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# Air Resources Board

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*Governor*

Mail-Out #MSO 99-07

August 31, 1999

**TO: ALL MANUFACTURERS OF SMALL OFF-ROAD ENGINES  
ALL OTHER INTERESTED PARTIES**

**Subject: Format for Production Line Testing Quarterly Reports for 2000  
Model Year and Later Small Off-Road Engine Families**

Manufacturers of small off-road engines (SORE) under 25 horsepower began emission testing a sample of their California-certified production engines in January 1996. The format for quarterly reporting of quality-audit test results was defined in the Air Resources Board (ARB) Mail-Out #95-39 based on the audit testing requirements specified in the California Code of Regulations (CCR), Chapter 9, Section 2407. In March 1998, the SORE regulations were amended by the ARB and the revised regulations became effective March 23, 1999. This mail-out supersedes Mail-Out #95-39 as the required quarterly reporting format for 2000 and subsequent model-year California-certified engine families.

In the revised regulations, Section 2407 defines how manufacturers will conduct either quality-audit (QA) one percent or cumulative (cum) sum sampling for audit testing. Both sampling procedures require manufacturers to report to the ARB in electronic format and hard copy within 45 calendar days of the end of each calendar quarter of production. Manufacturers continuing to conduct QA one percent sampling may use their previously-approved random sampling plans. Prior to the start of cum sum sampling, each manufacturer must submit the random sampling procedure they will use to select engines for production line testing. All engine models must be included in the selection pool, and the total number of required tests must be evenly distributed throughout the model year. Additional reporting is also required if, at any time during the model year, the engine family is found to be noncompliant. The manufacturer must notify the ARB in writing within 10 working days of the engine family failure as required by sections 2407(b)(4)(A) and 2407(c)(4)(D), depending on the sampling procedure used.

The attachments to this mailout specify the ARB-required format to be used for submitting quarterly electronic and hard copy reports for all engine families in production beginning with the 2000 model year. The ARB recommends submittal of the electronic data on 3.5 inch computer disks. Alternate methods for transmitting electronic data are also available such as the internet, however, ARB prefers use of a disk to ensure the accuracy and confidentiality of the reports.

Attachment 1 gives an overview of the database structure required for the electronic submittal, provides the details of the data field identification system, and defines the file names and specifies the software types most readily accepted. The format for file names has been expanded so that the model year of the engine family is also included. This allows manufacturers to submit engine family files for more than one model year in a single quarterly report when engines from two model years are produced in the same calendar quarter. Attachments 2, 3, 5 and 7 provide the data file structure for each of the ARB-specified files: the Engine Family Information File (new), the Engine Family Data per Quarter File, the Individual Engine Test Data Per Quarter File, and the Combined Quarters Engine Family File (used for one percent QA sampling only). The ARB format for the hard copy print-out of these files is provided in Attachments 4, 6 and 8. Attachment 9 shows an example of a Code Key File which serves to describe manufacturer-designated codes used primarily in the Individual Engine Test Data file. Attachment 10 lists a four-letter manufacturer identification code as was used in Mail Out #95-39.

A 3.5 inch floppy disk containing the corresponding templates for the four ARB-specified file formats and the Microsoft Access hard copy formats will be available on request for use by manufacturers. This information is also planned to be made available on the ARB website. For a copy of the disk or for questions about the audit reports for SORE engines, please contact Mr. Keith Macias of my staff at (626) 575-7068.

Sincerely,

/S/

R. B. Summerfield, Chief  
Mobile Source Operations Division

Attachments