



August 29, 2026

The Honorable Lee Zeldin
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

The Honorable Aaron Szabo
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Amendments and Nonconformance Penalties for Model Year 2027 and Later Heavy-Duty Highway Engines and Amendments to Inducement Provisions for SCR-Equipped Diesel Engines [Docket ID No. EPA-HQ-OAR-2026-0728]

Dear Administrator Zeldin and Assistant Administrator Szabo:

The National Association of Convenience Stores (“NACS”), NATSO, Representing America’s Travel Centers and Truck Stops (“NATSO”), and SIGMA: America’s Leading Fuel Marketers (“SIGMA”) (collectively, the “Associations”),¹ represent the primary retail and wholesale suppliers of diesel exhaust fluid (“DEF”) used by selective catalytic reduction (“SCR”) systems to reduce nitrogen oxides (“NOx”) emissions in the commercial trucking industry, the agricultural sector, and the broader diesel equipment market. The Associations respectfully submit these comments in response to the Environmental Protection Agency’s (“EPA’s” or the “Agency’s”) proposed amendments to the emission-related inducement, warranty, and diagnostic requirements applicable to heavy-duty and nonroad engines (the “Proposed Rule” or “Proposal”).²

Developed in response to technology-neutral performance standards (rather than mandates), SCR and DEF have all but eliminated NOx emissions from new heavy-duty trucks over the past two decades while also enabling engine calibrations that dramatically improve fuel economy. These laudable economic and environmental outcomes have been accomplished in traditional internal combustion engine vehicles and have been integrated into existing commercial trucking operations. Drivers purchase DEF at the same locations and in the same manner that they purchase diesel fuel. This outcome is precisely what performance-based environmental standards are designed to achieve.

¹ NACS is an international trade association representing the convenience store industry with more than 1,500 retail and 1,600 supplier companies as members, the majority of whom are based in the United States. NATSO currently represents approximately 5,000 travel centers and truck stops nationwide, comprising both national chains and small, independent locations. SIGMA represents a diverse membership of approximately 260 independent chain retailers and marketers of motor fuel. Together, NACS, NATSO and SIGMA members represent more than 90 percent of retail sales of motor fuels in the United States, and most of the retail locations at which DEF is sold to the commercial trucking industry.

² See Environmental Protection Agency, “Amendments and Nonconformance Penalties for Model Year 2027 and Later Heavy-Duty Highway Engines and Amendments to Inducement Provisions for SCR-Equipped Diesel Engines,” 91 FR 43154 (July 14, 2026), Docket ID No. EPA-HQ-OAR-2026-0728, RIN 2060-AW83, *available at* <https://www.govinfo.gov/content/pkg/FR-2026-07-14/pdf/2026-14112.pdf> [hereinafter the “Proposed Rule”].

Demand for DEF generated by SCR systems has prompted many fuel marketers and retailers to invest in ensuring that DEF is ubiquitously available at competitive prices throughout the United States. Retailers have invested more than \$12 billion in DEF infrastructure and today make DEF available at more than 95 percent of the nation's truck stops.³ That investment is ongoing.

Maintaining an adequate supply of DEF and a properly functioning SCR system has become an essential element of engine maintenance – as integral to keeping a truck in good working order as motor oil or coolant. SCR-related derates have followed the same trajectory. They are no longer merely emissions control measures; they protect the truck itself from damage caused by operating without adequate DEF.

The Associations recognize that the Trump Administration is seeking to address inducement schemes that it inherited from the prior administration. These schemes have proven overly punitive and often counter-productive.⁴ Improperly triggered derates – frequently the product of sensor malfunctions – have imposed real costs on drivers and, understandably, eroded goodwill towards SCR systems generally. Those technical challenges were most acute in early generations of SCR-equipped vehicles. The Associations' members' experience operating SCR-equipped fleets and servicing SCR systems in their repair facilities is that manufacturers have substantially improved the technology in recent years, and that malfunctions are markedly less frequent in newer vehicles than in older ones.⁵ That progress will continue in the Model Year 2027 and later engines to which the Proposed Rule applies.

The Associations support the Agency's August 2025 Guidance and March 2026 Guidance, which directly address those concerns by relaxing the derate schedule and mitigating the incidence of improper inducements.⁶ Those measures are directed at the underlying sources of SCR-related challenges, and they should be afforded the requisite time to take effect. Engine manufacturers have only recently begun implementing the guidance across the existing fleet.⁷ The full measure of their benefits will not be observable until that process is complete.

By contrast, the amendments to the inducement requirements set forth in the Proposed Rule will not resolve those challenges. If anything, they threaten instead to give rise to novel, unintended consequences. To avoid such counter-productive outcomes, the Associations oppose the proposed

³ See Transportation Energy Institute, *Market Overview: Selective Catalytic Reduction and Diesel Exhaust Fluid* (August 2026), available at <https://www.transportationenergy.org/research/reports/market-overview-selective-catalytic-reduction-and-diesel-exhaust-fluid/> (hereinafter "TEI Market Report")

⁴ See Control of Air Pollution From New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, 88 FR 4296 (January 24, 2023) (codifying inducement requirements at 40 C.F.R. § 1036.111).

⁵ See *infra* Section III.a.

⁶ See Environmental Protection Agency, Letter to Engine and Equipment Manufacturers Regarding SCR Inducement Requirements (Aug. 2025), available at <https://www.epa.gov/system/files/documents/2025-08/def-ltr-manufacturer-2025-0811.pdf> [hereinafter the "August 2025 Guidance"]; Environmental Protection Agency, IACD-2026-05, Guidance Letter Regarding DEF Quality Monitoring for SCR-Equipped Diesel Engines (Mar. 26, 2026), available at <https://www.epa.gov/system/files/documents/2026-03/iacd-2026-05-def-guidance-ltr-2026-0326.pdf> [hereinafter the "March 2026 Guidance"].

⁷ See *infra* n.52.

elimination of mandatory derates, and more generally oppose any revisions of the inducement requirements that would ultimately undermine the comprehensive, nationwide system supplying DEF. Additionally, the Associations support the concerns of manufacturers as they continue to build in strategies to protect their engines against damage, including by using derates.

The Associations share the Agency's objective of mitigating unwarranted or excessively punitive inducements. Whichever inducement framework the Agency ultimately adopts will only function properly if drivers understand that DEF remains required as a matter of law and necessary to protect their equipment. That understanding is shaped not just by the regulation the Agency finalizes, but in equal measure by the communications and signals that surround it. The Agency should take care to ensure that sensible reforms to the derate schedule are not misperceived by diesel engine users as repealing DEF requirements or encouraging removal of SCR systems.

Our members have a long history of responding to the Agency's policy signals with substantial capital investment; the competitive DEF distribution and retail networks are among the clearest illustrations of that record. They will continue investing in the infrastructure that makes DEF ubiquitously available, provided that inducements sufficiently sustain the demand that those investments anticipate.

As discussed in more detail below, the Associations urge EPA to:

- **Permit the August 2025 and March 2026 Guidance⁸ to take full effect before substantially amending the inducement requirements. [C-27, C-33]**
- **Address the in-use fleet through repair access rather than inducement design. [C-27, C-49]**
- **Retain derates as an enforcement backstop, paired with more robust notifications. [C-29, C-30]**
- **Refrain from restricting the derates manufacturers choose to apply to protect their own equipment. [C-32]**
- **Retain 32.5 percent as the DEF quality reference concentration. [C-35]**
- **Strike the provision suspending inducements in cold weather. [C-40]**
- **Treat nonroad and highway applications separately, preserving derates for highway engines, where they remain workable and necessary. [C-48]**
- **Clearly and affirmatively communicate that DEF and SCR requirements remain fully in effect. [C-27]**
- **Publish, in anonymized and aggregated form, the manufacturer inducement and warranty data on which the Proposal relies.**

⁸ See *supra* n. 6.

I. The Associations' Role in the DEF Supply Chain.

Our members are the primary retail and wholesale suppliers of DEF to the commercial trucking industry, the agricultural sector, and the broader diesel equipment market. The Associations' members distribute more than one billion gallons of DEF annually. DEF is ubiquitously available today at more than 100,000 retail locations in North America, including more than 95 percent of North American truck stops.⁹ Drivers generally refuel with DEF at dedicated dispensers installed in the same lanes as diesel pumps, at prices set by a mature and competitive market.¹⁰

That distribution system did not exist twenty years ago — it developed through substantial investments in direct response to the regulatory framework this Agency established. Indeed, since EPA adopted NO_x technology-neutral standards — which engine manufacturers elected to meet through SCR — our industry has invested more than \$12 billion in DEF retail infrastructure.¹¹ Our members' investment in this market is ongoing — they continue to build new dispensing capacity at additional locations, convert packaged-product sites to bulk dispensing, expand tankage and delivery capability, and invest in the quality, accessibility, and affordability of DEF. Those investments have resulted in a competitive and reliable market. Commercial drivers in the continental U.S. face minimal supply disruption risk and benefit from competitive pricing under normal operating conditions.

Ubiquitous availability of DEF depends upon predictable demand for DEF. Fuel retailers allocate dispenser space, tankage, and delivery capacity according to expected throughput. DEF throughput has been reliable since 2010 because deratement prompts drivers to purchase it. Engines equipped with SCR systems do not perform properly without DEF, and the inducement requirements this Agency repeatedly adopted ensured that a driver who declined to purchase DEF would be unable to continue operating their vehicle in a commercially practicable manner. To the extent the Proposed Rule reduces the certainty of that demand, it also reduces the basis upon which our members' capital is deployed and upon which continued investment depends.

Drivers who can easily disregard or disable inducements, or who believe DEF to be optional, will be less likely to buy DEF. Should prices rise where volumes no longer support competitive supply (particularly in rural areas), the drivers most affected would be the ones who continued to purchase DEF in good faith compliance with the NO_x standards.¹²

⁹ See TEI Market Report, *supra* n.3 (“Diesel Exhaust Fluid Availability in the U.S”).

¹⁰ See Proposed Rule at P. 43194 (“Today, DEF is widely available at retail stores and filling stations often offer it via pumps in the same lanes as where diesel-fuel pumps are located.”); *Id.* at 43198 (“[I]ndustry has proven that refilling DEF is easy and DEF is readily available at retail stores and diesel refueling stations nationwide.”); *Id.* (noting “the convenience of refilling DEF at the pump with fuel refills”); *Id.* at 43199 (“[I]n or close to a city there are stations and retail stores that sell DEF within minutes of each other.”).

¹¹ A. Schaeffer, “Making Diesel Clean: What You Need to Know About SCR and DEF” (webinar, Engine Technology Forum (April 6, 2026)), available at <https://enginetechnologyforum.org/webinars/>.

¹² A nonconformance penalty works only if paying it costs more than complying. Section 206(g)(3) requires that the penalty account for the extent to which emissions exceed the applicable standard, escalate over time, and remove any competitive disadvantage borne by manufacturers that meet the standard — none of which is accomplished by a penalty

The Associations' members are eager to continue supplying DEF and investing in the infrastructure that makes it available and economical. But this can only happen if inducements continue to support the demand that those investments anticipate.

II. SCR Systems and DEF Have Delivered Substantial Environmental and Economic Benefits.

The deployment of SCR technology across the heavy-duty fleet has successfully reduced NO_x in the transportation sector. NO_x emissions from highway vehicles have declined 76 percent since 2010, and emissions from nonroad equipment have declined 42 percent over the same period, together accounting for 79 percent of total NO_x reductions achieved in the United States since 2010.¹³ More than two-thirds of the commercial diesel trucks in operation today are equipped with SCR systems.¹⁴

Diesel engines accounted for 65 percent of all NO_x emissions in the United States in 2010. NO₂, a specific harmful gas within the NO_x family, is both a respiratory irritant and a principal precursor to ground-level ozone and secondary fine particulate matter.¹⁵ Approximately 72 million Americans live in exposure hotspots near high-traffic corridors, where NO₂ concentrations run 30 to 100 percent higher than in surrounding areas. Modern SCR systems achieve NO_x conversion efficiencies of 95 to 99 percent. The reductions' benefits accrue disproportionately to the communities situated along the freight corridors on which our members operate.¹⁶

The benefits have not been limited to air quality. Shifting the burden of NO_x control from the engine to the aftertreatment system has permitted manufacturers to optimize engines for fuel efficiency rather than for in-cylinder emissions control. Drivers have realized improved fuel economy as a result. Fuel is among the largest operating costs a motor carrier incurs; improvements in fuel efficiency translate directly into lower costs per ton-mile for the freight that moves on the Interstate Highway System.

SCR technology's track record also demonstrates that substantial emissions reductions can be achieved within internal combustion engine heavy-duty vehicles utilizing existing refueling infrastructure. This is a positive story that EPA should tout rather than walk back. SCR demonstrates what regulators and industry can accomplish when policy does not mandate a particular solution but rather allows the market to gravitate toward the most economical and effective technology.

a manufacturer would rationally prefer to pay. EPA should set the schedule so that certification remains the less expensive course.

¹³ See TEI Market Report, *supra* n.3 ("Effect of SCR and DEF on NO_x Emissions").

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

III. The Record Supports Maintaining Derates, and EPA Has Ample Tools to Address Implementation Issues.

a. Improper derates are attributable to aging equipment in older vehicles, not DEF quality.

Analysis of inducement events has demonstrated that aging or faulty equipment, rather than DEF quality, is the predominant cause of derates. The California Air Resources Board (“CARB”) surveyed thirty-three California fleets in connection with the 2023 Final Rule and found that thirty-seven percent of reported derates were caused by failed NO_x sensors or DEF quality sensors, which CARB identified as “by far the most common cause of derate conditions.”¹⁷ As the Agency acknowledges in the Proposed Rule, defective sensors and corroded wiring trigger inducements even where the driver has used quality DEF and maintained an adequate supply.¹⁸ No fleet in the CARB survey reported a derate caused by poor quality DEF.

Many of the Associations’ members own and operate fleets and have experienced the commercial challenges and driver frustration associated with overly-punitive inducements firsthand. Those fleets have also acknowledged that improperly triggered inducements were considerably more common in the first generation of SCR-equipped vehicles than they are in new vehicles sold today. Manufacturers have made substantial progress in preventing them through improved sensor reliability, dosing compensation algorithms, and refinements to fault detection logic.

The Proposed Rule addresses inducements on vehicles that are not the source of the problem. Despite the fact that improperly triggered derates occur predominantly on older SCR-equipped vehicles, this rulemaking would apply only to engines manufactured in Model Year 2029 and later.¹⁹ The amendments would therefore apply only to the newest and most reliable vehicles in the fleet, rather than those that have experienced the operational concerns the Agency seeks to address.

b. The appropriate remedy for improper derates is expanded repair access, not weaker inducements. [C-27, C-49]

The Associations urge EPA not to pursue the additional in-use guidance contemplated in the Proposed Rule, under which manufacturers would be able to modify engines already in service to replace derates with visible and audible notifications.²⁰ The Agency has attributed the improper derates occurring in the existing fleet to the conditions of aging equipment: failing sensors, wiring and connectors that deteriorate over hundreds of thousands of miles, and replacement parts that

¹⁷ See Proposed Rule at P. 43201 (quoting Comments of the California Air Resources Board, EPA–HQ–OAR–2019–0055-1186).

¹⁸ See Proposed Rule at P. 43195.

¹⁹ See Proposed Rule at P. 43228 (manufacturers must transition to the proposed notification scheme “no later than MY 2029,” and “may also make this transition for new engines any time before MY 2029”).

²⁰ See Proposed Rule, 91 Fed. Reg. at 43207.

are not available when vehicles require them.²¹ Those conditions reflect shortcomings in the availability and accessibility of vehicle repair, and they would remain entirely unaddressed by guidance eliminating derates.

The appropriate course for the existing fleet is to expand access to low-cost vehicle repairs. This would tackle the *cause* of improper derates, rather than the *consequences*. The Agency’s July 1, 2026 guidance affirming the freedom to fix requires manufacturers to provide independent repair facilities and vehicle owners the same service information, diagnostic tools, and training materials they provide their own dealers, including for DEF and emission control systems.²² That guidance was a constructive first step at addressing challenges with the existing fleet. Restricted access to diagnostic software has made SCR-related repairs slower and more costly than warranted by the underlying work, particularly for operators far from an authorized dealer.

Approximately 7.95 million SCR-equipped commercial vehicles operate in the United States today, and half of all heavy-duty trucks remain in service 27 years after their original sale.²³ The Agency acknowledges that modifying in-use engines to incorporate the proposed inducement reforms would require a level of development and testing that makes widespread retrofits unrealistic.²⁴ Improved access to SCR-related repairs – particularly for vehicles in their second or third ownership cycle that are the source of most improper derates – is subject to no such limitation. It would return derated vehicles to service more quickly and at lower cost, would reduce the incentive to resort to defeat devices, and would preserve the inducement framework on which demand for DEF depends.

c. EPA has consistently and recently found, as a factual matter, that derates are necessary for compliance.

i. Derates Ensure Compliance.

The Agency has consistently maintained and reaffirmed that, as a factual matter, a performance derate is “necessary” to demonstrate a reasonable likelihood that drivers will perform SCR-related scheduled maintenance.²⁵ The Agency has also considered and rejected abandoning

²¹ *Id.* at 43195, 43198.

²² U.S. Environmental Protection Agency, Guidance Affirming the Freedom to Fix for Vehicles and Equipment (July 1, 2026).

²³ See TEI Market Report, *supra* n.3 (“Selective Catalytic Reduction Systems in the Current Fleet”).

²⁴ See Proposed Rule at 43207.

²⁵ See Control of Emissions From New Highway Vehicles and Engines; Guidance on EPA’s Certification Requirements for Heavy-Duty Diesel Engines Using Selective Catalytic Reduction Technology, 76 Fed. Reg. 32886, 32894 (June 7, 2011) (“As noted, a well designed warning system should deter drivers from operating SCR-equipped vehicles without reducing agent. However, we believe an additional, stronger deterrent is necessary and appropriate.”); *Id.* at 32887 (manufacturers “must incorporate engine design elements that make it highly unlikely the vehicle will operate for any substantial period without the appropriate DEF,” which has “meant designing engines or vehicles with features that motivate operators to ensure proper use of the SCR system, such as engine derates and vehicle speed inhibitors”); *Id.* (derates and speed inhibitors “alter important vehicle performance characteristics . . . that are clearly noticeable to a driver”); *Id.* at 32894 (manufacturers “should be prepared to detail the type and level of inducements chosen and demonstrate how they will sufficiently compel drivers to maintain appropriate reductant levels”); *Id.* at 32895 (design requirements that “institute inducements to assure correction of reducing agent quality are needed in

derates for auditory and visual alerts.²⁶ That conclusion was predicated on testing that demonstrated that visible and audible warnings were effective in drawing a driver’s attention to the need for service, but derate was likely to cause a driver to actually “refill with DEF or correct the SCR problem as needed,” because the alternative was “neither acceptable nor tolerable.”²⁷ The Agency similarly observed that drivers generally refilled before reaching an inducement and that drivers “are likely to maintain proper SCR operation to avoid encountering these inducements.”²⁸

The Agency’s stated rationale for the proposed revisions to inducements rests on a balance between their efficacy and the risk that a driver will find it so intrusive that they will circumvent or disable it.²⁹ The Agency, however, offers little evidence that the derate inducement is prompting widespread deletes of SCR systems, rather than faulty equipment triggering such inducements inappropriately. The prevalence of such equipment—rather than the precise enforcement mechanism the equipment triggers—is why so many diesel engine users have been frustrated.

The Agency’s enforcement findings indicate that tampering is driven by the cost and time associated with maintaining emissions control systems and by the pursuit of increased power and fuel economy.³⁰ Approximately half of tampering occurs before a vehicle reaches three years of age.³¹ In 2011, the Agency rejected the contention that inducements drive circumvention because “the marginal cost and effort involved in purchasing DEF” did not “provide sufficient motivation

order to ensure that the ‘adjustable parameter’ of reductant quality is sufficiently limited”); *see also* U.S. Environmental Protection Agency, Guidance Document Cisd–07–07, “Certification Procedure for Light-Duty and Heavy-Duty Diesel Vehicles and Heavy-Duty Diesel Engines Using Selective Catalyst Reduction (SCR) Technologies” (Mar. 27, 2007) (advising that unless operation without DEF was “sufficiently inhibited through built-in performance deterioration or some similar system,” SCR-equipped vehicles “could not be certified”); U.S. Environmental Protection Agency, Guidance Document Cisd–09–04 Revised, “Revised Guidance for Certification of Heavy-Duty Diesel Engines Using Selective Catalyst Reduction (SCR) Technologies” (Dec. 30, 2009); U.S. Environmental Protection Agency, Guidance Document Cisd–13–13, “Testing of Heavy-Duty Diesel On-Highway Engines with Adjusted Diesel Exhaust Fluid (DEF) Quality” (2013); Control of Air Pollution From New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, 88 Fed. Reg. 4296 (Jan. 24, 2023) (codifying inducement requirements at 40 C.F.R. § 1036.111); Proposed Rule at 43156 n.1 (“Engine derating and vehicle speed restrictions have historically been applied as the primary inducement for SCR systems.”); *Id.* at 43195 (“EPA would only allow the use of SCR if manufacturers could demonstrate that it is reasonably likely that in-use operators would maintain a consistent supply of DEF.”).

²⁶ Control of Emissions From New Highway Vehicles and Engines; Guidance on EPA’s Certification Requirements for Heavy-Duty Diesel Engines Using Selective Catalytic Reduction Technology, 76 Fed. Reg. 32886, 32894 (June 7, 2011).

²⁷ *Id.* at P. 32890.

²⁸ *Id.* at P. 32892.

²⁹ *See* Proposed Rule at P. 43198 (quoting the National Highway Traffic Safety Administration’s framing that a warning should be designed so that “occupants will be motivated to fasten their belts, but not so intrusive that an occupant may attempt to circumvent or disable it or the public will not accept it”); *Id.* (noting research finding that seatbelt speed-limiting interlocks “were not more effective than frequent, long audible warnings” and that “participants circumvented the speed-limiting interlock to drive unbelted more than with audible reminders”).

³⁰ U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, *Tampered Diesel Pickup Trucks: A Review of Aggregated Evidence from EPA Civil Enforcement Investigations* (Nov. 20, 2020), at 4.

³¹ *Id.*

for a driver to follow such inconvenient and risky courses of action.”³² Striking the balance the Agency describes requires ensuring that inducements are not overly punitive. It does not require abandoning altogether the enforcement mechanism the Agency has deemed necessary for nearly two decades.³³

ii. Visible and audible notifications alone are insufficient to change driver behavior. [C-29, C-30]

The Associations agree with the Agency’s longstanding determination, maintained until this rulemaking, that visible and audible notifications alone are insufficient to establish that drivers are reasonably likely to maintain an adequate supply of quality DEF.

The Proposed Rule suggests it would be sufficient to require ninety-second notifications repeated hourly for DEF level conditions and every three hours for DEF quality and tampering conditions.³⁴ This is in fact inadequate. The Agency justifies the spacing between notifications on the basis that a driver needs time to reach a refueling location or to schedule a repair appointment.³⁵ That rationale supports the initial interval but does not support maintaining the same interval indefinitely. A driver who has received an hourly notification across a single day’s driving time has, by EPA’s own estimate, forgone multiple opportunities to refill the DEF tank with no escalating inducement mechanism.

³² *Supra* n.25 at 32892.

³³ The Agency’s stated justification of preventing deletes and defeat devices appears misaligned with the Administration’s broader enforcement posture toward that same conduct. In January 2026, the Department of Justice directed federal prosecutors to dismiss all pending criminal defeat device cases and to bring no new ones. In November 2025 and again in July 2026, the President pardoned individuals convicted under the Clean Air Act for selling or installing such devices, including one who sold more than 14,000 of them after having been warned by EPA in 2015. See Alex Guillén, *Trump issues Clean Air Act pardons for diesel mechanics*, E&E News (July 6, 2026), <https://www.eenews.net/articles/trump-issues-clean-air-act-pardons-for-diesel-mechanics/> (identifying Matt Geouge of North Carolina, sentenced in 2022 for selling over 14,000 defeat devices after EPA warned him of the violation in 2015, among those pardoned); see also Rob Carpenter, *The prosecution and the pardon that ended the diesel wars*, FreightWaves (July 6, 2026), <https://www.freightwaves.com/news/the-prosecution-and-the-pardon-that-ended-the-diesel-wars>. The devices at issue in those prosecutions reprogram engine software to bypass emissions controls and suppress the resulting diagnostic warnings; these are the same warnings the Proposed Rule would establish as the sole mechanism for ensuring DEF maintenance. See U.S. Department of Justice, Environment and Natural Resources Division, public statement (Jan. 21, 2026) (the Department “is exercising its enforcement discretion to no longer pursue criminal charges under the Clean Air Act based on allegations of tampering with onboard diagnostic devices in motor vehicles”); see Memorandum from Deputy Attorney General Todd Blanche (Jan. 21, 2026) (directing federal prosecutors to dismiss pending criminal defeat device prosecutions and to decline new ones), *as reported in* Justice Dept. Kills Cases Cracking Down on Auto Emissions Cheating, CBS News (Jan. 22, 2026), <https://www.cbsnews.com/news/justice-department-auto-emissions-cheating-cases/>.

³⁴ See Proposed Rule at P. 43199–43200 (Table V–1).

³⁵ See Proposed Rule at P. 43199 (“[I]t is reasonable to estimate that the average distance between most refueling stations is 50 miles, or approximately one hour, although this depends on where a truck is operating.”); *Id.* (“For example, in or close to a city there are stations and retail stores that sell DEF within minutes of each other.”); *Id.* (“The general expectation is that (1) drivers will refill DEF tanks when they refill diesel fuel and . . . running out of DEF should not occur between fuel stops, and (2) fuel stops are available on average one hour apart.”).

In determining the efficacy of auditory inducements, EPA partially relies on research finding that persistent audible reminders increase seat belt use, and that a speed-limiting interlock proved less effective than a lengthy audible warning because participants circumvented the interlock.³⁶ This comparison is inapposite. Research indicates that an auditory warning can generally prompt drivers to perform a costless, instantaneous act, but this does not establish that drivers will respond the same way to NO_x related inducements.

Though the Agency acknowledges that seat belts differ from DEF because buckling is free and failing to buckle endangers the driver directly,³⁷ the Agency does not distinguish the effort required for the driver to mitigate the inducement. In contrast to refilling a DEF tank, buckling a seat belt takes seconds and can be performed from the driver's seat with little to no effort in response to an auditory warning. Conversely, refilling a DEF tank involves locating a retail fuel location, stopping the vehicle, refilling the tank and, importantly, paying for the product. Resolving a fault condition requires diagnosis and frequently a service appointment that the Agency's own record indicates may take three days to obtain.³⁸

Home fire protection smoke alarms provide a closer analogue, and demonstrate that the Agency's proposed auditory warning for drivers is too weak and infrequent to succeed given that people routinely ignore even louder and more persistent smoke alarm warnings. Research indicates that about 1 in 5 households don't do what is required to keep even a single smoke alarm operating.³⁹ These households tolerate ongoing warnings rather than simply replacing batteries. Replacing a smoke alarm battery, like refilling a DEF tank, requires the occupant to replace or refill something (i.e., batteries) to stop an audible warning. The warning a smoke alarm produces is considerably more robust than the one the Agency puts forth in the Proposed Rule – sounding at intervals of thirty to sixty seconds rather than once an hour, and continuing for roughly a month until the battery is exhausted. The Agency proposes an auditory warning that is shorter, less frequent, and presents a less immediate signal to the driver, yet offers no basis for concluding that it will succeed where, in another context, a more robust warning has not.

The Agency acknowledges that it lacks direct evidence demonstrating that audible and visible notifications alone would prompt drivers to maintain quality DEF in SCR-equipped vehicles.⁴⁰ Conclusive evidence and analysis should precede any rulemakings that substantially weaken inducements, not follow them.

³⁶ See Proposed Rule at P. 43198.

³⁷ *Id.*

³⁸ See Proposed Rule at P. 43199.

³⁹ The Consumer Product Safety Commission's National Smoke Detector Project sent field investigators into more than 1,000 households to interview occupants and test every alarm on site. In twenty percent of households with at least one smoke alarm installed, not a single alarm was operational. Among detectors with missing or disconnected power sources, thirty percent of respondents reported that they had forgotten to replace the battery, and a further ten percent had never looked, had no batteries in the house, or had not gotten around to installing one. See Charles L. Smith, *Smoke Detector Operability Survey — Report on Findings* (Bethesda, MD: U.S. Consumer Product Safety Commission, Nov. 1993).

⁴⁰ See Proposed Rule at P. 43198 (“There are clearly differences in the use of seatbelts and the use of DEF. For example, the financial impact is different; the use of DEF increases the operating cost of a diesel-fueled vehicle while

Visual warnings present similar shortcomings. EPA justifies the proposed use of visual warnings by assuming commercial drivers are “accustomed to paying close attention to warning lights in general” because their livelihood depends on their vehicles being in good working order.⁴¹ Research, however, suggests that once a driver learns that a persistent indicator does not affect the immediate operation of the vehicle, the driver treats the indicator as a low priority, and preventive maintenance is deferred for weeks or months.⁴² Drivers attend to warning lights because certain warning lights precede discernible, near-term operational consequences. An indicator that precedes no tangible consequence may, over time, be increasingly disregarded. That outcome carries emissions consequences in the near term and, because continued operation without adequate DEF ultimately damages the SCR system itself, risks substantial harm to the vehicle over the longer term.

d. Reversing EPA’s factual finding on derates without new evidence fails the more detailed justification the Supreme Court requires of agencies that abandon their own prior factual findings. [C-2, C-3]

The 2023 Final Rule adopted graduated derates based on a factual determination that a derate schedule was what would “demonstrate that operators would be reasonably likely to maintain a supply of quality DEF,” and that the initial derate stage would be “sufficient to compel vehicle operators to meet their maintenance obligations.”⁴³ The Proposed Rule similarly frames the revised inducements as “revisiting how restrictive inducements should be to provide a reasonable basis for demonstrating that operators would continue to add quality DEF in tanks and not tamper with SCR systems.”⁴⁴ The Agency’s conclusion that audible and visual notifications alone now supply that basis contradicts, rather than supersedes, the Agency’s earlier factual finding. Agencies changing course from a prior position are subject to more detailed justification standards “when...its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests.”⁴⁵ The Proposal, which not only reverses past factual findings but also triggers serious reliance interests, clearly does not satisfy that heightened standard.

The inducement requirements adopted in 2023 will not become mandatory until MY 2027 and have never governed a vehicle in use — as the Agency acknowledges, driver complaints arose

the use of a seatbelt is free. The risks are also different; not wearing a seatbelt can have severe repercussions for the operator, including serious injury or death, while currently not using DEF can result in a vehicle speed derate.”). The two seat belt studies the Agency cites are the only behavioral research identified in support of the proposed notification requirements. The Agency does not identify any evaluation of driver behavior in SCR-equipped vehicles operating under notification-only inducements, of the kind CARB conducted in evaluating derates.

⁴¹ See Proposed Rule at P. 43199.

⁴² See TEI Market Report, *supra* n.3 (“Alternatives to Derating Events”); Parasuraman & Riley, *Humans and automation: Use, misuse, disuse, abuse*, Human Factors (1997)).

⁴³ See Proposed Rule at 43196 (describing the 2023 Final Rule, indicating that inducements must be onerous enough to discourage drivers from operating without DEF).

⁴⁴ *Id.* at 43157.

⁴⁵ See *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515–16 (2009) (*Scalia, J.*).

under the *prior* guidance regime that those requirements replaced.⁴⁶ Further, two studies of audible seatbelt reminders in light-duty passenger vehicles do not support reversing a factual determination about whether derates are necessary to induce heavy-duty operators to maintain a supply of quality DEF. With respect to reliance interests, the Agency has solicited comment on the proposed warranty and useful-life amendments but not the inducement amendments specifically. Retailers have committed more than \$12 billion to single-purpose DEF dispensing infrastructure in reliance on the framework the Agency established and reaffirmed in 2023. The Associations do not suggest either circumstance forecloses any revisions to inducements, but both require a far more robust analysis and explanation than the Proposed Rule provides.

e. A notification-only regime is unenforceable whereas a derate is self-executing.
[C-29, C-30]

The Associations are also concerned that the Proposed Rule would make it easier to defeat SCR systems. EPA has long recognized that tampering with emissions controls is a problem.⁴⁷ Under the current framework, a driver seeking to avoid a derate must reflash the engine control module or install a physical delete kit. Both practices require technical skill or the services of a third-party vendor, and both have been the subject of EPA and Department of Justice enforcement over the past decade. Under the Proposed Rule, a driver seeking to avoid a notification would need only to disable the audible alert or obscure the visual indicator. Neither action requires meaningful technical knowledge of the aftertreatment system, and neither produces the physical evidence on which enforcement actions have historically depended.

The Proposed Rule would also reduce the difficulty of a full delete. Eliminating the derate would result in a simpler and less costly procedure for bad actors. This concern is heightened by recent changes in federal enforcement policy.⁴⁸

Beyond these specific concerns, a notification-only regime is not amenable to enforcement as a general matter. Derates have never required an external enforcement mechanism because they are self-executing. Vehicle performance is limited automatically, without regard to whether an enforcement official observes the vehicle or any regulator reviews a record. An auditory or visual notification, conversely, depends on the presence of some person or entity (other than the driver) who is positioned to observe noncompliance and to impose a consequence.

⁴⁶ See Proposed Rule, at 43197 (“While vehicle owners and operators have not yet experienced the inducement requirements finalized in the 2023 Final Rule, the EPA has heard from enough owners and operators of diesel engines frustrated with SCR inducement derates that the Agency has decided to reassess the need to continue to rely on derates.”).

⁴⁷ See U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Enforcement Alert, Tampering and Aftermarket Defeat Devices (Nov. 2020), available at <https://www.epa.gov/sites/default/files/2020-12/documents/tamperinganddefeatdevices-enfalert.pdf>.

⁴⁸ See *supra* n.33. Considered together with a Proposed Rule that would replace derates with a dashboard notification and an audible alert sounding at intervals of several hours, the current Department of Justice enforcement posture communicates to drivers and fleets that the Administration does not intend to meaningfully enforce compliance with NO_x standards. That signal could have material implications for DEF demand and, in turn, for the continued ubiquitous availability of DEF at retail.

The seat belt comparison on which the Agency relies illustrates the shortcoming. Seat belt compliance is not the product of an auditory and visual warning alone. A majority of states authorize law enforcement to stop a vehicle solely because an occupant is unrestrained, and federal regulation independently prohibits the operation of a commercial motor vehicle unless the driver is properly restrained – a requirement enforced at roadside inspection.⁴⁹ No comparable mechanism exists with respect to DEF enforcement. No statute or regulation authorizes a state highway patrol officer to stop or cite a driver on the basis of a DEF quantity, quality, or tampering indicator. A notification-only framework would therefore provide neither the self-executing operation of a derate nor the roadside enforcement that enforces seat belt warnings. The Proposal seemingly seeks to make compliance with DEF requirements contingent upon the voluntary compliance of the regulated community.⁵⁰

IV. Recommendations for the Proposed Rule.

The Associations strongly support the inducement-related guidance EPA issued in August 2025 and March 2026.⁵¹ That guidance directly addressed the underlying operational disruptions that generated most of the public dissatisfaction with SCR systems: the speed and severity of derates. It dramatically extended the interval before initial inducement to 650 miles or ten hours of operation, substituted graduated torque reduction for abrupt power loss, raised the terminal speed restriction from 5 to 25 miles per hour, permitted a temporary override in the interest of safety, and authorized manufacturers to rely on NOx sensors in place of urea quality sensors that had proven prone to failure. Manufacturers have recently begun to implement those measures.⁵²

⁴⁹ *Seat Belt and Child Seat Laws*, available at <https://www.iihs.org/topics/seat-belts/seat-belt-law-table> (state-by-state table of primary and secondary enforcement authority).

⁵⁰ The Proposed Rule acknowledges widespread operator frustration with DEF and SCR requirements and cites that frustration as a basis for the changes it proposes. This does not justify relaxing enforcement oversight to the point that the regime effectively relies on voluntary compliance. *See* Proposed Rule, 91 Fed. Reg. at 43195 (acknowledging that “strong negative public sentiment toward DEF has emerged” and that “[o]bservation and word-of-mouth have created secondary distrust of SCR systems and DEF,” and attributing that sentiment to “system failures stemming from sources like failed sensors and the delayed availability of replacement parts rather than inadequate DEF or an intent of noncompliance”).

⁵¹ *See generally* Letter from NATSO, SIGMA to the Honorable Brett Guthrie et al., House Committee on Energy and Commerce, regarding H.R. 9618, the Diesel Engine Flexibility Act (July 14, 2026); *see also* NATSO and SIGMA, Press Release, DEF Remains Essential Part of Emissions Compliance Strategy; Premature Intervention Could Disrupt Thoughtful EPA Guidance (July 10, 2026), available at <https://www.natso.com/def-technology-remains-essential-part-of-emissions-compliance-strategy-premature-intervention-could-disrupt-thoughtful-epa-guidance/>.

⁵² Daimler Truck North America commenced deployment of updated inducement software to approximately 330,000 in-service Detroit engines in February 2026 and anticipates that the deployment will continue through the end of the year. *See* Truck News, DTNA Updates Software to Meet New EPA Guidance on Diesel Exhaust Fluid (June 18, 2026), <https://www.trucknews.com/sustainability/dtna-updates-software-to-meet-new-epa-guidance-on-diesel-exhaust-fluid/1003217117/>; Cummins and Paccar announced their corresponding calibrations on July 6, 2026, three days before the Administrator announced the Proposed Rule. *See* Commercial Carrier Journal, Cummins, PACCAR Issue Software Fix for DEF Derates (July 6, 2026), <https://www.ccjdigital.com/maintenance/maintenance/article/s15829346/cummins-paccar-ease-def-inducement>; Trucking Dive, Paccar Begins Software Updates After EPA Revises DEF Inducement Guidance (July 15, 2026), <https://www.truckingdive.com/news/paccar-begins-software-updates-after-epa-revises-def-inducement-guidance/825074/>.

Because the guidance reaches in-use engines through software calibrations now being deployed across the existing fleet, it will address driver concerns far sooner and far more broadly than the Proposal, which would not mandate changes for any vehicle currently in service. The Agency took appropriate steps to balance the interests of all stakeholders in its guidance. It should allow its own thoughtful guidance to fully take effect before undertaking the sweeping and counterproductive changes to inducement requirements contemplated in the Proposed Rule.⁵³

a. *Retain derates as an enforcement backstop, paired with more robust notifications.* [C-29, C-30]

The Associations strongly oppose the provisions in the Proposed Rule that would eliminate engine derates and vehicle speed restrictions as SCR-related inducements. Since the introduction of SCR technology, derates have been the primary means of ensuring that drivers maintain an adequate supply of quality DEF and refrain from tampering with emission control systems. To the extent EPA wishes to rely more heavily on audible and visual notifications, such notifications should supplement rather than supplant derates. Deployed in that manner, they render deratement considerably less punitive by affording drivers the time necessary to identify and remedy a DEF fault before any restriction on vehicle operation takes effect. The graduated schedule established under the August 2025 guidance, which provides 650 miles or ten hours of warning, already reflects that design.⁵⁴

The notifications preceding the derate should also be more robust than the Proposed Rule requires. The proposed schedule initiates notification at three hours before tank depletion or at 2.5 percent of tank volume, whichever occurs first, and repeats notification at intervals of one to three hours thereafter.⁵⁵ Notifications should instead begin at a higher tank volume and repeat at progressively shorter intervals as the DEF tank approaches depletion. That schedule would give drivers the opportunity to replenish DEF at a time and location that best suits their route, encouraging resolution well before derates take effect.⁵⁶ The derate would apply only where notifications go unheeded, preserving the enforcement function that audible and visual warnings alone cannot supply.

Eliminating the mandatory derate would also fracture inducements across fleets, to the detriment of the drivers the Proposal is intended to help. Inducements today operate uniformly:

⁵³ The Associations note that the inducement amendments are severable from the balance of this Proposal. The nonconformance penalty, warranty, useful life, and SCR reliability provisions each rest on their own record and do not depend on the inducement changes for their operation. If EPA concludes that it must act promptly on those provisions, it should finalize them and address inducements in a separate action based on the record before it.

⁵⁴ The Associations would not oppose the Agency's reconsideration of the vehicle speeds at which derated operation is permitted. Some stakeholders have suggested that derates be limited to a minimum speed of 55 miles per hour. In the Associations' view, a restriction at that speed would impose too little consequence to function as an effective inducement, but the underlying concept, a less severe speed restriction is one the Agency could reasonably pursue.

⁵⁵ See Proposed Rule at 43200 (Table V-1 and accompanying text).

⁵⁶ The Agency should also consider encouraging manufacturers to transmit low-DEF and DEF-quality notifications to fleet managers through existing telematics systems. Fleet managers are positioned to direct a driver to a refill or repair location before a fault escalates and are not subject to the habituation that diminishes the effect of in-cab indicators on individual operators over time.

every SCR-equipped engine responds to an empty or degraded DEF supply in substantially the same manner, on a schedule the Agency prescribes, and drivers, fleets, and repair technicians know what to expect regardless of nameplate. The Proposed Rule would replace that uniformity with a patchwork in which each manufacturer decides independently whether to derate at all, at what point, how severely, for which fault conditions, and with what warning. A driver operating a mixed fleet – as many of the Associations’ members do – could encounter a substantial derate in one truck, a modest speed limitation in a second, and nothing but an intermittent chime in a third, under identical conditions. The confusion and frustration the Agency attributes to inducements is in large part a product of derates that engage unpredictably; a framework in which the operative rule varies by manufacturer, model year, and calibration would compound that unpredictability rather than resolve it.

b. *EPA Should Afford Manufacturers Wide Discretion Over Engine-Protection Derates.* [C-32]

The Clean Air Act does not authorize EPA to dictate whether and how manufacturers derate engines to protect their own equipment. Section 202(a) empowers the Administrator to prescribe standards applicable to the emission of air pollutants from new motor vehicles and engines.⁵⁷ It does not empower the Administrator to tell a manufacturer when it may protect its own hardware. Manufacturers derate engines today for low oil pressure, elevated coolant temperature, and any number of conditions bearing no relationship to emissions. Nothing in the statute gives the Agency a different role where the equipment at risk happens to be an SCR system. A manufacturer that limits engine output to keep a DEF injector from failing is protecting its warranty obligation, not setting an emission standard. EPA has no more authority over that decision than over a manufacturer’s decision to derate for low oil pressure.

Modern diesel engines are calibrated on the assumption that the SCR system will handle NOx downstream, which is what permits manufacturers to tune the engine itself for fuel economy and performance, and DEF also cools and lubricates the dosing pump. Operating without DEF causes residual urea to crystallize in the dosing lines and injectors, deprives the dosing pump of cooling and lubrication, and plugs the catalyst face with particulate and unburned fuel, eventually poisoning the precious metals and requiring replacement of the unit.⁵⁸

i. The proposed “catastrophic damage” standard is flawed.

Even if EPA had the authority to define when engine-protection derates are permitted, the proposed “catastrophic damage” standard is flawed. The term “catastrophic” connotes a sudden, widespread disaster, whereas a lack of DEF in a tank results in a gradual degradation of equipment over time. Moreover, the term appears nowhere in the regulatory text, carries no settled meaning in this context, and would invite protracted disputes over whether a given failure mode qualifies. EPA should invariably accommodate derates that protect the engine and aftertreatment system from “significant” or “substantial” damage, and it should afford manufacturers wide discretion over when, where, and how to apply them.

⁵⁷ 42 U.S.C. § 7521(a)(1).

⁵⁸ See TEI Market Report, *supra* n.3 (“Operating SCR without DEF”).

c. EPA should retain 32.5 Percent as the DEF quality reference concentration. [C-35]

The Associations urge EPA not to finalize a modified urea concentration fault-detection threshold, and instead to retain the existing framework, under which the nominal 32.5 percent concentration specified in ISO 22241-1 remains the reference point against which DEF quality is assessed.⁵⁹ The Agency issued its March 2026 Guidance permitting the use of NOx sensors in place of urea quality sensors under the existing framework, in which 32.5 percent remains the reference concentration. Layering a 20 percent threshold on top of that flexibility would compound a loss of detection capability the Agency has not acknowledged, and the Associations urge EPA not to adopt the second change on the assumption that the first left DEF quality monitoring intact.

The 32.5 percent concentration is the concentration specified in ISO 22241-1, the international standard that governs DEF quality, handling, transportation, and storage.⁶⁰ Every producer, distributor, and retailer of DEF in the United States manufactures and sells to that specification, and manufacturers condition aftertreatment warranty coverage on its use. A domestic threshold set at 20 percent would place the United States at odds with the standard around which the global supply chain and the equipment itself have been built, without any corresponding change to the ISO specification, which is revised only through a consensus process among national standards bodies that takes years to complete.⁶¹

The proposed change would provide little benefit to drivers and – in addition to enabling drivers to dilute the concentration of their DEF with water – could come at the expense of fluid quality.⁶² The lower threshold would also hamper the engine’s ability to notify the driver that urea levels are low. EPA acknowledges that resetting the threshold shifts the purpose of fault detection away from fluid quality and toward tampering alone.⁶³ Weak or contaminated fluid clogs the emissions control system and permanently ruins the catalyst, and manufacturers exclude those failures from warranty coverage, so the cost of the repair could fall on the driver.⁶⁴

The proposed threshold would also aggravate the cold weather difficulties that the Agency addresses in the Proposed Rule. The 32.5 percent concentration was selected because it is the eutectic point of the urea-water solution and therefore yields the lowest achievable freezing temperature (approximately 12 degrees Fahrenheit). Any dilution of the solution raises that freezing point.⁶⁵ Accommodating diluted DEF in the regulations would increase the incidence of frozen fluid, compromised urea quality sensors, and the false fault codes that follow from both.

⁵⁹ See Proposed Rule at 43202.

⁶⁰ International Organization for Standardization (“ISO”), Diesel Engines, NOx Reduction Agent AUS 32, Part 1: Quality Requirements, ISO 22241-1:2019.

⁶¹ ISO standards are subject to mandatory systematic review every five years, and the revision process requires explicit agreement among global experts and national standards bodies. A typical revision takes two to three years from initiation to publication. See TEI Market Report, *supra* n.3.

⁶² See Proposed Rule at 43198.

⁶³ *Id.* at 43202.

⁶⁴ See TEI Market Report, *supra* n.3 (“Diesel Exhaust Fluid in Cold Climates”).

⁶⁵ *Id.*

Accordingly, the Associations urge EPA to retain 32.5 percent as the reference concentration for urea quality fault detection.

d. *EPA should not suspend inducements in cold weather.* [C-40]

EPA proposes to permit manufacturers to disable audible notifications whenever ambient temperature falls below 12 degrees Fahrenheit, and would not require those notifications to resume until ambient temperature rises to 32 degrees on a subsequent trip.⁶⁶ The Associations urge EPA to strike this provision.

SCR systems have been engineered for cold weather operation since they were introduced. Manufacturers address freezing through heated DEF tanks, supply lines that purge on shutdown to prevent crystallization, and engine control units that defer active fault testing until the system has had time to thaw.⁶⁷ SCR technology is used in nearly every new-generation commercial truck operating in Canada and Scandinavia under emissions programs aligned with the 2010 standards and Euro VI, and cold weather has not impeded its adoption in those markets.⁶⁸

The provision would also operate unpredictably in practice. A truck operating in Michigan or North Dakota in January may not encounter an ambient temperature above 32 degrees for weeks at a time. Under the Proposal, that truck would receive no audible notification of an empty DEF tank, degraded DEF, or a tampering condition for the duration of the cold period. A truck operating in March might cycle in and out of the suspension several times in a single week depending on the weather, so that the same driver hauling the same freight along the same route would receive notifications on some days and none on others. Whatever inducements EPA ultimately requires, suspending them by reference to temperature would make the framework unpredictable and unenforceable. It would function as a seasonal exemption across much of the country.

Alaska presents a separate problem. Alaskan drivers report that extreme cold makes DEF freezing difficult to avoid and that a derate in remote terrain carries risks not present in the lower 48 states.⁶⁹ At the temperatures in the Alaskan interior, diesel fuel gels, batteries lose capacity, and air and hydraulic systems fail, and a truck stranded in those conditions is generally stranded for reasons unrelated to DEF. Relief calibrated to that environment is a judgment best suited for Congress, which is presently considering legislation directed at that question.⁷⁰ The Agency should not address conditions particular to Alaska by suspending inducements for every truck operating in cold weather anywhere in the country.

⁶⁶ See Proposed Rule at 43202-03.

⁶⁷ DEF has a freezing point of 12 degrees Fahrenheit. To prevent freezing when a vehicle is stationary, DEF systems purge the supply lines once the vehicle is turned off, and tanks are engineered with integrated heating elements that liquefy the DEF once the engine is running. Some systems incorporate a 48-volt heater to accelerate the thawing cycle. See TEI Market Report, *supra* n.3.

⁶⁸ See TEI Market Report, *supra* n.3 (noting that SCR technology is “universally prevalent” in commercial trucks operating in Canada and Scandinavia, with adoption “reaching nearly 100% of active, new-generation fleets.”)

⁶⁹ See Proposed Rule at 43203.

⁷⁰ See S. 3135, the Cold Weather Diesel Reliability Act, which was the subject of a hearing before the Senate Committee on Environment and Public Works in March 2026.

The provision also does not distinguish between cold start and continued operation. DEF can freeze after an extended shutdown, but once a vehicle is running the heated tank and exhaust heat keep the system above ambient temperature. A suspension keyed to ambient temperature therefore would exempt trucks for entire seasons rather than for the warm-up interval at issue.

The freeze protection requirements EPA proposes to codify are sufficient to address the concerns that motivated this provision. EPA should retain those requirements, strike the ambient temperature suspension, and address the reliability of DEF heating components and urea quality sensors in cold conditions through the SCR reliability amendments proposed elsewhere in the rulemaking.

e. EPA should treat nonroad and highway applications separately. [C-48]

EPA proposes to extend the notification-only approach to nonroad diesel engines on the ground that those engines rely on the same technology as highway heavy-duty engines and that their operators have expressed similar frustrations.⁷¹

Professional drivers who receive adequate warning can replenish DEF in the ordinary course of refueling. Nonroad equipment frequently operates at a distance from retail DEF supply, and a disabled combine during harvest can cost an operator a season's yield. The same distinction governs repair. A truck that experiences an SCR fault can reach an independent repair facility along the Interstate under its own power, while nonroad equipment is often immobile and requires that a technician travel to it, which EPA notes can involve several days or weeks of downtime.⁷²

The Associations would not oppose targeted flexibility for agricultural and other nonroad equipment operating in remote or time-sensitive conditions; but EPA can grant relief to nonhighway vehicles without amending the inducement provisions applicable to heavy-duty highway engines, where derates remain both workable and necessary.

V. The Rulemaking Record Does Not Satisfy Applicable Procedural and Analytical Requirements.

a. The Proposal Does Not Comply with Lead Time and Stability Requirements.

The Clean Air Act requires EPA to allow a minimum lead time between promulgation of a rule and its applicability, and it stipulates that a standard, once applicable, must remain in place for at least three model years.⁷³ EPA should clarify if it does not consider emission-related warranty periods, regulatory useful life, and SCR inducements to be a revision of a standard applicable to heavy-duty vehicles or engines.

⁷¹ See Proposed Rule at 43206.

⁷² See Proposed Rule at 43207.

⁷³ See Section 202(a)(3)(C) of the Clean Air Act, which provides that “[a]ny standard promulgated or revised under this paragraph and applicable to classes or categories of heavy-duty vehicles or engines shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated.” 42 U.S.C. § 7521(a)(3)(C); CAA § 202(a)(3)(C).

The inducement provisions were adopted in the 2023 Final Rule as part of the mechanism by which the Model Year 2027 standards are given effect in use. EPA acknowledges that drivers “have not yet experienced the inducement requirements finalized in the 2023 Final Rule.”⁷⁴ If amending them revises a standard applicable to heavy-duty engines, section 202(a)(3)(C) forecloses an effective date before Model Year 2030.⁷⁵ EPA should accordingly clarify whether it regards the inducement amendments as revising a standard applicable to heavy-duty engines and, if so, apply them no earlier than Model Year 2030.

b. Analysis of the Combined Effect of the Warranty and Inducement Changes.

EPA proposes to retain the Model Year 2026 emission-related warranty periods for Model Year 2027 and later engines, which shifts responsibility for aftertreatment repairs from manufacturers to owners considerably earlier in a vehicle’s service life than the 2023 Final Rule contemplated.⁷⁶ At the same time, the Agency proposes to eliminate the SCR-related derate, which weakens the mechanism that compels drivers to make those repairs. The Proposed Rule analyzes each change in isolation but fails to assess their interaction.

EPA has projected an increase in NO_x emissions from the warranty change alone, on the premise that shorter warranty coverage reduces the likelihood that owners maintain emission controls over the life of the vehicle.⁷⁷ The Proposed Rule would simultaneously remove the main incentive for maintenance of emissions controls during and after the warranty period. An owner who previously repaired a failed DEF injector because the vehicle would otherwise be limited to 25 miles per hour would, under the Proposed Rule, weigh the cost of that repair against an audible notification. EPA should analyze the two changes in conjunction with one another and quantify their combined effect on in-use emissions before finalizing either.

VI. EPA Should Make Clear That DEF and SCR Requirements Remain in Effect. [C-27]

The Agency notes that negative public sentiment toward DEF has produced distrust of SCR systems, and requests comment on how to rebuild a positive culture around their use.⁷⁸ The Associations share that objective. The distrust the Agency describes is largely a product of excessively punitive inducement measures combined with improperly triggered derates that were considerably more common in the first generation of SCR-equipped vehicles than they are in new vehicles sold today.

⁷⁴ See Proposed Rule at 43197.

⁷⁵ See Proposed Rule at 43228 (requesting comment on whether the proposed SCR inducement changes should apply beginning in MY 2027 as proposed, or whether they should apply beginning in MY 2029 or a later model year).

⁷⁶ *Id.* at 43163-64.

⁷⁷ *Id.* at 43162 (projecting an increase of approximately 36,000 tons of NO_x in calendar year 2055 attributable to the warranty change, and explaining that the 2023 Final Rule had justified longer warranty periods in part on the expectation that they would lead owners to continue maintaining emission controls over a longer period).

⁷⁸ *Id.* at 43195-96.

Rebuilding that culture, however, depends on clear communication both from the Agency and the Administration more broadly that DEF as a technology is here to stay.⁷⁹ A rulemaking intended to reduce frustration and confusion about DEF should be clear and easily understandable. Operators who stop buying DEF on the strength of these announcements will damage their aftertreatment systems and thin the retail network the rest of the fleet depends on. The Agency's communications should make clear that DEF remains required and that running an SCR-equipped engine without it damages the vehicle.

VII. Conclusion.

Thank you for the opportunity to provide these comments. The Associations are grateful for EPA's effort to responsibly implement such an important, complex regulatory regime and are ready to assist the Agency as it moves forward.

Sincerely,

NATSO, Representing America's Travel Centers and Truck Stops
SIGMA: America's Leading Fuel Marketers
National Association of Convenience Stores (NACS)

⁷⁹ A series of announcements over the past year could give operators the misimpression that DEF is being phased out. On March 27, 2026, the White House characterized guidance as removing "the DEF sensor requirement for all diesel equipment." This was accompanied by the Secretary of Agriculture's explanation that the guidance allows manufacturers "to monitor the pollutants we are targeting rather than the Diesel Exhaust Fluid itself which has caused many of the system failures." U.S. EPA, Press Release, *Trump Administration Announces Latest Action to Address Diesel Exhaust Fluid (DEF) System Complaints* (Mar. 27, 2026). On May 19, 2026, the Administrator stated that EPA would propose "to completely eliminate diesel exhaust fluid arrangements altogether." Washington Examiner, *EPA to Eliminate Diesel Requirements to Lessen Burden on Farmers* (May 19, 2026). The announcement accompanying the Proposed Rule described it as "eliminat[ing] engine deratements and reform[ing] the Biden era DEF requirements." U.S. EPA, Press Release, *Trump EPA Unveils Proposal to Save Truckers \$12 Billion by Revising Unworkable Biden-Era Rule* (July 9, 2026). These announcements, however, did not make clear that the requirement to use DEF in an SCR-equipped engine remains in effect – even if the Proposal is finalized without change. This has resulted in confusion throughout the industry. See, e.g., Landline, *CARB, DEF, DPFs. What Some Truckers Are Getting Wrong About Trump's Moves* (Dec. 19, 2025); FreightWaves, *The DEF Rules Changed This Week. Here Is What the Guidance Actually Says, and What It Does Not* (Mar. 30, 2026); FreightWaves, *Will the End of DEF Sensors Mean a Reduction in Its Consumption?* (Apr. 9, 2026).