ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION
WASHINGTON, D.C. 20460

August 11, 2025
IACD-2025-10 (LDV, HDE, NRCI)

SUBJECT: Revised Guidance for Light Duty Vehicles, Heavy-Duty Diesel Engines and Nonroad Compression-Ignition (CI) Engines Using Selective Catalyst Reduction (SCR) Technologies

Dear Manufacturer:

The purpose of this guidance is to describe approaches to inducements[1] for engines and vehicles certified under 40 CFR Parts 86 ("Control of Emissions from New and In-Use Highway Vehicles and Engines"), 1036 ("Control of Emissions from New and In-Use Heavy-Duty Highway Engines") and 1039 ("Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines"). This guidance is intended to supplement prior guidance documents (and presentations)[2] and to expand available options for the management of inducements in engines and vehicles that utilize Selective Catalytic Reduction (SCR). Having concluded the management options described in this guidance will be similarly effective to those finalized in "Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, 88 Fed. Reg. 4,296 (Jan. 24, 2022)", we make them available (retrospectively and, in certain cases prospectively) to manufacturers of products that utilize SCR.

This guidance applies retrospectively to all Heavy-Duty Engines, chassis certified vehicles and Nonroad Compression-Ignition (CI) engines. While this guidance applies prospectively for all Nonroad CI engines and chassis certified vehicles, its prospective application to Heavy-Duty engines is limited to Model Years 2025 and 2026 (Model Year 2027 and later Heavy-Duty Engine inducements are regulated by the requirements of 40 CFR 1036.111). While this guidance supplements prior guidance documents, EPA considers previously approved systems to be acceptable for use and retains the discretion to approve manufacturer approaches that use elements of prior guidance documents to complement the approaches described in this guidance.

[1] Inducements are vehicle speed and/or torque derates applied in response to specific actions or conditions that degrade the performance of SCR emission control systems.

[2] EPA previously issued guidance documents regarding the certification of heavy-duty engines using Selective Catalytic Reduction (SCR) systems including CISD-07-07, CISD-09-04, CISD-13-13, CISD-14-10, a presentation dated July 20, 2010 (entitled "Selective Catalytic Reduction Workshop") and a presentation dated July 26, 2011 (entitled "Nonroad SCR Certification").

The contents of this guidance do not have the force and effect of law and are not meant to bind the public in any way. This guidance is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

If you have any questions about this letter, please contact your certification representative or Allen Duncan of my staff at duncan.allen@epa.gov.

Sincerely,

Aaron L. Szabo
Assistant Administrator

Enclosure

Enclosure to IACD-2025-10

Heavy-Duty On-Highway Engines, Motor Coaches and Chassis Certified Vehicles

(Applicability: Heavy-Duty Engines, Motor Coaches and chassis certified vehicles using SCR emissions reduction technology other than MY2027 and later engines subject to the provisions of 1036.111)

A manufacturer of a Light Duty Vehicle, Light-Heavy, Medium-Heavy, Heavy-Heavy Duty, or Motor Coach Engine using SCR emissions reduction technology for any Model Year engine or products to which the provisions of 1036.111 do not apply, may develop and implement running changes, field fixes or new certifications to their SCR inducement systems to achieve one of the following options:

- Continue to utilize existing inducement strategies
- Utilize the regulatory provisions of 40 CFR 1036.111
- Utilize the guidelines communicated in Table 1 (below)

Table 1. Acceptable SCR Inducement Strategies for Heavy-Duty Engines and Light Duty Vehicles

	Initial Inducement Timing	Initial Inducement	Secondary Inducement Timing	Secondary Inducement	Final Inducement Timing	Final Inducement Speed Limit
All Heavy-Duty Truck/Tractor Engines	650 Miles or 10 hours	15% Ramped Torque Derate	4,200 miles or 80 hours	30% Ramped Torque Derate	8,400 miles or 160 hours	25 mph
Motor Coach Engines	3000 Miles or 40 hours	10% Ramped Torque Derate	Not Required	Not Required	10,500 miles or 200 hours	50 mph
Chassis Certified Vehicles	Not Required	Not Required	Not Required	Not Required	4,200 miles or 80 hours	45 mph

- Times and miles shown in the Table 1 above refer to time/distance from when the engine confirms a fault. Both values are included to acknowledge that inducement system designs may track either hours or miles after the fault confirmation occurs to determine when an inducement becomes active.

- A manufacturer may remove the torque derate, if one has been active, once the Final Inducement Speed Limit goes into effect.

Nonroad CI Engines

(Applicability: Nonroad CI engines using SCR emissions reduction technology)

A manufacturer of Nonroad CI Engines using SCR emissions reduction technology for any Model Year engine may develop running changes, field fixes or new certifications to their existing SCR inducement systems to incorporate any or all the following:

- Continue to utilize existing inducement strategies
- Utilize the guidelines communicated in Table 2 (below)

Table 2. Acceptable SCR Inducement Strategies for Nonroad Compression-Ignition Engines

	Initial Inducement Timing	Initial Inducement*	Final Inducement Timing	Final Inducement Option 1**	Final Inducement Option 2
Nonroad CI Engines	36 hours	25% Torque Derate	100 hours	No Restart or Idle only	50% Torque Derate

***Generator set engines and constant speed engines (e.g. agricultural pumps) are exempted from this initial inducement requirement

****For final inducement option 1, the timing indicated refers to when the system begins to look for any previously approved triggering conditions for final inducement

Final inducement options 1 or 2 may be implemented for tank fill percentage-based DEF Level inducement strategies.

In order to account for safety concerns and to allow for self-healing diagnostics, use of an inducement override function for releasing full engine power is permitted provided it is active for no longer than 30 minutes and is limited to 3 activations over all inducement steps combined for each incident. For each activation, a full 30 minutes of full-power operation is preserved across key-off or other engine shutdown events.

- Times shown in the Table 2 above refer to time from when the engine confirms a fault.

- If a specific confirmed fault is detected within 36 hours of self-healing or scan-tool clearing of an identical fault, the inducement timer should return to the status at the time of fault clearing, except if the system was in final inducement at the time of the clearing, in which case the engine should return to final inducement, or begin the search for trigger conditions for final inducement within 5 hours after detection of an identical confirmed fault.

- Grouping of "repeat offense" faults will not be required. Manufacturers may treat multiple faults independently, with the most advance fault determining inducement timing.

- DEF quality detection capability within 1 hour (consistent with previous guidance) is still expected. However, a "poor DEF quality" decision can be made and inducement initiated if the DEF quality assessment returns an "indeterminate" indication for 8 consecutive operating hours, ignoring key-off effects.

General Implementation

In implementing these examples, a manufacturer may choose to retain elements of existing previously approved SCR inducement approaches.

Changes made to SCR inducement systems consistent with agency guidance are approved as meeting EPA's adjustable parameter requirements and will not be considered tampering or as reducing the effectiveness of an element of the emission control system.

A manufacturer may seek approval for strategies not presented in this document.

A manufacturer may choose inducement levels and timing that are otherwise consistent but more restrictive than those presented in this document or prior guidance documents.

Except for "Final Inducement Option 2" for Nonroad CI Engines, the timing indicated for final inducement refers to the time at which a system begins to look for any previously approved triggering conditions for Final Inducement.

Manufacturers may limit the faults requiring inducement to those listed in 1036.111(b).

Manufacturers should adhere to standard practices associated with the submission of Running Changes for current model year products.

Manufacturers are not obligated to submit field fix documentation for previous model year products but may submit field fix documentation consistent with existing policy.