



Summary of 2009 Stage II Regulation Changes

310 CMR 7.24(6): Dispensing Motor Vehicle Fuel

New Stage II Equipment Installation Requirements

After April 1, 2009, all *newly installed Balance type Stage II systems* must be equipped, prior to commencing operation, with PV Vent Caps on each underground gasoline storage tank.

Balance type Stage II systems installed prior to April 1, 2009, must be equipped with PV Vent Caps on each underground gasoline storage tank on or before the facility's upcoming Annual In-Use Compliance Certification due date.

New Stage II System Maintenance & Testing Requirements

The Department adopted a series of changes applicable to Stage II system maintenance and compliance testing. Taken together, these changes improve system maintenance and reduce facility compliance costs.

Revised Stage II System Maintenance Requirements

A. Stage II Maintenance as a Result Of a Weekly Inspection

1. Upon determining a Stage II component is incorrectly installed, non-functioning or broken (broken) as a result of a visual inspection, the owner/operator of the Stage II system shall immediately:
 - ▶ repair the component in accordance with the terms and conditions of the Stage II system's currently applicable Executive Order/ Approval Letters; or
 - ▶ stop dispensing gasoline through the component, conspicuously post "Out of Service" signs on it, and repair the component as required within 14 days of being determined broken.
2. If a broken component cannot be immediately repaired or taken out of service and repaired within 14 days, the component shall be immediately isolated (see Attachment 1 for definition of "isolate.") and "Out of Service" signs conspicuously posted on the isolated component until the component is repaired.
3. If a broken component cannot be repaired or isolated as described above, the facility owner/operator shall immediately stop dispensing gasoline and conspicuously post "Out of Service" signs on all system gasoline dispensers until the broken component is repaired.

B. Stage II Maintenance as a Result Of a Failed Test

1. Upon failing one or more required in-use compliance certification tests, the owner/operator of the Stage II system shall immediately:
 - ▶ repair the broken component as required;
 - ▶ re-test and pass each failed test; and
 - ▶ submit to the Department the required in-use compliance certification (Form C or D2) on or before the facility's annual in-use compliance certification submittal date or within 30 days of the date of the Stage II system's first passing test result, whichever occurs first.

2. If a Stage II system fails one or more required in-use compliance certification test and the system cannot be immediately repaired, the facility owner/operator shall immediately:
 - ▶ isolate the broken component(s) from the Stage II system so that the remainder of the Stage II system operates as required; and
 - ▶ submit to the Department the required Form C or D2 based on passing test results for the remainder of the Stage II system on or before the facility's annual in-use compliance certification submittal date or within 30 days of the date of system's first passing test result, which ever occurs first.

3. Any component isolated from the remainder of the Stage II system shall remain isolated until such time as:
 - ▶ said component is repaired as required; and
 - ▶ all applicable, compliance testing, record keeping and certification requirements for the Routine maintenance, Minor Modification, or Substantial Modification of a Stage II system are complied with.

4. If a facility fails one or more required in-use compliance test and the broken component cannot be repaired or isolated from the remainder of the Stage II system, the facility owner/operator shall immediately stop dispensing gasoline and conspicuously post "Out of Service" signs on all gasoline dispensers until such time as:
 - ▶ all broken components are repaired as required;

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- ▶ all applicable in-use compliance tests are performed and passed as required; and
- ▶ a fully completed Form C or D2 has been submitted to the Department.

5. If a Stage II system fails one or more required in-use compliance tests and can not be repaired or the broken component isolated so that the remainder to the Stage II system operates as required, for purposes of compliance with the annual in-use compliance certification submittal requirements, the owner/operator of the Stage II system shall submit to the Department a fully completed and signed Stage II System Closure Notification (Form F) on or before the system's applicable in-use compliance certification submittal due date.

C. New or revised definitions for the terms: *minor modification*, *routine maintenance*, and *substantial modification* (see Attachment 1).

D. Revised Stage II compliance testing requirements:

1. **Routine Maintenance:** No required testing or certification submittal for Stage II repairs that are, by definition, routine. Record of repairs must be kept on the applicable Weekly Inspection Form for the week in which broken components were identified. No certification is required to be submitted to DEP.
2. **Minor Modification:** Prior to commencing operation, applicable compliance tests must be performed and passed for Stage II repairs that, by definition, are minor modifications. See Attachment 2: Applicable Compliance Testing, Recordkeeping and Certification Requirements.

No certification is required to be submitted to DEP. Record of repairs must be kept on the applicable Weekly Inspection Form for the week in which broken components were identified.

3. **Substantial Modifications:** For repairs that, by definition, are a substantial modification of a Stage II system, prior to commencing operation, all applicable compliance tests must be performed and passed and an Installation/Substantial Modification Certification (Form A) submitted to the DEP within 7 days of passing applicable tests. Record of repairs must be kept on the applicable Weekly Inspection Form for the week in which broken components were identified.

Note: all applicable tests must be performed and passed not more than 30 days prior to the postmarked date on the envelope used to submit the required Form A to DEP.

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Revised On-Site Record Keeping Requirements

The following Stage II system maintenance records are required to be kept on site:

- A. A record of all Stage II system repairs, maintenance, modifications, etc, including the date the repairs were made, must be kept on the Stage II system's applicable Weekly Inspection Form for the week in which broken components were identified.
- B. A copy of the Stage II Compliance Testing's passing test results for all applicable required compliance testing.
- C. A copy of the currently applicable Stage II Certification.

Revised Stage II Certification/Notification Requirements

Installation/Substantial Modification Certification (Form A)

- A. Newly installed or substantially modified Stage II systems can commence operation immediately upon passing all applicable tests.
- B. The required fully completed Form A must be submitted to the Department within 7 days of the date of the last passing test result.

Note: All applicable tests must be performed and passed not more than 30 days prior to the postmarked date on the envelope used to submit the required Form A to DEP.

Change of Owner/Operator Notification (Form E)

- A. *Both* the current Stage II facility owner/operators and the person becoming a Stage II facility owner/operator must notify the Department of a change of Stage II facility owner/operator.
- B. Current Owner/Operator Requirements. The current owner/operator of a Stage II facility, relinquishing his or her authority as the facility owner, lessee, operator or controller must submit to the Department, within 30 days of the effective date of the change, a signed letter notifying DEP of the change.

The signed letter must include the following information:

1. the name of the person relinquishing his or her authority, the facility name and address, and the Stage II Facility Customer Code Number;
2. the name of the **new** owner, operator, lessee or controller of the facility and related business information, including the new facility name and address; and
3. the effective date of the change of owner, operator, lessee or controller.

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- C. New Owner/Operator Requirements. Any person entering into a purchase, lease or other contractual agreement by which he or she becomes a Stage II facility owner/operator must submit to the Department, within 30 days of the effective date of becoming an owner/operator a fully completed New Stage II System Owner, Operator, Lessee or Controller Notification (Form E).

Stage II System Closure Notification (Form F)

- A. The Stage II Facility Closure Notification (Form F) has been revised to allow either the permanent or temporary closure of a Stage II system.
- B. Any person taking a Stage II system out of use must submit to the Department a fully completed Form F and attach to it a fully completed Notification For Storage Tanks Regulated Under 527 CMR 9.00 Form (FP-290R or FP-290), as submitted to the State Fire Marshal's Office for to the applicable facility.
 - 1. FP-290R is required for permanently taking the Stage II system out of use.
 - 2. FP-290 is required for temporarily taking the Stage II system out of use.

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New Stage II Compliance Testing Company Requirements

DEP Notification of Failed Compliance Tests

In instances where a Stage II compliance testing company has performed Stage II compliance tests and the Stage II system fails one or more tests; and the testing company is not retained to retest the Stage II system within 30 days of the system's first passing test result or before the facility's annual in-Use Compliance Certification submittal due date, which ever comes first, the compliance testing companies shall notify the Department of the name, address and Stage II facility account number of the facility with the failed test(s).

Revised compliance testing company certification requirements

The compliance testing company certification has been revised to require a listing of repairs made to the Stage II system in order to pass the applicable annual in-use compliance certification tests. Specifically, Compliance Testing Company certifications shall include the following:

- 1. a notation whether, (i) the entire installed Stage II system was tested and passed all applicable compliance tests or (ii) incorrectly installed, non-functioning or broken components were Isolated from the remainder of the installed Stage II system and the remainder of Stage II system was tested and passed all applicable compliance tests.
- 2. If the remainder of the Stage II system was tested and passed all applicable compliance tests, as noted in 310 CMR 7.24(6)(g) 8.c., a listing of all components Isolated from the remainder of the Stage II system.

Summary of 2009 Stage II Regulation Changes

310 CMR 7.24(6): Dispensing Motor Vehicle Fuel

Attachment 1. Definitions of Routine Maintenance, Minor Modification & Substantial Modification

Routine Maintenance means, for the purposes of 310 CMR 7.24(6), the regular re-installation, repair or replacement of one or more Stage II System components including, but not limited to: hoses; nozzles; breakaways; swivels; hose retractors; bucket plow rings; “slip-on” spill or dry break buckets; “O” rings and seals; submersible pumps or suction pipes; fill adaptors; fill tubes; vapor adaptors; fill and vapor caps; drain valves; monitor caps; or riser caps.

Minor Modification means, for the purposes of 310 CMR 7.24(6), the re-installation, repair or replacement of one or more Stage II System components that is not substantial, including, but not limited to: less than 50% of the motor vehicle fuel dispensers (e.g., 1 of 4 dispensers); a central vacuum unit of a Healy 400 ORVR nozzle system or Healy 600 nozzle system; ball float extractor valve housings; dispenser mounted vapor pumps; or “screw-on” spill or dry break buckets. If the re-installation, repair or replacement of Stage II System components occurs at a motor vehicle fuel dispensing facility with two or less dispensers, the re-installation, repair or replacement of only one of the motor vehicle fuel dispensers shall be a Minor Modification.

Substantial Modification means, for the purposes of 310 CMR 7.24(6), the re-installation, repair or replacement of one or more Stage II System components including, but not limited to: 50% or more of the motor vehicle fuel dispensers (e.g., 2 of 4 dispensers); the replacement of one type of Stage II system with another type (e.g., replacement of a balance system with a vacuum assist system, or a Healy 400 ORVR nozzle system or Healy 600 nozzle system with a Healy VP-1000 system); or the re-installation, repair or replacement of Stage II System components requiring excavation below a shear valve or tank pad (e.g., vapor return piping, vent piping, vapor space tie bar, two-point or coaxial Stage I systems; or motor vehicle fuel storage tanks). If the re-installation, repair or replacement of one or more Stage II System components occurs at a motor vehicle fuel dispensing facility with two or fewer dispensers, the re-installation, repair or replacement of all motor vehicle fuel dispensers shall be a Substantial Modification.

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Attachment 2. Applicable Compliance Testing, Recordkeeping & Certification Requirements

MODIFICATION/REPAIR	TESTING REQUIRED
A. ROUTINE MAINTENANCE	
For routine maintenance and repairs, no submittal to MassDEP or compliance testing is required. Record of repairs is required to be maintained on site in applicable maintenance logs.	
1. Replace hose, nozzle, breakaway, swivel, hose retractor.	No test
2. Replace bucket plow ring	No test
3. Replace "slip-on" spill or dry break bucket. If "screw-on" spill bucket must be replaced. See screw-on spill bucket below.	No test
4. Replace "O" rings and seals	No test
5. Replace/repair submersible pump/suction pipe	No test
6. Replace/repair fill adaptor, fill tube, vapor adaptor, fill and vapor caps, drain valves, monitor caps, riser caps	No test
B. MINOR MODIFICATIONS	
For minor modifications and repairs, compliance testing is required to be performed and passed, but submittal of a Form A to MassDEP is not required. Records of repairs and test results are required to be maintained on site in applicable logs.	
1. Replace dispenser mounted vapor pump (vacuum motor).	Air-to-Liquid Ratio Test (A/L) for that vapor dispenser and applicable nozzles
2. Replace "screw-on" spill or dry break bucket.	Pressure decay
3. Isolate diesel tank or other fuel storage tank not in use from Stage II system.	Pressure decay
4. Replace/repair <50% of total dispensers (e.g., 1 of 4 dispensers).	Pressure decay, dynamic back pressure/liquid blockage, (Air-to-Liquid Ratio for vacuum assist systems)
5. Replace/repair <50% of dispenser piping.	Pressure decay, dynamic back pressure/liquid blockage
6. Replace/repair Healy central vacuum unit for Healy 400 ORVR nozzle system or Healy 600 nozzle System.	Healy vapor return line test, Healy Fillneck Pressure (Healy 400 ORVR), Air-to-Liquid Ratio (Healy 600)
7. Replace/repair ball float extractor valve housing.	Pressure decay

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C. SUBSTANTIAL MODIFICATIONS

For substantial modifications and repairs, all applicable tests are required to be performed and passed (“full system test”) and a fully completed Form A must be submitted to MassDEP prior to commencing system operation. Records of repairs and testing are required to be maintained on site in applicable logs.

1. Excavate below shear valve or tank pad to repair, replace or install vapor return piping, vent piping, vapor space tie bar, two-point or coaxial Stage I systems.	Full system test
2. Excavate below shear valve or tank pad to repair or replace Tank	Full system test
3. Replace/repair ≥50% of the vapor recovery system	Full system test
4. Replace/repair ≥50% of the dispensers (e.g., 2 or more of 4 dispensers)	Full system test
5. Replace Stage II system with another type (e.g., replace balance system with vacuum assist system, replace Healy 400 ORVR nozzle system or Healy 600 nozzle system with Healy VP-1000 system)	Full system test.

D. FACILITIES CURRENTLY EXEMPT FROM STAGE II REQUIREMENTS

For gasoline dispensing facilities currently exempt from Stage II installation requirements (i.e., the facility was installed *prior to 11/1/1989* and since 11/1/1989 has *not* been substantially modified or dispensed more than 10,000 gallons of gasoline in any one month) any modification or repair of the gasoline dispensing system identified below or the dispensing of more than 10,000 gallons of gasoline in any one month *will trigger the requirement to* (a) install a Stage II system, (b) perform and pass all applicable tests and (c) submit a fully completed Form A to MassDEP, prior to commencing system operation.

1. Excavate below shear valve or tank pad to repair, replace or install vent piping and/or two-point or Coaxial Stage I systems.
2. Install, repair or replace tank and/or fuel distribution system.