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PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

November 1, 2023

Via SPeCs
Honorable Lisa F. Garcia, Regional Administrator
United States Environmental Protection Agency (USEPA), Region 2
290 Broadway
New York, NY 10007-1866

RE: New Jersey Rule Adoption and State Implementation Plan Revision: Cargo Handling Equipment at Ports and Rail Yards

Dear Regional Administrator Garcia,

Enclosed for your review and approval are adopted rule changes and a revision to the New Jersey State Implementation Plan (SIP) for the ozone National Ambient Air Quality Standards (NAAQS). The New Jersey Department of Environmental Protection (NJDEP) has adopted new rules associated with diesel-fueled mobile sources at ports and intermodal rail yards. These new rules were adopted by the NJDEP on December 29, 2022, and became effective (published in the New Jersey Register) on February 6, 2023.

This SIP revision consists of the NJDEP's adoption of N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards. These rules are based on California's regulation and require diesel mobile cargo handling equipment at ports and intermodal rail yards to apply best available control technology under a phase-in schedule, as zero-emissions technology continues to advance. N.J.A.C. 7:27-34 introduces requirements for new equipment to be equipped with at minimum Tier 4F engines starting March 1, 2025, and existing equipment to transition to Tier 4F engines according to a phase-in schedule based on equipment's model year or engine tier.

Additionally, the rules introduce new opacity limits beginning March 1, 2025, with limits based on the certification of the engine used in the applicable piece of cargo handling equipment. The adopted rules enable the State to modernize some of its oldest diesel-powered equipment and thus reduce diesel engine emissions, including oxides of nitrogen (NO_x) and particulate matter (PM).

The rule proposal was published in the January 3, 2022, New Jersey Register. A public hearing on the proposed new rules and proposed SIP revision was held on Wednesday, February 9, 2022. Written comments relevant to the proposal were accepted until the close of business, Friday, March 4, 2022. All comments were addressed in the adoption which was published in the New Jersey Register on February 6, 2023. The NJDEP has enclosed courtesy copies of the rule proposal and rule adoption. To obtain official versions of the rule proposal and rule adoption the New Jersey Office of Administrative Law and LexisNexis® provide free online public access to the New Jersey Register at: New Jersey Register – Free

Public Access | Main Page (lexis.com). To obtain an official version of the final rule see the New Jersey Administrative Code at: New Jersey Administrative Code – Free Public Access | Main Page (lexis.com).

We appreciate the assistance your staff will provide in reviewing this SIP revision. If you or your staff has any questions, please contact Peg Hanna, Director, Division of Climate Change Mitigation and Monitoring, at (609) 292-5548.

Sincerely,

Shawn M. LaTourette
Commissioner

Enclosures:
Rule Proposal
Rule Adoption
Public Notice Documentation

C (email letter only):
Rick Ruvo, Director, Air and Radiation Division, USEPA Region 2
Kirk Wieber, Chief, Air Programs Branch, USEPA Region 2
Paul Baldauf, Assistant Commissioner, NJDEP
Peg Hanna, Director, Division of Climate Change Mitigation and Monitoring, NJDEP
Francis C. Steitz, Director, Division of Air Quality and Radiation Protection, NJDEP
Kristina Miles, NJ Deputy Attorney General

DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR QUALITY, ENERGY, AND SUSTAINABILITY

DIVISION OF AIR QUALITY

Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards

Proposed New Rules: N.J.A.C. 7:27-34

Proposed Amendment: N.J.A.C. 7:27A-3.10

Authorized By: Shawn M. LaTourette, Commissioner, Department of Environmental Protection.

Authority: N.J.S.A. 13:1B-3(e), 13:1D-9, and 26:2C-1 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

DEP Docket Number: 08-21-11.

Proposal Number: PRN 2021-121.

A **public hearing** concerning this notice of proposal and the proposed State Implementation Plan (SIP) revision will be held on Wednesday, February 9, 2022, at 9:30 A.M. The hearing will be conducted virtually through the Department of Environmental Protection's (Department) video conferencing software, Microsoft Teams. A link to the virtual public hearing and telephone call-in option will be provided on the Department's website at https://www.nj.gov/dep/rules/notices.html.

Submit comments by close of business on March 4, 2022, electronically at www.nj.gov/dep/rules/comments. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

The Department encourages electronic submittal of comments. In the alternative,

comments may be submitted on paper to:

Alice A. Previte, Esq.

Attention: DEP Docket No. 08-21-11

Office of Legal Affairs

New Jersey Department of Environmental Protection

401 East State Street, 7th Floor

Mail Code 401-04L

PO Box 402

Trenton, NJ 08625-0402

If you are interested in providing oral testimony or submitting written comments at the virtual public hearing, please email the Department of Environmental Protection (Department) at monica.miranda@dep.nj.gov no later than 5:00 P.M. Monday, February 7, 2022, with your contact information (name, organization, telephone number, and email address). You must provide a valid email address so the Department can send you an email confirming receipt of your interest in testifying orally at the hearing and providing you with a separate option for a telephone call-in line if you do not have access to a computer or mobile device that can connect to Microsoft Teams. This hearing will be recorded. It is requested (but not required) that anyone providing oral testimony at the public hearing provide a copy of any prepared remarks to the Department through email.

The proposed rules will become operative 60 days after their adoption (see N.J.S.A. 26:2C-8). This rule proposal may be viewed or downloaded from the Department's website at

The agency proposal follows:

Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

On January 27, 2020, Governor Murphy issued Executive Order No. 100 (2020) (EO No. 100), which directs the Commissioner of the Department to, among other things, reform and modernize its air and land use regulations to mitigate the effects of climate change and to gather information to inform future climate-related rulemaking. In response to EO No. 100, Commissioner Catherine McCabe issued Administrative Order 2020-01 (AO No. 1), https://www.nj.gov/dep/njpact/, which directs the Department to propose regulations that reduce emissions of CO_2 and short-lived climate pollutants, as well as identify the rules and programs that should be updated to better respond to the challenges presented by climate change. The Department held stakeholder meetings on February 25, 2020, as well as September 3, 10, and 16, 2020, to discuss potential rulemakings to reduce greenhouse gas and other pollutants from stationary and mobile sources. The public information meeting materials are available on the Department's website at https://www.nj.gov/dep/njpact/.

In a separate rulemaking, the Department proposes to incorporate by reference California's Advanced Clean Trucks regulation (53 N.J.R. 588(a)), which begins the State's transition of the heavy-duty vehicle and engine sector to zero-emission. The rulemaking focuses on reducing greenhouse gas emissions and criteria air pollution, specifically, emissions

of oxides of nitrogen (NO_x) and fine particulate matter (PM2.5), from on-road heavy-duty vehicles and engines.

This rulemaking concerns diesel-fueled mobile sources at ports and intermodal rail yards. Specifically, the Department proposes rules based on California's regulation requiring diesel mobile cargo handling equipment at ports and intermodal rail yards to apply best available control technology while zero-emission technology continues to advance for this equipment. With the proposed rules, the Department expects to reduce diesel engine emissions, including NO_x, particulate matter (PM), and PM2.5. New Jersey is in nonattainment for the Federal ozone national ambient air quality standard (NAAQS) and must continue to reduce NO_x emissions Statewide to attain, and maintain, the ozone NAAQS. Moreover, the Department expects that communities near ports and intermodal rail yards in the State where cargo handling equipment is operated will particularly benefit from the reduced emissions. These include some communities identified as overburdened, as defined at N.J.S.A. 13:1D-158.

The portions of the Summary that follow are organized by topic; consequently, some provisions of the new rules, such as the definitions, may be discussed in several places in the Summary.

Global Warming Response Act

In 2007, New Jersey's Legislature passed the Global Warming Response Act (GWRA), which recognized that climate change, primarily caused by emissions of heat-trapping greenhouse gases, poses a threat to the Earth's ecosystems and environment. See N.J.S.A. 26:2C-38. Additionally, the Legislature recognized that reducing emissions of greenhouse gases

was not only possible, but necessary, to prevent further detrimental impacts on human, animal, and plant life. *Id*. A dozen years later, the Legislature amended the GWRA to acknowledge the role that short-lived climate pollutants play in climate change and to require the State to develop programs to reduce emissions of both greenhouse gases and short-lived climate pollutants through a comprehensive strategy. See P.L. 2019, c. 197. The GWRA's two long-term goals are to reduce greenhouse gas emissions to the 1990 level of Statewide greenhouse gas emissions by 2020 (2020 goal), which the State met, and to further reduce Statewide emissions by 80 percent below the 2006 level by 2050 (80x50 goal).

Recognizing the need for a comprehensive strategy, Governor Murphy directed multiple State agencies to develop or update reports and implement policies to mitigate climate change and strengthen resilience. Pursuant to Executive Order No. 28 (2019), the New Jersey Energy Master Plan was updated for 2019. *2019 Energy Master Plan: Pathway to 2050*, Executive Summary, https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf (2019 EMP). The updated 2019 EMP included extensive modeling that resulted in the identification of seven overarching strategies the State should pursue to meet the 80x50 goal of the GWRA and the 2019 EMP goal of 100 percent clean energy by 2050. Pursuant to the GWRA, the Department released the 2050 Report on October 15, 2020. The 2050 Report builds on the 2019 EMP by analyzing New Jersey's emissions reductions to date, evaluating plans presently in place for further reducing emissions, and presenting a set of strategies across seven emission sectors for policymakers to consider in formulating legislation, regulations, policies, and programs to ensure that New Jersey achieves the 80x50 goal. New Jersey Department of Environmental Protection, *New Jersey's Global Warming Response Act 80x50 Report*, October 15, 2020, Executive Summary,

p.v, https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf (2050 Report).

As the Department evaluates strategies and measures to reduce pollutants contributing to climate change, the Department continues to look at ways to improve the State's air quality by reducing both NO_x emissions, which are a precursor of ground-level ozone (referred to simply as ozone) and PM2.5, and direct emissions of PM. PM is a term for a mixture of solid particles and liquid droplets in the air. See EPA Particulate Matter (PM) Basics, https://www.epa.gov/pm-pollution/particulate-matter-pm-basics. Particles "come in many sizes and shapes and can be made up of hundreds of different chemicals." *Ibid*. Particles are directly emitted from sources like construction sites and smokestacks and are also formed in the atmosphere when chemicals, such as sulfur dioxide and nitrogen oxides, react. *Ibid*. Particle pollution includes PM10, as well as the smaller PM2.5. *Ibid*. PM2.5 includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns, including condensable particulate matter. PM10 refers to inhalable particles with a diameter generally 10 microns or less. See CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10), https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health.

The public health and environmental concerns associated with ozone and PM pollution are heightened because of the interaction between climate change and air quality. High temperatures, ample sunshine, and stagnant air masses are conducive to high ozone levels and often result in higher PM levels in the ambient air. See New Jersey Department of Environmental Protection, *New Jersey Scientific Report on Climate Change*, June 2020, p. 61, https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf (2020 Report on

Climate Change). Although precursor emissions may decrease, they are expected to remain high in dense urban areas and air quality generally will deteriorate due to a warming climate. *Id*. at 62.

Emission standards for nonroad (off-road) engines

A primary goal of the Federal Clean Air Act (CAA) is the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS). The CAA, as amended in 1990, gives the U.S. Environmental Protection Agency (EPA) express authority to regulate nonroad sources of air pollution. See 42 U.S.C. § 7547. The CAA directs the EPA to study emissions from nonroad engines and vehicles and to regulate these sources if the EPA finds that their emissions are significant contributors to ozone or carbon monoxide (CO) in more than one nonattainment area for these pollutants. Nonroad engines are internal combustion engines used in different types and sizes of off-road equipment and vehicles—for example, excavators, bulldozers, locomotives, marine vessels, and lawnmowers – for a wide range of applications. Nonroad engines are not used in a motor vehicle (a self-propelled vehicle designed for transporting persons or property on a street or highway) or a vehicle used solely for competition. See 42 U.S.C. § 7550.

The CAA authorizes California to adopt and enforce standards and requirements for nonroad engines other than those specifically preempted by the CAA, after the EPA authorizes California to do so. 42 U.S.C. § 7543(e)(2). The CAA expressly preempts any state from adopting emission standards and requirements for new nonroad engines used in construction or farm equipment or vehicles that are smaller than 175 horsepower, or new locomotives or

new engines used in locomotives. 42 U.S.C. § 7543(e). Other states may adopt California's EPA-authorized emission standards and other requirements for nonroad engines, provided the state gives two years' lead time. *Id*. Because California refers to nonroad engines as off-road engines, in this notice of proposal Summary the Department uses the term "nonroad" when discussing the EPA's regulations and "off-road" engines when referring to California's regulations.

Tier 1

The EPA completed its study of nonroad engines and vehicles in November 1991. See EPA, Nonroad Engine and Vehicle Emission Study – Report, EPA-21A-2001 (November 1991), https://nepis.epa.gov/Exe/ZyPDF.cgi/2000SUNG.PDF?Dockey=2000SUNG.PDF. As directed by Congress, the report evaluated "the contribution of nonroad sources to ozone and carbon monoxide air pollution and to other pollutants believed to endanger public health." *Id*. at v. In 1994, after the EPA completed its study, the EPA finalized its determination that nonroad engines are significant contributors to nonattainment of the NAAQS for ozone and CO in more than one nonattainment area. Because of the EPA's positive determination, the EPA was required to promulgate regulations to reduce emissions from nonroad sources. Accordingly, the EPA adopted its first set of standards for carbon monoxide (CO), hydrocarbon (HC), particulate matter (PM), oxides of nitrogen (NO_x), and smoke emissions from large nonroad compression ignition (CI) engines at, or above, 37 kilowatts (kW), or 50 horsepower (hp), in power. 59 FR 31,306 (June 17, 1994). At that point, the EPA considered a CI engine to be "an internal combustion engine in which air is compressed to a temperature sufficiently high to ignite fuel injected into the combustion chamber." 58 FR 28,809, 28,813, n.17 (May 17, 1993).

The EPA later formally defined "CI engine," as explained below.

This first phase of standards is referred to as Tier 1. The EPA established four categories according to an engine's gross maximum power output (in metric units). The four categories are engines greater than or equal to 37 kW (50 hp), but less than 75 kW (100 hp); greater than or equal to 75 kW (100 hp), but less than 130 kW (175 hp); greater than or equal to 130 kW (175 hp), but less than or equal to 560 kW (750 hp) (the category most similar to certified on-road engines); and greater than 560 kW (750 hp). The EPA staggered the effective date by which each category of engine was required to be certified to the emission standards, expressed in grams per kW-hour (kW-hr) (or grams per hp-hour (hp-hr), and other requirements. Pre-Tier 1 engines were not required to be certified to meet any emission standards and are referred to as Tier 0.

Tier 2 and Tier 3

In 1998, the EPA finalized its Tier 2 and Tier 3 standards for nonroad CI engines at or above 37 kW (50 hp). 63 FR 56,968 (Oct. 23, 1998). The EPA's 1998 standards defined a CI engine according to engine cycle (diesel) to follow the definition for highway engines (40 CFR 89.2), and began to refer to CI engines interchangeably with diesel engines. See 63 FR at 56,972.

Continuing to align its nonroad engine standards with those for on-highway engines, the EPA finalized the Tier 2 and Tier 3 emission standards to "approximate the degree of control anticipated from existing standards covering engines used in heavy-duty diesel highway vehicles, with approximate consideration of differences in the sizes and operational characteristics of the engines and in the organization of the industries." 63 FR at 56,969. The

Tier 2 and Tier 3 standards generally paralleled the standards that apply to 1998 model year and 2004 model year highway engines, respectively. *Id*. Thus, nonroad engine standards generally followed the standards for on-road vehicles, with compliance several years behind. The Tier 1 through 3 requirements are reflected at 40 CFR 89.112, Table 1, reproduced below:

Table 1.—Emission Standards (g/kW-hr)

Rated Power (kW)	Tier	Model Year[1]	NOx	HC	NMHC + NOx	CO	PM
kW<8	Tier 1	2000	—	—	10.5	8.0	1.0
	Tier 2	2005	—	—	7.5	8.0	0.80
8≤kW<19	Tier 1	2000	—	—	9.5	6.6	0.80
	Tier 2	2005	—	—	7.5	6.6	0.80
19≤kW<37	Tier 1	1999	—	—	9.5	5.5	0.80
	Tier 2	2004	—	—	7.5	5.5	0.60
37≤kW<75	Tier 1	1998	9.2	—	—	—	—
	Tier 2	2004	—	—	7.5	5.0	0.40
	Tier 3	2008	—	—	4.7	5.0	
75≤kW<130	Tier 1	1997	9.2	—	—	—	—
	Tier 2	2003	—	—	6.6	5.0	0.30
	Tier 3	2007	—	—	4.0	5.0	
130≤kW<225	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2003	—	—	6.6	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
225≤kW<450	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2001	—	—	6.4	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
450≤kW≤560	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2002	—	—	6.4	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
kW>560	Tier 1	2000	9.2	1.3	—	11.4	0.54
	Tier 2	2006	—	—	6.4	3.5	0.20

[1] The model years listed indicate the model years for which the specified tier of standards take effect.

In establishing the Tier 2 and Tier 3 standards, the EPA divided the original engine

category of greater than or equal to 130 kW (175 hp), but less than or equal to 560 kW (750 hp) into three categories: greater than or equal to 130 kW (175 hp), but less than or equal to 225 kW (300 hp); greater than or equal to 225 kW (300 hp), but less than or equal to 450 kW (600 hp); and greater than or equal to 450 kW (600 hp), but less than or equal to 560 kW (750 hp). For the first time, the EPA established emission standards (Tier 1 and Tier 2, phased in) for small engines rated under 37 kW. *Id*.

Tier 4

In 2004, the EPA finalized its Tier 4 standards for nonroad diesel engines, which the EPA anticipated would "achieve reductions in PM and NO_x emission levels in excess of 95 percent and 90 percent respectively." 69 FR 38,958, 38,960 (June 29, 2004). As the EPA explained, "[n]onroad engines, and most importantly nonroad diesel engines, contribute significantly to ambient $PM_{2.5}$ levels, largely through direct emissions of carbonaceous and sulfate particles in the fine (and even ultrafine) size range." 69 FR at 38,964. More than 90 percent of particulate matter in diesel exhaust is less than one micron in diameter and, therefore, is a subset of PM2.5. See CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10), https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health. Diesel nonroad engines also emit high levels of NO_x, which reacts in the atmosphere to form secondary PM2.5 and ozone, and sulfur dioxide (SO_2) and hydrocarbons, which also react in the atmosphere to form secondary PM2.5. *Id*. at 38,964.

To reduce harmful pollution from nonroad diesel engines and benefit human health and welfare, the EPA finalized the Tier 4 standards for nonroad diesel engines of all power ratings. The EPA established a phase-in schedule beginning in 2008, with applicable emissions standards

determined by model year for each of five power categories. Engines less than 25 hp must meet a new engine standard for PM of 0.30 g/bhp-hr. 69 FR at 38,961; see 40 CFR 1039.101, Table 1. For engines of 25 to 75 hp, the EPA's standards reflected approximately 50 percent PM reductions from Tier 3 engines. Starting in 2013, these engines were required to meet standards of 0.02 g/bhp-hr for PM. Standards of 0.01 g/bhp-hr for PM and 0.30 g/bhp-hr for NO_x were finalized for engines of 75 to 175 hp, starting in 2012, with the NO_x standards phased in. The PM and NO_x standards for engines of 75 to 175 hp also applied to engines of 175 to 750 hp, starting in 2011, with a similar phase-in schedule. Engines above 750 hp had to meet a PM standard of 0.075 g/bhp-hr, starting in 2011. *Id*.

To transition to Tier 4 final standards, the EPA established interim standards, which began between 2008 and 2012 for most engines, and final standards, which were effective for all off-road engines by 2015. See 69 FR at 38,961.

California off-road engine standards

For new off-road diesel engines, California has harmonized with Federal nonroad compression ignition engine emission standards. See California Air Resources Board (CARB), Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, October 2005 (CARB Initial ISOR), II-8 to 9, https://ww3.arb.ca.gov/regact/cargo2005/isor.pdf. Like the EPA nonroad CI engine standards, CARB's off-road CI engine standards (Tiers) vary depending on the engine model year and maximum rated power. *Ibid*. The Tier 1 through Tier 4 standards as provided by CARB, CARB Initial ISOR, Table II-2 at p. II-9, are reproduced below:

HP (kw)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
< 11 (8)	See Table 2 footnote (a)					7.8 / 6.0 / 0.75 (10.5 / 8.0 / 1.0)					*5.6 / 6.0 / 0.60 (7.5 / 8.0 / 0.80)*			**5.6 / 6.0 / 0.30[a] (7.5 / 8.0 / 0.40)**							
≥ 11(8) < 25 (19)						7.1 / 4.9 / 0.6 (9.5 / 6.6 / 0.80)					*5.6 / 4.9 / 0.60 (7.5 / 6.6 / 0.80)*			**5.6 / 4.9 / 0.30 (7.5 / 6.6 / 0.40)**							
≥ 25(19) < 50 (37)			-			7.1 / 4.1 / 0.6 (9.5 / 5.5 / 0.80)					*5.6 / 4.1 / 0.45 (7.5 / 5.5 / 0.60)*			5.6 / 4.1 / 0.22 (7.5 / 5.5 / 0.30)						**3.5 / 4.1 / 0.02 (4.7 / 5.5 / 0.03)**	
≥ 50 (37) < 75 (56)				-		- / 6.9 / - / -[b] (- / 9.2 / - / -)					*5.6 / 3.7 / 0.30 (7.5 / 5.0 / 0.40)*			3.5 / 3.7 / 0.22 (4.7 / 5.0 / 0.30)						**3.5 / 3.7 / 0.02[c] (4.7 / 5.0 / 0.03)**	
≥ 75 (56) < 100 (75)														*3.5 / 3.7 / 0.30 (4.7 / 5.0 / 0.40)*				0.14 / 2.5 / 3.7 / 0.01[b,d] (0.19 / 2.0 / 3.5 / 0.02)			**0.14 (0.19) 0.30 (0.40) 3.7 (5.0) 0.01[b] (0.02)**
≥ 100 (75) < 175 (130)					-				*4.9 / 3.7 / 0.22 (6.6 / 3.5 / 0.20)*				*3.5 / 3.7 / 0.22 (4.0 / 5.0 / 0.30)*								
≥ 175 (130) < 300 (225)									*4.8 / 2.6 / 0.15 (6.4 / 3.5 / 0.20)*								0.14 / 1.5 / 2.6 / 0.01[b,d] (0.19 / 2.0 / 3.5 / 0.02)				**0.14 (0.19) 0.30 (0.40) 2.6 (3.5) 0.01[b] (0.02)**
≥ 300 (225) < 600 (450)		-		1.0 / 6.9 / 8.5 / 0.40[b] (1.3 / 9.2 / 11.4 / 0.54)						*4.8 / 2.6 / 0.15 (6.4 / 3.5 / 0.20)*			*3.0 / 2.6 / 0.15[e] (4.0 / 3.5 / 0.20)*								
≥ 600 (450) < 750 (560)																					
Mobile Machines < 750 (560)																	0.30 / 2.6 / 2.6 / 0.07[b] (0.40 / 3.5 / 3.5 / 0.10)				**0.14 (0.19) 2.6 (3.5) 2.6 (3.5) 0.03[b] (0.04)**
GEN > 750 (560) ≤ 1207 (900)			-			1.0 / 6.9 / 8.5 / 0.40[b] (1.3 / 9.2 / 11.4 / 0.54)							*4.8 / 2.6 / 0.15 (6.4 / 3.5 / 0.20)*								**0.14 (0.19) 0.5 (0.67) 2.6 (3.5) 0.02[b] (0.03)**
GEN > 1207 (900)																	0.30 / 0.50 / 2.6 / 0.07[b] (0.40 / 0.67 / 3.5 / 0.10)				

a) The PM standard for hand-start, air cooled, direct injection engines below 11 hp (8 kW) may be delayed until 2010 and be set at 0.45 g/bhp-hr (0.60 g/kW-hr).

b) Standards given are NMHC/NO_x/CO/PM in g/bhp-hr (or g/kW-hr).

c) Engine families in this power category may alternately meet Tier 3 PM standards [0.30 g/bhp-hr (0.40 g/kW-hr)] in 2008-2011 in exchange for introducing final PM standards in 212.

d) The implementation schedule shown is in the three-year alternate NO_x approach. Other schedules are available.

e) Certain manufacturers have agreed to comply with these standards by 2005.

Tier 1	*Tier 2*	*Tier 3*	Tier 4 interim	**Tier 4 final**

Cargo Handling Equipment at Ports and Intermodal Railyards, N.J.A.C. 7:27-34, generally

To address the concerns posed by emissions from cargo handling equipment in New Jersey communities near ports and intermodal rail yards, the Department proposes rules modeled on California's Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards (CHE Regulation), 13 CCR 2479, which was effective December 31, 2006, and amended in 2012. See CARB Initial ISOR; California Air Resources Board (CARB), Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Amendments to Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, August 2011 (CARB Amendments ISOR), ES-2, https://ww3.arb.ca.gov/regact/2011/cargo11/cargoisor.pdf; CARB Executive Order R-12-009, https://ww3.arb.ca.gov/regact/2011/cargo11/cargoeo.pdf. The EPA authorized California's CHE Regulation. 77 FR 9,916 (Feb. 21, 2012); 80 FR 26,249 (May 7, 2015).

The goal of the CHE Regulation, and the proposed new rules, is to reduce diesel PM and

NO_x emissions from new and in-use (existing) cargo handling equipment at ports and intermodal rail yards through replacement with engines or equipment that meet the most stringent emissions control technology standard or through the application of the most stringent emission control strategy. See CARB Initial ISOR at ES-2. As noted, Tier 4 final engines are 90 percent cleaner than unregulated or Tier 0 engines. Achieving these reductions is important because "[d]iesel engine exhaust is a source of unhealthful air pollutants including gaseous- and particulate-phrase toxic air contaminants (TAC), particulate matter, carbon monoxide, hydrocarbons, and oxides of nitrogen." CARB Initial ISOR, p. I-1. The primary gas phase components of diesel exhaust include NO_x, CO_2, CO, SO_2, reactive organic gases, water vapor, and excess air. *Id*. at I-3. Almost all diesel particles are PM10 and approximately 94 percent of diesel particles are PM2.5, a subset of PM10.

Public health and welfare effects of diesel pollution

Particulate matter in the ambient air is associated with key health effects categories, such as premature mortality, aggravation of respiratory and cardiovascular disease, aggravated asthma, and acute respiratory symptoms, including aggravated coughing and difficult or painful breathing, chronic bronchitis, and decreased lung function. *Id*. at I-5. PM exposure is associated with "increased hospital admissions for ischemic heart disease, heart failure, respiratory disease, including chronic obstructive pulmonary disease (COPD) and pneumonia," as well as "increased cough, lower respiratory symptoms, and decrements in lung function." 69 FR at 38,966. Studies also "have associated changes in heart rate and/or heart rhythm in addition to changes in blood characteristics with exposure to ambient PM. Short-term variations in ambient PM have also been associated with increases in total and cardiorespiratory mortality."

Ibid.

Long-term exposure to ambient PM2.5 has also been shown to be associated with premature mortality, including from lung cancer. *Ibid*. Studies also indicate that "asthma, lung function decrement, respiratory symptoms, and other respiratory problems appear to occur more frequently in people living near busy roads." *Ibid*. One study "indicated that long-term residence near major roads, an index of exposure to primary mobile source emissions (including diesel exhaust), was significantly associated with increased cardiopulmonary mortality." *Ibid*. "Other studies have shown children living near roads with high truck traffic density have decreased lung function and greater prevalence of lower respiratory symptoms compared to children living on other roads." *Ibid*.

"Diesel PM can be distinguished from noncombustion sources of PM2.5 by the high content of elemental carbon with adsorbed organic compounds and the high number of ultrafine particles (organic carbon and sulfate)." CARB Initial ISOR at I-3 to 4. Particles in diesel engine exhaust (diesel particles) contain compounds that are potent mutagens and carcinogens. *Id*. at I-3. Diesel PM, therefore, is a particular public health concern because these particles pose a lung cancer hazard and cause other noncancer respiratory effects, such as lung inflammation. *Id*. at I-4; see 69 FR at 38,966. Nonroad diesel engine emissions contain substances known, or suspected, to have both carcinogenic and noncancer health effects, as well as the potential to cause health effects at environmental levels of exposure. 69 FR at 38,966. These compounds include benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, dioxin, and polycyclic organic matter. *Ibid*. "For some of these pollutants, nonroad diesel engine emissions are believed to account for a significant proportion of total nationwide

emissions." *Ibid*.

SO_2, NO_x, and organic compounds, which are emitted by diesel engines, are PM precursors. Diesel engine exhaust also contains NO_x and reactive organic gases, which are ozone precursors. Ozone damages the respiratory tract; the inflammation and irritation caused by ozone can result in breathing difficulties. Individuals repeatedly exposed to ozone can become more susceptive to respiratory infection and lung inflammation. Additionally, prolonged, repeated exposure to ozone can inflame the lung, impair lung defense mechanisms, and cause irreversible changes in lung structure, which could lead to premature aging of the lungs and/or chronic respiratory illnesses, including emphysema and chronic bronchitis. Individuals most susceptible to ozone health effects include children, people with preexisting lung disease, and adults exercising or working outdoors. CARB Initial ISOR at I-5 to 6. See also 69 FR at 38,967.

Nonroad diesel engines also cause non-health impacts including "visibility impairment, soiling and material damage, acid deposition, eutrophication of water bodies, plant and ecosystem damage from ozone, water pollution resulting from deposition of toxic air pollutants with resulting effects on fish and wildlife, and odor." 69 FR at 38,967.

Proposed cargo handling equipment regulations, generally

California adopted the CHE Regulation to protect the public health and welfare from harmful air pollution emitted by cargo handling equipment used at ports and intermodal rail yards, which operate in or near densely populated areas. The CHE Regulation requires new equipment operating at California's ports and intermodal rail yards to meet California's most current on-road or off-road engine standards. The CHE Regulation also requires in-use (or

existing) equipment to be replaced with cleaner engines and, in some cases, to be retrofitted to reduce PM emissions. Cargo handling equipment must also not exceed opacity limits.

The Department proposes rules based on California's CHE Regulation; however, as discussed in more detail below, the proposed rules differ somewhat from the CHE Regulation. Specific provisions of the CHE Regulation were based on conditions no longer pertinent; therefore, these outdated provisions are not in the proposed new rules. The Department proposes other differences based on the state of technology and engine and equipment availability at the time of this rulemaking, compared with when the CHE Regulation became effective on December 31, 2006, before Tier 4 final was effective for all off-road engines. See CARB Initial ISOR at V-2. For example, CARB provided an extended phased compliance schedule for in-use cargo handling equipment to allow for technology development and adequate engine availability. The Department believes a shorter compliance period is appropriate because Tier 4 final has been in effect since 2015 for all off-road engines and only engines that comply with Tier 4 final requirements are available for new purchase at this time.

The proposed rules allow for compliance extensions if there is a manufacturer delay in delivery of compliant equipment, for equipment that is operated less than 200 hours annually (low-use equipment), or if the existing equipment will be replaced with zero-emission equipment. If compliant equipment is not available for a particular use or application, the rules allow a case-by-case application of best available control technology for the particular equipment. The rules also allow fleet averaging as an alternate compliance option. Proposed reporting and recordkeeping requirements are intended to enable the Department to ensure compliance and to provide the Department with information regarding the universe of cargo

handling equipment operating at New Jersey ports and intermodal rail yards.

N.J.A.C. 7:27-34.1, Purpose

Proposed new N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, is based on California's CHE Regulation that requires cargo handling equipment operating at ports and intermodal rail yards to meet performance standards based on the application of best available control technology. The subchapter applies to all cargo handling equipment that is operated within a port's boundaries or at an intermodal rail yard, with certain exemptions provided at N.J.A.C. 7:27-34.2. The Department's goal in proposing N.J.A.C. 7:27-34, as set forth at N.J.A.C. 7:27-34.1, Purpose, is to reduce NO_x and PM emissions from cargo handling equipment with diesel-fueled compression ignition engines operating at ports and intermodal rail yards in the State, which is the same as California's goal in promulgating the CHE Regulation. See 13 CCR 2479(a); CARB Initial ISOR at I-1. "'Diesel particulate matter' or 'diesel PM,'" "'nitrogen oxides' or 'NO_x'" and "'particulate matter' or 'PM'" are defined at proposed N.J.A.C. 7:27-34.3 in accordance with their generally accepted scientific meanings and consistent with their definitions in 13 CCR 2479. "'Hydrocarbon' or 'HC'" is proposed to be defined at N.J.A.C. 7:27-34.3, as any compound or mixture of compounds whose molecules consist of atoms of hydrogen and carbon only.

At N.J.A.C. 7:27-34.3, the Department proposes to define "cargo handling equipment" as any mobile off-road, self-propelled vehicle, or equipment with a diesel-fueled CI engine used at a port or intermodal rail yard to lift or move container, bulk, or liquid cargo carried by ship, train, or another vehicle. The term also includes any mobile off-road, self-propelled vehicle or

equipment with a diesel-fueled CI engine used at a port or intermodal rail yard to perform routinely scheduled or predictable maintenance and repair activities. The Department proposes to define "cargo" to mean material, goods, or commodities transported to, or from, a port or intermodal rail yard by ship, train, truck, or other transportation mode. "Off-road vehicle or equipment" is defined at proposed N.J.A.C. 7:27-34.3 to mean any non-stationary device powered by an internal combustion engine or motor used primarily off the highways to propel, move, or transport persons or property. "Diesel-fueled CI engine," "diesel fuel," "'ultra-low sulfur diesel' or 'ULSD,'" "'compression ignition engine' or 'CI engine'" are proposed to be defined consistent with their definitions at 13 CCR 2479.

As CARB explained, "cargo handling equipment at ports and intermodal rail yards is as diverse a group of equipment as the cargo that it handles . . . [which] can include liquid, bulk (break bulk and dry bulk), and containers." CARB Initial ISOR at I-12. Liquid cargo can include petroleum products and chemicals, which usually do not have mobile cargo handling equipment associated with their transport since they are often transported by pipeline. *Id*. At II-12. Break bulk cargo includes lumber, steel, machinery, and other types of palletized goods. *Ibid*. Dry bulk cargo includes cement, scrap metal, salt, sugar, sulfur, and petroleum coke. *Ibid*.

All cargo handling equipment can be classified as either a yard truck or a non-yard truck (by definition, a "non-yard truck" is all cargo equipment that is not a "yard truck"). A "yard truck" is defined at N.J.A.C. 7:27-34.3 as an off-road mobile utility vehicle, with or without chassis, that is used to carry cargo containers. As explained by CARB, a yard truck is the most common type of cargo handling equipment and designed to move cargo containers. CARB Initial ISOR at II-1. Although yard trucks are similar to heavy-duty on-road truck tractors, most

are equipped with off-road engines. *Ibid*. According to CARB, yard trucks have a horsepower (hp) range of about 150 to 250 hp, but most are around 175 to 200 hp. *Id*. At II-2.

A "non-yard truck" is a broad category that includes equipment used to move containers, such as "rubber-tired gantry cranes," "top handlers," "side handlers," and "reach stackers," each defined at N.J.A.C. 7:27-34.3, consistent with their definitions at 13 CCR 2479, and straddle carriers. Rubber-tired gantry cranes, or RTG cranes, are "very large cargo container handlers that have a lifting mechanism mounted on a cross-beam supported on vertical legs which run on rubber tires." CARB Initial ISOR at II-3. RTG cranes have a horsepower range of about 200 to 1,000 hp; most are between 300 to 1,000 hp. *Ibid*. Top handlers or top picks are "large truck-like vehicles with an overhead boom which locks onto the top of containers in a single stack." *Id.* At II-2. They are used to stack containers and load containers onto and off of yard trucks. *Ibid*. Top handlers have a horsepower range of about 250 to 400 hp; most are between 250 and 350 hp. *Ibid*. Side handlers or side picks, similar to top handlers, are used to lift and stack usually empty containers using a boom arm, which extends the container width. *Ibid*. The horsepower range of side handlers is about 120 to 400 hp; most are between 160 and 250 hp. *Ibid*. A reach stacker lifts containers with a telescopic boom that moves up and out to reach over two or more stacks of containers and locks onto the container top. *Ibid*. Less commonly used, reach stackers have a horsepower range of about 250 to 400 hp, with most being between 230 and 300 hp. *Ibid*.

Bulk, non-containerized cargo is moved with equipment such as dozers, excavators, loaders, tractors, and aerial lifts. "Dozer," "excavator," "forklift," and "loader" are also separately defined at proposed N.J.A.C. 7:27-34.3 consistent with their definitions at 13 CCR

2479. Dozers and loaders are off-road tractors, either tracked or wheeled, used in dry bulk handling operations; dozers are also used in break bulk cargo handling operations. *Id*. At II-4. Dozers are equipped with a blade and have a horsepower range of 77 to 900 hp; most are between 300 to 400 hp. *Ibid*. A loader uses a bucket on the end of movable arms to lift and move materials. *Ibid*. Loaders have a horsepower range of 36 to over 1,000 hp; most are between 200 and 750 hp. *Ibid*. Finally, forklifts are industrial trucks that hoist and transport materials by inserting one or more steel forks or coils either under or in the middle of the load. *Id*. At II-3. Forklifts are used to move both containers and bulk cargo and have a horsepower range of about 45 to 280 hp. *Id*. At II-3.

Applicability and General provisions, N.J.A.C. 7:27-34.2 and 34.4

Generally speaking, the new subchapter applies to: (1) any person who owns or operates a terminal or business at a port in New Jersey and operates cargo handling equipment at that location; (2) any person who owns or operates an intermodal rail yard in New Jersey and operates cargo handling equipment at that location; and (3) any person conducting business in the State who sells, offers for sale, leases, rents, or purchases any cargo handling equipment or CI engine that is used at any port or intermodal rail yard in the State. See proposed N.J.A.C. 7:27-34.2(a).

Ports in the State

As provided at N.J.A.C. 7:27-34.4, a person who owns or operates a terminal or business at a port in the State and operates cargo handling equipment at that location must comply with the requirements at N.J.A.C. 7:27-34, including, but not limited to, the cargo handling equipment performance standards and reporting requirements.

"Port" is defined at N.J.A.C. 7:27-34.3 to mean a publicly or privately owned property located at a harbor or along a waterway where marine and port terminals typically load and unload water-borne commerce onto and from ocean-going vessels. The definition of a port includes all terminals and property within the port's physical boundaries or demarcated as the port on city or county land maps and all contiguous properties owned or operated by the port. "Contiguous properties" is defined at N.J.A.C. 7:27-34.3 to mean adjacent properties, even if they are separated by human-made barriers or structures, including roadways, or legal boundaries. The terms "ocean-going vessel" and "water-bourne commerce" are defined at proposed N.J.A.C. 7:27-34.3, consistent with the definitions at 13 CCR 2479. There are several locations in New Jersey that qualify as a "port" under the proposed rules, including, but not limited to, the Port of New York and New Jersey and ports along the Delaware River, such as Camden, Gloucester, Paulsboro, and Salem.

"Terminal" is proposed to be defined consistent with the definition in the CHE Regulation as "a facility, including one owned or operated by the Department of Defense or the U.S. military services, that handles cargo at a port or intermodal rail yard." "Person" is defined at N.J.A.C. 7:27-34.3, consistent with the definition of the term at N.J.A.C. 7:27-22.1. Thus, as proposed, the new subchapter will be applicable to both publicly and privately owned or operated terminals and businesses located at New Jersey ports (for example, privately owned port and marine terminals along the coast that handle liquid, bulk, or containerized cargo and privately operated businesses that lease property at a port), if cargo handling equipment is used on-site. This is consistent with the Department's intention to reduce diesel emissions at ports in the State by imposing performance standards on cargo handling equipment that

operates within a port's boundaries and is not otherwise exempt pursuant to N.J.A.C. 7:27-34.2.

Intermodal rail yards in the State

As provided at N.J.A.C. 7:27-34.4, a person who owns or operates an intermodal rail yard in the State and operates cargo handling equipment at that location must comply with the requirements at N.J.A.C. 7:27-34, including, but not limited to, the cargo handling equipment performance standards and reporting requirements.

The proposed definition of "intermodal rail yard" is consistent with the definition of this term at 13 CCR 2479. As defined, an intermodal rail yard is a transportation facility owned or operated by a Class I railroad, and is primarily dedicated to intermodal rail operations, which involve transferring cargo from one mode of transportation to another (such as train-to-ship, or train-to-truck). A "Class I railroad" is proposed to be defined at N.J.A.C. 7:27-34.3 as a freight railway that meets the revenue threshold for a Class I railroad, as defined by the Surface Transportation Board. See 49 CFR Part 1201. The Department proposes to use the Federal classification as CARB did. Two major railroad companies, CSX Transportation and Norfolk-Southern, operate several intermodal rail yards located in Newark, Elizabeth, Jersey City, North Bergen, and South Kearny, which are all cities in northern New Jersey. Thus, as proposed, the new subchapter will be applicable to all cargo handling equipment that operates within the boundaries of the intermodal railyard, unless the equipment is exempt pursuant to N.J.A.C. 7:27-34.2.

Sales prohibition

Proposed N.J.A.C. 7:27-34 also applies to any person conducting business in the State

who sells, offers for sale, leases, rents, or purchases any cargo handling equipment or compression ignition (CI) engine that is used at any port or intermodal rail yard in the State. See proposed N.J.A.C. 7:27-34.2. Proposed N.J.A.C. 7:27-34.4 prohibits the sale, offer for sale, importation, delivery, purchase, receipt, or acquisition of any cargo handling equipment for use at a port or intermodal rail yard in the State, if the equipment does not meet the performance requirements at N.J.A.C. 7:27-34. This prohibition is limited to cargo handling equipment for use at a port or intermodal rail yard in the State and applies to any person conducting business in the State.

Engines and equipment not subject to N.J.A.C. 7:27-34

At proposed N.J.A.C. 7:27-34.2, Applicability, the Department proposes to identify those types of engines and equipment that, consistent with the CHE Regulation, are not subject to the new subchapter. Proposed new N.J.A.C. 7:27-34 is intended to apply only to cargo handling equipment that is self-propelled. Portable CI engines are CI engines that are designed and capable of being carried or moved from location to location; they are not self-propelled and, thus, are not subject to N.J.A.C. 7:27-34. The Department proposes to define the term "portable CI engine" at N.J.A.C. 7:27-34.3, consistent with 13 CCR 2479. "Mobile cranes and sweepers," which are defined at N.J.A.C. 7:27-34.3, are not subject to N.J.A.C. 7:27-34 because they may have auxiliary engines that are considered portable CI engines. See CARB Initial ISOR at IV-4.

This subchapter also does not apply to "military tactical support cargo handling equipment," which is defined at N.J.A.C. 7:27-34.3 as cargo handling equipment that meets military specifications, is owned by the U.S. Department of Defense and/or the U.S. military

services, and is used in combat, tactical, or relief-related operations or training. Finally, because the subchapter is intended to cover equipment used to handle cargo, cargo handling equipment that is used only to support construction activities at a port or intermodal rail yard or is brought onsite to perform unexpected, non-routine, or unpredictable repairs or maintenance is exempt from N.J.A.C. 7:27-34. "Construction activities" is defined at proposed N.J.A.C. 7:27-34.3, consistent with 13 CCR 2479.

Another proposed limited exemption is for low-throughput ports that are further than 75 miles from an urban area, except as provided at proposed N.J.A.C. 7:27-34.13, Equipment at rural low-throughput ports. A "low-throughput port" is defined at N.J.A.C. 7:27-34.3 as a port with a two-year average annual cargo throughput of less than one million tons per year, excluding petroleum products. If a port that has been classified as a low-throughput port subsequently exceeds the threshold limit, or the port becomes part of an urban area as defined at proposed N.J.A.C. 7:27-34.3, the port no longer meets the definition of "low-throughput port." The Department proposes to define the term "two-year average annual cargo throughput," consistent with the definition at 13 CCR 2479. As provided at proposed N.J.A.C. 7:27-34.13, within six months after the exceedance, each owner or operator at the port must submit a plan, to the Department, to bring the equipment into compliance no later than two years after the exceedance. The compliance plan must include information about equipment, as specified at proposed N.J.A.C. 7:27-34.14(c) and (d), and be submitted on a form that will be available on the Department's website www.stopthesoot.org.

California included this exemption as necessary for one California port, which was the only port in California that was expected to meet the criteria for the exemption. See CARB

Amendments ISOR at III-10 to 11. The Department proposes to include this exemption to be consistent with California's CHE Regulation, but does not believe there are any ports in the State that qualify for this exemption.

Other general provisions

As provided at N.J.A.C. 7:27-34.4, a person who fails to comply with any obligation or requirement at N.J.A.C. 7:27-34 shall be subject to an enforcement action pursuant to the Air Pollution Control Act at N.J.S.A. 26:2C-19 and proposed amended N.J.A.C. 7:27A-3. All information submitted to the Department pursuant to N.J.A.C. 7:27-34 is public information, unless the person submitting the information asserts a confidentiality claim and the Department determines the information is entitled to confidential treatment in accordance with existing N.J.A.C. 7:27-1.8 through 1.30.

Performance standards for cargo handling equipment, alternative compliance options, and compliance extensions, N.J.A.C. 7:27-34.5, 34.6, 34.7, and 34.9 through 34.11C

Consistent with the CHE Regulation, the Department proposes to require new and in-use cargo handling equipment at ports and intermodal rail yards to meet performance standards based on best available control technology. Generally, with some flexibility through alternate compliance plans and compliance extensions, the performance standards require all cargo handling equipment to be equipped with: 1) an on-road CI engine that is certified to meet the 2010 or later California on-road emission standards at 13 CCR 1956.8 for the model year in which the equipment is newly purchased, leased, or rented; or 2) a CI engine that is certified to

meet the Tier 4 final off-road engine emission standards at 13 CCR 2423 for the rated horsepower and model year.

The proposed terms "certified on-road engine" and "certified Tier 4 final off-road engine" are defined with reference to the applicable California emission standards, as provided in the California Code of Regulations, or "CCR" (a defined term), which are cited in the definitions and incorporated into the proposed rules by reference. "Model year" is proposed to be defined at N.J.A.C. 7:27-34.3 as the engine manufacturer's annual production period, which includes January 1 of a calendar year, or if the manufacturer has no annual production period, the calendar year. Ordinarily, equipment of a certain model year is in production months before the start of the corresponding calendar year. For example, equipment of model year 2025 will likely be in production, and may be offered for sale, prior to January 1, 2025.

The proposed requirements for new cargo handling equipment are summarized in Table 1. The requirements for in-use cargo handling equipment are summarized in Table 2.

Table 1. Compliance options for new cargo handling equipment

	Option #1	**Option #2**	**Option #3**	**Option #4 if Options 1-3 are unavailable**
New cargo handling equipment (yard truck or non-yard truck) registered as motor vehicle	On-road engine certified to 2010 or later model year emission standards for model year of			

	purchase, lease, or rental			
New yard truck not registered as motor vehicle	On-road engine certified to 2010 or later model year emission standards for model year of purchase, lease, or rental -OR-	Certified Tier 4 final off-road engine for rated horsepower and model year -OR-	Certified engine or power system equivalent to option 1 or 2	
New non-yard truck not registered as motor vehicle	On-road engine certified to 2010 or later model year emission standards for model year of purchase, lease, or rental -OR-	Certified Tier 4 final off-road engine for rated horsepower and model year -OR-	Certified engine or power system equivalent to option 1 or 2	Best available control technology

Table 2. Compliance options for in-use cargo handling equipment

	Option #1	**Option #2**	**Option #3**	**Option #4 if Options 1-3 are unavailable**
In-use yard truck	Certified on-road engine for 2010 or later model year -OR-	Certified Tier 4 final off-road engine for rated horsepower and model year -OR-	Alternative power system equivalent to option 1 or 2	
In-use non-yard truck	Engine or power system certified to on-road emission standards for 2010 or later model year or Tier 4 final off-road emission standards for rated horsepower and model year -OR-	Tier 4 alternate PM off-road emission standards for rated horsepower and model year plus Level 3 VDECS -OR-	Alternative power system equivalent to option 1	Best available control technology

Performance standards for new cargo handling equipment, N.J.A.C. 7:27-34.5

Proposed N.J.A.C. 7:27-34.5, Performance standards for new cargo handling equipment, sets forth the requirements for all new cargo handling equipment. The Department proposes to define "new cargo handling equipment" as cargo handling equipment or a diesel-fueled CI engine installed in cargo handling equipment that is newly purchased, rented, leased, or otherwise brought onto a port or intermodal rail yard by an owner or operator on or after the first day of the 25th month following the operative date of this rulemaking, and is operated at a port or intermodal rail yard in the State after the same date. See proposed N.J.A.C. 7:27-34.3. For example, if the operative date of the rules is in the month of December 2022, cargo handling equipment is "new" on or after January 1, 2025, which is the first day of the 25th month after the December 2022 operative date. "Cargo handling equipment" includes yard trucks and non-yard trucks, some of which may be "registered motor vehicles" and, thus, able to travel public roads. The Department proposes to define "registered motor vehicle" as cargo handling equipment that is registered as a motor vehicle, pursuant to N.J.S.A. 39:3-4.

As provided at proposed N.J.A.C. 7:27-34.5, new cargo handling equipment that is registered as a motor vehicle must be equipped with a certified on-road engine for the model year in which the cargo handling equipment or engine is newly purchased, leased, or rented. For example, cargo handling equipment that is newly purchased in 2026 must have an engine certified to model year 2026 emission standards. The proposed requirement will ensure that newly registered on-road cargo handling equipment is equipped with the most up-to-date certified on-road diesel engine and meets emission standards that reflect the latest control technology. A "certified on-road engine" is an engine certified to 2010 or later model year California on-road diesel engine emission standards at 13 CCR 1956.8, which is incorporated by

reference into the proposed definition at N.J.A.C. 7:27-34.3. The Department proposes to define "certification" or "certified" as a finding by CARB or the EPA that the motor vehicle, motor vehicle engine, off-road CI engine, or air contaminant emission control system has met the criteria for the control of specified air contaminants for the respective vehicle, engine, or control system, adopted by CARB or the EPA, as applicable, in CARB's or Federal regulations. CARB and the EPA maintain certification lists at https://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment (EPA) and https://ww2.arb.ca.gov/new-vehicle-and-engine-certification-executive-orders (CARB). The Department proposes to define the "California Air Resources Board" or "CARB" at N.J.A.C. 7:27-34.33, since that term is not defined in the California regulations. The Department will not independently certify the engine or system. "Lease," "rent," and "purchased" are also proposed to be defined as the terms are defined in the CHE Regulation.

New cargo handling equipment that is not a registered motor vehicle is for off-road use only. The owner or operator has three general compliance options for this equipment, as provided at proposed N.J.A.C. 7:27-34.5(b). Each of the options requires the equipment to meet the most stringent emission standards for an on-road or off-road engine. Under the first option, as of the first day of the 25th month after the operative date of this rulemaking, new cargo handling equipment that is not a registered motor vehicle must be equipped with a certified on-road engine for the model year in which the cargo handling equipment is newly purchased, leased, or rented. The second option requires the equipment to be certified as a Tier 4 final off-road engine. To encourage the use of hybrid or alternative technology, as California does in its CHE Regulation, the Department also proposes a third option, which allows

an owner or operator to use a certified engine and power system that meet the emission standards of a certified on-road engine for the model year in which the cargo handling equipment and/or engine is newly purchased, leased, or rented, or a certified Tier 4 final off-road engine, as demonstrated to the Department through manufacturer testing or testing in accordance with CARB's "Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)." The Department proposes to define "Verification Procedure," consistent with the definition at 13 CCR 2479. These options, like the options in the CHE Regulation, require a new off-road cargo handling equipment to meet the latest on-road engine standards or the Tier 4 final off-road standards for the rated horsepower. See CARB Initial ISOR at IV-1. The term "hybrid" is defined at proposed N.J.A.C. 7:27-34.3, consistent with the definition at 13 CCR 2479.

Proposed N.J.A.C. 7:27-34.5 provides that a non-yard truck that is moved from one port terminal or intermodal rail yard to another port terminal or intermodal rail yard under the same ownership or control is considered new and subject to the performance standards for new non-yard trucks. However, an owner or operator may request Department approval to transfer the equipment in accordance with proposed N.J.A.C. 7:27-34.12, Department approval to transfer non-yard trucks, in which case it will be subject to the in-use standards at N.J.A.C. 7:27-34.7.

In order to avoid having the non-yard truck considered newly acquired, an owner or operator must submit its request for transfer approval using forms that will be available on the Department's website, www.stopthesoot.org. The request must be submitted at least 60 days before the anticipated transfer date. The application must include information about each

equipment subject to the transfer request, including estimated emission levels based on the model year and rated horsepower and hours of operation. The application is also to include proximity of the new location to residences. The information is required so that the Department can determine if the transfer will impact public health.

As provided at N.J.A.C. 7:27-34.12, the Department will approve the request if the Department determines that the transfer plan does not result in an increase in public health impacts and the transfer is between facilities that are under the control of the same owner or operator. To ensure that an owner or operator will not try to use the transfer provisions to evade compliance, the owner or operator must also agree to bring the transferred equipment into compliance with the in-use requirements at proposed N.J.A.C. 7:27-34.7 before operating the equipment at the destination location.

If the transfer is approved, an owner or operator would be able to operate in-use cargo handling equipment that is not equipped with a certified on-road engine or certified Tier 4 final off-road engine at another port terminal or intermodal rail yard until the applicable compliance deadline at N.J.A.C. 7:27-34.7. If the transfer is approved, an owner or operator would also be allowed to transfer and operate an in-use non-yard truck that was approved to use an alternate compliance option, explained below.

Alternative compliance options for new off-road non-yard trucks, N.J.A.C. 7:27-34.5, 34.10, and 34.10A

The CHE Regulation provided an additional compliance option for new off-road non-yard trucks (non-yard trucks that are not registered motor vehicles), based on the unavailability of equipment. If a certified on-road engine or a certified Tier 4 final off-road diesel engine is not

available for purchase, lease, or rent and the owner or operator, therefore, cannot comply, the CHE Regulation allows an owner or operator to equip the non-yard truck with an engine certified to the highest available off-road diesel engine emission standard at 13 CCR 2423 for the rated horsepower and model year, provided the owner or operator installs the highest level verified diesel emission control strategy available. See 13 CCR 2479(e)(1)(B)3.

The Department proposes a similar option based on equipment or engine unavailability. At proposed N.J.A.C. 7:27-34.5(c), an owner or operator who cannot comply with N.J.A.C. 7:27-34.5(b) because a compliant engine is not available for the specific application and equipment type may apply to the Department to use the best available control technology in accordance with proposed N.J.A.C. 7:27-34.10, Alternate compliance option, generally, and N.J.A.C. 7:27-34.10A, Alternate compliance option - non-yard truck. Proposed N.J.A.C. 7:27-34.10 contains the requirements applicable to all applications for alternate compliance options, and proposed N.J.A.C. 7:27-34.10A applies specifically to applications for alternate compliance options for non-yard trucks, based on equipment or engine unavailability.

"Best available control technology" is the maximum degree of PM and NO_x emissions reduction achievable through application of available methods, systems, devices, and techniques. The "best available control technology" for cargo handling equipment is a certified on-road engine or certified Tier 4 final off-road engine, as defined. However, if a compliant engine or equipment is not available for the particular use or application that would satisfy the requirements at N.J.A.C. 7:27-34.5(b)1, 2, or 3, an alternative compliance option is available. Department approval for this alternative compliance option will be on a case-by-case basis and is only available if the owner or operator demonstrates that a non-yard truck or engine that

complies with N.J.A.C. 7:27-34.5(b)1, 2, and 3 is not available from any engine and/or equipment manufacturer. The owner or operator must also perform an analysis of all available control technologies and demonstrate that the alternative proposed will achieve the maximum possible PM and NO_x reductions for the particular engine/equipment.

Due to widespread availability of compliant engines for both on-road and off-road applications and the Department's goal to achieve the greatest degree of PM and NO_x reductions possible, the Department intends to allow this alternate compliance option only in limited cases. The proposed alternative compliance option is based on the CHE Regulation; however, the present circumstances differ from 2007, when the CHE Regulation was adopted. At that time, the 2010 model year on-road standards were not yet in effect and Tier 4 final standards would not be effective for all off-road engines until 2015, making an alternative compliance option necessary. At the time of this rulemaking, certified on-road diesel engines and certified Tier 4 final off-road diesel engines are available for nearly all, if not all, uses and applications.

Proposed N.J.A.C. 7:27-34.10, Alternate compliance options, sets forth general requirements for an owner or operator to request, and receive approval of, an alternate compliance option, if it is unable to comply with the performance standards proposed for new and in-use cargo handling equipment. The general requirements include the contents and timing of the application, the Department's completeness determination, and timeframe for approval or denial. No person may operate any cargo handling equipment under an alternate compliance option, unless the applicant has been notified, in writing, by the Department that the option has been approved. If approved to use an alternate compliance option, the owner

or operator shall maintain, and retain, operating records, such as records including information on operation hours, fuel usage, maintenance procedures, and emissions test results, as specified by the Department in its approval and are otherwise required.

The Department will grant a request by an owner or operator pursuant to proposed N.J.A.C. 7:27-34.10A to apply the best available control technology option for a new off-road non-yard truck, if the following requirements are met. First, the owner or operator must demonstrate it is not reasonably able to comply with the applicable performance standards because no engine certified to the applicable standard and with the appropriate physical or performance characteristics is produced by any manufacturer. Second, the owner or operator must provide documentation from representatives of equipment and/or engine manufacturers supporting the claim of non-availability. Third, the owner or operator must demonstrate that the cargo handling equipment must be used to prevent a disruption in operations. Fourth, the owner or operator must perform and submit an analysis of all available control technologies and demonstrate that the alternative proposed will achieve the maximum possible PM and NO_x reductions for the particular engine or cargo handling equipment.

Proposed N.J.A.C. 7:27-34.5 also includes an option for an owner or operator who has purchased a non-yard truck that complies with proposed N.J.A.C. 7:27-34.5(b), but the non-yard truck is subject to a manufacturer's delay in delivery and no comparable compliant cargo handling equipment is available for lease. In this situation, 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 owners and operators 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, explained below, the owner or operator may also request a compliance extension pursuant to proposed N.J.A.C. 7:27-34.11 and 34.11A, explained below. The compliance extension allows the owner or operator to continue to use the existing equipment until the compliant equipment arrives.

Performance standards for in-use yard trucks, N.J.A.C. 7:27-34.6, and in-use non-yard trucks, N.J.A.C. 7:27-34.7

The Department proposes performance standards for in-use yard trucks at new N.J.A.C. 7:27-34.6, Performance standards for in-use yard trucks, and in-use non-yard trucks at new N.J.A.C. 7:27-34.7, Performance standards for in-use non-yard trucks. "In-use cargo handling equipment" is defined at proposed N.J.A.C. 7:27-34.3 to mean 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 the first day of the 25th month after the operative date of this rulemaking.

California, in its CHE Regulation, established a compliance schedule from 2007 through 2017, based on fleet size and other factors, to allow for technology development and ensure engine availability. However, Tier 4 final has been required for all new off-road engines since 2015 and the Department is proposing to adopt the standards in the CHE Regulation many years after the CHE Regulation was first adopted. See CARB Amendments ISOR at V-2;

Environmental Protection Agency, Nonroad Compression-Ignition Engines: Exhaust Emission Standards, March 2016, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf. Therefore, as provided at N.J.A.C. 7:27-34.6, Table 1, the Department proposes a five-year phased compliance schedule, with the older, more polluting cargo handling equipment required to comply earliest.

As proposed, pre-1998 on-road and Tier 0 off-road engines must comply with proposed N.J.A.C. 7:27-34.6 and 34.7 by the first day of the 25th month after the operative date of this rulemaking. For example, if the rules are operative on December 15, 2022, pre-1988 and Tier 0 engines must comply by January 1, 2025. On-road engines of model year 1998 through 2003 and Tier 1 off-road engines are required to comply by the first day of the 37th month after the operative date of this rulemaking. Using the December 15, 2022 operative date from the example above, cargo handling equipment with these engines must comply by January 1, 2026. Model year 2004 through 2006 on-road engines and Tier 2 off-road engines must comply by the first day of the 49th month after the operative date of this rulemaking. Using the December 15, 2022 operative date from the example above, cargo handling equipment with these engines must comply by January 1, 2027. Additionally, model year 2007 through 2009 on-road engines and Tier 3 and Tier 4i (interim Tier 4) off-road engines must comply by the first day of the 61st month after the operative date of this rulemaking. Using the same December 15, 2022 operative date from the example above, cargo handling equipment with these engines must comply by January 1, 2028.

The CHE Regulation also allowed the use of voluntary diesel emission control strategies (VDECS), or retrofitting, to reduce PM emissions. “Verified diesel emission control strategy” or

"VDECS" is defined at proposed N.J.A.C. 7:27-34.3 to mean an emission control strategy, designed primarily to reduce diesel PM emissions, which has been verified by CARB in accordance with 13 CCR 2700. There are three Levels of VDECS, identified as Level 1, Level 2, and Level 3. At N.J.A.C. 7:27-34.3, the Department proposes to define "level" to mean one of the three categories of CARB-verified diesel emission control strategies, with Level 1 reducing PM emissions by between 25 and 49 percent; Level 2 reducing PM emissions by between 50 and 84 percent; and Level 3 reducing PM emissions by 85 percent or greater or reducing engine emissions to less than or equal to 0.01 grams diesel PM per brake horsepower-hour.

As Tier 4 final engines have been mandated since 2015 for all off-road engines and the highest level VDECS do not achieve the PM and NO_x reductions required of a Tier 4 final engine, the Department proposes to require all in-use yard trucks to be equipped with a Tier 4 final engine, rather than allowing the use of VDECS. For in-use yard trucks, the Department's proposed requirements at N.J.A.C. 7:27-34.6 are the same as those in the CHE Regulation, 13 CCR 2479, with one exception, explained below. The Department proposes to require all in-use yard trucks to be equipped with a certified on-road engine for the model year of the year purchased, a certified Tier 4 final off-road engine, or a certified engine and power system that meets the equivalent emission standards of the first two options. An owner or operator may comply by repowering the equipment with a compliant replacement engine, replacing the equipment, or retiring the equipment.

For in-use non-yard trucks, the Department proposes the same compliance options at N.J.A.C. 7:27-34.7, as those in the CHE Regulation, with some differences, again, because final Tier 4 emission standards have been effective for all off-road engines since 2015. Like

California's CHE Regulation, the Department proposes to require in-use non-yard trucks to be equipped with a certified on-road engine, a certified Tier 4 final off-road engine, or an engine or power system certified to Tier 4 alternate PM off-road emission standards for the rated horsepower and model year plus a Level 3 VDECS. "Alternate PM standard" is defined at proposed N.J.A.C. 7:27-34.3 as one of the Family Emissions Limit (FEL) standards that are currently available to engine manufacturers under 13 CCR 2423 and part of CARB's averaging, trading, and banking program. As CARB explained, engine manufacturers are given "some flexibility during periods where engine emissions are transitioning from one tier to the next." CARB Amendments ISOR at 11-8. The flexibility allows "engine manufacturers to certify specific percentages of engines manufactured, and identified as being part of the next Tier, to emissions levels that do not meet the emissions standards for the specified Tier." *Ibid*. Engines so certified are referred to as "Family Emissions Limit (FEL) engines" and are certified to alternate PM and NO_x emissions limits. *Ibid*. Alternate standards are of limited duration and may be selectively applied to total or partial engine family production volumes. "Engines produced for this flexibility program using FELs greater than the applicable standards must be offset with sufficient ABT [averaging, banking, and trading] credits." 13 CCR 2423(b). The Department, therefore, proposes to define "Family Emissions Limit" or "FEL" as an emission level that is declared by a manufacturer to serve as an emission standard for certification purposes and for California's averaging, banking, and trading program.

The Department includes this option because engine manufacturers have an option to produce a percentage of Tier 4 engines built to alternative and less stringent PM and NO_x emission limits. See CARB Amendments ISOR at ES-8 to 9. As CARB explained when it amended

the CHE Regulation, the expectation was that "most owners/operators electing to comply with the regulation's performance standards would install new engines meeting the primary Tier 4 PM emission standards." CARB Amendments ISOR at III-5. However, CARB discovered that "some, if not many, non-yard truck equipment are equipped with engines certified to the less stringent alternative PM and NO_x standards based on family emission limits (Tier 4 FEL engines)." *Id*. Because the "Tier 4 FEL engine PM standard is at least ten times dirtier [than] the primary Tier 4 PM standard and is similar in stringency to the primary Tier 3 PM standard," and CARB's intent was that engines meet the primary Tier 4 engine emission standards, CARB required a FEL Tier 4 engine to be retrofitted with the highest level VDECS. *Id*.

The Department similarly includes a compliance option specific to Tier 4 FEL engines because manufacturers are allowed to produce these engines. Like California, the Department proposes to require an engine that meets the Tier 4 alternate PM off-road emission standards for the rated horsepower and model year also be equipped with a Level 3 VDECS, which is the highest level VDECS available.

As explained above, California included various compliance options and schedules for different types of in-use non-yard trucks based on the tier engine and any installed VDECS. Ultimately, however, California in the CHE Regulation required all in-use non-yard trucks to eventually be equipped with an engine that meets Tier 4 final off-road emission standards or a lower tier engine that has a Level 3 VDECS installed. Although Tier 4 final engines have been required since 2015, if a compliant non-yard truck is unavailable, the Department proposes to allow an owner or operator to request to apply the best available control technology. This is the same option available for new non-yard trucks at proposed N.J.A.C. 7:27-34.5, explained

above and is to be made in accordance with proposed N.J.A.C. 7:27-34.10 and 34.10A, discussed below.

Opacity limits, N.J.A.C. 7:27-34.8

In addition to the performance standards at proposed N.J.A.C. 7:27-34.5, 34.6, and 34.7, the Department proposes to require cargo handling equipment at ports and intermodal rail yards to comply with opacity limits set forth at Table 2. The proposed opacity limits at N.J.A.C. 7:27-34.8, Opacity limits, are the same as those required by California in the CHE Regulation. As CARB explained, "[d]iesel engines have been the workhorse of American industry since the early 20th century." CARB Amendments ISOR, p. II-5. Because diesel engines are durable, these engines also may not be maintained regularly, which will cause the engines to emit at higher than certified emission levels. *Ibid*. As CARB also explained, "in-use engine-out PM emissions from certified diesel engines can be significantly higher than the certification levels if the engine manufacturer's recommended engine maintenance schedules are not followed." *Id*. at II-6. CARB found that in-use PM levels of engines not regularly maintained are much higher than the PM levels due to expected engine deterioration. *Ibid*. In contrast, "PM emission levels and measured opacity levels in well-maintained fleets correlate much better with their certification levels." *Ibid*. Thus, the Department proposes to include the same opacity limits, which are intended to ensure that equipment and engines are operating properly and being properly maintained.

As proposed, the opacity limits will apply on and after the first day of the 25th month after the operative date of this rulemaking, for new cargo handling equipment. For in-use

cargo handling equipment, the opacity limits will apply on and after the applicable compliance deadline at Table 1, or any applicable compliance extensions. Like the CHE Regulation, compliance with the opacity limits will be determined with 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). Compliance with the opacity limits will be determined during periodic inspections by the Department. The term “opacity” is defined at proposed N.J.A.C. 7:27-34.3, consistent with the definition at 13 CCR 2479.

As provided at N.J.A.C. 7:27-34.8, an owner or operator must take out of service and repair any cargo handling equipment that exceeds the opacity limit at Table 2, and cannot return the equipment to service until it complies with the opacity limits. The owner or operator must maintain all service and repair records in accordance with N.J.A.C. 7:27-34.15, Recordkeeping requirements.

Finally, N.J.A.C. 7:27-34.8 provides that cargo handling equipment that is a registered motor vehicle is subject to the applicable tests, procedures, and standards set forth at N.J.A.C. 7:27-14, 7:27B-4, and 13:20-26, which govern emissions from motor vehicles, rather than those at Table 2. This provision is included to make clear that the motor vehicle rules (both the Department’s and the Motor Vehicle Commission’s) apply to any cargo handling equipment registered as a motor vehicle.

Replacement engines for in-use cargo handling equipment, N.J.A.C. 7:27-34.9

An owner or operator may comply with the in-use requirements at N.J.A.C. 7:27-34.6

and 34.7 by repowering the equipment with a compliant replacement engine. If the in-use cargo handling equipment is repowered with a replacement CI engine, as provided at proposed N.J.A.C. 7:27-34.9, Replacement engines for in-use cargo handling equipment, the equipment is considered new and must comply with N.J.A.C. 7:27-34.5. The exception is if the engine was replaced by the manufacturer due to failure during its warranty period. "Warranty period" means the period of time and/or mileage that a vehicle, engine, or part is covered by the engine manufacturer's new engine warranty provisions. As CARB explained, this provision is included to protect owners from losing the value of their new engine warranties. Thus, as proposed, an owner or operator may replace a Tier 3 engine still under warranty with another Tier 3 engine, because the equipment is still considered "in-use." However, this would apply only until the compliance deadline for in-use Tier 3 engines pursuant to proposed Table 1 at N.J.A.C. 7:27-34.6 and 34.7.

Alternate compliance option – fleet averaging plan, N.J.A.C. 7:27-34.10 and 34.10B

As explained above, an owner or operator may request approval to apply the best available control technology for a non-yard truck in accordance with N.J.A.C. 7:27-34.10A, Alternate compliance option – non-yard truck, if unable to comply with N.J.A.C. 7:27-34.5 or 34.7. Pursuant to proposed N.J.A.C. 7:27-34.10B, Alternate compliance option – fleet averaging plan, an owner or operator may request to implement a fleet averaging plan in lieu of the requirements for new and in-use cargo handling equipment (both yard trucks and non-yard trucks). This option is similar to the alternate compliance plan option that is included in California's CHE Regulation. As proposed, a fleet averaging plan may not result in greater

emissions, expressed in pounds, of diesel PM and NO_x from all cargo handling equipment in the fleet combined, during each calendar year, relative to the combined emissions that would have occurred pursuant to N.J.A.C. 7:27-34.5 through 34.7. "Fleet" is proposed to be defined at N.J.A.C. 7:27-34.3 to mean the total number of pieces of cargo handling equipment owned, rented, or leased by an owner or operator, which is located at a specific port or intermodal rail yard.

As provided at N.J.A.C. 7:27-34.10 and 10B, an owner or operator must submit a request to implement a fleet averaging plan at least 90 days before the applicable compliance deadline. An applicant may include two or more pieces of cargo handling equipment in its plan, as long as the applicant owns or operates the equipment under its direct control at the same port terminal or intermodal rail yard. No cargo handling equipment shall be included in more than one plan. The plan may include only the emission control strategies listed at N.J.A.C. 7:27-34.10B: exhaust treatment control, engine repower, equipment replacement, hybrid technology, or electric equipment.

To ensure that the plan will not result in greater emissions than otherwise would result from complying with the new and in-use cargo handling equipment performance standards, the application must include information, including documentation, calculations, and emissions test data, that establishes the PM and NO_x reductions (in pounds) from the cargo handling equipment combined will be equivalent to or greater than the combined emission reductions that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, and 34.7, as applicable. Emission reduction calculations can include only PM and NO_x emissions from the equipment to which the plan applies. The calculations cannot include reductions that are

otherwise required by any local, State, or Federal rule, regulation, or statute, or any agreement or final administrative or court order to resolve an enforcement action, or agreed to as part of a local, State, or Federal grant, incentive, or voucher program. This requirement is included to ensure that the emission reductions are not otherwise required by law or obtained with government funds. The application must also include proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant will use to demonstrate continued compliance with the plan.

An application for approval of a fleet averaging plan is subject to public comment prior to Department action. The public notice procedures are provided at N.J.A.C. 7:27-34.10B(c) and are consistent with the notice procedures at N.J.A.C. 7:27-22, Operating Permits. The Department will provide public notice of the opportunity for public comment on each proposed plan. The notice will identify the site of the equipment, the equipment involved and proposed plan, Department contact information, announce the opportunity for public comment and describe the public comment procedures, specify the length of the public comment period, and include the time and location of any public hearing to be held on the plan. If no public hearing is scheduled, the notice shall include procedures for requesting a hearing. The Department will post the notice and draft plan on the Department's website, www.stopthesoot.org, for the duration of the public comment period.

If a hearing is not scheduled, any person may request, in writing, no later than the published date of the close of the comment period, that the Department hold a hearing. The request shall include a statement of issues to be raised at the hearing. The issues shall be relevant to the draft fleet averaging plan under review. If a public hearing is held, the

Department shall provide public notice of the hearing at least 15 days before the hearing date. At any public hearing on a plan, the Department may limit the time allowed for oral statements and request a person offering testimony to also submit the statement in writing.

Compliance extensions, N.J.A.C. 7:27-34.11, 34.11A, 34.11B, and 34.11C

California, in its CHE Regulation, included compliance extensions based on manufacturer delay in delivery and low use of the equipment. At proposed N.J.A.C. 7:27-34.11, 34.11A, 34.11B, and 34.11C, the Department similarly proposes to allow an owner or operator to request and receive an extension for manufacturer delay in delivery and low-use equipment. The Department additionally proposes to include a compliance extension for zero-emission equipment.

California also included several compliance extensions based on unavailability of VDECS or equipment that is planned to be retired. At proposed N.J.A.C. 7:27-34.7, the Department proposes to include a Level 3 VDECS requirement if a FEL Tier 4 engine is used. Because this is the only VDECS option, the Department does not expect compliance extensions based on VDECS unavailability will be needed and, therefore, does not propose to include that option as part of N.J.A.C. 7:27-34. The Department also does not propose to allow an extension based on retirement of equipment. California allowed this option as part of its fleet phase-in compliance schedule, which is not applicable to proposed N.J.A.C. 7:27-34.

As provided at N.J.A.C. 7:27-34.11, an owner or operator seeking a compliance extension must submit the request to the Department at least 60 days before the applicable deadline. If the Department approves the request, the owner or operator is deemed to be in

compliance for the applicable period, provided the owner or operator complies with all of the conditions of the Department's approval. If the Department finds that the owner or operator has not complied with any of the conditions of approval, the equipment will be in noncompliance from the date that compliance would have otherwise been required pursuant to N.J.A.C. 7:27-34.6 and 34.7. Additionally, operation of the cargo handling equipment must cease until the owner or operator brings the equipment into compliance. Proposed N.J.A.C. 7:27-34.11 contains the general requirements applicable to all applications for a compliance extension. These include using the forms available on www.stopthesoot.org, the general contents of the application, the timing of the Department's review, and application completeness.

The following are the specific proposed compliance extensions.

Manufacturer delay, N.J.A.C. 7:27-34.11A

An owner or operator may request an extension if new cargo handling equipment or a new engine was purchased to comply with the performance standards but has not been received due to manufacturer delays. As proposed at N.J.A.C. 7:27-34.11A, Compliance extension – manufacturer delay, the Department will grant the extension if the Department determines that the equipment was purchased, or a contractual agreement for purchase was entered into, at least six months before the required compliance deadline. An application must identify the equipment type and intended use, including engine horsepower. An application must also include documentation, such as a purchase order or letter that demonstrates that at least six months before the compliance date, the owner or operator entered into a contract to purchase equipment and/or engine that meets the requirements at N.J.A.C. 7:27-34.5.

Documentation from equipment and/or engine manufacturer representatives supporting the non-availability claim, including the anticipated date of availability and date of delivery, is also required.

Low-use, N.J.A.C. 7:27-34.11B

The Department proposes to include a low-use compliance extension option at N.J.A.C. 7:27-34.11B, Compliance extension – low use, consistent with the CHE Regulation. CARB explained this extension is to "allow limited use of back-up equipment that is kept for use when another piece of equipment stops operating" or for infrequently used specialty equipment that is costly to replace. CARB Amendments ISOR at p. III-9 to 10. This type of extension is available for a maximum of two years for cargo handling equipment operated less than 200 hours annually. To be considered, the owner or operator must demonstrate, to the Department, compliance with N.J.A.C. 7:27-34.6, 34.7, and 34.8 for all other cargo handling equipment in its fleet pursuant to the compliance schedule at Table 1. The owner or operator must identify the engine manufacturer, serial number, model year, and engine families and series of each engine for which an extension is requested. A non-resettable hour meter, which records the hours of use of a particular engine and is incapable of being adjusted, must also be installed on each engine for which an extension is requested. The application must also include documentation that the engine included in the application was operated less than 200 hours in the preceding calendar year. Because the hour meter may not have been on the engine the prior year, the owner or operator may use fuel records to demonstrate the previous year's hours.

The Department may deny an extension for more than two engines in a single fleet or for more than two percent of a fleet, whichever is greater. In deciding whether to limit the

number of engines granted a low-use extension, the Department will consider the impact on public health based on the number of pieces of equipment granted a low-use extension, the hours of operation of the equipment, estimated engine emissions levels, and proximity of the equipment to off-site residences. If the Department approves the request, the owner or operator must annually report the annual hours of operation for each engine granted a compliance extension for the duration of the extension.

Zero-emission cargo handling equipment, N.J.A.C. 7:27-34.11C

The Department proposes to allow up to a two-year compliance extension for an owner or operator who wishes to replace in-use cargo handling equipment with zero-emission equipment. "Zero-emission" is defined at N.J.A.C. 7:27-34.3 to mean an engine or equipment that does not produce exhaust emissions of any criteria or precursor pollutant or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions. The Department proposes this extension option to encourage owners and operators to purchase zero-emission cargo handling equipment.

For the Department to grant the request, the owner or operator must demonstrate that a zero-emission option is available for the make, model, and horsepower of the cargo handling equipment being replaced and provide supporting documentation from an equipment manufacturer and/or dealer. The owner or operator must also show that the zero-emission cargo handling equipment will be purchased within two years of the applicable compliance deadline. An owner or operator may demonstrate this with a purchase order. If a purchase order is not feasible at the time of request, the owner or operator may submit other

documentation that includes a certification as provided at N.J.A.C. 7:27-1.39 and shows the owner or operator's intent to purchase within two years of the applicable deadline. If the owner or operator does not follow through, the equipment will be in noncompliance from the date that compliance would have been required pursuant to N.J.A.C. 7:27-34.6 and 34.7. Operation of the cargo handling equipment that the zero-emission equipment was intended to replace must cease until the owner or operator brings the equipment into compliance.

Finally, the owner or operator must submit documentation or a workplan showing that necessary charging or fueling infrastructure will be in place within two years of the applicable compliance deadline. This demonstration is necessary to ensure that the zero-emission equipment can be operated at the port or intermodal rail yard upon delivery.

Reporting, N.J.A.C. 7:27-34.14

The CHE Regulation includes cargo handling equipment reporting requirements. The Department similarly proposes N.J.A.C. 7:27-34.14, Reporting requirements. The purpose of the annual reporting requirements is to gather information about the cargo handling equipment operated at ports and intermodal rail yards in the State and to ensure compliance with proposed N.J.A.C. 7:27-34. Proposed N.J.A.C. 7:27-34.14 contains requirements for reporting methods. The Department intends to collect data electronically through a web portal to be established at www.stopthesoot.org. The portal will provide an electronic form of questions with data fields to be completed by each reporting entity. As provided in the general provisions at N.J.A.C. 7:27-34.4, the information submitted will be public, though the Department's rules allow for a claim of confidentiality to be made pursuant to the procedures set forth at N.J.A.C. 7:27-1.

N.J.A.C. 7:27-34.14 requires an owner or operator to submit the initial report on or before August 1, 2023, reflecting its fleet as of January 1, 2023. The initial report is to provide general company and port or intermodal rail yard information and the total population of cargo handling equipment by engine model year. The owner or operator is also to provide information for each piece of cargo handling equipment, including equipment make, model, and model year; engine make, model, and model year; year of manufacture of equipment and engine, or approximate age if unable to determine; engine family and serial number; and rated brake horsepower. If the cargo handling equipment is a registered motor vehicle, the owner or operator must also provide the vehicle registration number or license plate. The report is also to include hours of use, fuel type, and annual fuel usage in the preceding calendar year, 2022. If the equipment is seasonal, the owner or operator is to provide the actual months operated in 2022.

Each subsequent annual report shall be submitted on or before August 1 reflecting the cargo handling equipment in the fleet as of January 1 of that calendar year. As an example, the report due on or before August 1, 2024, would reflect the cargo handling equipment in the fleet on January 1, 2024. The report is also to include hours of use, fuel type, and annual fuel usage in the preceding calendar year, 2023. An owner or operator is to indicate any changes to information in each subsequent report, including information for any cargo handling equipment added to or removed from the fleet during the previous calendar year. For any cargo handling equipment removed from the fleet, the owner or operator is to provide information about the disposition of the equipment. The owner or operator is also to describe the method for reaching compliance and date of compliance for any in-use cargo handling equipment required

to meet the performance standards at proposed N.J.A.C. 7:27-34.6 and 34.7.

For cargo handling equipment with an approved alternate compliance option pursuant to N.J.A.C. 7:27-34.10, 34.10A, and 34.10B, or equipment to which a compliance extension at N.J.A.C. 7:27-34.11, 34.11A, 34.11B, and 34.11C applies, additional information is to be included. If applicable, the report is to include the retirement date or engine installation date. A compliance status update would be required for equipment for which an extension of a compliance deadline was granted. "Retirement" is defined at proposed N.J.A.C. 7:27-34.3 as an engine or cargo handling equipment that will be taken out of service, will not be operated at any port or intermodal rail yard in New Jersey, and will not be replaced with a new engine or cargo handling equipment.

Recordkeeping, N.J.A.C. 7:27-34.15

The Department proposes recordkeeping requirements that will provide a useful enforcement and audit tool to ensure compliance with proposed N.J.A.C. 7:27-34. Specifically, proposed N.J.A.C. 7:27-34.15, Recordkeeping requirements, requires an owner or operator to maintain maintenance records and any documents required to verify compliance with the subchapter. The records are to be maintained at a single location at the port or intermodal rail yard where the equipment is operated or normally resides. Each owner or operator is required to maintain these records for each piece of cargo handling equipment until it is sold outside the State or no longer used at a port or intermodal rail yard in the State. If ownership of a piece of cargo handling equipment is transferred, the seller shall convey the records to the buyer. At the same time, the seller, and any person who operates a place of business in the State, will be

required to maintain records of all sales, leases, rentals, imports, purchases, acquisitions, receipt of, or other transfers of cargo handling equipment for a period of no less than five years after the date of the transaction. An owner or operator subject to proposed N.J.A.C. 7:27-34, must make those records available for inspection or provide copies to the Department, upon request. The Department proposes to make the recordkeeping requirements applicable beginning January 1, 2023, anticipating that the rules will be operative by then. See proposed N.J.A.C. 7:27-34.15.

Prohibitions, N.J.A.C. 7:27-34.16

At proposed N.J.A.C. 7:27-34.16, Prohibitions, the Department proposes to prohibit any person from modifying or altering any element of design of any cargo handling equipment or design of the original manufacturer, unless it is done in accordance with a CARB Executive Order or Federal regulations at 40 CFR Part 1068, Subparts C and D. No person may cause, suffer, allow, or permit the disconnection, detachment, deactivation, or any other alteration or modification from the design of the original equipment manufacturer or an element of design installed on any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration, except temporarily for the purpose of diagnosis, maintenance, repair, or replacement. Also prohibited is the sale, lease, or offer for sale or lease, of any modified or altered cargo handling equipment or engine with a certified configuration or any device or component intended for use with any cargo handling equipment or engine with a certified configuration that is not designed to duplicate the original design element installed by the original equipment manufacturer. These anti-tampering provisions apply to any person subject to N.J.A.C. 7:27-34 and are necessary to prevent and enforce

against such violations, which cause excess emissions.

Lastly, the Department proposes to prohibit the operation of cargo handling equipment at a port or intermodal rail yard in the State if the equipment emits visible smoke of any color in the exhaust emissions for more than three consecutive seconds when the engine is at normal operating temperature. This visible smoke prohibition is modeled on existing N.J.A.C. 7:27-14.4, General public highway standards, which pertains to all diesel-powered motor vehicles.

Civil Administrative Penalties for Violations of N.J.A.C. 7:27-34, N.J.A.C. 7:27A-3.10

At N.J.A.C. 7:27A-3.10, the Department proposes new civil administrative penalties for violations of proposed new N.J.A.C. 7:27-34. Existing N.J.A.C. 7:27A-3.5 authorizes the Department to impose a civil administrative penalty for a violation of any provision at N.J.A.C. 7:27, the Air Pollution Control Act (Act), or any rule promulgated, or administrative order, operating certificate, registration requirement, or permit issued pursuant to the Act, even if the violation is not otherwise included at N.J.A.C. 7:27A. The Department proposes to codify the penalties for violations of N.J.A.C. 7:27-34 at N.J.A.C. 7:27A-3.10(m)34.

The proposed penalties at N.J.A.C. 7:27A-3.10(m)34 are consistent with existing penalties for similar violations of other Department rules. For example, the Department determined that the failure to make records available pursuant to new N.J.A.C. 7:27-34.15 is similar to the requirement to submit at N.J.A.C. 7:27-29.11. Therefore, the proposed penalties are comparable.

Under the Grace Period Law, N.J.S.A. 13:1D-125 to 133, a person responsible for a minor violation is afforded a period of time by the Department to correct the violation in order to

avoid being subject to a penalty. Based upon the criteria set forth at N.J.S.A. 13:1D-129, the Department has determined which of the proposed penalties at N.J.A.C. 7:27A-3.10(m) are minor, and, thus, subject to a grace period, and which are non-minor, and, thus, not subject to a grace period. Generally, the Department has determined that those violations that do not result in excess emissions (and, therefore, pose minimal risk to the public health, safety, and the environment) and do not materially and substantially undermine or impair the goals of the regulatory program are classified as "minor." Under the existing rules, a minor violation can be ineligible for a grace period if the conditions at N.J.A.C. 7:27A-3.10(s) are not met.

Social Impact

The Department anticipates that the proposed rulemaking will have a positive social impact in New Jersey. As explained in the Summary and Environmental Impact statements, the Department expects the proposed rulemaking will reduce emissions of PM2.5 and NO_x, a precursor of ozone and secondary PM2.5, which cause adverse health effects as discussed below. Therefore, by reducing emissions of these harmful air pollutants, the Department expects corresponding health benefits, resulting in a positive social impact, particularly in local communities disproportionately impacted by emissions from cargo handling equipment operating at nearby ports and intermodal rail yards.

Adverse health impacts of ground-level ozone

Increased concentrations of ground level ozone have been linked to a number of adverse health impacts, including, but not limited to, eye irritation, aggravated asthma and other respiratory distress, and premature death. See 2020 Report on Climate Change at 63-64.

Ozone exposure can cause irritation of the lungs, which can make the lungs more vulnerable to diseases, such as pneumonia and bronchitis, increase incidents of asthma and of susceptibility to respiratory infections, reduce lung function, reduce an individual's ability to exercise, and aggravate chronic lung diseases. Increased ozone concentrations severely affect the quality of life for susceptible populations – small children, the elderly, and asthmatics – and present health risks for the public in general. Exposure to ozone for several hours at relatively low concentrations significantly reduces lung function and induces respiratory inflammation in normal, healthy people during exercise. This decrease in lung function is generally accompanied by symptoms, such as chest pain, coughing, sneezing, and pulmonary congestion. Research strongly suggests that in addition to exacerbating existing asthma, ozone also causes asthma in children. Long-term exposure may lead to scarring of lung tissue and lowered lung efficiency. Repeated exposure may cause permanent lung damage. When ozone reaches unhealthy levels, children, people who are active outdoors, and people with respiratory disease are most at risk. See USEPA 2016 RIA at 6-2 to 6-6.

Additionally, there is some evidence that the health impacts of increased ozone may be elevated when combined with other climate-related impacts, such as the higher temperatures that occur during heat waves. See 2020 Report on Climate Change at 66. This is particularly significant for New Jersey's urban areas where high temperatures are often accompanied by high levels of other local air pollutants. See *ibid*.

Adverse health impacts of NO_x and PM2.5

NO_x as an air pollutant has direct adverse impacts on public health. It also contributes to the formation of PM2.5, which causes additional public health risks. The EPA has established a

NAAQS for NO_x, as measured by nitrogen dioxide (NO_2). See 83 FR 17,226 (April 18, 2018). Long-term exposure to low concentrations of NO_2 causes adverse respiratory effects, including lung irritation and increased pulmonary inflammation in children with asthma. See USEPA 2016 RIA at 6-6 to 6-7. The Department measures NO_2 levels at 10 locations throughout the State: Bayonne, Camden Spruce Street, Chester, Columbia, Elizabeth Lab, Fort Lee Near Road, Jersey City, Millville, Newark Firehouse, and Rutgers University's Cook College campus. The design value for NO_2, which determines whether or not there is a violation of the NAAQS, is the three-year average of the 98th percentile of the one-hour daily maximum concentrations. Design values at the urban monitoring sites are consistently higher than the rural sites. The Department, therefore, expects that the proposed rulemaking will particularly benefit urban areas, while reducing NO_x emissions throughout the State. See 2019 NJ Air Quality Report. https://www.nj.gov/dep/airmon/pdf/2019-nj-aq-report.pdf.

PM2.5 has significant health impacts due to its ability to penetrate deeply into the lungs. As explained in the Environmental Impact statement, PM2.5 is both formed in the atmosphere and discharged directly from a combustion source, such as a diesel engine. Diesel emissions contain "numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene" referred to as air toxics. See CARB, Overview: Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. "Diesel exhaust is a major source of fine particulate pollution as well, and numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visit[s], asthma attacks and premature deaths." CARB Initial ISOR

at ES-1 (citing California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (October 2000), https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/rrpfinal.pdf).

The effects of NO_x and PM2.5 on public health have been widely and extensively studied by the EPA and others. The benefits of reducing these air pollutants include reduced incidence of premature mortality and morbidity from exposure to both PM2.5 and ground level ozone, which they contribute to the formation of. See U.S. EPA, Integrated Science Assessment for Oxides of Nitrogen – Health Criteria, EPA/600/R-08/071, July 2008, http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=475020; and U.S. EPA, Integrated Science Assessment (ISA) for Particulate Matter, EPA/600/R-08/139F, December 2009, http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=494959. Other health impacts that have been recognized include reduced incidence of morbidity from exposure to NO_x. See National Research Council. 2002. Estimating the Public Health Benefits of Proposed Air Pollution Regulations. Washington, DC: The National Academies Press. https://doi.org/10.17226/10511; Driscoll, C.T, Buonocore, J., Reid, S., Fakhraei, H, and Lambert, K.F. 2014. Co-benefits of Carbon Standards Part 1: Air Pollution Changes under Different 111d Options for Existing Power Plants. Syracuse University, Syracuse, NY and Harvard University, Cambridge, MA. A report of the Science Policy Exchange. 34 pp.

Economic Impact

The Department anticipates that the proposed rulemaking will result in increased costs to owners and operators of cargo handling equipment at ports and intermodal rail yards in the

State. The Department also anticipates that the proposed rulemaking will result in health benefits, particularly to residents living and working at and near these areas. The Department estimated the monetized health benefits that it expects will result from the proposed rulemaking and summarized estimated compliance costs below. Throughout this discussion, values are expressed in 2018 dollars to maintain consistency with other pending and anticipated Air Pollution Control rulemakings focused on combatting the effects of climate change, to meet the Global Warming Response Act goal of reducing greenhouse gas emissions 80 percent below 2006 baseline levels by 2050.

Monetized health benefits

As explained above, the Department based its estimates of the emissions benefits it anticipates from the proposed rulemaking on the PANY/NJ's cargo handling equipment inventory. The Department estimates potential emission reductions from cargo handling equipment at PANY/NJ terminals to be 82 tons of NOx and 6.4 tons of PM2.5 in 2028 and cumulative emissions reductions of 500 tons of NOX, and 38 tons of PM2.5 from 2024 through 2035. To roughly estimate the avoided human health impacts and monetized benefits related to these reductions in NO_x as a PM2.5 precursor and directly emitted PM2.5, the Department relied on the EPA's Technical Support Document. See USEPA, Technical Support Document, Estimating the Benefit per Ton of Reducing PM2.5 Precursors from 17 Sectors, February 2018 (EPA 2018 TSD), https://www.epa.gov/sites/production/files/2018-02/documents/sourceapportionmentbpttsd_2018.pdf. In the EPA 2018 TSD, the EPA provided nationwide economic values of adverse health impacts attributable to PM2.5 air pollution from 17 sectors, including nonroad mobile sources. The process the EPA used to generate its

estimates is described on pages 4 and 5 of the EPA 2018 TSD.

To estimate the potential monetized benefits due to the proposed rulemaking, the Department used the total dollar value of avoided mortality and morbidity per ton of directly emitted PM2.5 and the PM2.5 precursor NO_x provided for nonroad mobile sources at Tables 7 and 8. EPA 2018 TSD at 16 and 17. The morbidity health endpoints included in the EPA's quantification are respiratory emergency room visits, acute bronchitis, lower and upper respiratory symptoms, minor restricted activity days, work loss days, asthma exacerbation, cardiovascular and respiratory hospital admissions, and non-fatal heart attacks. *Id*. at Appendix A, p 61, Table 62. The EPA provided estimates using two different methodologies for linking PM2.5 to negative health outcomes, and using a three percent and seven percent discount rate. Discounting renders benefits and costs that occur in different time periods comparable by expressing their values in present terms. See USEPA, Guidelines for Preparing Economic Analyses, December 2010, https://www.epa.gov/sites/production/files/2017-08/documents/ee-0568-50.pdf. The EPA's estimates ascribed a range of monetary values associated with avoided mortality and morbidity per ton of directly emitted PM2.5 and NO_x as a PM2.5 precursor.

Using the EPA's estimates, the Department adjusted the numbers to 2018 dollars, which resulted in monetary values for avoided mortality and morbidity per ton of directly emitted PM2.5 ranging from $297,000 to $742,000 and $7,000 to $18,000 for NO_x. By multiplying each incident by the range of monetary values used by the EPA (and updated to 2018 dollars by the Department), the Department estimates monetized benefits to be between $2 million and $6 million in 2028 and between $15 million and $37 million in cumulative monetized benefits from

2024 through 2035. (The values presented here have been rounded, but all calculations used unrounded values.)

The EPA's 2018 TSD noted other health impacts that the EPA did not quantify or monetize. These morbidity incidents include chronic bronchitis (people aged over 26), emergency room visits for cardiovascular effects, strokes and cerebrovascular disease (those aged 50-79), other cardiovascular effects, other respiratory effects, such as pulmonary function, non-emergency room visits, and non-bronchitis chronic diseases, reproductive and developmental effects, and cancer, mutagenicity, and genotoxicity effects. Like the EPA, the Department has not monetized these other avoided costs. The Department's calculation of estimated emissions benefits is also limited to the PANY/NJ inventory because it is a detailed, publicly available analysis that is issued every two years. Therefore, the Department likely underestimated the monetized benefits.

Summary of Costs

The proposed rulemaking will affect owners and operators at ports and Class I railroad-owned/operated intermodal rail yards, as they will be required to make capital investments in equipment upgrades. Ports that would be subject to the proposed rulemaking include New Jersey facilities within the Port of New York and New Jersey (for example, terminals at Elizabeth, Newark, Jersey City, and Bayonne), as well as other non-PANY/NJ terminals that handle cargo. Other New Jersey cargo ports include those owned and/or operated by South Jersey Port Corporation, such as the Balzano and Broadway terminals in Camden, and terminals in Salem and Paulsboro. The Port of Paulsboro also includes privately owned facilities. In

addition, there are ports that specifically handle liquid cargo, including the Repauno Port & Rail Terminal and the Port of Perth Amboy. There are also two Class I railroads that own and operate cargo handling equipment at seven intermodal rail yards in the State. The Department expects the costs of compliance may be passed on to customers, such as shipping companies, or absorbed by the regulated entity.

The Department anticipates that at least some, if not all, of the owners and operators at these ports and intermodal rail yards will incur costs to upgrade their in-use equipment to comply with the proposed rulemaking. These costs are explained below. The Department anticipates minimal additional costs of compliance for new cargo handling equipment since, as explained in the Summary, all CI engines have had to be certified to Tier 4 final off-road engine standards as of 2015 and, thus, the availability of pre-Tier 4 final engines is likely limited.

Based on information provided in CARB's draft technology assessment for mobile cargo handling equipment and in the Clean Air Action Plan 2017 for the San Pedro Bay Ports, the Department estimated costs of Tier 4 final cargo handling equipment by type are presented in the table below. See Draft Technology Assessment: Mobile Cargo Handling Equipment (November 2015) at II-6 to -7, https://ww2.arb.ca.gov/sites/default/files/classic/msprog/tech/techreport/che_tech_report.pdf, and San Pedro Bay Ports, Clean Air Action Plan 2017, Preliminary Cost Estimates for Select Clean Air Action Plan Strategies (November 2017) at p.8, prepared by EnSafe, https://cleanairactionplan.org/documents/preliminary-cost-estimates-select-caap-strategies.pdf/.

Tier 4 final cargo handling equipment cost estimates	
Equipment	Estimated cost
Yard truck	$125,000
Top handler	$520,000 to $600,000
Forklift	$40,000 to $250,000
RTG crane	$1,300,000
Side handler	$315,000 to $600,000
Straddle carrier	$1,100,000
Dozer	$110,000 (small, up to 80 hp) $400,000 (medium, up to 200 hp) $1,400,000 (large, up to 600 hp)
Excavator	$205,000 (small, up to 90 hp) $270,000 (medium, up to 190 hp) $750,000 (large, up to 470 hp)
Loader	$130,000 (small wheel, up to 100 hp) $180,000 (small, up to 140 hp) $450,000 (medium, up to 300 hp) $1,550,000 (large, up to 700 hp)

The Department expects that owners and operators at ports and intermodal rail yards have various types of equipment depending on what kind of cargo is handled (for example, bulk

or containerized). The Department also expects the number and age of equipment in each owner or operator's inventory is varied, depending on the throughput or volume of cargo handled and business operations and decisions. Owners and operators may choose to comply by replacing or retiring equipment or engines. If older equipment nearing the end of its useful life is replaced with newer, compliant equipment, the cost of compliance will be minimal. Owners and operators may also choose to employ alternative technologies to transition to cleaner equipment, such as hybrid or zero-emission. Other ports may have their own fleet modernization programs to incentivize the replacement of older equipment. Given the variety of factors, the Department is unable to estimate the average cost of compliance for a fleet or the cost of compliance for each individual owner and operator who will be subject to N.J.A.C. 7:27-34.

In addition to the costs that may be necessary to comply with the proposed performance standards, owners and operators will bear a cost to comply with the reporting and recordkeeping requirements at proposed N.J.A.C. 7:27-34. The proposed rulemaking will also impose recordkeeping requirements on those who sell, rent, or lease cargo handling equipment for operation at ports and intermodal rail yards. CARB estimated that it would cost approximately $640.00 per year (in 2018 dollars) for an owner or operator to comply with the reporting requirements. See CARB Initial ISOR at VII-6. The Department anticipates similar compliance costs. The Department expects that the recordkeeping provisions at proposed new N.J.A.C. 7:27-34 will result in minimal costs to businesses subject to the new rules. The businesses likely already maintain the required records as part of their business practice.

Finally, the Department anticipates an initial cost to the Department of $200,000 and

0.5 full time employee to establish the fleet inventory reporting portal. Additionally, the Department anticipates an additional two to three full-time employees will be needed to review the inventory reports annually, assist with education, monitor compliance, and analyze reported data.

Environmental Impact

The Department anticipates that the proposed new rules for cargo handling equipment at ports and intermodal rail yards will have a positive environmental impact due to the expected reductions in emissions of both NO_x, which contributes to the formation of ground-level ozone and secondary PM2.5, and direct PM2.5 (of which black carbon is a component).

Climate Change and Air Quality

The 2020 Report on Climate Change is the Department's first effort to compile scientific material in a comprehensive report detailing both the effects and the impacts of climate change. While the report examines climate change at the global and regional level, its purpose is to explain the current and anticipated effects and impacts in New Jersey. See *id*. at 3. One of the report's findings is that New Jersey is uniquely vulnerable to climate change due to multiple factors, including its coastal location, population density, and geography. See *id*., Executive Summary.

Climate scientists worldwide agree that the substantial increase in heat-trapping greenhouse gases in the earth's atmosphere from fossil fuel production and combustion, as well as land degradation, is the principal cause of climate change. See *id*., p. vi. As the 2020 Report on Climate Change explains, the increasing CO_2 concentration was first observed over 60

years ago. *Id*. at 15. "Since then other human-sourced greenhouse gases have been recognized as contributing to climate change, such as methane (CH_4), nitrous oxide (N_2O), ozone (O_3), many halogenated gases (especially chlorofluorocarbons [CFC-11 and CFC-12]), among others." *Id*. at 16. Although CO_2 is the most abundant greenhouse gas, scientists have recently begun to study the role of other short-lived climate pollutants/forcers, such as hydrofluorocarbons, methane, and black carbon in climate change. See *id*. at 25-26. Climate forcers are also referred to as short-lived climate pollutants, which "have a greater impact on climate change in the near term, compared to longer-lived greenhouse gases like carbon dioxide." 2050 Report at 175. It is now understood within the scientific community that while these pollutants and forcers tend to have shorter atmospheric lives, they also have much higher warming potentials, making them significant contributors to climate change. See 2020 Report on Climate Change at 25-26.

Climate change, resulting from the increase in greenhouse gases and other highly warming climate pollutants and forcers, affects temperature, precipitation, sea-level rise, and ocean acidification. See *id*. at 28. And "[a]s temperature, precipitation, sea-level rise, and ocean acidification increase, so will the impacts to New Jersey's air, water, habitats, and wildlife." *Id*. at vii. Increased air pollution will lead to adverse health impacts, such as increased respiratory and cardiovascular health problems and more premature deaths. *Id*. Climate induced increases in air pollution will also further degrade the environment, reducing visibility and damaging crops and forests. *Ibid*.

Of particular relevance is the interaction between climate change and air pollution, specifically, ground-level ozone and what is referred to as the "ozone-climate penalty," explained below. In the stratosphere, ozone provides protection from the sun's harmful

ultraviolet rays. Ozone is harmful, however, when created in the earth's lower atmosphere, or troposphere, by the interaction of "precursor" pollutant gases such as NO_x and volatile organic compounds (VOCs) with heat and sunlight.

Ground-level ozone

As discussed more fully in the Social Impact, ground-level ozone (also referred to herein as ozone) harms our health. In addition, within the environment, "[t]he welfare effects of ozone can be observed across a variety of scales, i.e., subcellular, cellular, leaf, whole plant, population and ecosystem." See USEPA, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, Regulatory Impact Analysis, August 2016 (USEPA 2016 RIA), pp. 6-25, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NS.PDF?Dockey=P100P7NS.PDF. Plant-level effects, when widespread, can cause "broad changes in ecosystems, such as productivity, carbon storage, water cycling, nutrient cycling, and community composition." *Ibid*. Ozone damage to sensitive species includes visible injury to leaves and impaired photosynthesis, which is the process by which the plant makes carbohydrates, its source of energy and food. *Ibid*. By interfering with the ability of plants to produce and store food, ozone can lead to reduced crop and forest yields, including timber production, and overall plant productivity and growth. *Ibid*. Ground-level ozone makes plants more susceptible to harsh weather, disease, insects, and other pollutants. It also damages the foliage of trees and other plants, sometimes marring the landscape of cities, national parks and forests, and recreation areas. *Id*. at 6-25.

Ozone-climate penalty

As the 2020 Report on Climate Change explains, "[t]he atmospheric conditions that

generate high ozone levels are high temperatures, plenty of sunshine, and stagnant air masses, and [these conditions] often result in elevated levels of particulate matter and/or other colored gases that may appear visually as haze or smog …" *Id*. at 61. The many factors that contribute to ground-level ozone concentrations at any given time and location can be separated into two general categories. *Id*. at 62. The first category includes sources that emit ozone precursors, such as trucks or heavy equipment that emit NO_x. The second category includes meteorological conditions, such as a warming climate that are conducive to the formation of ozone. *Id*. at 61-62. "The primary climate change impacts on ozone formation are expected to result from changes to meteorological conditions …" *Id*. at 62. This phenomenon, which is frequently referred to as the "ozone-climate penalty," is explained as "the deterioration of air quality due to a warming climate, in the absence of anthropogenic (human-caused) polluting" activities. *Ibid*. Thus, "even as emissions are reduced, ozone formation may still increase due to the warmer climate," *ibid*., making it more important to continue to reduce emissions of ozone precursors, even as it may become more difficult to reduce ozone pollution.

NO_x and PM

In addition to its role as an ozone precursor, NO_x can cause rainfall to become highly acidic, damaging leaves and plant structures during rain events. See NJDEP, Health and Environmental Effects of Ground-Level Ozone, https://www.nj.gov/dep/cleanairnj/health.html. NO_x also contributes to the formation of secondary PM2.5, either through condensation or complex reactions with other compounds in the atmosphere.

As discussed in the Summary and more fully discussed in the Social Impact, PM2.5 and especially diesel PM have been linked to public health risks. Particles also have adverse

environmental effects. Particulate matter can acidify lakes and streams, change the nutrient balance in coastal waters and large river basins, deplete nutrients in soil, damage farm crops and sensitive forests, affect ecosystem diversity, and contribute to acid rain effects. *Ibid*. Fine PM also is the main cause of reduced visibility, or haze. At elevated PM2.5 concentrations, visual ranges are degraded and images of scenic views (for example, mountains and urban skylines) are significantly obscured.

When PM2.5 is discharged directly from combustion sources, such as diesel vehicles, it contains a component known as black carbon that is a short-lived climate pollutant with a high global warming potential.

Performance standards for cargo handling equipment

To estimate potential emission reductions as a result of the proposed rulemaking, the Department evaluated information that the Port Authority of New York & New Jersey (PANY/NJ) has made publicly available regarding the cargo handling equipment used at its marine terminals. PANY/NJ is a landlord port that leases marine terminals to private terminal operators. PANY/NJ's Port Department annually provides an equipment and emissions inventory report with estimates of air emissions generated each year by mobile emission sources, including cargo handling equipment, associated with its marine terminals. PANY/NJ's annual multi-facility emissions inventory reports are available at https://www.panynj.gov/port/en/our-port/sustainability/air-emissions-inventories-and-related-studies.html.

The Department used information provided in PANY/NJ's inventory reports for the years 2016, 2017, 2018, and 2019 and the EPA's MOtor Vehicle Emissions Simulator (MOVES model)

to estimate the projected emission reductions of direct PM2.5 and NO_x from implementation of the proposed rulemaking. Specifically, the Department relied upon the equipment numbers, tier levels, load factors, average horsepower levels, and average annual operating hours for cargo handling equipment included in the PANY/NJ inventories that would be subject to the proposed rulemaking. The Department then ran the MOVES model to estimate emission factors for the various cargo handling equipment types and tier levels. The Department used the emission factors from MOVES with the PANY/NJ data, such as hours of use per year, load factors, and horsepower to estimate emissions.

To calculate the estimated emission benefits of the proposed rulemaking, the Department first determined the emissions based on business as usual (BAU), or the baseline scenario. Over time, older, lower tier level cargo handling equipment is steadily replaced with new, higher tier level cargo handling equipment at a certain rate, referred to as the BAU turnover rate. The Department estimated the BAU turnover rate by compiling and analyzing the equipment numbers and tier level distributions for 2016, 2017, 2018, and 2019 and, in some cases, applying useful life assumptions from CARB. The annual turnover rates for cargo handling equipment with a tier level less than the most stringent tier level required by the proposed rulemaking (Tier 4 final) over this historical period were calculated and applied to the 2019 equipment inventory to estimate turnover for future years through 2035. This resulted in an estimate of the number of each type of cargo handling equipment less than Tier 4 final in each future year. This was established as the BAU, or baseline scenario.

When the Department estimated the potential emissions benefits from the proposed rulemaking, there were no PANY/NJ requirements for cargo handling equipment operating at

its port terminals. However, the Department is aware that the PANY/NJ announced an initiative to require, at its port terminals, the phase-out of diesel cargo handling equipment and the transition of material-handling equipment "to clean zero-emissions electric port material-handling equipment, to the maximum extent practicable, as such equipment becomes available from manufacturers." See PANY/NJ Press Release 115-2021 (Oct. 28, 2021), https://www.panynj.gov/port-authority/en/press-room/press-release-archives/2021-press-releases/ahead-of-united-nations-climate-conference-port-authority-embraces-biden-administrations-new-goals.html. The Department did not incorporate the PANY/NJ's potential upcoming requirements in its emissions benefits calculations because PANY/NJ has not finalized its requirements. New PANY/NJ rules, if and when adopted, could affect the emissions benefits anticipated to accrue from the Department's proposed rulemaking.

The proposed rulemaking requires in-use cargo handling equipment to be equipped with a 2010 or later MY on-road engine or Tier 4 final off-road engine according to the phased compliance schedule. The Department assumes that equipment with older model year or lower tier engines will be replaced with compliant equipment or engines by the proposed deadlines. By evaluating the PANY/NJ data, the Department determined that to comply with the proposed compliance deadlines, some cargo handling equipment will need to be replaced sooner than was estimated in the BAU scenario. These pieces of cargo handling equipment are referred to as "affected cargo handling equipment" because their replacement would be a result of the proposed rulemaking. The Department then estimated direct PM2.5 and NO_x emissions for 2028 and the period 2024 through 2035 for the affected cargo handling equipment for the BAU baseline scenario and the proposed rulemaking scenario. The emission

differences between these two scenarios are the estimated emission benefits attributable to the proposed rules. Finally, because PANY/NJ's information included its New York terminals, the Department estimated the emission benefits attributed to the cargo handling equipment at the PANY/NJ's New Jersey terminals by multiplying cargo handling equipment emissions from the New Jersey terminals and dividing by the sum of the cargo handling equipment emissions from both the New York and New Jersey terminals (multiplying by a factor of 0.93 for both PM2.5 and NO_x).

Using the above methodology, the Department estimates that the emission benefits in 2028 due to implementation of this proposed rulemaking at PANY/NJ marine terminals will be 6.4 tons of direct PM2.5 and 82 tons of NO_x. In addition, the cumulative emissions benefits from 2024 through 2035 due to implementation of the proposed rulemaking will be 38 tons of direct PM2.5 and 500 tons of NO_x. The direct PM2.5 emissions reductions will particularly benefit the local communities near ports and intermodal rail yards where the cargo handling equipment is operated. The reductions in NO_x emissions will contribute to reductions in ground-level ozone concentrations (not quantified) in New Jersey.

The estimates provided as a result of the PANY/NJ analysis are the minimum benefits expected as a result of the proposed rulemaking. In addition to the estimated potential reductions at PANY/NJ, benefits are expected to accrue when equipment at other ports and terminals subject to the proposed rulemaking, such as South Jersey Port Corporation, Gloucester Marine Terminals, Perth Amboy, and intermodal rail yards operated by CSX and Norfolk Southern, complies with the proposed rulemaking. However, as explained, the Department does not have detailed information about the inventory of cargo handling

equipment at other ports or intermodal rail yards in the State and, thus, cannot quantify the additional potential emission reduction benefits. Ports that handle liquid cargo, such as Perth Amboy, are not expected to have cargo handling equipment to the same extent as ports handling bulk and containerized cargo. Nevertheless, as explained in the Summary and Social Impact statements, the Department expects the emissions reductions as a result of the proposed rulemaking will directly benefit the local residents and communities who live or work near a port or intermodal rail yard in the State by virtue of their physical proximity to the source of the emissions.

Federal Standards Statement

N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), requires State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. Pursuant to section 209 of the Federal Clean Air Act (CAA), 42 U.S.C. § 7543, certain states may adopt California's standards authorized by the USEPA, as long as the state gives two-years' lead time. 42 U.S.C. § 7543. As explained in the Summary, the USEPA authorized California's CHE Regulation. See 77 FR 9,916 (Feb. 21, 2012); 80 FR 26,249 (May 7, 2015). Given the framework of the CAA, because the USEPA authorized California's CHE Regulation, the proposed rulemaking will not exceed a Federal standard. Thus, no further analysis is necessary.

Jobs Impact

The Department anticipates that the proposed new rules will have little or no impact on job retention or creation in the State. As part of its CHE Regulation, California explained that

jobs were not expected to be eliminated as a result of the regulation. See CARB Initial ISOR at p. VII-17. However, California believed the rules could lead to the augmentation or alteration of job duties, leading to no net result change in the number of jobs. See *ibid*. Because the Department's proposed rulemaking is based on the California's CHE Regulation, the Department similarly expects little or no impact on job creation or retention in the State.

Agricultural Industry Impact

The Department anticipates that the proposed rules will have a positive impact on the agricultural industry in New Jersey due to the expected reductions of NO_x and PM2.5 emissions. As discussed in the Environmental Impact statement, NO_x emissions contribute to the formation of ozone and secondary PM2.5, and NO_x, ozone, and particle pollution all harm crops and vegetation. For this reason, the proposed rulemaking should have a net positive impact on agriculture in the State by reducing emissions of pollutants that are harmful to crops and vegetation.

Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping, and other compliance requirements that the proposed rules would impose upon small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees." Based upon this definition, the proposed rulemaking may

impose compliance and recordkeeping requirements on small businesses that own or operate a terminal or business at a port or that sell, rent, or lease cargo handling equipment for operation at ports and intermodal rail yards in the State. These requirements and their associated costs are discussed in the Summary and Economic Impact statements. Class I railroads are not small businesses. In light of the impacts from emissions from older diesel-fueled cargo handling equipment at ports and intermodal rail yards, particularly for local communities, as discussed in the Social and Environmental Impact statements, the Department does not propose an exemption or accommodation for small businesses.

As explained in the Summary, owners and operators subject to N.J.A.C. 7:27-34 will be required to submit a report to the Department about their cargo handling equipment fleet. The Department anticipates that a minority of businesses subject to the reporting requirements will employ fewer than 100 full-time employees. The amount of time necessary to complete these reports will depend on the number of cargo handling equipment in their fleet, as well as their current recordkeeping practices. The Department expects that such small businesses already have personnel who keep records of their cargo handling equipment inventory. While the Department acknowledges that those businesses will need to allocate time for personnel to compile and submit the information required, those businesses with electronic recordkeeping practices will likely have to spend less time completing the report. The Department estimates that businesses with few pieces of cargo handling equipment or with electronic records of their cargo handling equipment inventory are likely to complete their reporting requirements in a few hours. Businesses with a moderate to large number of cargo handling equipment may need more time to complete their report. However, the Department anticipates that the reports will

be submitted through a web portal using an electronic form that guides the user through the questions, thereby minimizing the burden on small businesses. The electronic form will also facilitate the completion of subsequent annual reports, by allowing owners and operators to report only changes to their inventory from the prior year. Overall, the Department believes this will be minimal effort at minimal cost for the regulated entity.

Housing Affordability Impact Analysis

In accordance with N.J.S.A. 52:14B-4, the Department has evaluated the proposed rulemaking to determine its impact, if any, on the affordability of housing. Given that the applicability of the proposed rulemaking is limited to cargo handling equipment at ports and intermodal rail yards, the Department has determined that the proposed rulemaking is unlikely to impact housing affordability or the average costs of housing in the State.

Smart Growth Development Impact Analysis

In accordance with N.J.S.A. 52:14B-4, the Department has evaluated the proposed rulemaking to determine its impact, if any, on housing production in Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan. Given that applicability of the proposed rulemaking is limited to cargo handling equipment at ports and intermodal rail yards, the rulemaking is unlikely to evoke a change in housing production in Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan.

Racial and Ethnic Community Criminal Justice and Public Safety Impact

In accordance with N.J.S.A. 52:14B-4(a)(2) and 2C:48B-2, the Department has evaluated this rulemaking and determined that it will not have an impact on pretrial detention, sentencing, probation, or parole policies concerning adults and juveniles in the State. Accordingly, no further analysis is required.

Full text of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

CHAPTER 27

AIR POLLUTION CONTROL

SUBCHAPTER 34. [(RESERVED)] **MOBILE CARGO HANDLING EQUIPMENT AT PORTS AND INTERMODAL RAIL YARDS**

7:27-34.1 Purpose

The purpose of this subchapter is to reduce oxides of nitrogen (NO_x) and particulate matter (PM) emissions from cargo handling equipment with diesel-fueled compression ignition engines that operate at ports and intermodal rail yards in the State of New Jersey.

7:27-34.2 Applicability

(a) Except as otherwise provided, this subchapter applies to:

1. Any person who owns or operates a terminal or business at a port in New Jersey

and operates cargo handling equipment at that location;

2. Any person who owns or operates an intermodal rail yard in New Jersey and operates cargo handling equipment at that location; and

3. Any person conducting business in New Jersey who sells, offers for sale, leases, rents, or purchases any cargo handling equipment or CI engine that is used at any port or intermodal rail yard in New Jersey.

(b) This subchapter does not apply to:

1. Portable CI engines;

2. Military tactical support cargo handling equipment;

3. Cargo handling equipment used solely to support construction activities at a port or intermodal rail yard;

4. Mobile cranes;

5. Sweepers;

6. 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; and

7. Equipment at low-throughput ports that are no closer than 75 miles to an urban area, except as provided at N.J.A.C. 7:27-34.13.

7:27-34.3 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

"Alternate PM standard" means one of the Family Emissions Limit (FEL) standards that are currently available to engine manufacturers pursuant to 13 CCR 2423. Alternate standards are of limited duration and may be selectively applied to total or partial engine family production volumes.

“Best available control technology” means the maximum degree of PM and NO_x emissions reduction achievable through application of available methods, systems, devices, and techniques.

“California Air Resources Board” or "CARB” means the agency or its successor agency established and empowered to regulate sources of air pollution in the State of California, including motor vehicles, pursuant to section 39003, California Health & Safety Code, 1999, as amended or supplemented.

"Cargo" means material, goods, or commodities that have been, or will be, transported to, or from, a port or intermodal rail yard by ship, train, truck, or other mode of transportation.

"Cargo handling equipment" means any mobile off-road, self-propelled vehicle, or equipment with a diesel-fueled CI engine used at a port or intermodal rail yard to lift or move container, bulk, or liquid cargo carried by ship, train, or another vehicle, or used to perform maintenance and repair activities that are routinely scheduled or that are due to predictable process upsets. Cargo handling equipment includes yard trucks and non-yard trucks.

“CCR” means the California Code of Regulations.

“Certification” or “certified” means a finding by CARB or the EPA that a motor vehicle, motor vehicle engine, off-road CI engine, or air contaminant emission control system has

satisfied the criteria for the control of specified air contaminants from such vehicles, engines, or control systems, adopted by CARB or the EPA, as set forth in their rules and/or regulations.

"Certified on-road engine" means an engine certified to 2010 or later model year California on-road engine emission standards at 13 CCR 1956.8, incorporated herein by reference.

“Certified Tier 4 final off-road engine” means an engine certified to the California Tier 4 final off-road emission standards at 13 CCR 2423, incorporated herein by reference, for the rated horsepower.

"Class I railroad" is a freight railway that meets the revenue threshold for a Class I railroad, as defined by the Surface Transportation Board.

"Compression ignition engine" or “CI engine” means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine. Any engine certified under the diesel cycle is included under the definition of a compression ignition engine.

"Construction activities" include any activities at a port or intermodal rail yard that are preparatory to or involved with the building, alteration, rehabilitation, demolition, or improvement of property, including, but not limited to, the following activities: grading excavation, loading, crushing, cutting, planning, shaping, or groundbreaking.

"Contiguous properties" means adjacent properties, even if they are separated by human-made barriers or structures, including roadways, or legal boundaries.

"Diesel fuel" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.

"Diesel-fueled CI engine" means a CI engine fueled by diesel fuel, ultra-low sulfur diesel, or jet fuel, in whole or in part.

“Diesel particulate matter” or “diesel PM” means the particles found in the exhaust of diesel-fueled CI engines. Diesel PM may agglomerate and adsorb other species to form structures of complex physical and chemical properties.

“Dozer” means an off-road tractor, either tracked or wheeled, equipped with a blade.

“Excavator” means an off-road vehicle consisting of a backhoe and cab mounted on a pivot atop an undercarriage with tracks or wheels.

“Family Emissions Limit” or “FEL” refers to an emission level that is declared by the manufacturer to serve as an emission standard for certification purposes and for the averaging, banking, and trading program as defined at 13 CCR 2423.

“Fleet” means the total number of cargo handling equipment owned, rented, or leased by an owner or operator, which is located at a specific port or intermodal rail yard.

“Forklift” means an off-road industrial truck used to hoist and transport materials by means of steel fork(s) under the load.

“Hybrid” means powered by two or more sources of energy.

“Hydrocarbon” or “HC” means any compound or mixture of compounds whose molecules consist of atoms of hydrogen and carbon only.

"In-use cargo handling equipment" means 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 (the first day of the 25th month after the operative date of this rulemaking).

"Intermodal rail yard" means any transportation facility owned or operated by a Class I railroad that is primarily dedicated to the business of intermodal rail operations where cargo is transferred to or from a train and any other form of conveyance, such as train-to-ship, ship-to-train, train-to-truck, or truck-to-train.

"Lease" means a contract by which one conveys cargo handling equipment for a specified term and for a specified rent.

"Level" means one of three categories of CARB-verified diesel emission control strategies as set forth at 13 CCR 2701 et seq: Level 1 means the strategy reduces engine diesel particulate matter emissions by between 25 and 49 percent; Level 2 means the strategy reduces engine diesel particulate matter emissions by between 50 and 84 percent; and Level 3 means the strategy reduces engine diesel particulate matter emissions by 85 percent or greater, or reduces engine emissions to less than or equal to 0.01 grams diesel PM per brake horsepower-hour.

"Loader" means any type of off-road tractor with either tracks or rubber tires that uses a bucket on the end of movable arms to lift and move material; is also referred to as a front-end loader, front loader, skid steer loader, backhoe, rubber-tired loader, or wheeled loader.

"Low-throughput port" means a port that has a two-year average annual cargo

throughput of less than one million tons per year, not including petroleum products, as reported by the U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center.

"Military tactical support cargo handling equipment" means cargo handling equipment that meets military specifications, is owned by the U.S. Department of Defense and/or the U.S. military services, and is used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.

"Mobile crane" means a mobile machine, other than a rubber-tired gantry crane, with a hoisting mechanism mounted on a specially constructed truck chassis or carrier; a mobile crane can either be a single-engine crane or a two-engine crane.

"Model year" or "MY" means the CI engine manufacturer's annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.

"New cargo handling equipment" means 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 (the first day of the 25th month after the operative date of this rulemaking).

"Nitrogen oxides" or "NO_x" means compounds of nitric oxide (NO), nitrogen dioxide (NO), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.

"Non-yard truck" means all cargo handling equipment other than yard trucks. Non-yard trucks include rubber-tired gantry cranes, top handlers, side handlers, reach stackers, straddle carriers, forklifts, loaders, tractors, aerial lifts, excavators, and dozers.

"Ocean-going vessel" means a commercial, government, or military vessel meeting any one of the following criteria:

1. **A vessel with a "registry" (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or a vessel that is registered under the flag of a country other than the United States;**
2. **A vessel greater than or equal to 400 feet in length overall (LOA) as defined at 50 CFR 679.2, as adopted June 19, 1996;**
3. **A vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined at 46 CFR 69.51 through 69.61, as adopted September 12, 1989; or**
4. **A vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.**

"Off-road vehicle or equipment" means any non-stationary device, including registered motor vehicles, powered by an internal combustion engine or motor, used primarily off the highways to propel, move, or transport persons or property.

"Opacity" means the fraction of a beam of light, expressed in percent, which fails to penetrate a plume of smoke.

"Particulate matter" or "PM" means the particles found in the exhaust of CI engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.

"Person" means an individual, public or private corporation, company, partnership, firm, association, society, joint stock company, international entity, institution, county,

municipality, state, interstate body, the United States of America, or any agency, board, commission, employee, agent, officer, or political subdivision of a state, an interstate body, or the United States of America.

"Port" means a publicly or privately owned property located at a harbor or along a waterway where marine and port terminals typically operate by loading and unloading water-borne commerce onto and from ocean-going vessels; a port includes all terminals and property within the physical boundaries of the port or demarcated as the port on city or county land maps, as well as other contiguous properties owned or operated by the port. A port includes military terminals that operate cargo handling equipment when located as part of, or on contiguous properties with, non-military terminals.

"Portable CI engine" means a compression ignition engine designed and capable of being carried or moved from one location to another. Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. Portable engines are not self-propelled.

"Purchased" means the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.

"Reach stacker" means an off-road truck-like cargo container handler that uses an overhead telescopic boom that can reach across two or more stacks of cargo containers and lift the containers from the top.

"Registered motor vehicle" means cargo handling equipment that is registered as a motor vehicle pursuant to N.J.S.A. 39:3-4.

"Rent" means payment for the use of cargo handling equipment for a specified term.

"Retirement" or "retire" means an engine or cargo handling equipment that will be taken out of service, will not be operated at any port or intermodal rail yard in New Jersey, and will not be replaced with a new engine or cargo handling equipment.

"Rubber-tired gantry crane" or "RTG crane" means an off-road overhead cargo container crane with the lifting mechanism mounted on a cross-beam supported on vertical legs that run on rubber tires. RTG cranes do not include gantry cranes that operate on steel wheels and rails.

"Side handler" or "side pick" means an off-road truck-like cargo container handler that uses an overhead telescopic boom to lift empty or loaded cargo containers by grabbing either two top corners on the longest side of a container, both arms of one side of a container, or both top and bottom sides of a container.

"Sweeper" means an off-road vehicle with attached brushes underneath that sweep the ground and pick up dirt and debris.

"Terminal" means a facility, including one owned or operated by the Department of Defense or the U.S. military services, that handles cargo at a port or intermodal rail yard.

"Top handler" or "top pick" means an off-road truck-like cargo container handler that uses an overhead telescopic boom to lift empty or loaded cargo containers by grabbing the top of the containers.

"Two-year average annual cargo throughput" means the arithmetic average of the annual cargo throughput, not including petroleum products, as reported by the U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center, for the most recently reported calendar year and the calendar year immediately preceding that year.

"Ultra-low sulfur diesel" or "ULSD" means a diesel fuel with a maximum sulfur concentration of 15 parts per million.

"Urban area" means a densely developed territory that contains 50,000 or more people, as reported by the latest U.S. Census Bureau census.

"Verification Procedure, Warranty, and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)" means the CARB regulatory procedure codified at 13 CCR 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM and/or NO_x from in-use diesel engines using a particular emission control strategy.

"Verified diesel emission control strategy" or "VDECS" means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the "Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines" at 13 CCR 2700.

"Warranty period" means the period of time and/or mileage that a vehicle, engine, or part is covered by the engine manufacturer's new engine warranty provisions.

"Water-borne commerce" means the movement of materials, goods, or commodities using vessels or other craft plying upon navigable waters of the United States.

"Yard truck" means an off-road mobile utility vehicle with or without chassis that is used to carry cargo containers. A yard truck is also known as a utility tractor rig (UTR), yard tractor, yard goat, yard hostler, yard hustler, or prime mover.

"Zero-emission" means an engine or equipment that does not produce exhaust

emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions.

7:27-34.4 General provisions

(a) Any person who owns or operates a terminal or business at a port in New Jersey and operates cargo handling equipment at that location is required to keep all cargo handling equipment subject to this subchapter in compliance with the requirements of this subchapter at all times.

(b) Any person who owns or operates an intermodal rail yard in New Jersey and operates cargo handling equipment at that location is required to keep all cargo handling equipment subject to this subchapter in compliance with the requirements of this subchapter at all times.

(c) No person conducting business in the State shall sell, offer to sell, import, deliver, purchase, receive, or otherwise acquire any cargo handling equipment or CI engine for the purpose of selling, renting, or leasing the cargo handling equipment or CI engine for operation or use at a port or intermodal rail yard in New Jersey, if the equipment or engine does not meet the requirements of this subchapter.

(d) Failure to comply with any of the obligations or requirements of this subchapter shall subject the violator to an enforcement action pursuant to the provisions of the Air Pollution Control Act, at N.J.S.A. 26:2C-19, and the Air Administrative Procedures and Penalties, at N.J.A.C. 7:27A-3.

(e) All information submitted to the Department pursuant to this subchapter shall be a public

record, unless the person submitting the information asserts a confidentiality claim and the Department determines that the information is entitled to confidential treatment in accordance with N.J.A.C. 7:27-1.8 through 1.30.

7:27-34.5 Performance standards for new cargo handling equipment

(a) On or after (the first day of the 25th month after the operative date of this rulemaking), any new cargo handling equipment that is a registered motor vehicle shall be equipped with a certified on-road engine for the model year in which the cargo handling equipment and engine is newly purchased, leased, or rented.

(b) Except as otherwise provided, on or after (the first day of the 25th month after the operative date of this rulemaking), any new cargo handling equipment that is not a registered motor vehicle shall be equipped with one of the following:

1. A certified on-road engine for the model year in which the cargo handling equipment is newly purchased, leased, or rented;

2. A certified Tier 4 final off-road engine; or

3. A certified engine and power system that meet the emission standards of a certified on-road engine for the model year in which the cargo handling equipment and/or engine or power system is newly purchased, leased, or rented, or a certified Tier 4 final off-road engine. Compliance with the emission standards shall be demonstrated to the Department by using one of the following tests:

i. Testing conducted by the engine manufacturer for the engine and power system;

ii. Testing conducted by the engine manufacturer for another in-use engine and power system that is configured and used in a substantially similar way to the engine and power system; or

iii. Testing conducted to meet the regulatory requirements of CARB's Verification Procedure.

(c) The following additional provisions apply to new cargo handling equipment that is a non-yard truck and not a registered motor vehicle:

1. If an owner or operator cannot comply with (b) above because the options at (b)1, 2, or 3 are not available for the specific application and equipment type, the owner or operator may request Department approval to apply the best available control technology, in accordance with N.J.A.C. 7:27-34.10 and 34.10A.

2. If a non-yard truck was purchased with an engine complying with (b) above, but there is a manufacturer's delay in delivery, and if no comparable compliant cargo handling equipment is available for lease, then 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 most stringent emission standards at 13 CCR 2423 for the rated horsepower and model year.

(d) A non-yard truck that is moved from one port terminal or intermodal rail yard to another port terminal or intermodal rail yard, or terminal under the control of the same owner or operator, shall be considered newly acquired and subject to the performance standards at N.J.A.C. 7:27-34.5, unless the owner or operator has received approval for such transfer pursuant to N.J.A.C. 7:27-34.12.

7:27-34.6 Performance standards for in-use yard trucks

(a) In accordance with the schedule at Table 1, any in-use yard truck shall be equipped with one of the following:

1. A certified on-road engine for the model year of the year purchased, rented, or leased;

2. A certified Tier 4 final off-road engine; or

3. A certified engine and power system that meet the emission standards of a certified on-road engine for the model year in which the cargo handling equipment and/or engine or power system is newly purchased, leased, or rented or a certified Tier 4 final off-road engine, as demonstrated to the Department by using one of the following tests:

i. Testing conducted by the engine manufacturer for the engine and power system;

ii. Testing conducted by the engine manufacturer for another in-use engine and power system that is configured and used in a substantially similar way to the engine and power system; or

iii. Testing conducted to meet the regulatory requirements of CARB's Verification Procedure.

Table 1: Compliance Schedule for In-Use Cargo Handling Equipment

Cargo handling equipment	Cargo handling equipment	Compliance deadline

with an on-road engine	**with an off-road engine**	
Pre-1998 model year	**Tier 0**	**(the first day of the 25th month after the operative date of this rulemaking)**
1998-2003 model year	**Tier 1**	**(the first day of the 37th month after the operative date of this rulemaking)**
2004-2006 model year	**Tier 2**	**(the first day of the 49th month after the operative date of this rulemaking)**
2007-2009 model year	**Tier 3 and Tier 4 interim**	**(the first day of the 61st month after the operative date of this rulemaking)**

7:27-34.7 Performance standards for in-use non-yard trucks

(a) Except as otherwise provided, in accordance with the schedule at Table 1 above, any in-use non-yard truck shall be equipped with:

1. A certified on-road engine or certified Tier 4 final off-road engine;

2. 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 and used in conjunction with a Level 3 VDECS; or

3. A certified engine or power system that meets the emission standards of a certified on-road engine or certified Tier 4 final off-road engine, as demonstrated to the Department by using one of the following tests:

i. Testing conducted by the engine manufacturer for that engine or power system;

ii. Testing conducted by the engine manufacturer from another in-use engine or power system that is configured and used in a substantially similar way to the engine or power system; or

iii. Testing conducted to meet the regulatory requirements of CARB's Verification Procedure.

(b) If an owner or operator cannot comply with (a) above because the compliance options therein are not available for the specific application and equipment type, the owner or operator may apply the next best available control technology, if requested, and approved by, the Department in accordance with N.J.A.C. 7:27-34.10 and 34.10A.

7:27-34.8 Opacity limits

(a) Except as provided at (c) below, on or after (the first day of the 25th month after the operative date of this rulemaking), for new cargo handling equipment and on or after the compliance deadlines at Table 1 above for in-use cargo handling equipment, or

any approved compliance extension(s), any cargo handling equipment subject to this subchapter shall not exceed the opacity limits at Table 2 below. Compliance with the opacity limits will be determined by the Department with 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).

(b) Except as provided at (c) above, an owner or operator shall take out of service and repair any cargo handling equipment that exceeds the opacity limit at Table 2 below. The owner or operator shall not return the cargo handling equipment to service until it meets the opacity limits at Table 2. The owner or operator shall maintain all service and repair records in accordance with N.J.A.C. 7:27-34.15.

Table 2: Opacity limits

PM emissions limit to which cargo handling equipment powered by a diesel CI engine is certified	Opacity Limit
>0.40 g/bhp-hr PM	55%
0.31-0.40 g/bhp-hr PM	45%
0.21-0.30 g/bhp-hr PM	35%
0.11-0.20 g/bhp-hr PM	25%

0.05-0.10 g/bhp-hr PM	**15%**
<0.05 g/bhp-hr PM	**5%**

(c) Cargo handling equipment that is a registered motor vehicle is subject to the applicable tests, procedures, and standards set forth at N.J.A.C. 7:27-14, 7:27B-4, and 13:20-26.

7:27-34.9 Replacement engines for in-use cargo handling equipment

Any in-use cargo handling equipment that is repowered with a replacement diesel-fueled CI engine is considered to be newly purchased, leased, or rented equipment and must meet the requirements at N.J.A.C. 7:27-34.5, unless the engine was replaced by the manufacturer due to failure during its warranty period.

7:27-34.10 Alternate compliance option, generally

(a) An owner or operator may request that the Department approve an alternate compliance option if it cannot meet the performance standards at N.J.A.C. 7:27-34.5 through 34.7, as applicable. The compliance options are:

1. Approval to use the best available control technology for a new non-yard truck that is not registered as a motor vehicle, or an in-use non-yard truck, if a compliant non-yard truck is not available; and

2. A fleet averaging plan, provided the fleet averaging plan results in no greater emissions, expressed in pounds, of PM and NO_x from all cargo handling equipment in the fleet combined, during each calendar year, relative to the combined emissions that would have

occurred pursuant to N.J.A.C. 7:27-34.5, 34.6, and 34.7.

(b) An owner or operator shall not operate any cargo handling equipment under an alternate compliance option unless the Department notifies the applicant, in writing, that the alternate compliance option is approved.

(c) If the Department approves an alternate compliance option, the owner or operator shall operate the subject cargo handling equipment in accordance with the approval.

(d) The owner or operator shall submit its application at least 90 days prior to the applicable compliance deadline.

(e) The owner or operator shall submit its application on a form available at www.stopthesoot.org. The application shall include:

1. Owner or operator name, address, and contact information;

2. Equipment and engine information, including make, model, serial number, and other information that uniquely identifies the equipment or engine for which an alternate compliance option is sought;

3. Proposed fleet averaging plan, if applicable; and

4. Any other information necessary for the Department's evaluation of the fleet averaging plan.

(f) Within 30 days after receipt of an application, the Department will notify the applicant if the application is administratively complete or incomplete.

1. If the application is incomplete, the Department will notify the applicant of the additional information required and provide a reasonable due date by which the applicant shall submit the information to the Department. Upon determining that the application is

complete, the Department will notify the applicant.

2. The Department may request additional information relevant to the required demonstrations at N.J.A.C. 7:27-34.10, 34.10A, or 34.10B from an applicant at any time after the submittal of an application, regardless of whether the application is administratively complete at the time of the Department's information request. A Department request for additional information shall not alter the completeness status of the application.

3. If an applicant fails to submit the information requested by the due date, the Department will deny the application.

(g) The Department will approve or deny an application within 30 days of receipt of an administratively complete application.

7:27-34.10A Alternate compliance option - non-yard truck

(a) An owner or operator may request approval to apply the best available control technology for a new non-yard truck that is not registered as a motor vehicle or an in-use non-yard truck, if it cannot meet the performance standards at N.J.A.C. 7:27-34.5 and 34.7.

(b) The Department will grant the application if the owner or operator:

1. Demonstrates that it is not reasonably able to comply with the applicable performance standards because a certified on-road engine or certified Tier 4 final off-road engine with the appropriate physical or performance characteristics for the particular application is not available from any manufacturer or dealer;

2. Provides documentation from representatives of equipment and/or engine manufacturers supporting the claim of non-availability;

3. Demonstrates that use of the non-yard truck is necessary to prevent a disruption in operations; and

4. Provides an analysis of all available control technologies and demonstrates that the alternative proposal will achieve the maximum possible PM and NO_x reductions for the particular engine or non-yard truck.

7:27-34.10B Alternate compliance option - fleet averaging plan

(a) An owner or operator may apply to implement a fleet averaging plan in lieu of the requirements at N.J.A.C. 7:27-34.5 through 34.7.

(b) The following requirements apply to an application for approval of a fleet averaging plan:

1. An applicant for a fleet averaging plan shall include, in the plan, two or more pieces of cargo handling equipment, but shall include in the plan only cargo handling equipment it owns or operates under its direct control at the same port or intermodal rail yard.

2. A piece of cargo handling equipment shall be included in no more than one plan.

3. The application for a fleet averaging plan shall include:

i. Documentation, calculations, emissions test data, or other information that establishes the PM and NO_x reductions, expressed in pounds, from the cargo handling equipment combined will be equivalent to, or greater than, the combined emission reductions that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable; and

ii. The proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant will use to demonstrate continued compliance with the plan.

4. Emission control strategies in the plan may include only:

i. Exhaust treatment control;

ii. Engine repower;

iii. Equipment replacement;

iv. Hybrid technology; or

v. Zero-emission equipment.

5. Emission reduction calculations demonstrating equivalence with the requirements at N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable, shall:

i. Include only PM and NO_x emissions from cargo handling equipment that operates at the port or intermodal rail yard to which the plan applies; and

ii. Not include reductions that are otherwise required by any local, State, or Federal rule, regulation, or statute, or any agreement or final administrative or court order to resolve an enforcement action, or agreed to as part of a local, State, or Federal grant, incentive, or voucher program.

(c) An application for approval of a fleet averaging plan shall be subject to public comment prior to Department action. The public comment period will be specified in the notice published pursuant to (f) below.

(d) The Department will provide public notice of the opportunity for public comment on each draft fleet averaging plan. The notice will:

1. Identify the port or intermodal rail yard where the cargo handling equipment is located, and provide the name and address of the owner or operator;

2. Identify the equipment involved and the fleet averaging plan proposed;

3. Provide the name and address of the Department, including the name, telephone number, and email address of an individual at the Department from whom interested persons may obtain additional information;

4. Announce the opportunity for public comment and provide a description of the public comment procedures set forth in this section;

5. Specify the length of the public comment period; and

6. Include the time and location of any public hearing to be held on the plan. If no public hearing is scheduled, the notice shall include procedures for requesting a public hearing.

(e) The Department will post the public notice and the draft fleet averaging plan on the Department's website, www.stopthesoot.org, for the duration of the public comment period.

(f) The Department may schedule a public hearing and include it in the notice of opportunity for public comment pursuant to (d) above. If the Department does not schedule a hearing, any person may request that the Department hold a hearing on the plan. A request for a public hearing shall be submitted, in writing, to the Department no later than the published date of the close of the comment period and shall include a statement of issues to be raised at the hearing. The issues raised shall be relevant to the draft fleet averaging plan under review by the Department.

1. If a public hearing is held, the Department shall provide public notice of the public hearing at least 15 days prior to the date the public hearing is scheduled.

2. If, in response to a request for a public hearing, the Department schedules a public hearing, the close of the public comment period shall be at 5:00 P.M. on the second State

business day following the date of the public hearing unless, a later date is specified in the notice provided. The Department may further extend the comment period by announcing the extension and its duration at the public hearing.

3. At any public hearing on a plan, the Department may, at its discretion, limit the time allowed for oral statements and request a person offering oral testimony to also submit the statement in writing.

7:27-34.11 Compliance extension, generally

(a) An owner or operator may apply for an extension of the deadline to comply with N.J.A.C. 7:27-34.6 and 34.7 for the following:

1. The new cargo handling equipment or engine was purchased to comply with N.J.A.C. 7:27-34.6 or 34.7, but has not been received due to manufacturer delay;

2. The equipment is operated less than 200 hours in a calendar year (low-use equipment); or

3. The owner or operator is replacing in-use cargo handling equipment with zero-emission cargo handling equipment.

(b) If the Department approves an extension request, the owner or operator shall operate the subject cargo handling equipment in accordance with the approval.

(c) The owner or operator shall submit the request to the Department at least 60 days prior to the applicable compliance deadline on a form available from the Department at www.stopthesoot.org. The application shall include:

1. Owner or operator name, address, and contact information;

2. Equipment and engine information, including make, model, serial number, and other information that uniquely identifies the equipment or engine for which a compliance extension is sought; and

3. Any other information required at N.J.A.C. 7:27-34.11A, 34.11B, and 34.11C below.

(d) Within 30 days after receipt of an application, the Department will notify the applicant that the application is administratively complete or incomplete.

1. If the application is incomplete, the Department will notify the applicant of the additional information required and provide 30 days for the applicant to submit the information to the Department. Upon determining that the application is complete, the Department will notify the applicant.

2. The Department may request additional information relevant to the required demonstrations at N.J.A.C. 7:27-34.11, 34.11A, 34.11B, or 34.11C from an applicant at any time after the submittal of an application, regardless of whether the application is administratively complete at the time of the Department's information request. A Department request for additional information shall not alter the completeness status of the application.

3. If an applicant fails to submit the information requested by the due date, the Department will deny the application.

(e) The Department will approve or deny an application within 30 days after receipt of an administratively complete application.

(f) If the Department approves the extension request, the approval will be in writing, and the owner or operator shall be deemed to be in compliance for the applicable period, provided

the owner or operator complies with all of the conditions of the Department's approval. If, upon inspection, the Department finds the owner or operator has not complied with any of the conditions of approval:

1. The extension will be automatically revoked and the equipment will be considered noncompliant from the date that compliance would otherwise have been required pursuant to N.J.A.C. 7:27-34.6 or 34.7, but for the extension; and

2. The owner or operator shall not use the cargo handling equipment that is subject to the extension request until the owner or operator brings the equipment into compliance with N.J.A.C. 7:27-34.6 or 34.7, as applicable.

7:27-34.11A Compliance extension - manufacturer delay

(a) An owner or operator may request a compliance extension of an applicable compliance deadline at N.J.A.C. 7:27-34.6 or 34.7, if the new cargo handling equipment or engine was purchased to comply with N.J.A.C. 7:27-34.6 or 34.7, but has not been received due to manufacturer delays.

(b) The Department will grant the extension if the Department determines that the equipment was purchased, or the owner or operator and seller had entered into a contractual agreement for the purchase, at least six months prior to the required compliance date. An application for an extension due to manufacturer delay must include:

1. Identification of the delayed equipment and/or engine type and application, including engine horsepower;

2. A purchase order, letter, or other form of documentation that demonstrates that at

least six months prior to the original compliance date the owner or operator entered into a contract to purchase equipment and/or engine meeting the requirements at N.J.A.C. 7:27-34.5; and

3. Documentation from a representative of the equipment and/or engine manufacturer supporting the applicant's claim of delayed availability, including the anticipated date that the equipment and/or engine meeting the requirements at N.J.A.C. 7:27-34 will be available and able to be delivered to the owner or operator.

7:27-34.11B Compliance extension – low-use equipment

(a) An owner or operator may request a compliance extension of an applicable compliance deadline at N.J.A.C. 7:27-34.6 and 34.7, for any piece of cargo handling equipment that is operated less than 200 hours annually. An extension under this section shall be for no longer than two years.

(b) The Department will approve an extension if the owner or operator:

1. Is in compliance with N.J.A.C. 7:27-34.6, 34.7, and 34.8 for all other cargo handling equipment in its fleet pursuant to the compliance schedule at N.J.A.C. 7:27-34.6, Table 1; and

2. Includes in the application for a compliance extension, documentation from a non-resettable hour meter or fuel records, indicating that each engine for which an extension is requested was operated less than 200 hours in the preceding calendar year; and

3. Installs a non-resettable hour meter, which records the hours of use of a particular engine and is incapable of being adjusted, on each engine for which the compliance extension is requested.

(c) For the duration of the extension, the owner or operator shall include in its annual report required at N.J.A.C. 7:27-34.14, the annual hours of operation for each engine that is subject to a compliance extension under this section.

(d) The Department may elect to limit the extensions pursuant to this section to no more than two engines in a single fleet, or two percent of a fleet, whichever is greater. In making its decision, the Department will consider the impact of the extensions on public health based on an evaluation of:

1. The number of pieces of equipment granted an extension pursuant to this section;

2. The hours of operation of the equipment;

3. The estimated emissions; and

4. The proximity of the equipment to residences.

7:27-34.11C Compliance extensions – zero-emission replacement

(a) An owner or operator may request an extension of an applicable compliance deadline at N.J.A.C. 7:27-34.6 and 34.7 for any piece of in-use cargo handling equipment that the owner or operator requests to replace with zero-emission cargo handling equipment.

(b) The Department will grant the request if the owner or operator provides in its application:

1. Documentation from an equipment or engine manufacturer or dealer that a certified zero-emission engine or equipment is available for the make, model, and horsepower of the cargo handling engine or equipment being replaced;

2. Purchase order or other documentation that includes a certification as provided at N.J.A.C. 7:27-1.39 and shows the owner or operator's intent to purchase the certified zero-emission cargo handling engine or equipment within two years of the applicable compliance deadline; and

3. Documentation, or a workplan, demonstrating that the necessary charging or fueling infrastructure to support operation of the zero-emission equipment will be in place within two years of the applicable compliance deadline.

7:27-34.12 Department approval to transfer non-yard trucks between two facilities

(a) An owner or operator may request approval to transfer non-yard trucks between two port terminals or intermodal rail yards.

(b) No person may operate any transferred cargo handling equipment that does not meet the performance standards set forth at N.J.A.C. 7:27-34.5, unless the Department notifies the applicant, in writing, that the transfer plan is approved.

(c) If the Department approves a transfer plan, the owner or operator shall operate the subject cargo handling equipment in accordance with the approval.

(d) The owner or operator shall submit its application to the Department at least 60 days prior to the proposed transfer date on a form available from the Department at www.stopthesoot.org. The application shall include:

1. Owner or operator name, address, and contact information;

2. Number of pieces of equipment requested to be transferred:

3. Equipment and engine information, including make, model, serial number,

horsepower, and other information that uniquely identifies the equipment or engine subject to the transfer request;

4. Hours of operation of each piece of equipment subject to the transfer request; and

5. Proximity of the new location to residences.

(e) Within 30 days after receipt of an application, the Department will notify the applicant if the application is administratively complete or incomplete.

1. If the application is incomplete, the Department will notify the applicant of the additional information required and provide 30 days for the applicant to submit the information to the Department. Upon determining that the application is complete, the Department will notify the applicant.

2. The Department may request additional information relevant to the required demonstrations at N.J.A.C. 7:27-34.12 from an applicant at any time after the submittal of an application, regardless of whether the application is administratively complete at the time of the Department's information request. A Department request for additional information shall not alter the completeness status of the application.

3. If an applicant fails to submit the information requested by the due date, the Department will deny the application.

(g) The Department will approve or deny an application within 30 days of receipt of an administratively complete application.

(h) The Department will allow the transfer of non-yard truck cargo handling equipment between two port terminals or intermodal rail yards, if the owner or operator submits its request and transfer plan to the Department on a form available at www.stopthesoot.org, at

least 30 days prior to the applicable transfer date, provided:

1. The facilities that the equipment is being transferred from and to are under the control of the same owner or operator;

2. The owner or operator agrees to bring the transferred equipment into compliance with the requirements at N.J.A.C. 7:27-34.7 before the equipment is put into operation at the new location; and

3. The Department determines that the transfer plan does not result in an increase in public health impacts.

7:27-34.13 Equipment at a low-throughput port

If a port that has been exempt from this subchapter in accordance with N.J.A.C. 7:27-34.2(a)7 because it is classified as a low-throughput port subsequently exceeds the two-year average annual cargo throughput limit, or the port becomes part of an urban area, each owner or operator at that port subject to this subchapter shall submit a plan for compliance to the Department within six months after the exceedance. The compliance plan shall demonstrate how the owner or operator will achieve compliance with this subchapter within two years after the exceedance, and shall include the information at N.J.A.C. 7:27-34.14(c) and (d), on the form available on www.stopthesoot.org.

7:27-34.14 Reporting requirements

(a) Any owner or operator subject to this subchapter shall submit an annual report through the web portal at www.stopthesoot.org. All submissions to the web portal shall include a

certification(s), as provided at N.J.A.C. 7:27-1.39.

(b) An owner or operator shall submit the initial report to the Department on or before August 1, 2023.

(c) An owner or operator shall include the following information in its initial report of the cargo handling equipment reflecting its fleet as of January 1, 2023:

1. Owner or operator name;

2. Contact name, phone number, mailing address, and email address;

3. Address, including name of port or intermodal rail yard, where the equipment is operated;

4. The total population of cargo handling equipment by engine model year;

5. For each piece of cargo handling equipment:

i. Equipment make, model, and model year;

ii. Engine make, model, and model year;

iii. Year of manufacture of equipment and engine (if unable to determine, approximate age);

iv. Engine family;

v. Engine serial number;

vi. If the equipment is registered as a motor vehicle, the vehicle registration number or license plate;

vii. Rated brake horsepower;

viii. Annual hours of use in 2022;

ix. Fuel type and annual fuel usage in 2022; and

x. If seasonal, actual months operated in 2022.

(d) An owner or operator is required to submit an annual report each calendar year thereafter. The owner or operator shall submit each subsequent annual report on or before August 1 reflecting the cargo handling equipment in the fleet as of January 1 of that calendar year. In its annual report for subsequent years, the owner or operator shall include the following:

1. Any changes to the material and information previously provided pursuant to (b) above, including information for any cargo handling equipment added to, or removed from, the owner/operator's fleet;

2. A description of the method and date of compliance for any cargo handling equipment subject to N.J.A.C. 7:27-34.6, 34.7, 34.10, or 34.11, including retirement date or engine installation date, if applicable;

3. For any cargo handling equipment removed from the fleet, information about the disposition of the equipment; and

4. For any cargo handling equipment for which an extension was granted, an update on the compliance status.

7:27-34.15 Recordkeeping requirements

(a) Beginning January 1, 2023, an owner or operator subject to this subchapter shall maintain the following records or copies of records at a single location at the port or intermodal rail yard where the equipment is operated or normally resides:

1. Any documents that may be required to verify compliance with this subchapter; and

2. Maintenance records for cargo handling equipment subject to this subchapter.

(b) Each owner or operator shall maintain these records for each piece of cargo handling equipment until it is sold outside of the State of New Jersey or is no longer used at a port or intermodal rail yard in the State of New Jersey. If ownership is transferred, the seller shall convey the records to the buyer, subject to (c) below.

(c) Any person who operates a place of business in New Jersey, including an owner or operator subject to this subchapter, shall maintain records of all sales, leases, rentals, purchases, acquisitions, receipt of, or other transfers of cargo handling equipment for a period of no less than five years after the date of the transaction.

(d) Upon the request of the Department, any person required to comply with (a) and/or (c) above shall make the specified records available for inspection at the place of business by any representative of the Department during normal business hours.

(e) Upon receipt of a written request from the Department, any person required to comply with (a) and/or (c) above shall timely submit a copy of the specified records to the Department by mail or by other means as agreed to by the Department.

7:27-34.16 Prohibitions

(a) No person subject to this subchapter shall cause, suffer, allow, or permit any of the following, unless it is performed in accordance with a CARB Executive Order (information on devices or modifications approved by a CARB Executive Order may be obtained from the

California Air Resources Board, 1001 "I" Street, PO Box 2815, Sacramento, CA 95812 or at www.arb.ca.gov) or 40 CFR Part 1068, Subparts C and D:

1. The disconnection, detachment, deactivation, or any other alteration or modification from the design of the original equipment manufacturer or an element of design installed on any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration, except temporarily for the purpose of diagnosis, maintenance, repair, or replacement;

2. The sale, lease, or offer for sale or lease, of any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration in which any element of design installed on such equipment has been disconnected, detached, deactivated, or in any other way altered or modified from the design of the original equipment manufacturer; or

3. The sale, or offer for sale, of any device or component as an element of design intended for use with, or as part of, any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration that is not designed to duplicate the function and performance of any element of design installed by the original equipment manufacturer.

(c) No person shall cause, suffer, allow, or permit the operation of cargo handling equipment at a port or intermodal rail yard in the State if the cargo handling equipment emits visible smoke of any color in the exhaust emissions for more than three consecutive seconds when the engine is at normal operating temperature.

CHAPTER 27A

AIR ADMINISTRATIVE PROCEDURES AND PENALTIES

SUBCHAPTER 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS

7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a) – (l) (No change.)

(m) The violations of N.J.A.C. 7:27, whether the violation is minor or non-minor in accordance with (q), (r), (s), or (t) below, and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter at N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

1. – 33. (No change.)

34. The violations of N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, and the civil administrative penalty amounts for each violation, per vehicle or piece of equipment, are set forth in the following table:

Citation	Class	Type of Violation	First Offense	Second Offense	Third Offense	Fourth and Each Subsequent Offense

N.J.A.C. 7:27-34.4(b)	**Violating sales prohibition**	**NM**	**$2,500**	**$5,000**	**$12,500**	**$30,000**
N.J.A.C. 7:27-34.5, 34.6, and 34.7	**Failure to meet performance standards**	**NM**	**$2,500**	**$5,000**	**$12,500**	**$30,000**
N.J.A.C. 7:27-34.8	**Failure to meet opacity standards**	**NM**	**$1,000**	**$2,000**	**$5,000**	**$15,000**
N.J.A.C. 7:27-34.10	**Failure to comply with alternate compliance options**	**NM**	**$2,500**	**$5,000**	**$12,500**	**$30,000**
N.J.A.C. 7:27-34.11	**Failure to submit a compliance extension in a timely manner**	**NM**	**$400**	**$800**	**$2,000**	**$6,000**
N.J.A.C. 7:27-34.11	**Failure to meet the terms of a compliance extension**	**NM**	**$2,500**	**$5,000**	**$12,500**	**$30,000**
N.J.A.C. 7:27-34.11	**Failure to maintain operation records for engines with a compliance extension**	**M**	**$400**	**$800**	**$2,000**	**$6,000**
N.J.A.C. 7:27-34.13	**Failure to submit a compliance plan for equipment at low-throughput ports**	**M**	**$400**	**$800**	**$2,000**	**$6,000**
N.J.A.C. 7:27-34.12	**Failure to meet terms of transfer approval**	**NM**	**$2,500**	**$5,000**	**$12,500**	**$30,000**
N.J.A.C. 7:27-34.14	**Failure to submit reports**	**M**	**$400**	**$800**	**$2,000**	**$6,000**

N.J.A.C. 7:27-34.15	**Failure to keep records**	**M**	**$400**	**$800**	**$2,000**	**$6,000**
N.J.A.C. 7:27-34.16(a)1	**Violating tampering prohibition**	**NM**	**$1,000**	**$2,000**	**$5,000**	**$15,000**
N.J.A.C. 7:27-34.16(a)2	**Violating tampering prohibition**	**NM**	**$1,000**	**$2,000**	**$5,000**	**$15,000**
N.J.A.C. 7:27-34.16(a)3	**Violating tampering prohibition**	**NM**	**$2,000**	**$4,000**	**$10,000**	**$30,000**
N.J.A.C. 7:27-34.16(b)	**Violating visible smoke prohibition**	**NM**	**$250**	**$500**	**$1,000**	**$2,500**

(n) – (u) (No change.)

ENVIRONMENTAL PROTECTION

AIR, ENERGY, AND MATERIALS SUSTAINABILITY

DIVISION OF AIR QUALITY

Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards

Adopted New Rules: N.J.A.C. 7:27-34

Adopted Amendment: N.J.A.C. 7:27A-3.10

Proposed: January 3, 2022, at 54 N.J.R. 7(a).

Adopted: December 29, 2022, by Shawn M. LaTourette, Commissioner, Department of Environmental Protection.

Filed: January 3, 2023, as R.2023 d.014, **with non-substantial changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 13:1B-3(e), 13:1D-9, and 26:2C-1 et seq.

DEP Docket Number: 08-21-11.

Effective Date: February 6, 2023.

Operative Date: February 27, 2023, in accordance with N.J.S.A. 26:2C-8.a.

Expiration Dates: Exempt, N.J.A.C. 7:27;

January 22, 2027, N.J.A.C. 7:27A.

This rulemaking concerns diesel-fueled mobile sources at ports and intermodal rail yards. Specifically, the Department of Environmental Protection (Department) is adopting rules based on California's regulation requiring diesel mobile cargo handling equipment at ports and intermodal rail yards to apply best available control technology, while zero-emission technology continues to advance for this equipment. The adopted rules will enable the State to reduce diesel engine emissions, including oxides of nitrogen (NO_x) and particulate matter (PM). New Jersey is

in nonattainment for the Federal ozone national ambient air quality standard (NAAQS) and must continue to reduce NO_x emissions Statewide to attain and maintain the ozone NAAQS. In addition to Statewide benefits, the Department expects that communities near ports and intermodal rail yards in the State where cargo handling equipment is operated will particularly benefit from the reduced emissions. These include some communities identified as overburdened, as defined at N.J.S.A. 13:1D-158.

Summary of Hearing Officer's Recommendation and Agency's Response:

The Department held a virtual public hearing on this rulemaking on February 9, 2022, at 9:30 A.M., through the Department's video conferencing software, Microsoft Teams. Peg Hanna, Assistant Director for the Division of Air Quality, served as hearing officer. Sixteen people provided oral comments at the public hearing. After reviewing the comments received during the public comment period, the hearing officer recommended that the Department adopt the proposed rulemaking with the modifications described below in the responses to comments. The Department accepts the hearing officer's recommendations.

A record of the public hearing is available for inspection, in accordance with applicable law by contacting:

Department of Environmental Protection

Office of Legal Affairs

401 East State Street, 7th Floor

Mail Code 401-04L

PO Box 402

Trenton, New Jersey 08625-0402

This notice of adoption document can also be viewed or downloaded from the Department's website at http://www.nj.gov/dep/rules/adoptions.html.

Summary of Public Comments and Agency Responses:

The Department accepted comments on the notice of proposal through March 4, 2022. The following individuals provided timely written and/or oral comments:

1. Joseph Brosnan
2. Ray Cantor, New Jersey Business and Industry Association
3. Rachel Davis, Public Policy and Justice Organizer with Waterspirit and Ministry of the Sisters of St. Joseph of Peace
4. Michael Egenton, New Jersey State Chamber of Commerce (identical to the comments of the Port of New York/New Jersey Sustainable Services Agreement)
5. Kent Fairfield
6. Mike Fesen, Norfolk Southern Railway
7. Amy Goldsmith, Clean Water Action
8. Lisa Himber, Maritime Exchange for the Delaware River and Bay
9. Peter Inskeep, Gloucester Terminals LLC
10. Richard Kalish
11. Zachary Koslap, EMR (USA Holdings) Inc. (collectively with its subsidiaries, EMR)
12. Carol Lambos, Port of New York/New Jersey Sustainable Services Agreement
13. Agnes Marsala, People Over Pipelines and United Ratepayers of New Jersey
14. Olivia Martindale, Empower New Jersey

15. Debra Murphy

16. John Nardi, New York Shipping Association

17. Thomas O'Dowd

18. Doug O'Malley, Environment New Jersey

19. Robert Palaima

20. Patricio Portillo, Natural Resources Defense Council

21. David Pringle, Empower New Jersey

22. Paula Rogovin, activist with Coalition to Ban Unsafe Oil Trains

23. Theresa Romanosky, Association of American Railroads

24. Jay Ruble, Maher Terminals LLC

25. Andrew Saporito, South Jersey Port Corporation

26. Andrew Sentyz, Delaware River Stevedores, Inc

27. Jonathan Smith, Coalition for Healthy Ports NY/NJ and Earthjustice, groups signing in agreement are Clean Water Action, Ironbound Community Corporation, Natural Resources Defense Council, New Jersey Environmental Justice Alliance, Sierra Club New Jersey Chapter, South Ward Environmental Alliance, Tishman Environment and Design Center of The New School University, Union of Concerned Scientists

28. Jonathan Smith, Earthjustice

29. Megan Steele, Sierra Club New Jersey Chapter

The comments received and the Department's responses are summarized below. The number(s) in parentheses after each comment identify the respective commenter(s) listed above.

Conditional Support

1. COMMENT: The Department's adoption of the cargo handling equipment rules is strongly supported. While it is a good first step, the objective should be zeroing out all pollution from this equipment. The Department should continue working closely with the Coalition for Healthy Ports (CHP) on all freight-related rules and regulations since the CHP represents the people disproportionally impacted by the goods movement industry and has the expertise to address pollution problems in their communities. (20)

2. COMMENT: These rules are a first step in the right direction, but they do not go far enough. (7, 21, and 22)

3. COMMENT: These rules should be seen as stepping stones to full electrification of port equipment. (18)

4. COMMENT: It is important to address the air pollution from cargo handling equipment and to protect our overburdened communities. Therefore, the Department's decision to move forward with the process is appreciated. However, the rules do not go far enough or fast enough. (29)

5. COMMENT: The proposed rules will significantly decrease emissions caused by cargo handling equipment in and around the State's marine ports and railyards. However, these rules are just a start since much more needs to be done. (27)

RESPONSE TO COMMENTS 1 THROUGH 5: The Department acknowledges the commenters' conditional support of the adopted rules. The Department recognizes that the commenters would like the Department to commit to a full transition to zero-emission equipment and/or shorten the compliance timelines for these rules. As discussed more thoroughly in the Response to Comments 97 through 108, the compliance schedule for the adopted rules is shorter than the schedule in the California cargo handling equipment regulation (on which the adopted

rules are based), and further acceleration of the compliance timeline would not be reasonable. As discussed in the Response to Comments 80 through 89, zero-emission equipment is not yet mature for all models of cargo handling equipment. The Department continues to monitor the progress of the California Air Resources Board (CARB) as it develops a zero-emission cargo handling equipment regulation.

Legal Authority And Policy Priority

6. COMMENT: The Department contends that its authority to implement the rules stems from: (1) the Global Warming Response Act, N.J.S.A. 26:2C-37 et seq. (GWRA), passed in 2007 and amended in 2019; (2) Executive Order No. 100 (2020) issued by Governor Murphy (EO No. 100); and (3) Administrative Order 2020-01 issued by former Department Commissioner Catherine McCabe. All three legal authorities seek to curtail the emissions of greenhouse gases and implement climate change resiliency efforts within the State, among other climate-related goals. These are not the express goals of the proposed rules, the preamble of which attempts to justify the costs imposed by the rules on the public health and economic impacts of human exposure to oxides of nitrogen (NO_x) and fine particulate matter (PM2.5), which are criteria pollutants, and are not regulated as greenhouse gases. Accordingly, the Department's justification for implementing the New Jersey rules is arbitrary, capricious, and an abuse of discretion, because its justification is based on benefits that are not the purpose of the rules' authorizing legal authorities. Likewise, the Department made no cost/benefit justification for the rules founded on addressing the impacts of climate change, the stated purpose of the legal authorities to which the Department has cited for its rulemaking. Like the California Air Resources Board (CARB), the Department focuses almost exclusively on the adverse health

impacts of direct exposure to ozone, NO_x, and PM2.5, and cites studies CARB performed on health risks associated with emissions from diesel-fueled engines. Given the lack of a cost/benefit analysis that relates to the primary purposes of the authorizing statute and orders, the Department's justification for the rules is arbitrary, capricious, and an abuse of discretion. (9)

7. COMMENT: The Department's website indicates that responding to climate change is its number one priority. However, these rules do not seem to make it a top priority. Instead of leading the way in addressing climate change, the Department appears to be following California. (15)

RESPONSE TO COMMENTS 6 AND 7: The notice of proposal discusses: (1) the GWRA; (2) EO No. 100; and (3) Administrative Order 2020-01 issued by former Department Commissioner Catherine McCabe; however, these are not the Department's sole authority to implement the rules. See 54 N.J.R. at 8. The notice of proposal referenced Administrative Order 2020-01, which directs the Department to propose regulations that "identify the rules and programs that should be updated to better respond to the challenges presented by climate change." *Ibid*. Climate change presents many challenges, including the heightened impact of ozone and PM due to the interaction between climate change and air quality. *Ibid*. To mitigate the effects of climate change on air quality, the Department must do more to reduce air pollutants, such as NO_x and PM. The Department's authority to regulate NO_x and PM is well established in the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., which the Department specifically cited as authority for the rulemaking. 54 N.J.R. at 7.

It is true that the Department is following California's model in regulating mobile cargo handling equipment; however, this does not mean that New Jersey is other than at the forefront of state efforts to reform and modernize regulations to mitigate the effects of climate change and to

gather information to inform future climate-related rulemaking. The adopted rules are just one step that the Department and other State agencies will take as part of a comprehensive scheme to mitigate the impacts of climate change by reducing pollutants that have an adverse impact on air quality and human health. The Department has made climate change a priority, which is why the Department is adopting this rulemaking. The Department will continue to evaluate strategies to address climate change pursuant to New Jersey's authority, pursuant to the Clean Air Act (CAA), 42 U.S.C. §§ 7547 et seq., and State law.

Port/Railyard Emissions

8. COMMENT: Port and rail yard emissions are not the driver of New Jersey's ozone non-compliance. New Jersey does not have the same level of ozone non-compliance as California. This rule will have no measurable impact on the State's compliance efforts. (2)

9. COMMENT: As the Department considers regulations for cargo handling equipment for the port and intermodal railyard sectors, it must be noted that the equipment for these sectors represents only a very small portion of the source of pollution attributed by the Department to the transportation sector. The cargo handling equipment utilized at these facilities are not like the trucks that traverse neighborhoods or which provide direct exposure to general populations. This equipment is primarily comprised of machines that do not leave the marine terminal site. Thus, any regulations should be commensurate with the actual contribution to the problem of CO_2 and short-lived climate pollutants. (4 and 12)

RESPONSE TO COMMENTS 8 AND 9: The Department's rules are intended to reduce diesel PM and NO_x emissions from new and in-use cargo handling equipment at ports and intermodal rail yards. See 54 N.J.R. at 11. The Department regulates emissions of NO_x, because NO_x is a

precursor of ground level ozone (ozone), and New Jersey is in nonattainment for the Federal ozone national ambient air quality standard (NAAQS). See 54 N.J.R. at 8. Likewise, the Department regulates emissions of PM, because particulate matter has been shown to have negative public health impacts and adverse environmental impacts. See N.J.R. at 22. Moreover, when PM2.5 is discharged directly from combustion sources, such as diesel vehicles, it contains a component known as black carbon that is a short-lived climate pollutant with a high global warming potential. *Ibid*. As explained in the notice of proposal, particles in diesel engine exhaust (diesel particles) contain compounds that are potent mutagens and carcinogens. *Id*. at 11. Diesel PM, therefore, is a particular public health concern because these particles pose a lung cancer hazard and cause other noncancer respiratory effects, such as lung inflammation. *Ibid*. Nonroad diesel engine emissions contain substances known, or suspected, to have both carcinogenic and noncancer health effects, as well as the potential to cause health effects at environmental levels of exposure. *Ibid*. Thus, even though cargo handling equipment is not the largest contributor to diesel engine exhaust, NO_x, or PM emissions within the State, as explained in the notice of proposal, the rules will particularly benefit the local communities near ports and intermodal rail yards where the cargo handling equipment is operated. 54 N.J.R. at 23.

General Comments On The Goal To Reduce Emissions

10. COMMENT: The Department's rules fail to recognize the ongoing efforts by the railroads and the yard operators to reduce emissions. The rulemaking process should be extended for an open dialogue on this issue. (6)

11. COMMENT: Many in the regulated community share the Department's goal to lower overall emissions. Material handling equipment technology is evolving in revolutionary and

environmentally more friendly ways. However, the Department should modify the proposed rules to account for the operational needs of particular facilities. (26)

12. COMMENT: Railroads have devoted significant resources to significantly reducing emissions in rail yards. Many have introduced zero-emission intermodal cranes, low-emitting hostlers, battery electric hostlers, and diesel switch locomotive filters in rail yards to reduce criteria pollutant emissions and the impacts on the communities in which rail yards operate. Tier 4 diesel engines reduce criteria pollutant emissions by implementing a number of design improvements that work well for over-the-road truck engines. At intermodal facilities, on the other hand, cargo handling equipment typically has low loads and is idle for extended periods. Under these low-load and/or longer idling conditions, selected catalytic reductions equipment gets clogged and does not function as designed. This will result in frequent downtime for engines and expensive repairs, which can contribute to higher overhead costs for yard operators. (23)

13. COMMENT: The Department's proposed rules appear to be a reasonable approach to achieving the goal of reducing PM and NO_x emissions from port cargo handling equipment. However, our business has already mapped a plan to achieve net zero emissions by 2040. While this goal is achievable, it will almost certainly require State or Federal assistance to offset the greater expense associated with this equipment. (24)

14. COMMENT: The Department should consider working with port facilities directly on comprehensive compliance plans to reduce emissions beyond those from cargo handling equipment. The Department is aware that some facilities, such as the Port Authority of New York & New Jersey, have a comprehensive plan to reduce or eliminate much of the pollution at their facilities. (2)

RESPONSE TO COMMENTS 10, 11, 12, 13, AND 14: The Department recognizes the efforts of the regulated community to reduce emissions. Though some entities are transparent about their inventory and plans to upgrade, in the absence of regulation, private entities are under no obligation to make a plan to lower their emissions or share any such plan with the public. Accordingly, many of the plans mentioned by commenters are voluntary, aspirational, undisclosed, and unenforceable. Without rules, the Department has no mechanism to ensure that individual planning by the regulated community will result in actual emission reductions. The reporting and compliance requirements set forth in the rules will ensure that emission reductions are achieved by all of the covered entities through existing technology.

The Department recognizes that individual entities have specific operational needs and idiosyncrasies. However, flexibility is built into the rules through, *inter alia*, the availability of compliance extension options, fleet averaging plans, and alternate compliance options. These flexibilities will allow covered entities to move forward with their existing plans to reduce emissions, albeit with some potential modifications. Likewise, the Department is confident that intermodal facilities can address any concerns about the selected catalytic reductions equipment through operational adjustments.

Break-Bulk Port Facilities As Compared To Container Port Facilities

15. COMMENT: The rules fail to recognize the differences between the operations of break-bulk port facilities and the container port facilities. Unlike container ports, where operations are a 24-hour business and the same equipment is used regularly, break-bulk facilities have far fewer ships to unload each week. As individual pieces of equipment in these ports are used less often, the equipment has a longer useful life and produces fewer emissions. Accordingly, the

Department's rules will not get the same reductions in emissions from break-bulk operations as from container operations. (19)

16. COMMENT: The rules are based on a California regulation that reflects port operations in California. The operations of California ports are very different than the operations at break-bulk cargo facilities (for example, steel and other noncontainerized cargo) and project cargo (that is, heavy lift equipment). For this type of cargo, a port needs a vast array of equipment. The Department should consider a different approach, one that recognizes specific operational needs. The Department should increase the exemption for low use equipment used from 200 to 1,000 hours per year. Given the way certain equipment is used, this would go a long way toward easing the burden without dramatically diminishing the benefits. (8)

17. COMMENT: The container port industry in California has very little in common with break-bulk port operations in parts of New Jersey. The markets and purposes are different. Break-bulk (non-containerized) cargo loading and unloading operations are a stark contrast to automated container terminal operations. Handling break-bulk cargo requires a wider array of equipment, in terms of size, capacity, and attachments, than one would ordinarily expect because of the diversity of the commodities. For example, in Camden, the Delaware River Stevedores maintain a fleet of some 70 pieces of diesel equipment, but on average handle only four or five vessels per month, working two or three gangs, each assigned three or four pieces of equipment. Though break-bulk operations are required to maintain a large fleet, the equipment is used sporadically. As a result of the lower-than average hours, break-bulk equipment fleets tend to have longer useful lifespans. (26)

18. COMMENT: The rules will have a significant impact on the operations and budget of ports. By modeling its rules on a California mobile cargo handling regulation, the Department failed to

take into account New Jersey's vastly different cargo. The California regulation addresses operations at container ports, such as the Port of Los Angeles. However, the majority of the cargo handled at southern New Jersey ports is classified as break-bulk and bulk, which means the equipment used to load and unload the materials can vary widely. While a wide array of cargo handling equipment must be available, the individual pieces may be used only sporadically. That means our fleets are larger and older, and individual pieces have a longer useful lifespan. The rules will require our business to replace pieces of equipment based on their age, rather than their useful life, which will have a negative impact on our budget. (25)

RESPONSE TO COMMENTS 15, 16, 17, AND 18: The California regulation is based on more than the container port operations in that state. In its initial statement of reasons, California stated that cargo handling equipment at ports and rail yards is diverse and includes break bulk and dry bulk cargo. See CARB, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, October 2005 (2005 CARB ISOR), p. II-1. Though the port operations in California's largest port, the Port of Los Angeles, more closely resemble the operations at the Port Authority of New York & New Jersey container port facilities, the 2005 CARB ISOR based its economic impacts on "Survey data on the average number and type of equipment operated by a port container terminal, a port bulk handling terminal, and an intermodal rail yard." *Id*. at ES-8. More importantly, there are several provisions in the rules that address the particular needs of the break-bulk port operations. To begin, N.J.A.C. 7:27-34.11 provides three categories of compliance extensions: (1) low-use; (2) zero-emission replacement; and (3) manufacturer delay. Pursuant to the adopted rules, cargo handling equipment that is used less than 200 hours annually is eligible for a low-use compliance extension of up to two years. See 54 N.J.R. at 18. This

provision may alleviate some of the economic burden by lengthening the time given to replace equipment that is used sporadically. For equipment that is used more than 200 hours per year, an owner or operator can take advantage of a two-year extension by choosing to over-comply with the rules by replacing in-use cargo handling equipment with zero-emission cargo handling equipment that may be offset by grants. In addition to including compliance extension provisions, the rules provide flexibility by allowing owners and operators to request to implement a fleet averaging plan in lieu of the requirements for new and in-use cargo handling equipment (both yard trucks and non-yard trucks). 54 N.J.R. at 17. For an owner or operator located at a break-bulk port facility that may have more specialized equipment needs and fewer purchase options, the fleet averaging plan option may provide the flexibility to keep a specific piece of equipment by offsetting those emissions with upgrades to another piece of equipment. The Department considered, and the rules adequately account for, the operational differences in container ports versus break-bulk ports.

Requests For Clarifications And Modifications

Applicability

19. COMMENT: The language of the proposed rules, particularly with respect to what is covered, is unclear and may have unintended consequences. (6)

RESPONSE: The commenter does not specify the language that the commenter considers unclear; accordingly, the Department can respond only generally. The rules apply to three general categories. First, the rules apply to any person who owns or operates a terminal or business at a port in the State and operates cargo handling equipment at that location. See 54 N.J.R. at 12; N.J.A.C. 7:27-34.2 and 34.4. Second, the rules apply to any person who owns or

operates an intermodal rail yard in the State and operates cargo handling equipment at that location. See 54 N.J.R. at 12-13; N.J.A.C. 7:27-34.2 and 34.4. Third, the rules apply to any person conducting business in the State who sells, offers for sale, leases, rents, or purchases any cargo handling equipment or engine that is used at any port or intermodal rail yard in the State. See 54 N.J.R. at 12; N.J.A.C. 7:27-34.2 and 34.4.

20. COMMENT: The proposed rules apply to any person who "owns or operates a terminal or business at a port in New Jersey ***and*** operates cargo handling equipment at that location." Proposed N.J.A.C. 7:27-34.2(a)1 (emphasis added). Many businesses do not operate cargo handling equipment onsite, but rather contract cargo loading or offloading operations to a third party. Similar to sending finished goods from the manufacturing site to the market by truck or rail, many businesses located adjacent to waterways send finished goods by vessel. The import and export of goods is not the primary activity at the site of these businesses, but instead are the operations of the third parties. In these circumstances, the businesses do not "operate" cargo handling equipment at their place of business, even if the business is considered a "port" as defined. The third-party contractor who owns and operates the in-use cargo handling equipment is in the best position to manage the cargo handling equipment, as it is more familiar with cargo handling equipment in general and knows in greater detail whether its fleet would comply with the proposed rules. Accordingly, the Department should clarify that the rules do not apply to a port owner or operator if it does not own and operate the cargo handling equipment used onsite. (11)

RESPONSE: As explained in the notice of proposal Summary, the rules apply to "a person who owns or operates a terminal or business at a port in New Jersey and operates cargo handling

equipment at that location." 54 N.J.R. at 12; see N.J.A.C. 7:27-34.2(a)1. Therefore, the standards at N.J.A.C. 7:27-34 apply to a person who both: (i) owns/operators a terminal or business at a port; and (ii) operates cargo handling equipment at that location. The commenter is correct that if a terminal or business owner or operator at a port does not operate cargo handling equipment, the rules do not apply to the owner/operator. However, a third-party contractor that operates a business at a port, such as cargo handling offloading, and operates cargo handling equipment at that location, is subject to the rules.

21. COMMENT: The proposed rules include an exemption for low-throughput ports that are farther than 75 miles from an urban area and have a two-year average annual cargo throughput of less than one million tons excluding petroleum products. Given the size of New Jersey and the urbanization around the State's commercial waterways that are most suitable for port locations, it is reasonable to conclude that there may never be a port located farther than 75 miles from an urban area. Proximity to urban areas, in fact, is what makes ports in the State competitive. Accordingly, it is arbitrary and capricious for the Department to include an exemption that no regulated entity satisfies now, or in the future, that was based entirely on conditions unique to California. The Department should include an exemption that is not subject to any geographical requirement. (9 and 11)

RESPONSE: As CARB explained, the low-throughput port exemption establishes cargo throughput and community population trigger levels that, if exceeded, would require all cargo handling equipment at the port to come into full compliance. See CARB, Final Statement of Reasons, Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, September 22, 2011 (2011 CARB FSOR), p. 45. The fact that there are no ports in New Jersey

that currently meet the geographic requirement does not mean that a port meeting this exemption will not be constructed in the future; the adopted rules accommodate this eventuality.

Definition Of "Port"

22. COMMENT: The Department should clarify the definition of "port" to exclude private facilities, such as scrap metal processing and recycling facilities, that load or unload cargo only as an ancillary activity to their primary manufacturing or process operations. Recycling operations reduce the amount of material being sent to landfills, reduce the need to mine and process new metals, and produce significant energy savings as compared to manufacturing with virgin metals. Unlike traditional port operations, recycling operations may arrange for the transport of their own goods from certain facilities by vessel. If the proposed rules are applicable to such private operations, private entities would be unfairly impacted by the significant costs imposed, and recycling operations in the State would be adversely impacted, compared to operations in other states along the East Coast. To address this concern, the Department should emphasize that only those facilities that operate on "property" that is "typically" or primarily used to load and unload water-borne commerce onto and from ocean-going vessels are considered "ports" pursuant to the rules. For example, facilities that classify themselves by NAICS Code 488310 (Port and Harbor Operations) would appropriately fit within the definition of port; however, facilities whose primary business function is not port operations and otherwise do not classify themselves with a port-related NAICS Code should fall outside the definition of port. Thus, private companies who only load their own products onto ocean-going vessels at facilities or sites that are not "typically" or primarily used as a port would not be considered "ports" pursuant to the rules.

Private facilities who only load their own products would be unfairly disadvantaged relative to inland competitors who are able to transport their own products without the need to comply with the proposed rules. Due to the significant costs imposed by the proposed rules, private facilities, instead, could choose to transport goods by truck to the nearest out-of-State port, which would have an adverse impact on air quality in the State and would reduce demand for port services within the State. Accordingly, to be consistent with the language of the proposed definition and to minimize detrimental environmental and business impacts on the State, the Department should clarify that the definition of "port" excludes private facilities engaged in loading or unloading cargo only as an ancillary activity to their primary manufacturing or processing operations. (11)

RESPONSE: The rules apply to cargo handling equipment operated at ports and intermodal railyards in the State by an owner or operator of an intermodal railyard or a terminal or business at a port, regardless of whether the owner/operator is a public or private entity or the nature of the business. The definition of "port" includes publicly or privately owned property and includes all terminals and property within the port's boundaries. See 54 N.J.R. at 12; N.J.A.C. 7:27-34.3. The Department explained in the notice of proposal that the rules apply to "privately owned port and marine terminals along the coast that handle liquid, bulk, or containerized cargo and privately operated businesses that lease property at a port." 54 N.J.R. at 13. Therefore, if a private business leases port property and operates cargo handling equipment at that location, the rules apply to that business. The applicability is consistent with the Department's intent to reduce emissions at ports and intermodal rail yards in the State, which will particularly benefit nearby communities. The applicability provision is also consistent with CARB's rules, which are

"inten[ded] to include all businesses operating within the boundaries of California's ports and intermodal rail yards." 2011 CARB FSOR, p. 25.

Recycling has benefits, but the benefits of recycling must be realized along with the reduction of diesel emissions at these facilities. As noted in the Responses to Comments 10 through 14 and 15 through 18, the rules have flexibility to accommodate the needs of different operations, including alternative compliance options and compliance extensions. Additionally, the Department is committed to ensuring that regulated entities are kept apprised of potential funding opportunities as discussed more thoroughly in the Response to Comments 48, 49, and 50.

Fleet Averaging Plan

23. COMMENT: The proposed rules authorize an owner or operator to implement a fleet averaging plan in lieu of the requirements at N.J.A.C. 7:27-34.5, 34.6, and 34.7, provided that the reductions in PM and NO_x emissions will be equivalent to, or greater than, the combined emission reductions that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, and 34.7. The additional application requirements are nearly all objective requirements for which the Department is well equipped and experienced to evaluate. To that end, an additional requirement to receive public comments and potentially hold a public hearing is unnecessary and overly burdensome. In particular, the Department did not explain what role public comments may play in the Department's evaluation of the fleet averaging plan. If the port owner or operator has satisfied all application requirements for the fleet averaging plan, it is unclear how public comments would contribute to the Department's evaluation of the objective application criteria.

Accordingly, the Department should eliminate the public comment requirements that are associated with the fleet averaging plan alternate compliance option. (9)

24. COMMENT: The rules concerning fleet averaging should require fleet owners to prove reductions in both particulate matter and NO_x separately. (29)

25. COMMENT: The Department should not allow an owner or operator to average PM and NO_x emissions together to demonstrate a decrease in emissions for a fleet averaging plan. These emissions should be treated separately. (7)

26. COMMENT: The rules should require fleet averaging plans to demonstrate reductions in both particulate and NO_x emissions separately, and not cumulatively. (18)

27. COMMENT: The Department should do away with the fleet averaging plan provisions because they create a complicated process that does not guarantee equivalent emissions reductions. If the Department continues to include these fleet averaging plan provisions, the Department should clarify and strengthen the language. Specifically, the rules broadly state that the fleet averaging plan must prove that PM and NO_x reductions are equivalent to, or greater than, those that would otherwise be required, but does not explain whether the fleet averaging plan must show this through one figure that represents combined PM and NO_x reductions (for example, 100 tons of PM and NO_x reductions), or by separately showing the reductions of each pollutant (for example, 30 tons of PM reductions and 70 tons of NO_x reductions). The Department should clarify that the second method (two separate figures) is required. Pursuant to the first method, a fleet averaging plan would pass muster, even if emissions of one pollutant do not sufficiently decrease – or even if they increase – so long as this is compensated by the change of emissions in the other pollutant. In addition, the proposed regulatory text is not clear whether

the actual operating hours of each cargo handling equipment must be provided and used to calculate the fleet averaging plan's PM and NO_x reductions. Moreover, the rules contain no provisions concerning after-the-fact compliance inspections and investigations to confirm whether the emissions reductions calculated in the fleet averaging plan indeed equal or exceed those that would have come from regular compliance. To address this, the Department should require that the reports provided at N.J.A.C. 7:27-34.14 include calculations of both the ports' actual emissions reductions under the previous period and their estimated emission reductions had they chosen regular compliance instead. (27)

RESPONSE TO COMMENTS 23, 24, 25, 26, AND 27: The rules address the emission reductions necessary for a fleet averaging plan at N.J.A.C. 7:27-34.10(a)2 and 34.10B(b)3i. In both provisions, the Department used the term "combined" to refer to all of the cargo handling equipment at a facility, not to the combined emissions of PM and NO_x. The Department acknowledges that this wording could be misconstrued. Upon adoption, the Department is modifying the fleet averaging plan provisions to clarify that the reductions in NO_x and PM must be accounted for separately, and that emission reductions in one pollutant may not be substituted for the required emission reductions in the other pollutant.

The annual reports and the information in the approved fleet averaging plans will provide the Department with enough information (that is, annual hours of operation; equipment make, model, and rated brake horsepower; and fuel type and use) to estimate the actual emissions from the cargo handling equipment.

Given the localized impacts from diesel emissions, fleet averaging plans should be transparent and subject to public review, similar to the public notice and comment period for air pollution control permits for stationary sources. This transparency of the process is a benefit to the public

and will allow ample review of the proposed emission reductions. N.J.A.C. 7:27-34.10B also provides a benefit to the regulated community. The flexibility of the fleet averaging plan option allows a fleet owner to use the emission reductions from a zero-emission equipment purchase to offset the need to replace one or more pieces of existing equipment. As discussed in the Response to Comment 30, the Department hopes to encourage early adoption of zero-emission cargo handling equipment; the fleet averaging option provides an incentive.

Alternate Compliance Option For New Non-Yard Trucks

28. COMMENT: Proposed N.J.A.C. 7:27-34.10A provides an alternate compliance option for non-yard trucks to apply the best available control technology if they cannot meet the performance standards at N.J.A.C. 7:27-34.5 and 34.7, provided the owner or operator submits an application to the Department. As part of the application process, the owner or operator must provide an "analysis of all available control technologies and [a demonstration] that the alternative proposal will achieve the maximum possible PM and NO_x reductions[.]" This requirement is vague and overly broad. The Department should place limits on what it means by "an analysis" of "all" control technologies and should define "availability" in terms of what is reasonably available for port owners and operators in New Jersey. (9)

RESPONSE: The Department agrees that the language pertaining to the requirement for an analysis was overly broad and should have been limited to commercially available control technologies that reduce PM and NO_x. The Department is modifying N.J.A.C. 7:27-34.10A(b)4 upon adoption to clarify that the analysis is limited to all commercially available control technologies that reduce PM and NO_x. With the addition of the qualifying term "commercially,"

the Department does not believe it is necessary to define "availability" as the commenter suggests.

Transfer Of Non-Yard Trucks

29. COMMENT: The rules do not allow an owner or operator to "move" non-yard trucks to another port terminal controlled by the same owner or operator unless an application is approved by the Department pursuant to N.J.A.C. 7:27-34.12. Owners or operators who seek to transfer a small number of non-yard trucks that will not have any significant impact on public health at the other port terminal should be permitted without the need to obtain approval from the Department. This will allow port owners and operators to meet sudden needs that will not result in any significant impact on public health. If equipment is not new, the rule should not artificially treat it as if it is when there is no justification for doing so. In short, the Department should allow a *de minimis* exemption for non-yard trucks to be transferred among port terminals by the same owner or operator. Additionally, the Department should revise N.J.A.C. 7:27-34.12(h)3, such that the Department "will allow" a transfer provided it determines that the transfer plan does not result in a "significant" increase in public health impacts. Without the inclusion of "significant," which is consistent with the California's cargo handling equipment regulation, then the addition of ***any*** transferred non-yard truck runs the risk of an "increase" in public health impacts merely from its addition. Thus, to avoid the arbitrary and capricious finding that the mere addition of any non-yard truck constitutes some level of "increase" in public health impacts, which would nullify any proposed transfer of in-use non-yard trucks, the Department should insert "significant" in front of "increase in public health impacts" at N.J.A.C. 7:27-34.12(h)3. (9)

RESPONSE: As explained in the notice of proposal, the purpose of the transfer plan approval requirement is two-fold: (1) to ensure that the transfer does not result in an increase in public health impacts; and (2) to ensure that owners and operators are not transferring equipment in order to avoid compliance with the in-use requirements. See 54 N.J.R. at 15. The Department cannot ensure these objectives will be met unless the owner or operator submits the relevant information, and the Department has been given an opportunity to evaluate whether the transfer plan complies with the requirements. The Department agrees that the term "significant" was included in California's regulation and should have been included prior to the phrase "increase in public health impacts" since the purpose is not to prevent "any" increase, but to prevent a significant increase in public health impacts. N.J.A.C. 7:27-34.12(h)3, as modified upon adoption, includes the term "significant," which is consistent with the intent.

Compliance

30. COMMENT: The rules allow cargo handling equipment that are not registered motor vehicles, the option to comply by using an engine that meets the same emission standards as the rules' diesel engine emission standards. This creates a pathway for compliance with the rules by using zero-emission cargo handling equipment. However, there is no similar provision for new cargo handling equipment that is registered as a motor vehicle. The Department should clarify that zero-emission cargo handling equipment is also a compliance option for cargo handling equipment registered as a motor vehicle. (27)

RESPONSE: The Department is modifying the rules upon adoption to expressly state that investment in a zero-emission equipment or engine is considered over-compliance with all of the

performance standards. The Department expects that funding opportunities will be available to encourage the early adoption of zero-emission cargo handling equipment.

Reporting

31. COMMENT: The rules should require more frequent reporting, such as quarterly reporting, to facilitate enforcement and compliance. At the very least, the Department should require more frequent reporting during the pendency of the compliance schedule until the final turnover deadline, and perhaps for a few years after to confirm full compliance. (27)

32. COMMENT: The Department should create its own publicly available inventory of freight-related vehicles and emissions, using the cargo handling equipment fleet reports, the fleet reports required by New Jersey's Advanced Clean Trucks Rule, and other data that the Department should collect. This data would provide a more meaningful emission inventory. (27)

33. COMMENT: The Department should expedite the initial reporting to be due January 1, 2023, as of equipment from January 1, 2022. The rules should include a requirement that an "Emission Reduction Plan" be submitted with the annual report that summarizes the annual reduction of emissions and provides a dialogue on future action that will continue to reduce emissions. (1)

34. COMMENT: As part of the reporting requirements, the Department proposed to require an owner or operator of a port to include in its initial report the "annual hours of use in 2022" and "fuel type and annual fuel usage in 2022" for each piece of cargo handling equipment. See proposed N.J.A.C. 7:27-34.14(c). By requiring the collection of data in 2022, the Department is attempting to implement part of the rules prior to their adoption. Port facilities should not be expected to begin compliance until the rules are adopted. Accordingly, the Department should revise the rules so that the initial report covers a period of time no earlier than January 1, 2023.

The reporting provision already requires that the initial report should reflect an owner's or operator's fleet as of January 1, 2023, which is inconsistent with requesting fleet information from 2022. Additionally, the recordkeeping requirements would begin on January 1, 2023, and require the collection and maintenance of "[a]ny documents that may be required to verify compliance with" the rules. See proposed N.J.A.C. 7:27-34.15(a)1. Therefore, it is arbitrary and capricious to require port owners and operators to report on data that is generated in 2022, prior to adoption of the rules. The Department should revise N.J.A.C. 7:27-34.14, so that the period of time covered by the initial report begins on January 1, 2023. (9)

35. COMMENT: The proposed rules require an owner or operator of a port to include certain information in the initial report sent to the Department, including for each piece of cargo handling equipment, "[a]nnual hours of use in 2022" and "[f]uel type and annual fuel usage in 2022." See proposed N.J.A.C. 7:27-34.14. Given that the proposed rules have yet to be finalized or implemented, the Department appears to be attempting to enforce a reporting provision for a year in which the rules have not yet been adopted. Such an attempt to enforce a regulation prior to its implementation is arbitrary, capricious, and an abuse of discretion. In the same provision, the Department requires port owners and operators to include information in its initial report that reflects its cargo handling equipment fleet "as of January 1, 2023." At proposed N.J.A.C. 7:27-34.15(a)1, the Department requires the collection and maintenance of "[a]ny documents that may be required to verify compliance with" the rule beginning January 1, 2023. To be consistent with other initial reporting and recordkeeping requirements, the Department should require reporting on annual hours of cargo handling equipment use and fuel type and annual fuel usage for the period beginning on January 1, 2023. (11)

RESPONSE TO COMMENTS 31, 32, 33, 34, AND 35: As proposed, N.J.A.C. 7:27-34.14 required an owner or operator to submit the initial report on or before August 1, 2023, reflecting its fleet as of January 1, 2023. The initial report is to provide general company and port or intermodal rail yard information and specific information about each piece of cargo handling equipment. As proposed, the rule requires the report to include hours of use, fuel type, and annual fuel usage in the preceding calendar year, 2022. If the equipment is seasonal, the owner or operator is to provide the actual months operated in 2023. 54 N.J.R. at 19. The Department recognizes that the adopted rules will not be operative until early 2023. A requirement to report information related to 2023 would mean that regulated entities would have to provide information that they may or may not have accumulated for calendar year 2023. Accordingly, the Department is modifying N.J.A.C. 7:27-34.14 upon adoption to require the first report to be due on or before August 1, 2024, reflecting the owner or operator's fleet as of January 1, 2024. For this same reason, an initial reporting date of January 1, 2023, reflecting the fleet as of January 1, 2022, is not appropriate.

The purpose of the annual reporting requirements, as the Department stated in the notice of proposal, is to gather information about the cargo handling equipment operated at ports and intermodal rail yards in the State, and to ensure compliance with the new chapter. 54 N.J.R. at 19. Reporting more frequently than annually or requiring additional reporting, such as an "Emission Reduction Plan," is not necessary and would not facilitate greater compliance. The Department requires recordkeeping through N.J.A.C. 7:28-34.15 as a useful enforcement and audit tool. The required records must be available to the Department upon request. If the Department determines that more frequent reporting is needed in the future, it will amend the rules.

The information that the Department collects from the regulated community is public information, unless an owner or operator makes a request for confidentiality pursuant to existing N.J.A.C. 7:27-1. Should the Department develop a report that combines the data from these rules and other mobile source reporting, that report would be publicly available, as long as any confidential information was not included or was redacted.

Compliance, Enforcement, And Penalties

36. COMMENT: The Department should increase the fines and penalties associated with all offenses and violations to at least double the proposed amounts. (1)

37. COMMENT: The rules indicate that the Department will use a smoke meter to test opacity limits for cargo handling equipment exhaust, but it does not specify how often the Department will do these tests. The comparable provision of California's rule says that opacity is tested "annually." The Department should amend the rules to specify that opacity tests will be conducted no less frequently than annually. (27)

RESPONSE TO COMMENTS 36 AND 37: As explained in the notice of proposal, the proposed penalties are consistent with existing penalties for similar violations of other Department rules, which is appropriate. See 54 N.J.R. at 19. Pursuant to this penalty framework, the Department treats comparable violations of various Air Pollution Control rules similarly. With regard to opacity testing, N.J.A.C. 7:27-34.8 indicates that the Department will test to ensure that the cargo handling equipment subject to the rules meets the opacity limits of Table 2 at N.J.A.C. 7:27-34.8. The Department intentionally did not specify the frequency of the testing, but indicated in the notice of proposal that the inspections would be "periodic." The Department will conduct inspections at locations and within timeframes that it deems appropriate, which may

be more frequently than annually. To the extent members of the public have concerns about a particular entity, they may report those concerns through the Department's hotline for investigation: 877-WARN-DEP.

Identicality

Compliance Schedule And Fleet Size

38. COMMENT: The CAA authorizes California to adopt and enforce standards and requirements for nonroad engines other than those specifically preempted by the CAA, after the U.S. Environmental Protection Agency (EPA) authorizes California to do so. 42 U.S.C. § 7543(e)(2). Other states may adopt California's EPA-authorized emissions standards and other requirements for nonroad engines, provided "such standards and implementation and enforcement are identical, for the period concerned, to the California standards authorized by the [EPA][.]" 42 U.S.C. § 7543(e)(2)(B)(i). The identicality standard in Section 209 of the CAA "is found in the plain language" of the statutes. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. New York State Dep't of Env't Conservation*, 17 *F*.3d 521, 532 (2d Cir. 1994). The "most logical reading" of Section 209 is that New Jersey "may adopt only those standards that, pursuant to [Section 209(e)], California included in its waiver application to the EPA." *Ibid*.

The proposed rules fail to comply with the CAA because the standards, the means of implementing such standards, and the enforcement of such standards are not "identical" to the standards and the implementation and enforcement mechanisms for which CARB received authorization from the EPA pursuant to the CAA. California sought authorization and waiver from the EPA for the entirety of its cargo handling equipment regulation, including the compliance schedules for in-use cargo handling equipment that CARB characterized as

"emissions standards" in its application. See Waiver and Authorization Request Support Document, "California's Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards," Jan. 29, 2007, p. 2, 5-6, 8. EPA granted a "full authorization and a full waiver of preemption" for CARB's "Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards." 77 Fed. Reg. 9916, 9923 (Feb. 21, 2012). The proposed rules, however, include standards and provisions for the implementation and enforcement of those standards that do not pass the identicality threshold requirement. For example, the Department's proposed compliance schedule for in-use cargo handling equipment at N.J.A.C. 7:27-34.6 differs significantly from California's regulation. For practically all model years, the Department's proposed compliance deadlines are shorter than the deadlines in California's regulation, for certain models, up to seven years shorter. Additionally, unlike California's regulation, the Department makes no distinction between fleet sizes of three or less and four or more. By a significant degree, the Department's proposed emissions "standards" and "implementation" of such standards (for example, its compliance schedule) differs from the standards and implementation methods in the California cargo handling equipment regulation. (9)

39. COMMENT: Section 209 of the CAA authorizes states to adopt California's EPA-authorized emission standards for nonroad engines for which California received a preemption waiver from the EPA provided the state's "standards and implementation and enforcement are identical, for the period concerned, to the California standards authorized by the [EPA][.]" 42 U.S.C. § 7543(e)(2)(B)(i). The Department's rulemaking differs from California's regulation in several ways, none more significant than the proposed timeframe for in-use cargo handling equipment to be retired. In particular, the Department's proposed timeframe for retiring non-Tier 4 cargo handling equipment is much shorter than the timeframe in the California's regulation—

in some cases seven years shorter. Although the Department justifies the difference by noting that Tier 4 engines have been required in new nonroad engines since 2015, CAA Section 209 provides no exceptions to its "identicality" standard. Consequently, the Department should revise the rules to be at least no more stringent than the California regulation, which includes the compliance timeframe for in-use cargo handling equipment. (11)

RESPONSE TO COMMENTS 38 AND 39: Section 209 of the CAA authorizes certain states to adopt and enforce, after notice to the EPA Administrator, for any period, standards relating to the control of emissions from certain nonroad vehicles or engines, if the standards and implementation and enforcement are identical to the EPA-authorized California standards for the period concerned. 42 U.S.C. § 7543(e)(2)(B). Additionally, the state must adopt such standards at least two years before commencement of the period for which the standards take effect. *Ibid*. The Department is adopting California's standards for nonroad vehicles and engines at ports and intermodal railyards with the required two-year lead time. The Department's rules also adopt California's standards relating to the control of emissions of such vehicles and engines, in accordance with the CAA's identicality requirement.

To meet the identicality requirement, the Department may implement and enforce only those emission standards that California has implemented; it may not precede California's phased regulatory approach, which was based on fleet size, age of engine, and type of equipment. All phases of California's Tier 4 emission standards are in effect, and have been for more than 10 years; therefore, the Department may fully implement and enforce the Tier 4 standards. Identicality is preserved.

Other Standards, Implementation, And Enforcement

40. COMMENT: The proposed rules are modeled on CARB's rules, but they are not identical.

(6)

41. COMMENT: The Department's proposed rules regarding fleet averaging and requirements for transferring equipment between yards owned or operated by the same company differ from California's cargo handling equipment regulation. The Department states that it incorporated these differences because "[s]pecific provisions of the [California regulation] were based on conditions no longer pertinent" and "proposed other differences based on the state of technology and engine equipment availability at the time of this rulemaking." 54 N.J.R. at 11. However, the CAA expressly prohibits such differences. The Department is required to adopt standards that are identical to those adopted by California, regardless of the rationale behind the discrepancy. The Department is, therefore, urged to adopt identical regulations to those promulgated in California, as the CAA requires. The Department does not have the authority to alter or adjust the California standards. (23)

42. COMMENT: The Department has proposed other rule provisions, in addition to the compliance deadlines, that are standards or a method of implementing and enforcing a standard that are overly burdensome and also fail the CAA's identicality standard and, therefore, cannot be implemented. As proposed at N.J.A.C. 7:27-34.10A, the Department would require documentation from representatives of equipment and/or engine manufacturers to support the applicant's claim of non-availability, whereas, the California regulation only requires an applicant to provide a list of manufacturers that have been contacted with their responses to a request to purchase. Also, at proposed N.J.A.C. 7:27-34.12(d) and (h), the Department would require an application to transfer a non-yard truck 60 days in advance of the proposed transfer date and require that the transfer does not result in an increase in public health impacts.

California's regulation, however, requires only 30 days' notice. Accordingly, the proposed rules, as drafted, are preempted by the CAA and not authorized under the limited exception provided.

(9)

RESPONSE TO COMMENTS 40, 41, AND 42: To the extent that commenters suggest that differences between California's regulation and the Department's rules violate the identicality provision of the CAA, but do not identify specific provisions or differences, the Department is unable to respond directly. The Department acknowledged in the notice of proposal that the proposed rules included some language that differs from the California's regulation and described those differences throughout the notice of proposal. The Department also discusses specific differences throughout this notice of adoption in the response to comments received. There are differences between New Jersey's proposed and California's implemented provisions for the alternate compliance option and transfer of non-yard trucks. Both the New Jersey and California provisions are intended to give owners and operators flexibility. 54 N.J.R. at 13. Proposed N.J.A.C. 7:27-34.10A required documentation from representatives of equipment and/or engine manufacturers to support the applicant's claim of non-availability for purposes of obtaining approval to use an alternate compliance option for a non-yard truck. California requires an applicant to provide a list of manufacturers that the applicant has contacted, and the manufacturers' responses to a request to purchase. In order to reduce the burden on the regulated community and on equipment and/or engine manufacturers (who would need to document their support for the application), the Department is modifying N.J.A.C. 7:27-34.10A upon adoption. An applicant for an alternate compliance option for a non-yard truck may provide a list of manufacturers contacted, rather than documentation from the manufacturer.

Proposed N.J.A.C. 7:27-34.12 required an owner or operator to submit a request for transfer of a non-yard truck from one facility to another at least 60 days prior to the anticipated transfer date. The Department established the timing of the application based on its estimate of the time that it would require to review the application and determine whether the transfer will impact public health. As long as the applicant provides all of the information that the rule requires, the Department anticipates that it will be able to review the application within 30 days. Therefore, the Department is modifying N.J.A.C. 7:27-34.12 to reduce the lead time from 60 days to 30 days. The shorter time period will further the goal of providing flexibility to the regulated community.

43. COMMENT: The proposed rules prohibit the modification or alteration of cargo handling equipment from the design of the original cargo handling equipment manufacturer, which is not based on an equivalent provision in CARB's cargo handling equipment regulation. The lack of a similar provision violates the identicality requirement of Section 209 of the CAA. The Department claims that "[t]hese anti-tampering provisions apply to any person subject to N.J.A.C. 7:27-34 and are necessary to prevent and enforce against such violations, *which cause excess emissions*" (emphasis added). The Department has offered no support for the assumption that all alterations cause excess emissions. In some instances, port operators are required to make certain modifications of cargo handling equipment to effectively operate because the cargo handling equipment manufacturer cannot customize cargo handling equipment for every conceivable condition in ports. Although the provision exempts modifications done "temporarily for the purpose of diagnosis, maintenance, repair, or replacement," it is unclear what the Department considers temporary, or whether any repair of cargo handling equipment that results

in any alteration or modification lasting for some period of time would be a violation of this provision. Accordingly, the Department should remove this provision from the New Jersey cargo handling equipment rules or, in the alternative, prohibit only those modifications or alterations which cause material excess emissions. (9)

RESPONSE: The Department proposed, at N.J.A.C. 7:27-34.16, to prohibit modifying or altering any element or design of any cargo handling equipment or design of the original manufacturer, unless done in accordance with a CARB Executive Order or Federal regulation. The prohibition was based on the language at existing N.J.A.C. 7:27-14.3(e), General prohibitions, which prohibits tampering with diesel-powered motor vehicle emissions systems. The Department believes the proposed prohibition does not violate the identicality requirement, since the CAA prohibits tampering with emissions control devices. Nevertheless, the Department is deleting N.J.A.C. 7:27-34.16(a) upon adoption, which will remove the prohibition. The Department is also deleting the corresponding violations at N.J.A.C. 7:27A-3.10(m)34. Other provisions of the adopted rules provide adequate protection. For example, at N.J.A.C. 7:27-34.8(a) and (b), cargo handling equipment subject to the new subchapter may not exceed the specified opacity limits. Thus, any piece of equipment or engine emitting excess emissions for any reason, including tampering, is subject to a violation. Further, pursuant to new N.J.A.C. 7:27-34.8(c), any cargo handling equipment that is a motor vehicle is subject to the anti-tampering provision at N.J.A.C. 7:27-14.3(e) governing air pollution from diesel-powered motor vehicles. Finally, an engine that is equipped with a defeat device not identified in an executive order issued pursuant to 13 CCR 2423, or an engine that has been altered beyond the parameters approved in an executive order pursuant to 13 CCR 2423, will not qualify as a Tier 4-certified engine.

44. COMMENT: The CAA authorizes California to adopt and enforce standards and requirements for nonroad engines other than those specifically preempted by the statute, after the EPA authorizes California to do so. 42 U.S.C. § 7543(e)(2). Other states may adopt California's EPA-authorized emission standards and other requirements for nonroad engines, provided the state gives two years' lead time. 42 U.S.C. § 7543(e). Notably, however, other states may only "adopt and enforce" the California standards if "such standards and implementation and enforcement are identical, for the period concerned, to the California standards[.]" 42 U.S.C. § 7543(e)(2)(B)(i). The proposed rules are modeled on, but not identical to, California's rules and differ in substantive ways that could have significant impacts on the operation and maintenance of mobile cargo handling equipment. For example, the Department included a three-second smoke opacity provision that is not present in CARB's rules. California instituted an opacity monitoring procedure centered around a snap idle test. 13 CCR § 2479(e)(2)(A)(5). (23)

RESPONSE: Both the California regulation and new N.J.A.C. 7:27-34.8 refer to the Society of Automotive Engineers "Surface Vehicle Recommended Practice, Snap Acceleration Smoke Test Procedure for Heavy-Duty Powered Vehicles" (SAE J1667, February 1996) snap idle test for opacity. Both require use of a smoke meter in accordance with the Society of Automotive Engineers, Section 5.4.2 of SAE J1667. Compare N.J.A.C. 7:27-34.8(a) with 13 CCR 2497(e)(2)(A)(5). Thus, the required testing is identical under both the California regulation and the Department's new rule.

The Department proposed, at N.J.A.C. 7:27-34.16(b), a three-second visible smoke prohibition, which was modeled on the visible smoke prohibition at N.J.A.C. 7:27-14.4, General public highway standards, applicable to all diesel-powered motor vehicles. 54 N.J.R. at 19. Though the

Department does not believe that this prohibition violates identicality, it is deleting N.J.A.C. 7:27-34.16(b) upon adoption to remove the prohibition and deleting the corresponding violations at proposed N.J.A.C. 7:27A-3.10(m)34 because the snap idle test for opacity at N.J.A.C. 7:27-34.8 is sufficient to determine compliance.

Economic Impact

45. COMMENT: The cost to comply with these rules, especially the conversion or replacement of older equipment not near the end of their useful life, is substantial. These costs will be imposed not only on the governmental entities that own the largest ports, but also upon all the smaller, private businesses that operate at those ports. There will also be substantial costs incurred by the two Class I railroads that own and operate cargo handling equipment in the State. Has the Department analyzed what the economic impacts would be on all of these entities and businesses? What are the incremental benefits from adopting this accelerated implementation program compared to the benefits of a natural turnover of equipment and the implementation of existing plans? (2)

46. COMMENT: Although the Department acknowledged that "at least some, if not all," of port owners or operators will incur costs to upgrade their in-use cargo handling equipment to comply with the proposed rules, the Department claimed that "[g]iven the variety of factors" that may be present at ports, it was "unable to estimate the average cost of compliance for a fleet or the cost of compliance for each individual owner and operator who will be subject to N.J.A.C. 7:27-34." Yet, even with these supposed limitations, the Department "anticipate[d] minimal additional costs of compliance for new cargo handling equipment" because "all CI engines have had to be certified to Tier 4 final off-road engine standards as of 2015 and, thus, the availability of pre-Tier

4 final engines is likely limited." As explained more fully below, the Department's decision to skip conducting an "estimate [for] the average cost of compliance for a fleet": (1) entirely underestimates the true cost of compliance with the rules as a whole; and (2) fails to identify the undue impact the proposed rules will have on private ports. The Department's cost/benefit analysis is, therefore, arbitrary, capricious, and an abuse of discretion. The Department's conclusion about the costs imposed on ports by the proposed rules is not consistent with estimates based on actual data from port operations. One of the main factors in CARB's overall cost estimate of its proposed regulation was the cost associated with accelerated retirement of cargo handling equipment. The Department refused to do a sufficient analysis of the estimated cost of accelerated retirement for an average fleet, and instead, without any explanation, concluded that anticipated costs of compliance are minimal because of the existence of Tier 4 cargo handling equipment since 2015. Such an analysis is critical to estimate the costs of compliance, particularly because of the much shorter time period for compliance in the New Jersey rules compared to the California regulation. CARB's assessment of annual costs to businesses used a 14-year period (2007-2020), in part due to the length of the proposed phase-in period. The shorter phase-in period in the New Jersey rules concentrates the total cost impact of the proposed rule over a shorter time period, making the financial burden much heavier on an annual basis.

The Department cites the existence of Tier 4 cargo handling equipment since 2015 as support for its conclusion that the rules will impose only minimal additional costs. The Department's assertion does not account for in-use cargo handling equipment that was manufactured and purchased prior to 2015. The useful life of cargo handling equipment can be upwards of 25 years, which port owners and operators factor into their future projections of

necessary equipment replacement. The New Jersey rules significantly condense the useful life of all pre-2015 cargo handling equipment and force conversion of that equipment much earlier than anticipated, which amounts to both a loss of the benefit of the initial cargo handling equipment expenditure and the incurred cost of purchasing replacement cargo handling equipment. Millions of dollars of investment will be lost in having to retire existing cargo handling equipment, which is significantly more than a "minimal" cost. When making purchases of cargo handling equipment prior to 2015, port owners and operators did not account for the sudden need to retire pre-2015 equipment as soon as required by the New Jersey rules. (9)

47. COMMENT: In the notice of proposed rules, the Department failed to provide any estimate for the average cost of compliance for a fleet of cargo handling equipment, citing myriad factors for why such an analysis would be too difficult. The Department did not even compile its own estimate for the average cost of certain cargo handling equipment. Nevertheless, the Department concluded there will be "minimal additional costs of compliance" with its proposed rules because of the availability of Tier 4 nonroad engines since 2015. The Department completely overlooks that many pre-2015 non-Tier 4 engines are still in-use, are meaningful contributors to ongoing operations, and in the normal course are expected to have a useful life of over 20 years. The proposed rules force port owners and operators to retire in-use cargo handling equipment earlier than projected and purchase new cargo handling equipment earlier than budgeted. These lost costs can be significant, particularly for smaller, private port and non-port facilities that are typically not eligible to receive Federal and State grant funding for equipment upgrades. (11)

RESPONSE TO COMMENTS 45, 46, AND 47: Pursuant to the requirements of the Administrative Procedures Act, and the Office of Administrative Law's Rules for Agency Rulemaking, N.J.A.C. 1:30-5.1(c), the Department conducted an economic impact analysis that

"describes the expected costs, revenues, and other economic impact upon governmental bodies of the State, and particularly any segments of the public proposed to be regulated." The Department appreciates that the cost to upgrade equipment is substantial. However, for the reasons discussed below, it is not appropriate for the Department to conduct an economic impact analysis that attributes to the new rules the full replacement costs for an entire fleet.

As explained in the notice of proposal, Tier 4 final has been the EPA standard since 2015. See 54 N.J.R. at 21. In 2025, when the Department's first compliance date goes into effect, Tier 4 final equipment will have been the only option for new equipment for the preceding 10 years. Any new equipment that a regulated entity purchases from 2015 to the first compliance date of New Jersey's rules should already be Tier 4 final compliant, which means that there should be no replacement costs associated with that equipment within a fleet. As commenters noted, any equipment that is 25 or more years old (meaning any equipment purchased new prior to the year 2000), is either beyond, at, or near the end of its useful life. For that portion of a regulated entity's fleet, the owner/operator has received the benefit of the initial expenditure for those pieces of equipment and should have been planning for the expenditure to obtain new equipment. Thus, the full amount of those new equipment costs is not attributable to the rules.

That leaves those pieces of equipment within a fleet that fall between model years 2000 and 2014, for which a regulated entity may argue that the rules result in an accelerated retirement of equipment, leading to a loss of benefit of the initial investment. As stated in the notice of proposal, given the variety of factors the Department is unable to estimate the average cost of compliance for a fleet or the cost of compliance for each individual owner and operator. Any estimate would depend on the number and age of all of the equipment in the fleet, the type of equipment (forklift versus crane), the throughput or volume of cargo handled, as well as other

business variables. For instance, some owners and operators may be able to extend the compliance deadlines by using equipment that qualifies as low-use or by planning for a zero-emission purchase. Some owners may receive funding for over-compliance by purchasing zero-emission equipment, especially now that there are more market-ready models as compared to 2007 when California's first compliance date went into effect. In short, many factors may influence the costs for a particular fleet owner or operator.

One commenter did provide the Department with data showing the age of its equipment. Though it has a total of 51 pieces of equipment in its fleet, only four pieces of equipment will be less than 25 years old in 2030 when the rules are fully implemented. While that commenter may not receive the full benefit of its initial expenditure on those four pieces of equipment, the Department is confident that the commenter's costs associated with replacing those pieces of equipment can be mitigated. As described in detail in the Response to Comments 48, 49, and 50, the Department will work with regulated entities to advise of funding opportunities and to discuss opportunities for extensions, fleet averaging, and all other flexibilities built into the rules.

48. COMMENT: Private ports are at a more significant disadvantage in managing the costs of complying with the rules than are public ports. The vast majority of Federal and State grant funding available for infrastructure and equipment upgrades are and have been available only to public ports. Because of this inequity, the financial burden imposed by the rules is significantly greater for private ports than it is for public ports. Moreover, many public ports manage other transportation and distribution networks in conjunction with port operations, such as airports, bridges, and public transportation networks, which allows them to draw on different revenue sources for capital improvements and equipment purchases. The size of these ports and their

economies of scale enable public ports to purchase new cargo handling equipment at more favorable terms than private ports. Further, for many ports seeking to electrify in-use cargo handling equipment, additional improvements must be made to increase the capacity of the local electric grid to handle the increased load. All of this puts private ports at a significant competitive disadvantage. To account for the differing impacts and greater costs placed on private ports, the rules should provide for more flexibility and a longer phase-in period for private ports. At a minimum, the Department should not impose any time periods for compliance on private port operators that are greater than the length of time given to ports pursuant to California's regulation. (9)

49. COMMENT: The costs to upgrade equipment far exceed the ability of small companies to pay or to qualify for bank credit. There is no help for employers to make this conversion. (19)

50. COMMENT: The State must provide financial assistance to business owners to offset the costs of compliance with these rules. Clean air is a shared goal, and the State must share in its costs as well. (8)

RESPONSE TO COMMENTS 48, 49, AND 50: The Department acknowledges that the cost to upgrade equipment is substantial. However, the Department is committed to ensuring that regulated entities can successfully comply with the rules. As explained in the Response to Comment 30, the Department is modifying the rules upon adoption to clarify that the purchase and use of zero-emission engines or equipment is over-compliance with the performance standards. By upgrading to zero-emission cargo handling equipment, owners and operators can ask the Department for an extension of up to two years for compliance, which would allow the entity to spread its costs over a longer period of time. Additionally, owners and operators can use zero-emission equipment as part of a fleet averaging plan under an alternate compliance option.

Further, the Department will work with entities to identify all potential funding strategies. Multiple sources of public funding are available to assist with the equipment costs: there are Federal funds, such as the Port Infrastructure Development Program, Diesel Emission Reduction Act (DERA) funding, and Grants to Reduce Air Pollution at Ports under the Inflation Reduction Act. The vast majority of Federal funding opportunities do not restrict funding to public ports. They do, however, often have a requirement that private entities partner with public entities that are responsible for distribution of the funds. While this does require a private business to partner with a public entity, it is not a bar to Federal funding. The Department will also work to identify State funding opportunities for owners and operators who might be eligible to apply. The Department will post notifications on social media and the Department's website, as well as send email notifications as more funding opportunities become available.

51. COMMENT: Not only did the notice of proposed rulemaking understate the estimated costs, inflation and supply chain issues have increased those costs dramatically in the past six months. (12, 4, and 16)

52. COMMENT: The cost estimates used in the Department's analysis are not at all consistent with current market conditions. Costs are skyrocketing with some equipment listing well beyond the cap estimated in the proposed rules. (8)

53. COMMENT: Cost estimates used by the Department ($40,000 to $250,000 per piece) bear little resemblance to the costs the regulated entities are seeing in the current market where some of the heavier pieces of equipment costs are running $385,000 to $685,000. The costs to replace an entire fleet can run into the millions, which is a huge sum for a small company to undertake. (26)

54. COMMENT: The cost of equipment replacement has increased at a rate far outpacing even the current inflation rate over the past year. The level of replacement in the timeline of the proposed rules will negatively impact business operations, as well as the State. To address these issues, the Department should consider a longer phase-in implementation timeframe and provide additional State-based funding. (25)

55. COMMENT: The proposed rulemaking potentially understates the estimated cost of compliance, and the costs of such equipment have increased dramatically in the past six months due to inflation and supply chain issues. (24)

RESPONSE TO COMMENTS 51, 52, 53, 54, AND 55: The Department understands and acknowledges that the recent unexpected period of high inflation has increased the nominal price for cargo handling equipment, including Tier 4 final compliant machinery. However, there is little reason to expect that prices will continue to increase at the current rate for years into the future. In fact, recent actions by the Federal Reserve show signs of already reducing inflationary pressure. Additionally, it is worth noting that: (1) regulated entities can and do adjust prices to respond to cost increases, such as those caused by inflation; and (2) while inflation increases the nominal costs of the new rules, it also increases the value of the health benefits of the rules. With respect to the comments concerning the overall cost of purchasing new Tier 4 final equipment to comply with the rules, the Department anticipates that some of the equipment that owners or operators will replace as a result of the new rules will be at or past the end of its useful life and, therefore, should be slated for replacement regardless of the Department's actions. See the discussion of equipment replacement in the Response to Comments 45, 46, and 47. To the extent that commenters believe there should be additional government funding prospects, the

Department refers the commenters to the Response to Comments 48, 49, and 50, which includes a discussion of funding opportunities.

56. COMMENT: Though the rules may be modeled on the California cargo handling equipment regulation, the Department made a significant change when it compressed the compliance schedule. Under this schedule, an entity retiring in-use cargo handling equipment over the next five years will lose the value of their investment. Gloucester Terminals estimates an increased cost of approximately $19 million to replace retired cargo handling equipment pursuant to the rules. (9)

57. COMMENT: The implementation period is far too short. Modernizing an entire fleet at once is cost prohibitive. The implementation period puts the very economic viability of ports and intermodal rail yards at risk. (8)

58. COMMENT: The aggressive timeframe will result in excessive costs. (2)

RESPONSE TO COMMENTS 56, 57, AND 58: As explained in the notice of proposal, the CAA directs the EPA to study emissions from nonroad engines and vehicles and to regulate nonroad sources of air pollution if the EPA finds that their emissions are significant contributors to ozone or carbon monoxide (CO) in more than one nonattainment area for these pollutants. 54 N.J.R. at 9. In 2004, the EPA finalized its Tier 4 standards for nonroad diesel engines, which the EPA anticipated would "achieve reductions in PM and NO_x emission levels in excess of 95 percent and 90 percent respectively." *Ibid*. To transition to Tier 4 final standards, the EPA established interim standards, which began between 2008 and 2012 for most engines, and final standards, which were effective for all off-road engines by 2015. *Id*. at 10. In short, Tier 4 engine technology has been available since the early 2000s and the EPA has required that new engines

meet Tier 4 final standards since 2015. When the first compliance date is reached, 25 months after the operative date of this rulemaking, Tier 4 final engines will have been the EPA standard for new engines for approximately 10 years. Based on this timeline and the Department's review of the inventory from the Port Authority of New York & New Jersey, it is unlikely that a regulated entity would have to modernize its entire fleet, unless it had not replaced any equipment since the Tier 4 final standard was phased in, beginning in 2015. The rules will require businesses to prioritize the turn-over of their old equipment to meet emission standards that have been in effect since 2015.

One commenter provided data showing the age and replacement costs for the equipment it says will be impacted by this regulation. The commenter estimated the total replacement costs of its equipment as approximately $11.5 million. As noted in the Response to Comments 45, 46, and 47, it is not appropriate for an entity to ascribe the full replacement costs to the rules when the equipment being replaced is nearing or at the end of its useful life. In the case of this commenter, the inventory listed 51 pieces of equipment, including 23 pieces of equipment identified as pre-1990 (vehicle years dating from 1973 through 1989). Assuming the first compliance date for these rules takes effect in 2025, 23 pieces of the total fleet will be 35 or more years old. To the extent that regulated entities are running equipment more than two decades old, those entities have known for some time that modernizing this equipment to the EPA standards would result in significant emission reductions. More importantly, those entities should have been financially planning and preparing to replace this equipment within their fleet irrespective of the Department's rules because the equipment has reached or will soon reach the end of its useful life.

59. COMMENT: The rules failed to consider pandemic-related operational difficulties, increased labor costs, supply chain bottlenecks affecting both port operations and the procurement of additional cargo handling equipment, and other newly implemented regulatory programs that are, or will, add even more costs. For example, supply chain issues have already forced port operators to place orders for certain cargo handling equipment 12 to 18 months in advance of the expected delivery date. Given the shorter time periods in the Department's compliance schedule, in comparison to California's version of the regulation, port owners and operators will be forced to place orders for compliant cargo handling equipment much sooner than the Department anticipates. Additionally, port owners or operators will be placing orders at the same time, which will further strain the supply chain and cause prices of cargo handling equipment to rise higher in the State. Implementation of the rules under these circumstances may interfere with port operations, such as supplying the northeast with fruit in winter months and staging and shipping large monopiles for wind farms located off the coast. (9)

60. COMMENT: The rulemaking understates the estimated cost and practicalities of compliance. While Tier 4 cargo handling equipment has become more commercially available and it uses proven technologies that can work in a typical operational scenario, the cost of such equipment and the timelines in which it can be put into service are a challenge. Even when such equipment is available, the cost of such equipment has increased dramatically in the past six months due to inflation and supply chain issues. (12, 4, and 16)

61. COMMENT: The 24-month timeline in the rules is not reasonable under current market conditions. Based upon calls to manufacturers, supply chain realities mean that some of the heavier pieces of equipment have lead times of 48 to 68 weeks. (26)

62. COMMENT: Given the current shortage of chips and other parts, it will take between 12 and 18 months for delivery for some pieces of equipment. Thus, the rules should provide a longer phase-in implementation timeframe, perhaps out to 2030 or later. (25)

63. COMMENT: Consumer demand and supply chain backups have resulted in acquisition lead times that far exceed the implementation period envisioned in the proposed rule. The rules should include a longer phase-in period. This will allow owners/operators to begin the process in the short term while providing an opportunity to develop reasonable expenditure plans, take advantage of emergent technologies in the intermediate term, and overcome persistent delays associated with overheated consumer demand and supply chain disruptions. (8)

64. COMMENT: Given the ongoing multi-year COVID-related supply chain disruptions, sudden or dramatic changes in cargo handling equipment rules will not help the global supply chain regain its very important equilibrium. (6)

65. COMMENT: In light of current events, it bears noting that substantial changes in the regulations governing cargo handling equipment may negatively impact the global supply chain and may exacerbate efforts to help the global supply chain reach its equilibrium due to congestion and potential challenges to acquiring required equipment as a result of materials shortages. Global supply chain delays may also impact and delay the ability of railroads to upgrade and replace existing cargo handling equipment due to materials shortages. (23)

RESPONSE TO COMMENTS 59 THROUGH 65: The Department acknowledges that there are supply chain issues that may delay equipment delivery. However, this issue does not merit a longer phase-in period. The first compliance deadline is 25 months after the operative date of the rules, or approximately the beginning of 2025. It is not clear that the supply chain issues will persist over the next two years. If supply chain issues do persist, the rules adequately address that

concern through the allowance of a compliance extension caused by manufacturer delay. As noted in the notice of proposal, if new equipment was purchased, or a contractual agreement for purchase was entered into at least six months before the required compliance deadline, but the equipment is not delivered as a result of manufacturer delay, the Department will grant a compliance extension. See 54 N.J.R. at 18; N.J.A.C. 7:27-34.11A. Consequently, supply chain issues should not prevent an owner or operator from compliance with the rules, so long as the owner or operator has entered into a timely contract for the purchase of compliant equipment. See the Response to Comments 51, 52, 53, 54, and 55 for a discussion of the impact of inflation.

66. COMMENT: The Department has provided grants to entities for replacing or retrofitting this equipment. Enhancing these efforts is a better way to approach this problem. While the Department tends to "spread the money around" in various ways, if RGGI and Clean Energy money were significantly dedicated to cleaning up the ports, especially in the northeastern part of the State, the State would see tremendous environmental benefit and little economic cost and would ensure the economic viability of the State's largest economic drivers. Sometimes regulations and command and control are not the most effective ways to solve a problem. (2)

RESPONSE: The Department recognizes that incentives and other funding options will facilitate the transition to newer technology. As discussed in the Response to Comments 48, 49, and 50, the Department will work with regulated entities to ensure that they are aware of potential funding opportunities as they become available. The Department also recognizes that funding without rules will not ensure equipment is updated.

67. COMMENT: Intermodal rail terminals in New Jersey typically transfer freight from truck to rail. Though rail is typically cheaper and more environmentally friendly, rail faces fierce competition on price. Increased costs to cargo handling at rail yards will disfavor rail transportation overall throughout the United States. (6)

68. COMMENT: Rail is already the most efficient way to move people and freight over land. One train can carry the freight of hundreds of trucks, making freight railroads three to four times more fuel efficient on average than trucks. Railroads contribute only 1.9 percent of the transportation-related greenhouse gas emissions in the United States. The Department should consider the potential for the increased costs imposed by the rules to induce a modal shift from rail to truck for freight shipments. Intermodal railyards in New Jersey typically transfer freight shipments from trucks to rail. Rail is three to four times more fuel efficient than trucks, resulting in fewer emissions of criteria pollutants and greenhouse gases for the same ton of freight. The rail and trucking industries are fierce competitors and, as a result, increases to the cost of shipping freight by rail may lead to a modal shift from rail to trucks. Such a shift would result in increased emissions for each ton of freight moved, increased traffic and congestion, and increased wear and tear on Federally funded highways. (23)

69. COMMENT: Rail yards are highly competitive with other modes of transportation, such as trucking. If regulatory compliance at rail yards becomes too costly, the cargo they otherwise may have handled may be moved to long-haul trucking, which is not subject to these regulations on cargo handling equipment. (2)

RESPONSE TO COMMENTS 67, 68, AND 69: The rules do not regulate railroad locomotives or other rail-specific equipment; thus, there will be no direct impact on those costs. The rules regulate cargo handling equipment used at intermodal railyards and may increase some of those

costs. However, as noted by the commenters, moving freight by rail is typically cheaper and more efficient than other modes of transportation. Given that cargo handling equipment purchases represent a relatively small portion of a railroad's overall budget, the Department does not anticipate that short-term cost increases, if any, that are passed on to customers will erase this differential and make rail unable to compete with trucking.

70. COMMENT: The Department should consider the potential wholesale loss of business to nearby competing ports if these rules are finalized. If the costs of doing business in New Jersey increase due to the requirement for such substantial capital investment, those port customers will take their cargo elsewhere. While California has all but a monopoly on certain trade lanes and has far fewer neighboring ports, the cargos currently handled in southern New Jersey can very easily move to ports across the Delaware River in Pennsylvania and Delaware. Facilities in northern New Jersey will not be immune either since the ports in Baltimore, Norfolk, Charleston, and Savannah will be only too happy to take this business away from New Jersey. (8)

71. COMMENT: By modeling its rules on a California mobile cargo handling regulation, the Department failed to take into account New Jersey's vastly different geography, cargo, and competition from neighboring ports. The Department's application of California standards to New Jersey ports discounts the fact that, while several hundred miles separates the Ports of Los Angeles and Long Beach from other west coast major port facilities, there is a major port every 90 miles along the east coast. The Port of Camden alone directly competes with the Port of Philadelphia and ports in nearby Wilmington, Delaware, the Ports of Newark and Elizabeth in this State, and the Port of Baltimore. While the Department anticipates increased costs due to this rulemaking, the notion that those costs could simply be passed on to customers does not consider

the ease with which shipping companies can divert their shipments to several other port facilities in the mid-Atlantic region alone. To remain competitive, New Jersey ports will need direct State appropriations to fund the acquisition of compliant equipment. (25)

72. COMMENT: The Department's rules are based on a California rule that is tailored to California's geography and economy. However, the geography and economy of New Jersey differ from California. The largest ports in California have no real competition because of geography, which allows those ports a greater ability to pass on costs. While the Port Authority of New York & New Jersey operates the largest port on the east coast, it does have competition. If costs are increased or operations made more difficult or logistics are limited in New Jersey, vessels have the option of frequenting other nearby ports. (2)

73. COMMENT: If implemented, the rules will increase costs for southern New Jersey port operations, which will be passed on to the customers. While California ports may be able to absorb those costs because the ports competing for their business are hundreds of miles away, increased costs in southern New Jersey ports means that customers may take their business across the river to ports in Pennsylvania, Maryland, or Delaware. This will harm employees and businesses in southern New Jersey. (26)

74. COMMENT: If costs get too high, it is pretty easy for cargo to move to competing facilities in other states, such as Pennsylvania, Delaware, or Maryland. (19)

RESPONSE TO COMMENTS 70, 71, 72, 73, AND 74: New Jersey ports are in closer proximity to out-of-State ports than are most of the ports located in California, and this presents a different competitive landscape for the State's shipping industry. However, there is little reason to assume that New Jersey's ports would experience a wholesale loss of business in response to the new rules' requirements. First, equipment modernization is a normal cost of doing business,

which the out-of-State ports also incur. Second, regulated entities will be able to spread these costs out over many years, allowing firms to purchase new equipment in a way that minimizes the impacts on customers. Further, as noted in the Response to Comments 48, 49, and 50, the Department will work with regulated entities to ensure that they are aware of funding and financing opportunities.

Jobs Impact

75. COMMENT: The Department dedicates only one paragraph of its preamble to the impact that the New Jersey cargo handling equipment rules will have on job retention or creation in the State. The analysis is based entirely on CARB's explanation that jobs were not expected to be eliminated as a result of the implementation of the California regulation. The Department violated the Administrative Procedures Act (APA) and its implementing regulations by failing to conduct a jobs impact analysis for the State, and its conclusion is arbitrary and capricious because it has factored in none of the unique pressures or market competition that ports in New Jersey face. If the Department did undertake such a jobs impact analysis, it would show that the New Jersey cargo handling equipment rules will have a material adverse impact on job creation and retention in the State. Even CARB identified the business disadvantage some of California's ports would face if the state implemented different compliance deadlines for different parts of the state, noting that "[r]equiring separate compliance dates for one area relative to another . . . could put some terminals in one area of the state at a business disadvantage relative to terminals in other parts of the state." The same effect will occur in New Jersey with the implementation of the proposed rules. New Jersey ports will be at a business disadvantage relative to out-of-State ports on the east coast and will shed jobs as a result. Accordingly, the Department's analysis of

the impacts to jobs in the State is arbitrary, capricious, and an abuse of discretion because it relied on the conclusion from a California state agency on job losses within California, a state with a vastly different port industry and market competition concerns than New Jersey. Under the APA, the Department must conduct a new analysis of the impact to jobs within the State from its proposed New Jersey cargo handling rules prior to its implementation. (9)

RESPONSE: The Department conducted "an assessment of the number of jobs to be generated or lost if the proposed rule takes effect," as required by the Office of Administrative Law's Rules for Agency Rulemaking at N.J.A.C. 1:30-5.1(c)5. Similar to California, the Department determined that it expects little to no impact on job creation in the State. 54 N.J.R. at 23. The Department reached this conclusion after determining that the assumptions made by CARB in its regulatory analysis were sufficiently reflective of New Jersey.

As explained in the notice of proposal Summary, 54 N.J.R. at 11, the Department's rules require regulated entities to bring their cargo handling equipment into compliance more than a decade after California's ports and railyards will have been fully compliant, using technology that has been available on the market for almost two decades. It is unlikely there will be direct job losses associated with the technology. For example, the equipment is not so efficient that fewer workers will be needed.

As the new equipment itself is not expected to result in fewer jobs at the ports and railyards, the Department concludes that the commenters' statements about significant job losses are based primarily on the industry's concerns about competitive ports in close proximity to regulated New Jersey ports and railyards. See the Responses to Comments 67, 68, and 69 and Comments 70, 71, 72, 73, and 74 for a discussion of whether the adopted rules will result in a modal shift from rail to truck or a wholesale loss of business to out-of-State ports.

Environmental Justice

76. COMMENT: The Department should practice what it preaches. These rules are not protective enough of environmental justice communities. (21)

77. COMMENT: The rules for diesel emissions are really an environmental justice issue here in New Jersey. In Port Newark, for example, the Ironbound, greater Newark and the surrounding communities are environmental justice communities that are already seriously overburdened with pollution. Allowing diesel exhaust to continue is wrong. (22)

78. COMMENT: The rules should reduce the burden of pollution unfairly placed upon the communities and neighbors we refer to as environmental justice communities. (10)

RESPONSE TO COMMENTS 76, 77, AND 78: The Department's primary goal in promulgating the new rules is to reduce emissions at ports and intermodal railyards. As stated in the notice of proposal, the Department expects that communities near ports and intermodal rail yards will particularly benefit from the reduced emissions that are directly attributable to the new rules. 54 N.J.R. at 8. These include some communities identified as overburdened, as defined at N.J.S.A. 13:1D-158. *Ibid*. As explained in the Response to Comments 80 through 89, mandating zero-emission cargo handling equipment is premature. However, the Department is monitoring the progress of California's rulemaking.

Separately, the Department has proposed rules pursuant to the Environmental Justice Law, N.J.S.A. 13:1D-157 et seq. See 54 N.J.R. 971(a), June 6, 2022. Those proposed rules will require the Department to evaluate environmental and public health impacts of certain facilities on overburdened communities when the Department reviews specific types of permit applications.

79. COMMENT: The proposed rules would apply to marine ports within 75 miles of an urban area and define "urban area" as "a densely developed territory that contains 50,000 or more people, as reported by the latest U.S. Census Bureau census." But this definition fails to specify the geographical boundary of a "territory" (metropolitan area, municipality, census tract, census block group). Nor is it clear what qualifies as a "densely developed" territory. The Department should clarify exactly how "urban areas" should be designated for the purpose of the rulemaking. In the alternative, the Department should use pre-existing geographic designations in New Jersey law, such as the "overburdened communities" defined in the recent New Jersey Environmental Justice Law, such that any facility within 75 miles of an overburdened community would be covered. Not only would this create clarity and continuity, it would also provide a definition that more directly protects overburdened communities.

In addition, the Department proposes a process by which the rules would start to apply to a port previously outside of the "urban area" range once "the port becomes part of an urban area." However, this language is too narrow; instead, the exemption should no longer apply whenever a port previously designated as exempt comes within 75 miles of a new or newly expanded urban area (or overburdened community). In the same vein, there is no provision that the Department must review census data on a certain timeline in order to see if an exempt port or railyard would have to start complying with the rules. The rules should include a process and timeline for the Department to periodically review demographic data in order to promptly determine when ports or railyards no longer qualify for this exemption. Also, to facilitate the prompt application of the rules, the definition of "urban area" should be amended to allow for the consideration of population data that comes more frequently than the decennial census. (27)

RESPONSE: As explained in the notice of proposal, the rules include a limited exemption for low-throughput ports that are further than 75 miles from an urban area. See 54 N.J.R. at 13. As defined at N.J.A.C. 7:27-34.3, an "urban area" is "as reported by the latest U.S. Census Bureau census." The U.S. Census Bureau compiles and reviews the census data every 10 years and determines the criteria to be used to delineate a geographic area as either urban or rural; this review makes a separate Department review process unnecessary. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html. The adopted definition is consistent with California's regulation.

Zero-Emission Cargo Handling Equipment

80. COMMENT: The Department should not stop at adopting these rules. The Department should commit to the adoption of the forthcoming zero-emission California cargo handling equipment regulation in order to eliminate all tailpipe emissions, not just reduce emissions. In addition, the Department should commit to various other current and forthcoming California rules that will drive down emissions from trucks, transportation refrigeration units, harbor craft, ocean-going vessels, warehouse equipment, and other components of New Jersey's goods-movement industry. The suite of rules is necessary to address the pollution that has burdened New Jersey's port- and freight-adjacent environmental justice communities and workers for decades. (27)

81. COMMENT: The Department should eliminate, not just reduce emissions from cargo handling equipment. The Department should not stop at the current proposal. The Department should commit to adopting California's forthcoming rules that are expected to require zero-emission cargo handling equipment. Over half of global cargo handling equipment sales are

expected to be zero emission before the end of the decade, and New Jersey communities should not be shut out of the benefits of that transition. (28)

82. COMMENT: There is nothing in the rules that requires a transition to zero-emission cargo handling equipment, which is available now and has significantly lower operating costs than non-zero-emission cargo handling equipment. The final rules should prioritize zero-emission technology and infrastructure if the Department wants to address the public health and air quality crises caused by this equipment. (29)

83. COMMENT: Harmful air pollution and greenhouse gas emissions from the goods movement industry is on the rise, and it has an outsized impact on public health and our environment. While adopting the cargo handling equipment rules is a good first step, the Department's real objective should be zeroing out all pollution from this equipment. Zero-emission cargo handling equipment is a proven technology that is readily available and it has significant cost savings over the lifetime of the equipment. The Department should commit to adopting California's next set of cargo handling equipment rules, which is expected to include a 100 percent zero-emission pathway. (20)

84. COMMENT: These rules are an important first step. However, the rules do not mandate the purchase and use of zero-emission cargo handling equipment and vehicles. It is especially critical to mandate zero-emission cargo handling equipment and vehicles in already overburdened port-adjacent communities where goods movement and related operations are concentrated. Zero-emission cargo handling equipment is proven because it has been on the market for 15 years and has significantly lower operating costs. (7)

85. COMMENT: While the rules are a step in the right direction, they do not go nearly far enough fast enough. Despite viable, zero-emission cargo handling equipment technology, the

rules do not require a transition. Without zero-emission technology, we will not reach the climate goals of Governor Murphy's Executive Order No. 275 (2021), which calls for a 50 percent reduction in greenhouse gas emissions by 2030. (21)

86. COMMENT: Given that zero-emission technology already exists for cargo handling equipment and has proven to be more cost-effective, the Department should commit to strengthening these proposed rules by requiring zero-emission cargo handling equipment. (14)

87. COMMENT: The Department should require an immediate transition to zero-emission cargo handling equipment. Though zero-emission equipment might not be available in all cases, it is readily available in many cases. (10)

88. COMMENT: Zero-emissions technology is already commercially available. Identifying electric pathways for this sector is critical considering their local emissions impact and the anticipated growth in freight traffic. Compared with non-electric cargo handling equipment, the price of electric power trains can be more costly upfront, but lower fuel costs of electricity, reduced maintenance costs, and reduced equipment downtime can significantly decrease operating expenses for fleets. Therefore, the Department should consider adopting zero-emission regulations as part of the cargo handling equipment rules. (13)

89. COMMENT: Electrification is the single most effective way to prioritize our public health. Though the air pollution reductions that would be achieved by the proposed rules are not insignificant, those emission reductions are spread out over more than a decade. These rules should be seen as a stepping stone to full electrification of port equipment. The CARB is currently considering and assessing the availability of zero-emission technology as early as 2026. Therefore, the Department should move forward as quickly as possible on a full electrification rule once California has acted. (18)

RESPONSE TO COMMENTS 80 THROUGH 89: California has not yet promulgated rules requiring zero-emission cargo handling equipment, although such rules are under development. As discussed in the notice of proposal, 54 N.J.R. at 9, the CAA gives states the option of adopting the Federal emissions standards or California's emission standards. Therefore, New Jersey cannot require zero-emission cargo handling equipment until either the EPA or California establishes the standards. The Department is monitoring the progress of California's regulations and once they are promulgated, will evaluate them to determine if they are appropriate for New Jersey and, if so, what would be a suitable timeline to implement the standards.

Further, mandating a complete transition to zero-emission cargo handling equipment at this time would be premature. While some zero-emission cargo handling equipment models are readily available, some models are still in development and not produced at market scale. Nevertheless, the new rules do encourage owners and operators to replace existing equipment with zero-emission equipment. For example, N.J.A.C. 7:27-34.11C provides up to a two-year compliance extension for an owner or operator who wishes to replace in-use cargo equipment with zero-emission equipment. The Department discussed the compliance extension in detail at 54 N.J.R. at 18-19. An owner or operator can also make use of a fleet averaging plan that includes zero-emission equipment, as part of an alternative compliance option pursuant to new N.J.A.C. 7:27-34.10A. Further, the Department has funded nearly $20 million in port electrification projects to date pursuant to its distribution of the funds in the Volkswagen Environmental Mitigation Trust. See https://dep.nj.gov/vw/spending-information/.

90. COMMENT: Regulators and other stakeholders need to fully understand the various emerging and rapidly evolving products before making major investments in new equipment and

fueling infrastructure. Moreover, regulators need to understand the market, the relative environmental impact, and the technical and logistical challenges prior to implementing new regulations. It is imperative that we find an approach to air emissions regulations that fits an individual port, its vessel operations, and its available infrastructure. (16)

91. COMMENT: It may be too early to mandate complete transition of all cargo-handling equipment used at port terminals or intermodal yards. Capital acquisitions of this nature are expected to yield 15- to 20-year lifetimes. Clean-engine technology is advancing rapidly; if entire fleets are converted at this time, port owners and operators will be unable to take advantage of newer, cleaner equipment that will soon become available. (8)

92. COMMENT: Current deployments of zero-emission cargo handling equipment are on a very limited basis and operate in very controlled situations. Such equipment is not in full production, does not meet the current duty cycles of high-volume facilities, and other operational requirements of most of the cargo handling operations in New Jersey. Moreover, such equipment requires significant and costly upgrades to the State's already precarious electrical infrastructure, as well as significant government or third-party grant funding sources. (12 and 4)

93. COMMENT: This rulemaking is driven by the Energy Master Plan's total electrification policies. It is not the time to push for an electrification-only type of policy. Given the current state of the science, the Department should not act precipitously. The Department could wait to allow technologies and other policies to develop. (2)

RESPONSE TO COMMENTS 90, 91, 92, AND 93: The Department recognizes that certain zero-emission cargo handling equipment models are readily available, some models are in production, and some models are being developed. Thus, an across-the-board zero-emission requirement is not practical at this time. However, cleaner diesel models have been available for

some time. In 2004, the EPA finalized its Tier 4 standards for nonroad diesel, which the EPA anticipated would "achieve reductions in PM and NO_x emission levels in excess of 95 percent and 90 percent respectively." 54 N.J.R. 9. Yet, even 20 years later, not all equipment at ports and rail yards has turned over to Tier 4. The State has established a goal of 100 percent clean energy by 2050. 54 N.J.R. at 8. The adopted rules are part of the strategy to achieve that goal by lowering diesel emissions to the greatest extent possible, while also encouraging regulated entities to switch to zero-emission cargo handling equipment where practical and advantageous. As noted in the Response to Comments 10, 11, 12, 13, and 14, the rules are flexible in that they allow individual entities to consider which equipment would best meet their needs, while still furthering the State's long-term energy goals.

Disposition Of Cargo Handling Equipment

94. COMMENT: The Department's rules do not address the transfer of this equipment to entities not owned or controlled by ports or rail yards and, thus, are not subject to this regulation. Given this loophole, the environmental and social benefits are uncertain. (2, 7, and 29)

95. COMMENT: The rules should be applied to warehouses as well. Cleaning up all aspects of the goods movement industry is the priority, not just pieces of it. By excluding warehouses, the rules create a potential risk that the old, highly polluting equipment could be shifted from ports to warehouses, which would run counter to the objectives. (20)

96. COMMENT: While warehouses mostly forego using diesel cargo handling equipment indoors in order to avoid air quality issues, warehouses do use diesel cargo handling equipment outdoors. If the Department's rules do not require cargo handling equipment at warehouses and other facilities to meet the same emission standards as cargo handling equipment at ports and rail

yards, the rules may result in having noncompliant cargo handling equipment merely move from ports and rail yards to facilities like warehouses and scrap yards in the same community. The rules should require scrappage. (27)

RESPONSE TO COMMENTS 94, 95, AND 96: The Department's rules are based on a California regulation that addresses emissions from cargo handling equipment at ports and rail yards only. To the comments expressing concerns about emissions from other types of facilities, those comments are beyond the scope of this rulemaking. As for concerns that the equipment from ports and rail yards will migrate to other facilities to which the adopted rules do not apply, the Department recognizes that there is some risk that this could happen. In order to monitor whether this actually occurs, the Department's rules require entities to provide information on the disposition of equipment as part of their annual reporting. N.J.A.C. 7:27-34.14(d)3. From this information, the Department will continue to assess emissions within the State and the Department's authority to regulate those emissions and protect human health.

Compliance Timeline

97. COMMENT: The replacement of Tier 0 cargo handling equipment should be effective one month after the operative date of this rulemaking. All other tiers should be effective less than 25 months after the operative date of this rulemaking. (1)

98. COMMENT: The Department's rules are not protective enough. The timeframe for compliance should be shortened. All in-use equipment should be required to comply within two years. This would meet the requirements of the CAA. There is no reason to allow five years for compliance when the Tier 4 standard is over two decades old. According to the EPA's 2016 National Port Strategy, EPA estimated that normal fleet turnover would result in 74 percent of

the country's RTG cranes, 81 percent of container handlers, and 97 percent of yard trucks being Tier 4 in 2020. New Jersey lags behind these national numbers. Thus, the Department's five-year timeline would do little to push New Jersey's Tier 4 cargo handling equipment adoption rates past the national, natural turnover rates, which will already reach near 100 percent around the same time. (27)

99. COMMENT: The Department should speed up its timeframe, so that all in-use equipment must comply within two years, which is as soon as the CAA allows. After all, the Department is only proposing to require Tier 4 diesel engines, which have been around for a decade and a half, and ports and rail yards should already be using these better engines by now. Five years is too long to require the Tier 4 standard, which is over two decades old. (28)

100. COMMENT: The Department's rules should include a more aggressive timeline. (29)

101. COMMENT: It is imperative that the rules accelerate the implementation of the emission limitations. Five years is too long to wait. (5)

102. COMMENT: The Department should implement the rules sooner. The rules should eliminate diesel emissions at a faster pace for the health of the workers and those in the local communities. (22)

103. COMMENT: As the rules require conversion to better, but still old technology that has already been in commercial use for over a decade, it is unnecessary to allow extensive time. The Department can require the turnover to happen within two years. Additionally, if the rules maintain the long conversion period, it may interfere with the Department's ability to adopt California's new rules (for zero-emission equipment) once they are released. (20)

104. COMMENT: The Department should require this turnover in two years since this is an old rule imposing cleaner, rather than clean technology. (21)

105. COMMENT: The Department should phase out the old cargo handling equipment within a time frame of two years at the most. Five years is too long in light of the irreversible effects of climate change. (14)

106. COMMENT: The five-year timeline is simply too long. The rules should require a two-year timeline. (10)

107. COMMENT: The Department should implement a more aggressive adoption of Tier 4 engines that is faster than the existing five-year timeline. A two-year timeline is aggressive, but certainly makes sense considering the age of Tier 4 engines and the length of time that they have been available. (18)

108. COMMENT: The Department should use a two-year implementation schedule. (7)

RESPONSE TO COMMENTS 97 THROUGH 108: The Department adopted a compliance period for in-use cargo handling equipment that is shorter than the California regulation because the California regulation has been in effect for more than a decade, and because the Tier 4 final emission standard has been in effect since 2015. See 54 N.J.R. at 11. When California adopted its cargo handling equipment regulation, the Tier 4 final emission standard was still being phased in and, thus, a longer compliance timeframe was appropriate. These were not the only factors that the Department considered when it proposed a five-year compliance timeline. The Department took into account the economic impact that the new rules will have on owners and operators of this equipment. A more aggressive two-year timeframe would limit an owner or operator's flexibility to explore zero-emission options or financing opportunities, given the length of time that it takes to plan for such a major purchase. The adopted five-year period, while not leisurely, allows an owner or operator to evaluate alternative compliance options, as

well as to investigate the availability of potential public funding to achieve even further emission reductions at possibly a lower net cost to the regulated entity.

Treatment Of Yard Trucks Versus Non-Yard Trucks

109. COMMENT: The rules would require non-yard trucks transferred to a different terminal to meet the requirements of new equipment, but the rules do not impose that requirement on yard trucks. The Department should make clear that when a yard truck changes terminals, it too must meet the requirements for new equipment. (27 and 28)

110. COMMENT: Non-yard trucks and yard trucks should be treated equally. (18)

RESPONSE TO COMMENTS 109 AND 110: The Department's rules, like California's regulation, provide limited flexibility for in-use non-yard trucks with the transfer provision at N.J.A.C. 7:27-34.5. As explained in the notice of proposal Summary (54 N.J.R. at 15) and below, a yard truck may not be transferred without meeting the performance standards for a new yard truck. The transfer provision does not allow an owner or operator to transfer a non-yard truck in order to delay or avoid compliance. Rather, the transfer provision allows an owner or operator to transfer an in-use non-yard truck from one port terminal or intermodal rail yard to another port terminal or intermodal rail yard under the same ownership or control without the piece of equipment being considered new, so long as the equipment meets the applicable in-use requirement. See 54 N.J.R. at 15. The Department must approve the transfer request. *Ibid*.; see N.J.A.C. 7:27-34.12. Thus, the rules provide flexibility for an owner or operator to utilize an in-use non-yard truck at the port terminal or intermodal rail yard where it is needed, rather than have to purchase a new piece of equipment. However, as explained, this provision is limited, since the equipment must still meet the in-use requirements.

For example, under the compliance schedule, a Tier 3 piece of equipment has the latest compliance date. If an owner or operator does not need its Tier 3 equipment at terminal A, but needs it at terminal B, it may transfer that equipment, subject to Department approval, and use that equipment at terminal B without upgrading to Tier 4 (as it would need to do if it were a new piece of equipment). However, the equipment will need to meet the Tier 4 standard in accordance with the compliance schedule. Consistent with California's regulation, this transfer option is not available for yard trucks. A yard truck that is newly brought onto a port terminal or intermodal rail yard is considered new pursuant to this rulemaking and must meet the performance standards at N.J.A.C. 7:27-34.5 on or after the first day of the 25th month after the operative date (approximately the beginning of 2025).

Tier 4 Alternate PM Standard

111. COMMENT: The rules would allow in-use non-yard trucks to comply without meeting the Tier 4 standards by using a "Tier 4 Alternate PM" standard with the highest level of emission control device (VDECS Level 3). The Department should remove this loophole from the cargo handling equipment rules and require all cargo handling equipment to meet Tier 4 or higher standards. The Tier 4 Alternate PM standard was originally developed from the California regulation's "family emission limits" provisions designed to give manufacturers flexibility. But this flexibility to manufacturers is little consolation to environmental justice communities if only the dirtiest engines of that fleet "family" end up at the facilities in environmental justice communities. If the Department keeps the Tier 4 Alternate PM standard, the Department must include deadlines to ensure that Tier 4 Alternate PM engines swiftly transition to the Tier 4 Final standard. (27)

112. COMMENT: The Department is proposing to allow in-use non-yard trucks to comply with the rules by having Tier 4 alternate PM engines. However, in 2011, the CARB declared that these engines are essentially Tier 3 engines that will not achieve the same emission reductions as Tier 4 engines. Therefore, the Department should require Tier 4 engines and not allow these higher emitting Tier 3 equivalent engines. (28)

RESPONSE TO COMMENTS 111 AND 112: As noted in the notice of proposal, California included the "Tier 4 Alternate PM" compliance option because engine manufacturers have an option to produce a percentage of Tier 4 engines built to alternative and less stringent PM and NO_x emission limits under the Family Emission Limit (FEL) program. See 54 N.J.R. at 16. An FEL is specifically defined as an emission level that a manufacturer declares is an emission standard for certification purposes and for California's averaging, banking, and trading program. As FEL engines are certified to less stringent standards than a Tier 4 final engine, California required that Tier 4 Alternate PM standard engines (which are produced as part of the FEL program) be equipped with a Level 3 VDECS, which is the highest level VDECS available. See 54 N.J.R. at 17. The Department's rules similarly include this compliance option specific to Tier 4 FEL engines to be consistent with California and because manufacturers are allowed to produce these engines and meet California's standards.

Warehouses

113. COMMENT: Warehouses are multiplying across New Jersey at an alarming rate. Despite being a massive source of air pollution that brings thousands of polluting trucks through New Jersey neighborhoods every day, the industry is largely still unregulated and allowed to operate under a business model that prioritizes its profits over residents' health and safety. The

Department should address this issue by including warehouses in the final cargo handling equipment rules. (29)

114. COMMENT: Reducing carbon emissions in the State is not only feasible, but it is urgent. The collective emissions from cargo handling equipment around the State adds up, and warehouses are increasing. (5 and 10)

115. COMMENT: The Department should commit to further rules to address pollution at other freight facilities, including warehouses. (7)

116. COMMENT: The proposed rules should be amended to include warehouse facilities in addition to ports and intermodal rail yards. All of the warehouses that are popping up in suburbs and rural locations in New Jersey become a new source of pollution and greenhouse gases in those communities. The Department should protect the air quality in those communities and improve the air quality in communities with existing warehouses. (13, 14, 20, and 21)

117. COMMENT: The rules should include warehouses. Many black and brown workers, as well as the surrounding communities, are impacted by the emissions from warehouses. (22)

118. COMMENT: The emission standards and sales prohibitions of the Department's rules apply to cargo handling equipment at marine ports and intermodal railyards, but not when the same equipment is used at a different type of facility. This restriction limits the emission-reduction benefits of the rules. The Department should focus on reducing emissions from cargo handling equipment at warehouses, in particular, because New Jersey is experiencing a dramatic increase in warehouse construction, leasing, and activity. (27)

RESPONSE TO COMMENTS 113 THROUGH 118: To the extent that the commenters express the desire for the Department to regulate cargo handling equipment at warehouses or other freight-related facilities, those facilities are beyond the scope of this rulemaking. Though

warehouses are not addressed as part of this rulemaking, the Department will continue to assess emissions within the State and the Department's authority to regulate those emissions and protect human health.

General Opposition

119. COMENT: These rules fall short of what should be a major investment in people, power, time, and money to engineer solutions to our ongoing emissions-related sick care. (3)

RESPONSE: Neither a single rulemaking nor a single State agency can address every aspect of the State's needs as it works to address air pollution. Thus, the Department and other State agencies must continue to work collaboratively across sectors to address emissions.

120. COMMENT: The Department should not adopt California's rules in light of the negative conditions in California. (17)

RESPONSE: The Department is unable to respond, as the comment does not identify the negative conditions to which the commenter refers.

Federal Standards Statement

N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), require State agencies that adopt, readopt, or amend State rules to which the EO and statute apply, to provide a Federal standards statement. If those rules exceed any Federal standards or requirements, the agency must also include in the rulemaking document a Federal standards analysis. Pursuant to section 209 of the Federal CAA, 42 U.S.C. § 7543, certain states may adopt California's standards authorized by the USEPA, as long as the state gives two-years' lead time. 42 U.S.C. § 7543. As explained in the notice of proposal, the USEPA authorized California's Regulation for Mobile Cargo Handling Equipment

at Ports and Intermodal Rail Yards, 13 CCR 2479. See 77 FR 9,916 (February 21, 2012); 80 FR 26,249 (May 7, 2015). 54 N.J.R. 11. Given the framework of the CAA, and because the USEPA authorized California's cargo handling equipment regulation, this rulemaking will not exceed a Federal standard. Thus, no further analysis is necessary.

Full text of the adoption follows (additions to proposal indicated in boldface with asterisks ***thus***; deletions from proposal indicated in brackets with asterisks *[thus]*):

CHAPTER 27

AIR POLLUTION CONTROL

SUBCHAPTER 34. MOBILE CARGO HANDLING EQUIPMENT AT PORTS AND INTERMODAL RAIL YARDS

7:27-34.3 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

...

"In-use cargo handling equipment" means 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 *[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***.

...

"New cargo handling equipment" means 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 *[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***.

...

7:27-34.4 General provisions

(a)-(e) (No change from proposal.)

(f) A zero-emission engine or equipment shall be considered over-compliance with the performance standards of this subchapter.

7:27-34.5 Performance standards for new cargo handling equipment

(a) On or after *[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***, any new cargo handling equipment that is a registered motor vehicle shall be equipped with a certified on-road engine for the model year in which the cargo handling equipment and engine is newly purchased, leased, or rented.

(b) Except as otherwise provided, on or after *[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***, any new cargo handling equipment that is not a registered motor vehicle shall be equipped with one of the following:

1.-3. (No change from proposal.)

(c)-(d) (No change from proposal.)

7:27-34.6 Performance standards for in-use yard trucks

(a) In accordance with the schedule at Table 1, any in-use yard truck shall be equipped with one of the following:

1.-3. (No change from proposal.)

Table 1: Compliance Schedule for In-Use Cargo Handling Equipment

Cargo handling equipment with an on-road engine	**Cargo handling equipment with an off-road engine**	**Compliance deadline**
Pre-1998 model year	Tier 0	*[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***
1998-2003 model year	Tier 1	*[(the first day of the 37th month after the operative date of this rulemaking)]* ***March 1, 2026***
2004-2006 model year	Tier 2	*[(the first day of the 49th month after the operative date of this

		rulemaking)]* ***March 1, 2027***
2007-2009 model year	Tier 3 and Tier 4 interim	*[(the first day of the 61st month after the operative date of this rulemaking)]* ***March 1, 2028***

7:27-34.8 Opacity limits

(a) Except as provided at (c) below, on or after *[(the first day of the 25th month after the operative date of this rulemaking)]* ***March 1, 2025***, for new cargo handling equipment and on or after the compliance deadlines at Table 1 above for in-use cargo handling equipment, or any approved compliance extension(s), any cargo handling equipment subject to this subchapter shall not exceed the opacity limits at Table 2 below. Compliance with the opacity limits will be determined by the Department with 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).

(b)-(c) (No change from proposal.)

7:27-34.10 Alternate compliance option, generally

(a) An owner or operator may request that the Department approve an alternate compliance option if it cannot meet the performance standards at N.J.A.C. 7:27-34.5 through 34.7, as applicable. The compliance options are:

1. (No change from proposal.)

2. A fleet averaging plan, provided the fleet averaging plan *[results in no greater emissions, expressed in pounds, of PM and NO_x from all cargo handling equipment in the fleet combined, during each calendar year, relative to the combined emissions that would have occurred pursuant to]* ***establishes that:**

i. Reductions of PM emissions as expressed in pounds, from the entire fleet of cargo handling equipment included in the fleet averaging plan will be equivalent to, or greater than, the reductions of PM emissions that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable; and

ii. Reductions of NO_x emissions as expressed in pounds, from the entire fleet of cargo handling equipment included in the fleet averaging plan will be equivalent to, or greater than, the reductions of NO_x emissions that would have been achieved upon compliance with* N.J.A.C. 7:27-34.5, 34.6, *[and]* ***or*** 34.7***, as applicable***.

(b) - (g) (No change from proposal.)

7:27-34.10A Alternate compliance option - non-yard truck

(a) (No change from proposal.)

(b) The Department will grant the application if the owner or operator:

1. (No change from proposal.)

2. Provides *[documentation from representatives of equipment and/or engine manufacturers supporting the claim of non-availability]* ***a list of manufacturers that the owner or operator has contacted and the manufacturers' responses to a request to purchase***;

3. (No change from proposal.)

4. Provides an analysis of all ***commercially*** available control technologies ***that reduce PM and NO_x*** and demonstrates that the alternative proposal will achieve the maximum possible PM and NO_x reductions for the particular engine or non-yard truck.

7:27-34.10B Alternate compliance option - fleet averaging plan

(a) (No change from proposal.)

(b) The following requirements apply to an application for approval of a fleet averaging plan:

1.-2. (No change from proposal.)

3. The application for a fleet averaging plan shall include:

i. Documentation, calculations, emissions test data, or other information that establishes *[the]* ***that reductions of*** PM *[and NO_x reductions]*, expressed in pounds, from the ***entire fleet of*** cargo handling equipment *[combined]* ***included in the fleet averaging plan*** will be equivalent to, or greater than, the *[combined]* emission reductions ***of PM*** that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable; *[and]*

ii. Documentation, calculations, emissions test data, or other information that establishes that reductions of NO_x emissions as expressed in pounds, from the entire fleet of cargo handling equipment included in the fleet averaging plan will be equivalent to, or greater than, the reductions of NO_x emissions that would have been achieved upon compliance with N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable; and

[ii.] ***iii.*** (No change from proposal.)

4. (No change from proposal.)

5. Emission reduction calculations demonstrating equivalence with the requirements at N.J.A.C. 7:27-34.5, 34.6, or 34.7, as applicable, shall:

i. (No change from proposal.)

ii. Not include reductions that are otherwise required by any local, State, or Federal rule, regulation, or statute, or any agreement or final administrative or court order to resolve an enforcement action, or agreed to as part of a local, State, or Federal grant, incentive, or voucher program. ***Except that reductions achieved as a result of funding from local, State, or Federal grant, incentive, or voucher programs for zero-emission equipment, which would result in over-compliance, may be included in the emission reduction calculations demonstration.***

(c) - (f) (No change from proposal.)

7:27-34.12 Department approval to transfer non-yard trucks between two facilities

(a) - (c) (No change from proposal.)

(d) The owner or operator shall submit its application to the Department at least *[60]* ***30*** days prior to the proposed transfer date on a form available from the Department at www.stopthesoot.org. The application shall include:

1. - 5. (No change from proposal.)

(e) - (g) (No change form proposal.)

(h) The Department will allow the transfer of non-yard truck cargo handling equipment between two port terminals or intermodal rail yards, if the owner or operator submits its request and

transfer plan to the Department on a form available at www.stopthesoot.org, at least 30 days prior to the applicable transfer date, provided:

1. - 2. (No change from proposal.)

3. The Department determines that the transfer plan does not result in *[an]* ***a significant*** increase in public health impacts.

7:27-34.13 Equipment at a low-throughput port

If a port that has been exempt from this subchapter in accordance with N.J.A.C. 7:27-34.2(a)7 because it is classified as a low-throughput port subsequently exceeds the two-year average annual cargo throughput limit, or the port becomes part of an urban area, each owner or operator at that port subject to this subchapter shall submit a plan for compliance to the Department within six months after the exceedance. The compliance plan shall demonstrate how the owner or operator will achieve compliance with this subchapter within two years after the exceedance, and shall include the information at N.J.A.C. 7:27-34.14(c) and (d), on the form available *[on]* ***at*** www.stopthesoot.org.

7:27-34.14 Reporting requirements

(a) (No change from proposal.)

(b) An owner or operator shall submit the initial report to the Department on or before August 1, *[2023]* ***2024***.

(c) An owner or operator shall include the following information in its initial report of the cargo handling equipment reflecting its fleet as of January 1, *[2023]* ***2024***:

1. – 4. (No change form proposal.)

5. For each piece of cargo handling equipment:

i. – vii. (No change from proposal.

viii. Annual hours of use in *[2022]* ***2023***;

ix. Fuel type and annual fuel usage in *[2022]* ***2023***; and

x. If seasonal, actual months operated in *[2022]* ***2023***.

(d) (No change from proposal.)

*[7:27-34.16 Prohibitions

(a) No person subject to this subchapter shall cause, suffer, allow, or permit any of the following, unless it is performed in accordance with a CARB Executive Order (information on devices or modifications approved by a CARB Executive Order may be obtained from the California Air Resources Board, 1001 "I" Street, PO Box 2815, Sacramento, CA 95812 or at www.arb.ca.gov) or 40 CFR Part 1068, Subparts C and D:

1. The disconnection, detachment, deactivation, or any other alteration or modification from the design of the original equipment manufacturer or an element of design installed on any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration, except temporarily for the purpose of diagnosis, maintenance, repair, or replacement;

2. The sale, lease, or offer for sale or lease, of any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration in which any element of design installed on such equipment has been disconnected, detached, deactivated, or in any other way altered or modified from the design of the original equipment manufacturer; or

3. The sale, or offer for sale, of any device or component as an element of design intended for use with, or as part of, any cargo handling equipment with a certified configuration or cargo handling equipment engine with a certified configuration that is not designed to duplicate the function and performance of any element of design installed by the original equipment manufacturer.

(c) No person shall cause, suffer, allow, or permit the operation of cargo handling equipment at a port or intermodal rail yard in the State if the cargo handling equipment emits visible smoke of any color in the exhaust emissions for more than three consecutive seconds when the engine is at normal operating temperature.]*

CHAPTER 27A

AIR ADMINISTRATIVE PROCEDURES AND PENALTIES

SUBCHAPTER 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS

7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a) – (*l*) (No change from proposal.)

(m) The violations of N.J.A.C. 7:27, whether the violation is minor or non-minor in accordance with (q), (r), (s), or (t) below, and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter at N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

1. – 33. (No change from proposal.)

34. The violations of N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards, and the civil administrative penalty amounts for each violation, per vehicle or piece of equipment, are set forth in the following table:

Citation	Class	Type of Violation	First Offense	Second Offense	Third Offense	Fourth and Each Subsequent Offense
N.J.A.C. 7:27-34.4(b)	Violating sales prohibition	NM	$2,500	$5,000	$12,500	$30,000
N.J.A.C. 7:27-34.5, 34.6, and 34.7	Failure to meet performance standards	NM	$2,500	$5,000	$12,500	$30,000
N.J.A.C. 7:27-34.8	Failure to meet opacity standards	NM	$1,000	$2,000	$5,000	$15,000
N.J.A.C. 7:27-34.10	Failure to comply with alternate compliance options	NM	$2,500	$5,000	$12,500	$30,000
N.J.A.C. 7:27-34.11	Failure to submit a compliance extension in a timely manner	NM	$400	$800	$2,000	$6,000
N.J.A.C. 7:27-34.11	Failure to meet the terms of a compliance extension	NM	$2,500	$5,000	$12,500	$30,000
N.J.A.C. 7:27-34.11	Failure to maintain operation records for engines with a compliance extension	M	$400	$800	$2,000	$6,000

N.J.A.C. 7:27-34.13	Failure to submit a compliance plan for equipment at low-throughput ports	M	$400	$800	$2,000	$6,000
N.J.A.C. 7:27-34.12	Failure to meet terms of transfer approval	NM	$2,500	$5,000	$12,500	$30,000
N.J.A.C. 7:27-34.14	Failure to submit reports	M	$400	$800	$2,000	$6,000
N.J.A.C. 7:27-34.15	Failure to keep records	M	$400	$800	$2,000	$6,000
*[N.J.A.C. 7:27-34.16(a)1	Violating tampering prohibition	NM	$1,000	$2,000	$5,000	$15,000
N.J.A.C. 7:27-34.16(a)2	Violating tampering prohibition	NM	$1,000	$2,000	$5,000	$15,000
N.J.A.C. 7:27-34.16(a)3	Violating tampering prohibition	NM	$2,000	$4,000	$10,000	$30,000
N.J.A.C. 7:27-34.16(b)	Violating visible smoke prohibition	NM	$250	$500	$1,000	$2,500]*

(n) – (u) (No change from proposal.)

[EXTERNAL] NJDEP Rulemaking: Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards

NJ Department of Environmental Protection <NJDEP@public.govdelivery.com>
Mon 1/3/2022 10:58 AM
To: Hobbs, Rebecca [DEP] <rebecca.hobbs@dep.nj.gov>

NJ DEPARTMENT of ENVIRONMENTAL PROTECTION
AIR QUALITY, ENERGY, AND SUSTAINABILITY
DIVISION OF AIR QUALITY

Notice of Rule Proposal and State Implementation Plan Revision
Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards
Proposed Amendments: N.J.A.C. 7:27A-3.10
Proposed New Rules: N.J.A.C. 7:27-34

PUBLIC NOTICE
Take notice that the NJ Department of Environmental Protection is proposing new Air Pollution Control rules at N.J.A.C. 7:27-34 and amendments to N.J.A.C. 7
The proposed rules focus on reducing nitrogen oxide (NOx) and particulate matter (PM) emissions from diesel mobile cargo handling equipment at ports and in
yards. Specifically, the Department's proposed rules are modeled on a California regulation and would require diesel mobile cargo handling equipment at ports
rail yards to meet performance standards that reflect best available control technology. The proposed rules are expected to reduce diesel engine emissions, inc
and PM, in communities located near ports and intermodal rail yards.

The proposal also constitutes a revision to New Jersey's State Implementation Plan (SIP) for the attainment and maintenance of the National Ambient Air Quali
(NAAQS) for ozone. New Jersey is in nonattainment for the Federal ozone NAAQS and must continue to reduce NOx emissions Statewide to attain and mainta
NAAQS.

The proposal is scheduled to be published in the New Jersey Register dated January 3, 2022. A copy of the proposal is available on the Department's webpage
http://www.nj.gov/dep/rules/proposals/20220103a.pdf and LexisNexis free public access to the New Jersey Register (https://www.lexisnexis.com/hottopics/njoal
hearing concerning the proposal will be conducted virtually via the Department's video conferencing software on February 9, 2022, at 9:30 A.M.

Please join the meeting from your computer, tablet, or smartphone.
https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F_%23%2Fl%2Fmeetup-join%2F19%3Ameeting_MTM0OTI1MzItMzgxMC00YzRkLTkzNGUtNzQ4YTBhYjhiODg1%40thread.v2%2F0%3Fcontext%3D%257b%2522Tid%2522%253a%3802-4b9f-b36a-e0a41bd642a7%2522%252c%2522Oid%2522%253a%2522daf84394-d2d0-4b3a-bac2-7ff82b0ac98e%2522%257d%26anon%3Dtrue&type=rjoin&deeplinkId=fc9e5978-b3f5-47db-8521-dfc86d52ec6d&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

You can also dial in using your phone.
+1 856-338-7074,,573327532#

Phone Conference ID: 573 327 532#
If you are interested in providing oral testimony or submitting written comments at the virtual public hearing, please email the Department at monica.miranda@d
later than 5:00 P.M. on Friday, February 4, 2022, with your contact information (name, organization, telephone number, and email address).
Written comments are due by March 4, 2022. The Department encourages electronic submittal of comments. Written comments may be submitted electronicall
www.nj.gov/dep/rules/comments. Please note: To submit a comment longer than 20,000 characters (about 10 pages), please email rulemakingcomments@dep
send your comment(s) as a document attachment. In the alternative, comments may be submitted on paper to:

Alice A. Previte, Esq.
ATTN: DEP Docket No. 08-21-11
NJ Department of Environmental Protection
Office of Legal Affairs
Mail Code 401-04L; PO Box 402
401 East State Street, 7th Floor
Trenton, NJ 08625-0402

[EXTERNAL] Air Pollution Control, N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards

NJ Department of Environmental Protection <NJDEP@public.govdelivery.com>

Mon 1/3/2022 9:46 AM

To: Hobbs, Rebecca [DEP] <rebecca.hobbs@dep.nj.gov>

NJDEP Logo

NJDEP
Rule Proposal Notice

NJ DEPARTMENT of ENVIRONMENTAL PROTECTION
AIR QUALITY, ENERGY, AND SUSTAINABILITY
DIVISION OF AIR QUALITY

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Please join the meeting from your computer, tablet, or smartphone.
https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F_%23%2Fl%2Fmeetup-join%2F19%3Ameeting_MTM0OTI1MzItMzgxMC00YzRkLTkzNGUtNzQ4YTBhYjhiODg1%40thread.v2%2F0%3Fcontext%3D%257b%2522Tid%2522%253a%25225076c3d1-3802-4b9f-b36a-e0a41bd642a7%2522%252c%2522Oid%2522%253a%2522daf84394-d2d0-4b3a-bac2-7ff82b0ac98e%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=fc9e5978-b3f5-47db-8521-dfc86d52ec6d&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

You can also dial in using your phone.
+1 856-338-7074,,573327532#

Phone Conference ID: 573 327 532#
If you are interested in providing oral testimony or submitting written comments at the virtual public hearing, please email the Department at monica.miranda@dep.nj.gov no later than 5:00 P.M. on Friday, February 4, 2022, with your contact information (name, organization, telephone number, and email address).
Written comments are due by March 4, 2022. The Department encourages electronic submittal of comments. Written comments may be submitted electronically at www.nj.gov/dep/rules/comments. Please note: To submit a comment longer than 20,000 characters (about 10 pages), please email rulemakingcomments@dep.nj.gov and send your comment(s) as a document attachment. In the alternative, comments may be submitted on paper to:

Alice A. Previte, Esq.
ATTN: DEP Docket No. 08-21-11
NJ Department of Environmental Protection
Office of Legal Affairs
Mail Code 401-04L; PO Box 402
401 East State Street, 7th Floor
Trenton, NJ 08625-0402

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Regulatory Development

Proposals

Proposal	New Jersey Register Date	Subchapters Affected
Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards • DEP Proposal • DEP Notice	January 3, 2022	N.J.A.C. 7:27-34, and 7:27A-3
Control and Prohibition of Carbon Dioxide Emissions • DEP Proposal • DEP Notice	December 6, 2021	N.J.A.C. 7:27-1, -8, and -22; N.J.A.C. 7:27F; and N.J.A.C. 7:27A-3
Greenhouse Gas Monitoring and Reporting • DEP Proposal • DEP Notice	April 21, 2021	N.J.A.C. 7:27-21.2, 21.3, 21.5 and 7:27A-3.2, 3.5, 3.10 and N.J.A.C.7:27E
Advanced Clean Trucks Program and Fleet Reporting Requirements • DEP Proposal • DEP Notice	April 19, 2021	N.J.A.C. 7:27-31 and 33, and 7:27A-3
Permit and Reporting Requirements for Fumigants and Other HAPs • DEP Proposal • DEP Notice	March 1, 2021	N.J.A.C. 7:27-8, -16, -17, -21, and -22, and 7:27A-3
Notice Extension		**Description**
April 8, 2021 — Virutial Public Hearing - 4/8/21 @ 4pm Click here to join the meeting Or call in (audio only) +1 856-338-7074,,820290251#		This proposed rule and SIP revision represents a continuation of the Department's efforts to address air contaminants in New Jersey through its permitting and emission statements programs. The proposed rulemaking would regulate fumigants and fumigation operations based on potential to emit, rather than weight of raw materials, to provide clarity on the regulatory requirements for these operations. The Department also proposes to regulate three air contaminants that are not currently regulated by the State, to be referred to as New Jersey Hazardous Air Pollutants, and to add 13 air contaminants to the list of toxic air pollutants that must be included in an emission statement submitted by a source otherwise subject to emission statement requirements. The proposed rulemaking includes penalty provisions at N.J.A.C. 7:27A for the proposed amendments to the Air Pollution Control rules. The proposal also constitutes a revision to New Jersey's State Implementation Plan (SIP) for the attainment and maintenance of the National Ambient Air Quality Standards for ozone. To the extent that the proposed amendments, repeal, and new rules impact rules in the SIP, this rulemaking constitutes a revision to the SIP. The proposed amendments and new rule at N.J.A.C. 7:27-22 do not constitute a revision to the SIP as those provisions at N.J.A.C. 7:27-22 are not part of the SIP.
Outer Continental Shelf Air Rules	November 4, 2019	N.J.A.C. 7:27-30

• DEP Proposal • DEP Notice		
Air Emission Control/Permitting Exemptions, Hazardous Air Pollutant Reporting Thresholds, and CAIR NOx Trading NOx Budget Trading Programs Repeal • DEP Proposal • DEP Notice	August 7, 2017	N.J.A.C. 7:27-8, 16, 17, 19, 21, 22, 30, 31 and 7:27A-3.10
Gasoline Transfer Operations (Phase I and Phase II), TBAC Emissions Reporting Repeal, Permitting Amendments • DEP Proposal • DEP Notice • SIP Revision	July 3, 2017	N.J.A.C. 7:27-8, 16, 22, 34 and 7:27A-3.10
Air Pollution Control, N.J.A.C. 7:27; and Revision to State Implementation Plan (SIP) Fine Particulates (PM2.5) in Air Permitting, Sulfur (Startup/Shutdown/Malfunction (SSM) Exemption), and Emission Statements • DEP Proposal • DEP Notice	March 20, 2017	N.J.A.C. 7:27-7.2, 8.1 7:27-8 Appendix 1 Table A, 18.1, 18.2, 18.4, 18.5, 18.7, 21.1, 21.3, 21.4, 21.5, 21.8, 22.1, 22.2, 22.8 and 7:27-22 Appendix Table A
New Jersey's Control and Prohibition of Air Pollution by Volatile Organic Compounds and Control and Prohibition of Air Pollution by Oxides of Nitrogen • DEP Proposal • DEP Notice	January 3, 2017	N.J.A.C. 7:27-16 N.J.A.C. 7:27-19
New Jersey's Motor Vehicle Inspection and Maintenance Program-Proposed Amendments, Repeals and Proposed New Rule • DEP Proposal • DEP Notice	May 16, 2016	N.J.A.C. 7:27-14 N.J.A.C. 7:27-15 N.J.A.C. 7:27A-3 N.J.A.C. 7:27B-4 N.J.A.C. 7:27B-5
Permit fees increase for minor and major sources • DEP Proposal • DEP Notice	August 18, 2014	N.J.A.C. 7:27-8 N.J.A.C. 7:27-22
Sulfur in Fuels rule amendment • DEP Proposal • DEP Notice	April 4, 2011	N.J.A.C. 7:27-9
Notice of Public Hearing and Availability : Proposed New Jersey's Sulfur in Fuels Rule Amendment (N.J.A.C. 7:27-9) and Proposed Revisions to New Jersey's State Implementation Plan Addressing Fine Particulate Matter (PM2.5) and Regional Haze • DEP Proposal • DEP Notice	November 16, 2009	N.J.A.C. 7:27-9.2 N.J.A.C. 7:27-9.5
New Jersey's Motor Vehicle Inspection and Maintenance Program-Proposed Amendments and Proposed New Rule • DEP Proposal • DEP Notice	April 20, 2009	N.J.A.C. 7:27-14 N.J.A.C. 7:27-15 N.J.A.C. 7:27A-3 N.J.A.C. 7:27B-4 N.J.A.C. 7:27B-5
NOx Budget Program - Proposed Repeal of Expiration Date • DEP Proposal • DEP Notice	November 17 , 2008	N.J.A.C. 7:27-31
	August 4, 2008	N.J.A.C. 7:27-4

Ozone RACT - Proposed new rules and amendments for 13 source categories. • DEP Proposal • DEP Notice		N.J.A.C. 7:27-10 N.J.A.C. 7:27-16 N.J.A.C. 7:27-19 N.J.A.C. 7:27-21 N.J.A.C. 7:27A-3
CO_2 Budget Trading Program: Proposed Amendments and Proposed New Rules This proposal establishes the New Jersey component of a regional cap-and-trade CO_2 Budget Trading Program to address greenhouse gas in the State. • DEP Proposal • DEP Notice	July 7, 2008	(N.J.A.C. 7:27-22.16 and N.J.A.C. 7:27A-3.2 and 3.10) (N.J.A.C. 7-22.28 and 7:27C)
This proposal revises the Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles: Motor Vehicle Inspection and Maintenance Program. • DEP Proposal	June 16,2008	N.J.A.C. 7:27-14 N.J.A.C. 7:27 B-4
This proposal revises the Control and Prohibition of Air Pollution by Toxic Substances for the regulation of Perchloroethylene Dry Cleaning Facilities. • DEP Proposal • Public Notice	December 17, 2007	N.J.A.C. 7:27-17 N.J.A.C. 7:27A
This proposal revises the Prevention of Air Pollution from Consumer Products and proposes new rules for the Prevention of Air Pollution from Adhesives and Sealants along with tertiary butyl acetate emissions reporting. • DEP Proposal • Public Notice	November 5, 2007	N.J.A.C. 7:27-24 N.J.A.C. 7:27-26 N.J.A.C. 7:27-34
This proposal requires the allocations of CAIR NOx allowances to New Jersey sources. • DEP Proposal [PDF]	February 5, 2007	N.J.A.C. 7:27A-3.10, N.J.A.C. 7:27-30, N.J.A.C. 7:27-31.23
This proposal requires the installation of control technology on certain diesel-powered vehicles to reduce the emissions of fine particulate matter. • DEP Proposal [PDF]	December 18. 2006	N.J.A.C. 7:27-14, N.J.A.C. 7:27A-3.10, N.J.A.C. 7:27B-4 and N.J.A.C. 7:27-32
N.J.A.C. 7:27-14.1 and 14.3 Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, and N.J.A.C. 7:27A-3.10(m)14, Air Administrative Procedures and Penalties • DEP Proposal [PDF]	September 18. 2006	N.J.A.C. 7:27-14 N.J.A.C. 7:27A
Increase air permitting fees. • Proposal [MSWord] [PDF] • Public Notice • Notice of Public Hearing and Availability [MS Word] [PDF]	December 19, 2005	N.J.A.C. 7:27-8 N.J.A.C. 7:27-20 N.J.A.C. 7:27-22
New Jersey Low Vehicle Emission (LEV) Program: Proposed New Rules at N.J.A.C. 7:27-29, Proposed Repeal of National Low Emission Vehicle Rules (N.J.A.C. 7:27-26) and Amendments to Air Administrative Procedures and Penalties (N.J.A.C. 7:27A-3.10) • DEP Proposal [PDF] • DEP Proposal Public Notice	August 1, 2005	N.J.A.C. 7:27-29, 7:27-26 and 7:27A-3.10
N.J.A.C. 7:27-27 Control and Prohibition of Mercury		N.J.A.C. 7:27-27 and N.J.A.C. 7:27A-3.10

Emissions, and N.J.A.C. 7:27A-3.10. • DEP Proposal [MS Word] [PDF] • DEP Proposal Public Notice • DEP Public Hearing and AvailabilityNotice (9/30/2005) [MS Word] [PDF]	August 1, 2005	
National Low Emission Vehicle (NLEV) and Heavy-Duty Diesel New Engine Standards Program, N.J.A.C. 7:27-26 and N.J.A.C. 7:27-28. • DEP Proposal [MS Word] [PDF] Note: the proposal documents above were updated on 8/31/2005 to resolve differences between the online version and the version published in the NJ Register. • DEP Proposal Public Notice	December 20, 2004	N.J.A.C. 7:27-26 and N.J.A.C. 7:27-28
Air Grace Period Rule (Civil Administrative Penalties and Requests for Adjudicatory Hearings) • DEP Proposal [MS Word] [PDF] • DEP Proposal Public Notice	December 6, 2004	N.J.A.C. 7:27A
Reclassification of CO_2 as an Air Contaminant [PDF]	October 18, 2004	N.J.A.C. 7:27-8.1, 17.1, 19.1 and 22.1
Control and Prohibition of Air Pollution from Oxides of Nitrogen (NOx), including provisions on distributed generation • DEP Proposal [MS Word] [PDF] • DEP Proposal Public Notice • Notice of Public Hearing: October 28, 2004 [MS Word] [PDF]	September 20, 2004	N.J.A.C. 7:27-8.1, 8.2, 16.1, 16.8, 16.9, 16.10, 16.16, 19 and 22.1; and 7:27A-3.10
Control and Prohibition of Mercury Emissions • DEP Proposal [MS Word] [PDF] • DEP Proposal Public Notice • Notice of Public Hearing: March 4, 2004 [MS Word] [PDF]	January 5, 2004	N.J.A.C. 7:27-27.1, 27.2, 27.4 and 27.9; and 7:27A-3.10 Proposed New Rule: N.J.A.C. 7:27-27.5, 27.6, 27.7, and 27.8
Prevention of Air Pollution from Consumer Products (including portable fuel containers) • Notice of Public Hearing: November 13, 2003 • DEP Proposal [Word Perfect] [PDF] [HTML] • Supplemental Report: "Estimated VOC Emission Reductions and Economic Impact Analysis for Proposed Amendments to Chemically Formulated Consumer Products" [Word Perfect] [PDF] [HTML] • Supplemental Report: "Estimated VOC Emission Reductions and Economic Impact Analysis for Proposed Portable Fuel Containers Rule" [Word Perfect] [PDF] [HTML]	September 15, 2003	7:27-24 and 7:27A-3.10
Proposed Repeal of the Open Market Emissions Trading Program (OMET), N.J.A.C. 7:27-30 • Notice of Public Hearing: September 10, 2003 • DEP Proposal [Word Perfect] [PDF] [HTML]	August 4, 2003	7:27-30 and related provisions in 1, 8, 16, 18, 19, 22, and 31 and 7:27A-3

Prevention of Air Pollution from Architectural Coatings
• Notice of Public Hearing: September 9, 2003
• Notice of Extension of Comment Period and Opportunity for Public Input on Mechanisms for Retailers to Demonstrate Compliance
• DEP Proposal [Word Perfect] [PDF] [HTML]
• Supplemental Report: "Estimated VOC Emission Reductions and Economic Impact Analysis for Proposed Amendments to Architectural Coatings Rule" [Word Perfect] [PDF] [HTML]
• A report prepared by E.H. Pechan and Associates titled "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules" dated March 31, 2001
  ◦ Report [PDF]
  ◦ Tables [PDF]
  ◦ Figures [PDF]
  ◦ Appendices [PDF]
  ◦ Executive Summary [PDF]
	July 21, 2003	7:27-23
		7:27A-3.10

Regulations Governing the Certification of Laboratories and Environmental Measurements; Incorporation of Requirements for Air Testing • Public Notice • DEP Proposal [PDF]	January 21, 2003	7:18-1, 2, 5 and 9
Control and Prohibition of Air Pollution By Organic Compounds • Notice of Public Hearing: September 6, 2002 • DEP Proposal [Word Perfect] [PDF] • Technical Attachment to Proposal (Economic Impact Analysis and Estimated VOC Emission	August 5, 2002	7:27-16 7:27A-3.10

Reductions - N.J.A.C. 7:27-16.3) [Word Perfect] [PDF]		
Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles and Air Test Method 5: Testing Procedures for Gasoline-Fueled Motor Vehicles **REPROPOSAL** • Notice of Public Hearing; June 24, 2002 • DEP Reproposal [Word Perfect] [PDF] [HTML]	May 20, 2002	7:27-15 7:27B-5
Emission Statements Operating Permits Civil and Administrative Penalties • Notice of Public Hearing; March 8, 2002	February 4, 2002	7:27-21 7:27-22.1 7:27A-3.10
Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles and Air Test Method 5: Testing Procedures for Gasoline-Fueled Motor Vehicles **NOTE: The Department has determined not to adopt this proposal. See Reproposal published May 20, 2002.** • Notice of Public Hearing; February 25, 2002 • DEP Proposal [Word Perfect] [PDF] • DMV Proposal [Word] [PDF] • Proposed Enhanced I/M SIP Revisions	January 22, 2002	7:27-15 7:27B-5

Last Updated: January 3, 2022

Last Updated: January 3, 2022

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
RULES & REGULATIONS

Notice of Rule Proposals

The following rule proposals are scheduled for publication in the NJ Register on the publication dates listed below. The listing is sorted by publication date, with the most recent proposals listed first. Click on the proposal name for additional information. If a public hearing is scheduled, click on the "yes" link to view the proposal notice, where the information regarding the public hearing appears.

Proposals Currently Open for Comment

Publication Date	Proposal Name	Close of Comment Period	Public Hearing Scheduled?	Document Links	Proposal Status
1/3/2022	Air Pollution Control, N.J.A.C. 7:27-34, Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards	3/7/2022	Yes	Notice Proposal	Open for Comment
12/6/2021	Air Pollution Control, N.J.A.C. 7:27F, Control and Prohibition of Carbon Dioxide Emissions	3/7/2022	Yes	Notice Proposal	Open for Comment

Proposals with Comment Period Closed

Publication Date	Proposal Name	Close of Comment Period	Public Hearing Scheduled?	Document Links	Proposal Status
6/21/2021	Air Pollution Control, Greenhouse Gas Monitoring and Reporting, amendments to N.J.A.C. 7:27-21 and 7:27A-3, and new N.J.A.C. 7:27E	8/20/2021	Yes	Notice Proposal	Pending Adoption
4/19/2021	Air Pollution Control, N.J.A.C. 7:27-31, Advanced Clean Trucks Program and N.J.A.C. 7:27-33, Fleet Reporting Requirements	6/18/2021	Yes	Notice Proposal	Adopted
4/5/2021	Certification of Radon Testers and Mitigators at N.J.A.C. 7:28-27A, amendments to N.J.A.C. 7:28-27.1 and 27.2, and the proposed prospective repeal of N.J.A.C. 7:28-27	6/4/2021	Yes	Notice Proposal	Pending Adoption
3/1/2021	Permit and Reporting Requirements for Fumigants and Other HAPs, N.J.A.C. 7:27	6/1/2021	Yes	Notice Proposal Notice Extension	Pending Adoption
3/15/2021	2022 Fish Code N.J.A.C. 7:25 - 6	5/14/2021	Yes	Notice Proposal	Open for Comment
3/1/2021	Menhaden Multispecies: Crab and Lobster Management, N.J.A.C. 7:25-14; Marine Fisheries, N.J.A.C. 7:25-18; Fishery Management in New Jersey, N.J.A.C. 7:25-22	4/30/2021	No	Notice Proposal	Adopted

For proposals older than one year, please visit our proposal archive section.

Last Updated: January 3, 2022