

emission control system under conditions which may reasonably be expected to be encountered in normal operation and use unless such conditions are included in the test procedure.

(2) Defeat device does not include such items which either operate only during engine starting or are necessary to protect the engine (or vehicle in which it is installed) against damage or accident during its operation.

§ 90.112 Requirement of certification—adjustable parameters.

(a) Engines equipped with adjustable parameters must comply with all requirements of this subpart for any specification within the physically available range.

(b) An operating parameter is not considered adjustable if it is permanently sealed by the manufacturer or otherwise not normally accessible using ordinary tools.

(c) The Administrator may require that adjustable parameters be set to any specification within the adjustable range during certification or a selective enforcement audit to determine compliance with the requirements of this subpart.

§ 90.113 In-use testing program for Phase 1 engines.

(a) This section applies only to Phase 1 engines. In-use testing provisions for Phase 2 engines are found in subpart M of this part. At the time of certification the engine manufacturer may propose which engine families should be included in an in-use test program. EPA will approve a manufacturer's test program if the selected engine families represent an adequate consideration of the elements listed in paragraphs (b) and (c) of this section.

(b) *Number of engines to be tested.* The number of engines to be tested by a manufacturer is determined by the following method:

(1) For an engine manufacturer with total projected annual production of more than 75,000 engines destined for the United States market for that model year, the minimum number of engines to be tested may be the lowest of the numbers determined in paragraph (b)(1)(i), (ii) or (iii) of this section:

(i) Divide the manufacturer's total projected annual production of small SI engines destined for the United States market for that model year by 50,000, and round to the nearest whole number;

(ii) Test five engines each from 25 percent of all engine families certified in that model year; and

(iii) Test three engines each from 50 percent of all engine families certified in that model year.

(2) An engine manufacturer with total projected annual production of 75,000 engines or less destined for the United States market for that model year may test a minimum of two engines.

(c) *Criteria for selecting test engines.* An engine manufacturer may select test engines from engine families utilizing the following criteria and in the order specified:

(1) Engine families using emission control technology which most likely will be used on Phase 2 engines;

(2) Engine families using aftertreatment;

(3) Engine families certified to different emission standards;

(4) Different engine designs (such as sidevalve head versus overhead valve engines);

(5) Engine families using emission control technology specifically installed to achieve compliance with emission standards of this part;

(6) The engine family with the highest projected annual sales; and

(7) Engine families which meet the above criteria, but have not been included in prior model year in-use testing programs as required by these provisions.

(d) *Collection of in-use engines.* An engine manufacturer may procure in-use engines which have been operated for between half and three-quarters of the engine's advertised (or projected) useful life. All testing may be completed within three years from the date the certificate is first issued for an engine family undergoing in-use testing.

(1) Test engines may be procured from sources not associated with the engine manufacturer or vehicle manufacturer, except that with prior approval of the Administrator, an engine manufacturer with annual sales of less