

Fact Sheet: Diesel Exhaust Fluid (DEF) Sensor Guidance Letter

As EPA Administrator Lee Zeldin traveled to all 50 states during his first year as Administrator, he heard from truck drivers, farmers, and many others rightly complaining about DEF and pleading for a fix. EPA's March 27, 2026, DEF Sensor Guidance implements another part of Administrator Zeldin's plan to help keep American operators from losing days in the field or on the road because of faulty DEF systems. The guidance removes DEF sensor requirements and allows Americans the option to use more reliable sensors, saving operators over \$13 billion annually, not to mention countless hours of time and productivity of avoided breakdowns.

DEF Actions Taken by Trump EPA

- In response to concerns, EPA issued [guidance](#) in August 2025 calling on engine and equipment manufacturers to revise DEF system software in existing vehicles and equipment to massively reverse deratements that were harming farmers, truckers, and others.
 - EPA will be issuing a new deregulatory proposal this spring that will completely remove all DEF deratements for new vehicles and engines. With these changes, sudden speed losses, which compromise safety and productivity, will be an issue of the past.
- Building on that effort, EPA took further action in February 2026 by issuing an [information demand letter](#) to the top 14 on-road and nonroad manufacturers that account for over 80 percent of all products used in DEF systems to better understand the scope and causes of DEF system failures.
- Additionally, in February 2026, EPA [reaffirmed](#) American farmers and equipment owners' right to repair their farm and other nonroad diesel equipment, including faulty DEF systems, in the field. EPA's clarifying guidance made clear manufacturers could no longer use the Clean Air Act to justify limiting access to repair tools or software.
- On March 27, 2026, based on preliminary findings from the demanded data, EPA issued additional guidance making clear that under existing regulations, manufacturers can stop inaccurate DEF system failures by removing traditional emission sensors, known as Urea Quality Sensors, and switching to nitrous oxide (NO_x) sensors.
 - This guidance will provide immediate relief and according to the U.S. Small Business Administration provide \$13.79 billion a year of savings to Americans.

What is a DEF Inducement?

- Selective Catalytic Reduction (SCR) systems use on-board diagnostics sensors to monitor DEF levels and quality. When a problem is detected, the engine control system automatically initiates warnings and reduces vehicle performance. In some cases, within a few hours the system can significantly limit speed, which is commonly referred to as a derate or inducement.
- These inducements were originally implemented to ensure compliance with EPA's 2010 on-highway NO_x standards and Tier 4 emissions standards for nonroad engines.
- However, when sensors fail or malfunction, they can trigger an automatic inducement even if there is sufficient DEF in the system and no actual emissions issues.
- In 2021, a DEF sensor error led to widespread failures across all vehicle and engine brands, leading to an industry-wide recall.
- EPA clarified in its August 2025 guidance that, for agricultural equipment, the allowable inducement

period may be up to 100 hours, giving operators significantly more time to diagnose and resolve issues. Previously, the inducement period for agricultural equipment was only 4 hours before the equipment went idle. More information on the August guidance can be found [here](#).

- Farmers, truckers, and other equipment operators have made clear that these unnecessary inducements lead to operational delays, reduce productivity, compromise safety and impose real economic hardship.

Ensuring Reliable DEF Systems

- EPA's March 2026 guidance clarifies that alternative monitoring approaches are allowed under existing regulations and confirms that approved NOx sensor-based software updates can be installed on existing engines without being treated as illegal tampering under the Clean Air Act.
 - This is in line with EPA's February 2026 [Right to Repair clarification guidance](#).
- EPA encourages manufacturers to adopt these more reliable monitoring technologies, including NOx sensors, to improve the reliability of their SCR systems in both existing and future products.
- The increased use of these alternative approaches will greatly reduce the frequency of false failures and unnecessary inducements that have been associated with traditional sensor technologies.

Prosperity for American Operators

- This action increases flexibility for manufacturers and allows them to move away from failure-prone technologies toward more reliable solutions that better serve operators in the field.
- By improving system reliability, this guidance gives consumers greater confidence that their emissions control systems will function as intended without unnecessary disruptions.
- The Small Business Administration estimates that these improvements will deliver significant economic benefits, including annual savings of approximately \$6.7 billion for light-duty truck operators, \$2.7 billion for heavy-duty truck operators, and \$4.39 for agricultural vehicle operators.

Addressing Americans' Concerns

- EPA is taking this action in response to the persistent and well-documented concerns of farmers, truckers, and other operators who rely on diesel-powered equipment to keep the American economy moving.
- This guidance does not weaken or remove emissions standards. Instead, it ensures that those standards are met in a way that works in real-world conditions and do not impose unnecessary burdens on the countless people working across the country who rely on this equipment every day.
- The Trump EPA will never stop pursuing ways to help our farmers, truck drivers and other operators.