

Frequently Asked Questions

N.J.A.C. 7:27-34 Mobile Cargo Handling Equipment (CHE) at Ports and Intermodal Rail Yards

See [N.J.A.C. 7:27-34 \(currently in effect\)](#)

1. Do all CHE need to be equipped with Tier 4 Final engines?

- a. Beginning on March 1, 2025, all “new cargo handling equipment” (as defined in N.J.A.C. 7:27-34.3) brought into a regulated facility will need to be either Tier 4 Final or be equipped with the current model year on-road engine.

For “in-use cargo handling equipment” (as defined in N.J.A.C. 7:27-34.3), refer to the compliance schedule below.

Cargo handling equipment with an on-road engine	Cargo handling equipment with an off-road engine	Compliance deadline
Pre-1998 model year	Tier 0	March 1, 2025
1998-2003 model year	Tier 1	March 1, 2026
2004-2006 model year	Tier 2	March 1, 2027
2007-2009 model year	Tier 3 and Tier 4 interim	March 1, 2028

Source: N.J.A.C. 7:27-34.6 – Table 1

- b. Beginning on March 1, 2025, all new equipment brought onto a port or intermodal rail yard must have either a Tier 4 Final off-road engine, or an on-road engine meeting the 2010 or newer on-road emission standards.
- c. Owners and operators should check with local port or intermodal rail yard authorities to determine if additional stringency is required beyond statewide requirements.

2. Can I sell my equipment to another business at a port or intermodal rail yard in New Jersey?

Only if the equipment meets the requirements for “new cargo handling equipment” as set forth at N.J.A.C. 7:27-34.5. Typically, these requirements are met by purchasing equipment with Tier 4 Final off-road engines, or an on-road engine meeting the 2010 or newer on-road emission standards.

3. How is “In-Use Cargo Handling Equipment” defined in the regulation?

“In-Use cargo handling equipment” is defined in N.J.A.C. 7:27-34.3 as cargo handling equipment or a diesel-fueled CI engine installed in cargo handling equipment that is purchased, rented, leased, or otherwise brought onto, and in operation at, a port or intermodal rail yard in New Jersey before March 1, 2025. “In-Use” equipment must meet the compliance requirements set forth at N.J.A.C. 7:27-34.6 and 34.7. The compliance choices for “in-use” equipment are to repower with a new engine, replace with new equipment, retrofit with a Verified Diesel Emissions Control Strategy (VDECS), or retire the equipment.

4. How is “New Cargo Handling Equipment” defined in the regulation?

“New cargo handling equipment” is defined in N.J.A.C. 7:27-34.3 as cargo handling equipment or a certified diesel fueled CI engine installed in cargo handling equipment that is purchased, rented, leased, or otherwise brought onto and operated at a port or intermodal rail yard in New Jersey on or after March 1, 2025.

5. What is the difference between yard truck and non-yard truck equipment?

- a. A “yard truck” is defined as an off-road mobile utility vehicle with or without chassis used to carry cargo containers. They are also known as Utility Tractor Rigs (UTRs), yard tractors, yard goats, yard hostlers, yard hustlers, or prime movers.
- b. “Non-yard truck” equipment refers to all other types of CHE other than yard trucks. This includes rubber-tired gantry cranes, top handlers, side handlers, reach stackers, straddle carriers, forklifts, loaders, tractors, aerial lifts, excavators, and dozers.

6. Is a RoRo tractor considered a yard truck?

Yes, a RoRo tractor functions like a yard truck but usually has additional features such as four-wheel drive and sometimes a more powerful engine.

7. Does off-road equipment that is used only for maintenance purposes and never used to handle cargo (including manlifts) have to comply with the CHE Regulation?

Yes, equipment used to perform maintenance and repair activities that are routinely scheduled or that are due to predictable process upsets is subject to the CHE Regulation. Examples of routine and predictable activities include repairing or replacing worn components, or components damaged due to occasional mishaps, and property maintenance.

8. Does off-road equipment that is used for temporary activities have to comply with the CHE Regulation?

- a. No; rented, leased, or contracted equipment brought onto a port or intermodal rail yard to perform unexpected repairs that are not routine in nature or due to predictable maintenance activities are exempted from the CHE Regulation.
- b. However, if the equipment resides at the port or intermodal rail yard, or is rented, leased, or contracted to perform routine or predictable maintenance or repair activities, it is subject to the CHE Regulation.

9. Are on-road trucks that come onto the terminal to pick up or deliver cargo included in this regulation?

No, on-road trucks used primarily for on-road transport are not included in the CHE Regulation.

10. Does my fuel truck or passenger van fall under the CHE regulation?

Fuel delivery trucks operating solely at the terminal to deliver fuel to terminal equipment, and vans and buses used to transport personnel, are exempt from the CHE Regulation.

11. Is on-rail equipment used to repair railroad rails subject to the CHE Regulation?

- a. Equipment that only operates on stationary rails is not subject to the CHE Regulation.
- b. Equipment that has rubber tires and can be used on and off the stationary rails that resides at a port or intermodal rail yard is subject to the CHE Regulation.
- c. Equipment that can be used on and off the stationary rails and does not reside at the port or intermodal rail yard is not subject to the CHE Regulation.

12. What requirements apply to rented equipment?

- a. All of the requirements of the CHE Regulation apply to rented equipment.
- b. All newly rented or newly purchased yard truck and non-yard truck equipment must either be equipped with a Tier 4 Final off-road or an on-road engine meeting the 2010 or newer on-road emission standards. If compliant equipment is not available to rent, you may be able to rent equipment powered with Tier 4 Interim engines, or Tier 3 engines retrofit with a VDECS. Please contact the Department if this situation arises (email: stopthesoot@dep.nj.gov)

13. As a rental agency, what are my obligations?

Both the rental agency, as well as the renter, are responsible for ensuring the equipment is compliant with the CHE Regulation.

14. As an operator who occasionally rents the equipment I own, what are my obligations?

- a. Operators who rent equipment are subject to the same requirements as any other entity renting equipment. Newly rented equipment must either be equipped with Tier 4 Final off-road or an on-road engine meeting the 2010 or newer on-road emission standards.
- b. Owners may neither operate nor rent non-compliant equipment. Both the lessee and lessor are responsible for the compliance of the equipment being rented.

15. Can CHE be transferred from one port terminal or intermodal rail yard to another?

- a. Yard trucks can only be transferred if they are equipped with Tier 4 Final off-road or an on-road engine meeting the 2010 or newer on-road emission standards.
- b. Non-yard truck equipment may be transferred between two port terminals or intermodal rail yards under the control of the same owner or operator only as part of a Department approved transfer plan. The request and transfer plan must be submitted to the Department on a form available at www.stopthesoot.org, at least 30 days prior to the applicable transfer date. The approval is

contingent upon owner or operator agreement to bring the transferred equipment into compliance with the requirements of N.J.A.C. 7:27-34.7 before the equipment is put into operation at the new location and the transfer plan does not result in a significant increase in public health impacts.

16. What kind of recordkeeping is required?

Generally, records must be kept beginning on January 1, 2023, and maintained for no less than five years. For details on what types of records are required, see N.J.A.C. 7:27-34.14 and 34.15.

17. What is a VDECS?

- a. VDECS is an acronym for Verified Diesel Emission Control Strategy and refers to an emission control device, designed primarily for reducing diesel PM emissions, which has been verified by the California Air Resources Board (CARB).
- b. CARB's Verification Procedure ensures that emission reductions achieved by a control strategy are real, the device is durable and covered by minimum warranty requirements, and that production units in the field are achieving emission reductions which are consistent with their verification. More information on CARB's Verification Procedure is available at:
<https://ww2.arb.ca.gov/our-work/programs/verification-procedure-use-strategies-control-emissions-diesel-engines>

18. What VDECS are available for non-yard truck equipment?

- a. A list of all VDECS for all types of diesel engines (e.g., on-road, off-road, stationery, etc.) is available on the CARB Verification website: <https://ww2.arb.ca.gov/diesel/verdev/vt/cvt.htm>. The website also contains specific information and requirements for each VDECS, based on the level of diesel PM emission control. The CHE Regulation requires all VDECS to be Level 3 devices, which means it reduces diesel PM by at least 85 percent.
- b. To find a VDECS that has been verified for a specific engine, there is a Retrofit Device Verification Database at the following CARB website: <https://www.arb.ca.gov/carbapps/diesel-verdev/vdb/disclaimer.php>. The database is designed to assist the end user in finding a retrofit device that is potentially verified for their on-road or off-road engine.
- c. Before purchasing a VDECS for non-yard truck equipment, owners and operators should confirm VDECS are verified for use with their engine. Authorized installers shall evaluate if the VDECS is compatible with the engine and duty cycle and will not cause any safety and visibility concerns. If the installer determines that the purchased VDECS is not verified for your engine or will cause a performance or safety issue, please contact the Department at stopthesoot@dep.nj.gov.

19. Do I have to install a VDECS on my Tier 4 engine?

No. In accordance with N.J.A.C. 7:27-34.7(a)2, a Level 3 VDECS must be used in conjunction with an engine or power system that is certified to the Tier 4 Alternate PM off-road diesel engine standards as specified at 13 CCR 2423(b)(2)(B) for the rated horsepower and model year. The certification standards can be found on the emission control labels on the engines, or by model

year and engine family name on the CARB website here: https://ww2.arb.ca.gov/new-vehicle-and-engine-certification-executive-orders?eng_id=OFCI

20. Can I repair an engine?

Yes, you can make repairs to an engine under the regulation. In fact, the Department acknowledges that diesel engines regularly require repairs to maintain safe and proper operation. Reparative maintenance is required after failing an opacity test. If repairs require replacing the engine block, additional requirements apply.

21. What if the entire engine or engine block needs to be replaced?

If the entire engine or engine block needs to be replaced, then the new engine needs to be either a Tier 4 final off-road engine or an on-road engine that meets the 2010 (or later) U.S. EPA engine standards.

22. My yard truck has a 2008 on-road engine that needs a new engine block. Can I purchase a new block that meets the same 2008 emission requirements?

No, a new engine block is considered a new engine under the CHE Regulation. The purchase of a new engine block triggers the new cargo handling equipment requirements at N.J.A.C. 7:27-34.5. All new yard truck engines must meet the 2010 or newer on-road emission standards or be a Tier 4 Final off-road engine.

23. What are the requirements for a replacement engine if the original engine has failed?

Unless the engine is being replaced under warranty, a replacement engine must meet the CHE Regulation requirements for new cargo handling equipment at N.J.A.C. 7:27-34.5. If an engine fails during the warranty period, it can be replaced with the exact engine model, engine family, and engine model year even if new emissions standards have taken effect.

24. What procedure is used to measure opacity?

The Department will determine compliance with the opacity limits using a smoke meter that meets, and is used in accordance with, the Society of Automotive Engineers "Surface Vehicle Recommended Practice, Snap Acceleration Smoke Test Procedure for Heavy-Duty Powered Vehicles" (SAE J1667, February 1996).

25. Will replacing a Tier 0-Tier4i with:

- a. Propane forklift model meet the regulation?
So long as it is a Tier 4 Final certified engine, fuel type doesn't matter.

- b. Tier 4 / Stage IV meet the regulation?
Tier 4/stage IV is simply another designation for Tier 4 Final so, yes, this would be acceptable.
- c. Stage 5 meet the regulation?
Stage 5 is an EU standard, a counterpart for which has not yet been promulgated by CARB or USEPA. If such a standard is adopted and engines are certified to it, they would be acceptable assuming that the new standard is more stringent than Tier 4 Final.

26. Other than the annual reporting, how will DEP enforce the rules? Will the DEP be going on-site? Would opacity testing be conducted during a DEP inspection or audit?

The Department will conduct investigations and on-site inspections within the timeframes that it deems appropriate, which may be more often than annually, to determine compliance with the requirements of this rule. Compliance with the opacity limits will be determined by the Department with a smoke meter that is used in accordance with, the Society of Automotive Engineers "Surface Vehicle Recommended Practice, Snap Acceleration Smoke Test Procedure for Heavy-Duty Powered Vehicles" (SAE J1667, February 1996).

27. There are engines described as Stage 5. How does DEP see these engines? Are they equivalent to Tier 4 Final or higher/lower?

As mentioned above, the stage 5 standard is an EU standard only at this time. CARB is beginning to develop a new standard beyond Tier 4 Final which will likely be more stringent but until it is adopted and manufactures begin building engines certified to that new standard, exactly what they are and how they will be treated would be speculation. USEPA is working on updated off-road standards as well.

28. If the DEP approves a Fleet averaging alternate compliance option, is the facility compliant with no more requirements? What scenario would cause additional requirements?

N.J.A.C. 7:27-34.10B(b)iii of the rule says the fleet averaging plan must include "The proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant will use to demonstrate continued compliance with the plan." and this recordkeeping proposal will have to be approved along with the fleet averaging plan itself. Thus, if the reporting or monitoring is conducted in accordance with the DEP approved plan and shows that the fleet is demonstrating full compliance, then no further requirements would be implemented. If the plan is not followed or it shows that the fleet is not demonstrating compliance, then the fleet will have to comply by another means in accordance with CHE regulation.

29. Is Exhaust treatment control (ETC) equivalent to California's diesel particulate filter (DPF)? Is there a list of DEP approved exhaust treatment controls?

Exhaust treatment control (ETC) would need to be any certified device or system that, when installed on the CHE, is able to effect equivalent reductions in both PM and NOx to meet the Tier 4 Final standard. Thus, it would be more than just a DPF (although it would likely include one).

30. Does DEP already have the CHE inventory for each facility/terminal subject to this rule or will the report due on 8/1/2024 be the baseline inventory used by DEP to determine compliance in 2025/2026/2027/2028?

No current inventory exists, hence the reason for this reporting requirement.

31. Can we use a DPF to comply with N.J.A.C. 7:27-34.5(c)? In what scenario would this work for the CHE fleet owner?

You would submit documentation showing the non-availability of equipment meeting the requirements at N.J.A.C. 7:27-34.5(b) and the selected best available control technology option you would like to use. DEP would evaluate each submission on a case-by-case basis to determine eligibility.

32. I purchased compliant non-yard truck equipment, but there is a manufacturing delay. What options do I have?

If a new compliant non-yard truck CHE has been purchased but there is a manufacturing delay in delivery, then the owner or operator may lease a comparable compliant non-yard truck equipment until the new equipment arrives.

If no comparable compliant CHE is available to rent or lease, then the CHE Regulation allows the owner or operator to lease a comparable non-yard truck that is equipped with a CI engine certified to meet the most stringent emission standards at 13 CCR 2423. If this is the case, the owner or operator may submit a request for a compliance extension to the Department at least 60 days prior to the applicable compliance deadline on a form available at www.stopthesoot.org and include the information required at N.J.A.C. 7:27-34.11 and 34.11A.

33. Please clarify the language in N.J.A.C. 7:27-34.5(c)2 regarding manufacturer's delay. CHE owner would have to lease a Tier 4 final while waiting for the delivery of new CHE? Can the CHE owner use the old equipment while waiting for the new equipment to arrive?

When a non-yard truck purchased to comply with N.J.A.C. 7:27-34.5(b) is subject to a manufacturer's delay and no comparable compliant CHE is available for lease, the owner or operator may lease, until the purchased equipment is delivered, a comparable non-yard truck that is equipped with a CI engine certified to meet the highest available emission standards at 13 CCR 2423 for the rated horsepower and model year. Department approval is not required in this situation, which is intended to offer a temporary solution if, due to manufacturer delivery delay and no fault of the owner or operator, non-compliant equipment must be leased for continuity of operations. If the owner or operator has an in-use non-yard truck that the new equipment is intended to replace by an applicable compliance deadline, the owner or operator may also request

a compliance extension pursuant to N.J.A.C. 7:27-34.11 and 34.11A. If approved, the compliance extension allows the owner or operator to continue to use the existing equipment in accordance with the conditions of the approval, until the compliant equipment arrives. See the rule proposal at: <https://www.nj.gov/dep/rules/proposals/20220103a.pdf>