); and
- c. The A/L test with a Healy A/L adaptor for booted nozzles performed in accordance with TP 201.5; and

(5) For Healy Model 600 bootless system utilizing a central vacuum unit:

- a. The pressure decay test procedure performed in accordance with CARB G-70-165;
- b. The Healy vacuum integrity test; and
- c. The A/L test performed in accordance with TP 201.5.

(b) The owner or operator or the person conducting the pressure decay test shall verify that there are no product deliveries into or out of the gasoline storage tank within the 3 hours prior to the test or during the performance of this test of the certified vapor recovery system being tested as in accordance with the California Environmental Protection Agency Air Resources Board Vapor Recovery Test Procedure TP-201.3 “Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities.”

(c) All A/L test equipment shall be calibrated once every 12 months as specified by the manufacturer or a department approved alternative in accordance with Env-Wm 1404.36.

(d) The owner or operator shall perform a submerged fill tube measurement on all gasoline storage tanks to confirm that the measured distance between the tank bottom and the submerged fill tube end meets the requirements of Env-Wm 1404.04 and if necessary, modify the submerged fill tube.

(e) The owner or operator shall perform the following changes to the test procedures listed in (a), above:

- (1) Testing shall be conducted once every 3 years;
- (2) The pressure decay tests shall be performed at 10 inches water column; and
- (3) The minimum allowable final pressure after the system has been pressurized to 10 inches water column and held for 5 minutes shall be as specified in table 1404-2, below:

Table 1404-2 Minimum Allowable Pressure

Ullage (gallons)	Minimum Allowable Pressure (inches water column)	Ullage (gallons)	Minimum Allowable Pressure (inches water column)
500	3.70	5,000	9.30
600	4.50	6,000	9.38
700	5.20	7,000	9.46
800	5.80	8,000	9.52
900	6.20	9,000	9.56
1,000	6.50	10,000	9.60
1,250	7.05	11,000	9.62
1,500	7.50	12,000	9.64
1,750	7.90	13,000	9.66
2,000	8.20	14,000	9.68
2,250	8.35	15,000	9.70
2,500	8.50	16,000	9.71
2,750	8.60	17,000	9.71
3,000	8.70	18,000	9.72
3,250	8.80	19,000	9.73
3,500	8.90	20,000	9.73
3,750	9.00	21,000	9.74
4,000	9.10	22,000	9.75
4,250	9.15	23,000	9.75
4,500	9.20	24,000	9.76
4,750	9.25	25,000	9.77

(f) The owner or operator shall verify that PV vent cap pressure and vacuum tests are performed as specified in (g) and (i), below.

(g) The owner or operator shall verify that each PV vent cap pressure test and vacuum test:

- (1) Remotely subjects the PV vent cap to the pressure or vacuum setting of the cap;
- (2) Uses testing apparatus that has a gauge capable of reading to 0.5 inches water column pressure and vacuum to measure the pressure or vacuum being imposed on each PV vent cap;
- (3) For a pressure test, measures the point at which the PV vent cap opens and starts to vent the pressure; and
- (4) For a vacuum test, measures the point at which the PV vent cap opens to draw air into the valve.

(h) The PV vent cap shall pass both the pressure and vacuum tests specified in (g), above, if:

- (1) The pressure relief point determined in (g)(3), above, occurs within 0.5 inches above or below the PV vent cap setting; or
- (2) The vacuum relief point determined in (g)(4), above, occurs within 2.0 inches above or below the PV vent cap setting.

(i) If the PV vent cap fails either the pressure or vacuum test as specified in (g) and (h), above, the owner or operator shall replace the PV vent cap with a cap that passes both the pressure and vacuum tests.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.25 Stage II Notification Requirements.

(a) The owner or operator of a gasoline dispensing facility, subject to Env-Wm 1404.17 shall notify the department on notification forms obtained from the department prior to each stage II vapor recovery test required in Env-Wm 1404.23(b)(1), (b)(2), and (b)(3).

(b) When a transfer of ownership of any gasoline dispensing facility subject to Env-Wm 1404.17 takes place, the new owner shall submit a notification form obtained from the department to the department within 10 days of the transfer.

(c) The department shall inform the owner or operator within 30 days of receipt if the notification form does not sufficiently include the information required in (d), below.

(d) The following information shall be submitted to the department:

(1) Regarding the facility, the facility or plant's:

- a. Name;
- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. Site number;

(2) Regarding each owner of the facility, the owner's:

- a. Name;

- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. Site number;

(3) Regarding a contact person responsible for the stage II system at the facility, the contact person's:

- a. Name;
- b. Physical address;
- c. Mailing address;
- d. Telephone number;
- e. Facsimile number; and
- f. Site number;

(4) A description of stage II equipment, including but not limited to, the type of system, either balance or assist, and the type of vapor assist, if applicable;

(5) Gasoline dispenser information, including but not limited to, the number of dispensers and number of nozzles at each dispenser;

(6) The number of gasoline storage tanks and the grade of gasoline in each tank; and

(7) The date when construction, installation, or significant modification of the facility occurred.

(e) The owner or responsible official shall:

(1) Sign and date the form; and

(2) Certify the form by the individual's signature that the information on the form is true and correct to the best of the individual's knowledge and belief, subject to the penalty for making unsworn false statements under RSA 641:3.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.26 Stage II Recordkeeping Requirements.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.17 shall maintain and provide to the department within 48 hours upon the request of the department the following records :

- (1) All records of installation;
- (2) Current Env-Wm 1404 rules;
- (3) Bulk liquid receipts;
- (4) All information pertinent to equipment failures, repairs, and maintenance;
- (5) A copy of the facility's current permit to operate, as specified in Env-Wm 1404.27, in a visible location;

(6) As applicable, each daily balance system maintenance performed as specified in Env-Wm 1404.19(a)(6);

(7) Each monthly maintenance inspection, as specified in Env-Wm 1404.20, with a description of all repair work completed on the vapor recovery system;

(8) Each annual maintenance inspection, as specified in Env-Wm 1404.21, or alternative as specified in Env-Wm 1404.21(d) with a description of all repair work completed on the vapor recovery system; and

(9) A copy of all stage II gasoline vapor recovery notification forms as specified in Env-Wm 1404.25 submitted to the department.

(b) The owner or operator shall retain records for the life of the system required to be kept by (a)(1), (a)(2), (a)(4), or (a)(8), above.

(c) The owner or operator shall retain for 3 years records required to be kept by (a)(3), (a)(5), (a)(6), (a)(7), or (a)(9), above.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env-Wm 1404.27 Approval to Operate.

(a) The owner or operator of a gasoline dispensing facility subject to Env-Wm 1404.17 shall have a valid permit to operate in accordance with Env-Wm 1401 and Env-Wm 1404.

(b) The owner of the stage II facility shall submit to the department the following:

(1) A completed stage II vapor recovery notification form; and

(2) The results of all required stage II tests in accordance with Env-Wm 1404.23(e)(2).

(c) The permit to operate shall be displayed in a prominent place easily visible for inspection at the facility.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env-Wm 1404.28 Compliance Schedule for Stage II Systems.

(a) The owner or operator of a gasoline dispensing facility subject to Env-Wm 1404.17(a)(3)a. shall comply with the requirements of Env-Wm 1404.17 through Env-Wm 1404.28 within one year from the date the facility becomes subject to the stage II applicability criteria.

(b) The owner or operator of a facility meeting the stage II applicability criteria specified in Env-Wm 1404.17(a)(3)b. shall be in compliance with the requirements of Env-Wm 1404.17 through Env-Wm 1404.28 prior to commencing operation.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

#### Env- Wm 1404.29 Physical Requirements for Cargo Trucks.

(a) The owner or operator of a cargo truck subject to Env-Wm 1404.05 shall:

(1) Install, maintain, and operate a stage I system that is a certified vapor recovery system or a department approved alternative as specified in Env-Wm 1404.36; and

(2) Operate a stage I system to recover at least 95% of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher. This standard shall apply to each cargo truck during each applicable gasoline delivery.

(b) The owner or operator shall install all hoses and equipment on the cargo truck to be compatible and properly connected during gasoline delivery to the equipment on the gasoline storage tank(s) at a gasoline dispensing facility subject to Env-Wm 1404.05 or Env-Wm 1404.17 or a bulk gasoline plant subject to Env-Wm 1404.05 using:

- (1) For a coaxial system, a separate coaxial coupling with one vapor return hose used for every fill hose in service;
- (2) For a two-point system where the tanks are manifolded, a minimum of one vapor return hose used for every 2 fill hoses in service; and
- (3) For a two-point system where the tanks are not manifolded, a separate vapor recovery connection at each tank being filled.

(c) During loading and unloading of gasoline at a gasoline terminal, the owner or operator of the cargo truck shall verify that the cargo truck has a back pressure that does not exceed:

- (1) A pressure setting of 18.0 inches water column pressure (10.4 oz/in<sup>2</sup>); or
- (2) A vacuum setting of 5.9 inches water column vacuum (3.4 oz/in<sup>2</sup>).

(d) If a cargo truck does not meet both of the criteria specified in (c), above, the owner or operator of the cargo truck shall repair and retest the truck within 15 days.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.30 Maintenance Requirements for Cargo Trucks. The owner or operator of a cargo truck subject to Env-Wm 1404.05 shall:

- (a) Maintain and properly operate stage I equipment as specified by the manufacturer; and
- (b) Maintain stage I equipment to be leak-free and vapor tight.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.31 Operational Requirements for Cargo Trucks.

(a) No person shall unload gasoline from a cargo truck to a gasoline storage tank at a gasoline dispensing facility subject to Env-Wm 1404.05 unless the owner or operator of the facility has installed a stage I system or department approved alternative, as specified in Env-Wm 1404.36.

(b) No person shall deliver gasoline to or receive gasoline from a bulk gasoline plant subject to Env-Wm 1404.05 unless the owner or operator of the plant and of the cargo truck has installed a stage I system or department approved alternative, as specified in Env-Wm 1404.36.

(c) No person shall deliberately or negligently vent any captured vapors to the atmosphere.

(d) No person shall deliberately or negligently mishandle gasoline such that it would result in evaporation into the atmosphere, including but not limited to spilling, discarding into a sewer, or storing in an open container.

(e) The owner or operator of a cargo truck shall securely fasten all hatches on a cargo truck and only open the hatches during measurement of gasoline level or maintenance activities.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.32 Testing Requirements for Cargo Trucks. The owner or operator of a cargo truck delivering to or receiving from a gasoline storage tank subject to Env-Wm 1404.05 shall conduct an annual certification test in accordance with 40 CFR §63.425(e).

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.33 Monitoring for Cargo Trucks. The department shall at any time monitor a cargo truck to confirm the existence of leak tight and vapor tight conditions.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.34 Treatment of Vapor Requirements for Cargo Trucks. The owner or operator of a cargo truck subject to Env-Wm 1404.05 shall dispose of the vapors at the bulk terminal by the vapor collection system and vapor destruction methods described in Env-A 1204.40(b)(3), (4) and (5).

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env- Wm 1404.35 Recordkeeping Requirements for Cargo Trucks.

(a) The owner or operator of a cargo truck subject to Env-Wm 1404.05 shall maintain in the cargo truck at all times and provide to the department upon request the following:

- (1) Documentation that the cargo truck has met the specifications of Env-Wm 1404.32 and Method 27 of 40 CFR 60, Appendix A, including all of the information required pursuant to 40 CFR §60.505;
- (2) Test results for both the pressure and vacuum tests as required by Env-Wm 1404.32; and
- (3) Proof of compliance and the date of all tests conducted in accordance with the stage I testing requirements for cargo trucks as stated in this part, which shall be displayed on the cargo truck.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.36 Waivers.

(a) An owner may request a waiver for any gasoline vapor recovery system, system component, or test method that is an alternative to which is specified by this part.

(b) The person seeking approval of the alternative shall submit in writing to the department the following information:

- (1) A description of the proposed alternative system, system component, or test method for which the requested waiver is being sought;
- (2) A description of the facility to which the waiver request relates, including the name, address, and registration number of the facility;
- (3) A specific reference to the section of the rule for which a waiver is being sought;
- (4) A full explanation of the alternatives for which a waiver is sought, with backup calculations and data for support; and
- (5) Technical data and information demonstrating that:
  - a. An alternative which will accomplish the same purpose as the specified system or system component or test method; and

b. An alternative which will result in at least 95% vapor recovery.

(c) Within 60 days of receipt of a complete submission that meets the requirements of (a), above, the department shall grant a waiver upon finding;

(1) The alternatives proposed are at least equivalent to the specific requirements contained in the rule; or

(2) If the alternatives proposed are not equivalent to the requirements contained in the rule, they are adequate to ensure that the intent of RSA 125-C and these rules is met.

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

Env-Wm 1404.37 Reference Standards. A vapor recovery system for an underground or aboveground gasoline storage tank certified for use shall be as set forth in table 1404-3, below.

Table 1404-3 Reference Standards

Executive Order Number	Description	Date
G – 70 – 2 – G	Modification of the Certification of the OPW Model A-7 2 Point Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	09/18/84
G – 70 – 4 – A	Modification of the Certification of the Emco-Wheaton Coaxial Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	08/23/77
G – 70 – 5	Modification of the Certification of the Parker Coaxial Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	05/06/93
G – 70 – 6	Modification of the Certification of the OPW System Y Type 2, Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	04/26/77
G – 70 – 7 – AD	Certification of the Hasstech Model VCP-2 and VCP 2A Phase II Vapor Recovery System	03/22/93
G – 70 – 8	Modification of the Certification of the Chevron Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	07/13/77
G – 70 – 9 – A	Modification of the Certification of the “Teed” Vapor Recovery System for Existing Underground Storage Tanks Facilities with Throughputs less than 9,000 Gallons per Month	11/18/77
G – 70 – 10 – A	Modification of the Certification of al Vapor Recovery System for Delivery Tanks Equipped for Bottom Loading	11/18/77
G – 70 – 14 – AA	Recertification of the Red Jacket Aspirator Assist Phase II Vapor Recovery System	02/28/83
G – 70 – 17 – AD	Modification of the Certification of the Emco Wheaton Balance Phase II Vapor Recovery System	05/06/93
G – 70 – 18 – C	Modification of the Certification of the Shell Model 75B1 and 75B1-R3 Service Station Phase II Vapor Recovery System	08/28/79
G – 70 – 20	Modification of the Certification of the Texaco Stage I Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	08/21/78
G – 70 – 23 – AC	Recertification of the Exxon Balance Phase II Vapor Recovery System	04/29/96
G – 70 – 25 – AA	Recertification of the Atlantic Richfield Balance Phase II Vapor Recovery System	02/08/83
G – 70 – 33 – AB	Certification of the Modified Hirt VCS-200 Vacuum Assist Phase II	03/09/84



	Vapor Recovery System	
G – 70 – 34 – A	Modification of the Certification of the Parker Hannifin F428 Vapor Recovery Adaptor for Military Delivery Tanks to Include the Parker Hannifin F428A	08/13/79
G – 70 – 36 – AD	Modification of the Certification of the OPW Balance Phase II Vapor Recovery System	09/18/92
G – 70 – 37 – B	Modification of the Certification of the Chevron Balance Phase II Vapor Recovery System with OPW Nozzles for Service Stations	01/22/80
G – 70 – 38 – AB	Recertification of the Texaco Balance Phase II Vapor Recovery System	12/19/90
G – 70 – 47 – B	Modification of the Certification of the OPW Coaxial Vapor Recovery System for Underground Storage Tanks at Gasoline Service Stations	09/18/84
G – 70 – 48 – AA	Recertification of the Mobile Oil Balance Phase II Vapor Recovery System	02/08/83
G – 70 – 49 – AA	Recertification of the Union Balance Phase II Vapor Recovery System	02/08/83
G – 70 – 50	Certification of the Vapor Recovery Kit for M857, M967, M969, and M970 Military Delivery Tanks	12/05/79
G – 70 – 52 – AM	Certification of the Components for Red Jacket, Hirt, and Bala2nce Phase II Vapor Recovery System	10/04/91
G – 70 – 53 – AA	Recertification of the Chevron Balance Phase II Vapor Recovery System	02/08/83
G – 70 – 70 – AC	Certification of the Healy Phase II Vapor Recovery System for Service Stations	06/23/92
G – 70 – 77	Certification of the OPW Repair/Replacement Parts and Modification of the Certification of the OPW Balance Phase II Vapor Recovery System	09/15/82
G – 70 – 78	Certification of the E-Z Flo Nozzle Company Rebuilt Vapor Recovery Nozzles and Vapor Recovery Components	05/20/83
G – 70 – 97 – A	Stage I Vapor Recovery Systems for Underground Gasoline Tanks at Service Stations	12/09/85
G – 70 – 101 – B	Recertification of the E-Z Flo Model 3006 and 3007 Vapor Recovery Nozzles and Use of E-Z Flo Components with OPW Models 11VC and 11VE Vapor Recovery Nozzles	11/15/85
G – 70 – 102 – A	Certification of a Phase I Vapor Recovery System for Aboveground Storage Tanks with less than 40,000 Gallons Capacity for Gasoline or Gasoline/Methanol Blended Fuels	05/25/93
G – 70 – 106	Adoption of “Test Procedure Gasoline Cargo Tanks” as an Equivalent Method for the Year-round Performance Standards for Gasoline Cargo Tanks	01/27/86
G – 70 – 107	Certification of the rainbow Petroleum Products Model RA3003, RA3005, RA3006, and RA3007 Vapor Recovery Nozzles and Vapor Recovery Components	05/15/86
G – 70 – 110	Certification of the Stage I and Stage II Vapor Recovery Systems for Methanol Fueling Facilities	01/20/87
G – 70 – 116 – F	ConVault Aboveground Tank Vapor Recovery System	11/30/95
G – 70 – 118 – AB	Certification of the Amoco V-1 Vapor Recovery System	03/31/95
G – 70 – 125 – AA	Modification of the Certification of the Husky Model V Phase II Vapor Recovery Nozzle	03/16/93
G – 70 – 127	Certification of the OPW Model 111-V Phase II Vapor Recovery Nozzle	08/16/90
G – 70 – 128	Bryant Fuel Cell Aboveground Tank Vapor Recovery System	08/27/90
G – 70 – 130 – A	Petrovault Aboveground Tank Vapor Recovery System	02/26/93
G – 70 – 131 – A	Tank Vault Aboveground Tank Vapor Recovery System	03/17/92

G – 70 – 132 – A	Supervault Aboveground Tank Vapor Recovery System	10/16/90
G – 70 – 132 – B	Supervault Aboveground Tank Vapor Recovery System	05/16/95
G – 70 – 134	Certification of the EZ Flo Rebuilt A-4000 Series and 11V-Series Vapor Recovery Nozzle	12/21/90
G – 70 – 136	FireSafe Aboveground Tank Vapor Recovery System	04/15/91
G – 70 – 137	FuelSafe Aboveground Tank Vapor Recovery System	10/4/91
G – 70 – 139	Addition to the Certification of the Hirt Model VCS-200 Phase II Vapor Recovery System	03/17/92
G – 70 – 140 – A	Integral Phase I and II Aboveground Configurations with the Healy Phase II Vapor Recovery System	07/1/92
G – 70 – 142 – B	Phase I Vapor Recovery System for Aboveground Gasoline Storage Tanks	09/09/94
G – 70 – 143	P/T Vault Aboveground Tank Vapor Recovery System	08/07/92
G – 70 – 147 – A	Certification of the New United Motors Manufacturing, Incorporated Phase II Vapor Recovery System at the Fremont, California Assembly Plant	07/11/96
G – 70 – 148 – A	Lube Cube Aboveground Tank Vapor Recovery System	05/04/95
G – 70 – 150 – AE	Modification to the Certification of the Marconi Commerce Systems Inc. (MCS) “Formerly Gilbarco” VaporVac Phase II Vapor Recovery System	07/12/00
G – 70 – 152	Moiser Brothers Tanks and Manufacturing Aboveground Tank Vapor Recovery System	10/31/93
G – 70 – 153 – AD	Modification to the Certification of the Dresser/Wayne WayneVac Phase II Vapor Recovery System	04/30/00
G – 70 – 154 – AA	Modification to the Certification of Tokheim MaxVac Phase II Vapor Recovery System	06/10/97
G – 70 – 155	Petroleum Marketing Aboveground Tank Vapor Recovery System	03/12/94
G – 70 – 156	Ecovault Aboveground Tank Vacuum Assist Vapor Recovery System	05/23/94
G – 70 – 157	Ecovault Aboveground Tank Balance Vapor Recovery System	05/23/94
G – 70 – 158 – A	Firesafe Aboveground Tank Vapor Recovery System	05/24/95
G – 70 – 159 – AB	Modification to the Certification of the Saber Nozzle for Use with the Gilbarco VaporVac Phase II Vapor Recovery System	07/17/95
G – 70 – 160	Above Ground Tank Vault Vapor Recovery System	11/09/94
G – 70 – 161	Hoover Containment Systems, Incorporated Fuelmaster Aboveground Tank Vapor Recovery System	11/30/94
G – 70 – 162 – A	Steel Tank Institute Fireguard Aboveground Tank Vapor Recovery System	02/15/95
G – 70 – 163 – AA	Certification of the OPW VaporEZ Phase II Vapor Recovery System	09/04/96
G – 70 – 164 – AA	Modification to the Certification of the Hasstech VCP-3A Vacuum Assist Phase II Vapor Recovery System	12/10/96
G – 70 – 165	Healy Vacuum Assist Phase II Vapor Recovery System	04/20/95
G – 70 – 167	EnviroVault Aboveground Tank Vapor Recovery System	01/09/96
G – 70 – 168	Bryant Fuel Systems Phase I Vapor Recovery System	10/15/95
G – 70 – 169 – AA	Modification to the Certification of the Franklin Electric INTELLIVAC Phase II Vapor Recovery System	08/11/97
G – 70 – 170	Certification of the EZ-flo Rebuilt 5005 and 5015 Nozzles for use with the Balance Phase II Vapor Recovery System	02/22/96
G – 70 – 175	Hasstech VCP-3A Vacuum Assist Phase II Vapor Recovery System for Aboveground Tank Systems	04/18/96
G – 70 – 177 – AA	Modification to the Certification of the Hirt VCS400-7 Vacuum Assist Phase II Vapor Recovery System	06/22/00
G – 70 – 179	Certification of the Catlow ICVN-V1 Vacuum Assist Phase II Vapor Recovery System	07/02/97

G – 70 – 180	Order Revoking Certification of Healy Phase II Vapor Recovery Systems for Gasoline Dispensing Facilities	04/17/97
G – 70 – 183 – AA	Language Correction in Existing Executive Order G-70-183 (Healy/Franklin System)	06/29/01
G – 70 – 186	Certification of the Healy Model 400 ORVR Vapor Recovery System	10/26/98
G – 70 – 187	Healy Model 400 ORVR Vapor Recovery System for Aboveground Tank Systems	09/13/99
G – 70 – 188	Certification of the Catlow ICVN Vapor Recovery Nozzle System for use with the Gilbarco VaporVac Vapor Recovery System	05/18/99
G – 70 – 190	Guardian Containment, Corporation Armor Cast Aboveground Tank Vapor Recovery System	10/08/99
G – 70 – 191 – AA	Language Correction in Existing Executive Order G-70-191 (Healy Model 600 ORVR/800)	07/30/01
G – 70 – 192	Certification of the Healy Model 400 ORVR Vapor Recovery System for Aboveground Tank Systems	11/24/99
G – 70 – 193	Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems	12/09/99
G – 70 – 194	Containment Solutions Hoover Vault Aboveground Tank Vapor Recovery System	05/11/00
G – 70 – 195	Cretex Companies, Inc FuelVault Aboveground Tank Vapor Recovery System	03/31/00
G – 70 – 196	Certification of the Saber Technologies, LLC SaberVac VR Phase II Vapor Recovery System	12/30/00
G – 70 – 197	Synchrotek Fastflo 3 Phase II Vapor Recovery System	06/25/01
G – 70 – 198	Continued Use of Vapor Recovery Systems for which Certification is Terminated by the Adoption of New Standards	06/04/01
G – 70 – 199 – AH	Certification of the Gasoline Dispensing Nozzles to the Liquid Retention of 350 milliliters per 1,000 Gallons Dispensed	01/23/02
G – 70 – 200	Oldcastle Aboveground Below – Grade Fuel Vault with Balance Vapor Recovery System and Buried Vapor Return Piping	04/22/02
G – 70 – 201	Oldcastle Aboveground Below – Grade Fuel Vault with Balance Vapor Recovery System and Trenched Vapor Return Piping	04/22/02
G – 70 – 202	Oldcastle Aboveground Below – Grade Fuel Vault with Gilbarco VaporVac Phase II Recovery System and Trenched Vapor Return Piping	04/22/02
VR – 101 – B	Phil-Tite Phase I Enhanced Vapor Recovery System with Ball Float Overfill Prevention	07/12/02
VR – 102 – A	OPW Phase I Vapor Recovery System	10/10/02

Source. (See Revision Note at part heading for Env-Wm 1404) #8141, eff 8-21-04

**APPENDIX**

<b>RULE</b>	<b>STATUTE(S)</b>	<b>FEDERAL REGULATIONS IMPLEMENTED</b>
Env-Wm 1403.05(b)(13)	RSA 485:16-a	
Env-Wm 1404.01 - 1404.03	RSA 125-C:4, I(a)	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)
Env-Wm 1404.04 - 1404.24	RSA 125-C:6, XIV	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)
Env-Wm 1404.25	RSA 125-C:12, I	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)
Env-Wm 1404.26 - 1404.35	RSA 125-C:6, XIV	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)
Env-Wm 1404.36	RSA 125-C:4, I(m)	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)
Env-Wm 1404.37	RSA 125-C:6, XIV	42 USC 7511a(b)(3) 42 USC 7511c(b)(2)