



Program Update

Blue Sky Series Engines

The U.S. Environmental Protection Agency (EPA) has adopted emission standards for most categories of nonroad engines. Many of these programs have voluntary emission standards for certifying engines—which we call Blue Sky Series engines—that operate much cleaner than the regulations require.

What are Blue Sky Series engines?

They are engines with lower emission levels than our mandatory standards—usually at least 40 percent cleaner. Meeting this voluntary standard earns manufacturers a Blue Sky Series designation for these engines. Manufacturers who choose to get this certification agree to keep these engines at Blue Sky levels throughout their useful life. We have a Blue Sky Series for the following engines:

- land-based nonroad diesel engines (40 CFR part 89)
- recreational and commercial marine diesel engines (40 CFR part 94)
- land-based nonroad spark-ignition engines over 25 hp (40 CFR part 1048)

Why did EPA create this voluntary program?

We want to encourage manufacturers to introduce innovative technologies that can reduce emissions below the mandatory levels. These programs generally have a single qualifying threshold and don't try to differentiate engines that operate cleaner to meet voluntary standards. In many cases, technologies are promising, but companies haven't devel-

oped them enough for us to require a higher degree of control for all engines.

Creating a program of voluntary standards for low-emitting engines, including provisions to make sure emissions remain low in the field, will strongly advance the next generation of emission-control technologies. At the same time, our certification will protect the public against false claims of environmentally beneficial products.

What technologies can produce engines that meet Blue Sky standards?

For diesel engines, the most likely technologies include changes to add devices that treat exhaust gases or to convert the engine to operate on an alternative fuel, such as natural gas. Engines with these technologies have been operating in pilot programs and other limited applications for several years.

For spark-ignition engines, manufacturers may be able to use technologies such as advanced fuel injection, electronic controls, and catalytic converters that automotive manufacturers have already developed to achieve extremely low emission levels.

Are Blue Sky engines available for sale?

Not yet. Although some manufacturers are close to being able to produce them, as of this printing no manufacturer has certified one. That is mostly caused by the fact that isolated requests for especially clean-burning engines don't justify the expense of developing them. As an operator, manufacturer, or government representative, you can advance this program by identifying common needs and interests. Collectively identifying product needs across the country may at some point help a manufacturer to justify offering the low-emission engines (and associated vehicles, equipment, or vessels).

What does the Blue Sky name mean for the marketplace?

Once engines become available, states and potential buyers can judge the costs and benefits of buying low-emission engines. State and local governments are developing ways to add incentives for producing and buying these engines. For example, State governments have started to specify that companies should use equipment with Blue Sky Series

engines to gain an advantage in bidding on construction contracts. State and local governments have also started asking companies that need permits and environmental impact statements for new construction to use Blue Sky Series engines, if possible.

The emission standards for marine diesel engines don't start for a few years, so manufacturers may take longer to make these engines available. Once they do, port authorities may create incentives or requirements for operators to buy them. For example, a port authority could require a company wanting more presence in a port to use vessels with low-emitting engines.

For nonroad spark-ignition engines, Blue Sky Series products may have an additional advantage. Many of these engines power forklifts, sweepers, or other equipment that operates in warehouses, factories, or retail outlets where individuals could be exposed to exhaust emissions. All certified engines will have large reductions in exhaust emissions of carbon monoxide and other pollutants, but Blue Sky Series engines will offer a higher level of protection.

The Blue Sky Series programs are still very new. Several industry and government representatives are exploring ideas to increase the effectiveness of the voluntary emission standards. To find out more about what is happening and who is active in this field, see "Where can I get more information" below.

Where can I get more information?

You can access documents on nonroad engines on the Office of Transportation and Air Quality Web site at:

www.epa.gov/otaq/nonroad.htm

You can also contact us at:

U.S. Environmental Protection Agency
Office of Transportation and Air Quality
Assessment and Standards Division
2000 Traverwood Dr.
Ann Arbor, MI 48105
Voice-mail: (734) 214-4636
E-mail: stout.alan@epa.gov