

UPDATED INFORMATIVE DIGEST

PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CURRENT REGULATIONS FOR SMALL OFF-ROAD ENGINES

Sections Affected: This action amends sections 2403, 2405, 2406, 2408 and 2409, within chapter 9, article 1, title 13, California Code of Regulations (CCR); and amends the incorporated “California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines,” as adopted July 26, 2004.

Background: Health and Safety Code sections 43013 and 43018 direct the Air Resources Board (ARB or Board) to achieve the maximum feasible and cost-effective emission reductions from all mobile source categories, including small off-road engines, by establishing emission standards and other related requirements.

In 1990, the Board adopted exhaust emission control regulations for new small off-road engines. Small off-road engines, which produce power equal to or less than 19 kilowatts (kW), include both handheld equipment, such as string trimmers and chain saws, and nonhandheld equipment, such as lawn mowers, generators, and industrial equipment.

In 1998, the Board increased the stringency of the exhaust emission standards, and also required manufacturers to meet these standards for the useful life of the engines. In addition, the Board adopted an emissions credit program.

In 2003, ARB adopted evaporative emission standards along with more stringent catalyst-based exhaust standards. The tier 3 hydrocarbon plus oxides of nitrogen (HC+NO_x) exhaust emission standards went into effect with the 2005 model year for engines with displacements less than 50 cubic centimeters (cc). These new standards were implemented with the 2007 model year for engines between 80 and 225 cc, and with the 2008 model year for engines 225 cc and above. Overall, these catalyst-based standards represented an additional 35 percent reduction in engine-out exhaust emissions from the previous HC+NO_x emission standards.

As noted, one of the changes made in 1998 was the establishment of an emissions credit program. This program involved two types of credits: certification credits and production credits. Certification emission credits are earned when a manufacturer certifies an engine to a family emission level (FEL) that is below the applicable standard. Production emission credits are earned when a manufacturer’s production line test results are below the applicable FEL.

By the end of the 2007 model year, manufacturers had banked in excess of 10,000 tons of HC+NO_x emissions reduction credits. At that same time, the first model-year implementation of the tier 3 emissions standards for engines greater than 80 cc was completed. However, the air quality benefits that were expected from these tier 3-compliant engines were not realized because manufacturers were in actuality making

few tier 3-compliant engines and using their banked credits to continue certifying their “dirtier” engine types. In other words, the temporarily banked emission reductions were postponing the intended beneficial effects of the permanent emission reductions produced by the tier 3 emission standards.

Description of Regulatory Action: At the November 21, 2008 public hearing for the proposed regulations, the Board adopted the amended regulations, summarized below, as they were noticed on October 3, 2008, in the California Notice Register, and as set forth in the, “Staff Report: Initial Statement of Reasons for Rulemaking to Consider Amendments to the Current Regulations for Small Off-Road Engines.”

Staff’s proposal addressed issues that have developed since the Board’s 2003 rulemaking that enhanced the alignment with other ARB and United States Environmental Protection Agency (U.S. EPA) regulations. The major changes of the proposal will:

- eliminate the generation of production emission credits after model year 2009;
- modify the use of existing production emission credits; and
- limit the lifetime of future certification emission credits to five model years.

The elimination of production emission credits will bring the small off-road engine regulations in alignment with other emissions credit programs.

The proposal also included other minor changes as follows:

- an Executive Officer option to accept the use of a certification fuel with up to ten percent ethanol content;
- requirements for a English-speaking contact for warranty issues;
- requirements for earning zero emission equipment certification credits; and
- an Executive Officer discretion to make technical modifications.

These amendments are expected to indirectly reduce emissions by insuring full implementation of the tier 3 emission standards, beyond what would be accomplished by the existing federal regulations. Thus, the need for the separate California program is justified by the benefit to human health, public welfare, and the environment. In addition, Health and Safety Code sections 43013 and 43018 authorize the differences from the federal program.

Comparable Federal Regulations: Small off-road engines are currently subject to federal regulations contained in title 40, Code of Federal Regulations (CFR), part 90. On September 4, 2008, U.S. EPA approved its, “Final Rule: Control of Emissions of Air Pollution from New Nonroad Spark-Ignition Engines, Equipment, and Vessels,” for nonroad spark-ignition engines and equipment that would institute “phase 3” standards that generally harmonized the federal requirements with the existing tier 3 California exhaust standards for small off-road engines. These changes affect title 40 CFR part 1054.

Neither the existing federal regulation nor the final federal rule includes production emission credits. The U.S. EPA certification credit program will impose limitations on the use of certification credits to meet the phase 3 standards. Emission credits which are above the new standard and obtained before the standard change could be used for two years after the phase 3 emission standards are implemented. However, emission credits generated by engines under the phase 3 exhaust averaging, banking, and trading program are proposed to have an unlimited credit life.