

# Populations, Activity and Emissions of Diesel Nonroad Equipment in EPA Region 7

## Advance FAQ Brochure Appendix AJ

Assessment and Standards Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

Prepared for EPA by  
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EPA Contract No. EP-C-06-080



# Off-road Equipment & Machinery Study

## Frequently Asked Questions

### Q What is the Study?

The **Off-road Equipment & Machinery Study** is a research project sponsored by the Environmental Protection Agency (EPA) to gain a better understanding of the use of and emissions from off-road diesel equipment. **Real-world** emissions data from off-road diesel engines such as forklifts, generators, tractors, dozers, loaders and excavators, etc. is needed. The main goal of collecting the emissions data is to improve the accuracy of the methods EPA uses to estimate usage and emissions of diesel powered equipment and, ultimately, help us keep the air we breathe clean.

EPA has contracted two independent research firms (NuStats and Eastern Research Group) to collect the data. **This study does not involve compliance testing.**

NuStats will collect information from about 500 establishments in Iowa, Kansas and Missouri through brief phone interviews regarding equipment ownership and use of off-road diesel equipment for construction purposes. A sample of companies will be invited to participate in two additional stages of the study.

In Stage 1, a technical manager from Eastern Research Group (ERG) – an independent contractor – will schedule a time to visit the business to conduct an equipment inventory. Simply put, this person will come to your business or construction site to count the types of diesel off-road equipment used for construction.

In Stage 2, randomly selected equipment will be fitted with devices to record real-world usage and emissions data while the equipment is operated.

### Q What is the purpose of the study?

At the request of Congress, the National Academy of Sciences prepared a report on methods used by EPA to estimate emissions of air pollutants from cars, trucks and off-road equipment. Regarding off-road emissions, the committee remarked that...

*"[As future vehicle standards] reduce on-road mobile-source emissions, non-road emissions will become a larger fraction of the total emissions. The [EPA's] NONROAD model is extremely data driven, and there are many gaps in the available data. EPA should place more emphasis on improving both the emissions factors and activity data in this model."*

and

*"...EPA should have a plan for compiling the needed data... The plan should include the population and activity data and real-world emissions factors for gasoline and diesel engines."*

The results from this study will ultimately help EPA improve the methods used to estimate emissions across the country.

### Q Why should my company participate?

This study is intended as the first step in a program to improve the availability and accuracy of the data used to estimate emissions from off-road engines. By participating in this survey, your company, along with about 500 others, will provide the kind of real-world data needed for emissions estimates. The data gathered will further enhance our modeling efforts to help keep the air we breathe clean.

More questions on the back —>

## Is this a mandatory study?

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No, this study is entirely a voluntary research effort. Your participation in this study will assist EPA in gathering real-world emissions data, so we strongly encourage you to consider taking part in the research. The results will ultimately help EPA estimate the amount, usage and emissions of off-road equipment.

## What kinds of diesel equipment does EPA want to know about?

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Off-road equipment includes vehicles powered by internal combustion engines, designed to perform a wide variety of tasks other than street or highway transportation. Thus, the term “off-road equipment” covers a broad variety of machines including forklifts, generators, tractors, dozers, loaders and excavators, among many others.

## What will EPA do with the findings?

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All of the information collected is confidential and will only be used for statistical modeling purposes. The data will become the foundation for a revised or possibly even new method for predicting emissions. Your participation is both voluntary and completely confidential, and is guaranteed by federal statute [Confidential Information Protection provisions of Title 5, Subtitle A, Public Law 107-347 and other applicable Federal laws]. The information your establishment provides will be used for statistical purposes only and your responses will be kept confidential and will not be disclosed without your consent in an identifiable form to anyone other than EPA employees or agents. By law, every EPA employee as well as every agent, such as interviewers and technicians from NuStats or ERG, is subject to a jail term, a fine or both if he or she discloses any identifiable information about your establishment.

## What do the Equipment Inventory and Equipment Instrumentation stages really entail?

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Simply put, the Inventory is a count of off-road diesel construction equipment. A trained technician will schedule a time to visit your business operations and do an inventory, noting the number and types of off-road diesel-powered equipment used for construction. During this phase, we will also gather some general information such as the model number and year, and

engine type. We will make every effort to not interfere with your business operations.

During Instrumentation, portable on-board instruments will measure the use and exhaust emissions of commercially owned off-road diesel engines used for construction. Statistical sampling will be applied to assure the representativeness of participants and equipment. The instrumentation used in the study is non-intrusive. When installed and operating, the instruments will not modify participants' equipment or affect its performance, nor will it introduce safety concerns by obstructing the operators' movement or vision. In addition, installation and removal of measurement devices will not impact equipment manufacturer warranties in any way. Participants will not be held liable for damage to the measurement devices. More information about these devices can be found at <http://www.sensors-inc.com/semtechds.htm>.

In order to avoid interference with normal work schedules, instrumentation teams will attempt to perform installations during non-working hours. ERG will make every effort to accommodate any acceptable time for instrumentation.

## What if emissions from my equipment are above the acceptable rate?

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As mentioned above, **this effort is not related to compliance** with emissions standards. The sole purpose of the research is to help EPA gather real-world emissions data of nonroad diesel equipment. In addition, no information that could identify an establishment will be disclosed to any person other than the EPA Work Assignment Manager. All members of the EPA/NuStats/ERG team will be bound by signed confidentiality agreements. The research team will also prevent the disclosure of any publicly available information that might allow identification of an establishment as a respondent to this study. Training will be provided to all personnel regarding obligations of and responsibilities for participant confidentiality.

If you have any additional questions, please contact  
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