2023-2024 Diesel Emissions Reduction Act (DERA) State Grants Program Guide

United States Environmental Protection Agency

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Transportation and Climate Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

United States Environmental Protection Agency

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SUMMARY

EPA's Office of Transportation and Air Quality is soliciting applications from eligible states and territories for participation in the 2023-2024 Diesel Emissions Reduction Act (DERA) State Grants. EPA anticipates offering approximately $30 million for fiscal year 2023 and $26 million for fiscal year 2024 to states and territories under the DERA State Grants, subject to the availability of appropriations. Funding can support grant and rebate programs administered by eligible states or territories that are designed to achieve significant reductions in diesel emissions.

The DERA State Grants program is not a competition; it is an allocation process in which the eligible states and territories submit their interest to participate. EPA awards a specific allocation to participating states and territories that is determined by formula, based on the number of participants. States and territories who receive FY23 funding and choose to also receive FY24 funding, will receive the FY24 funding through an incremental amendment to the 2023-2024 DERA State Grants. States and territories that do not participate in the 2023 DERA State Grants that choose to participate in the 2024 DERA State Grants will receive funding as a new grant award.

Eligible diesel vehicles, engines and equipment may include buses, Class 5 – Class 8 heavy-duty highway vehicles, marine engines, locomotives and nonroad engines, equipment, or vehicles such as those used in construction, handling of cargo, agriculture, mining, or energy production.

Eligible diesel emissions reduction solutions include verified retrofit technologies such as exhaust after-treatment technologies, engine upgrades, cleaner fuels and additives, verified idle reduction technologies, verified aerodynamic technologies, verified low rolling resistance tires, certified engine replacements and conversions, and certified vehicle or equipment replacement.

All public materials for the DERA State Grants are available at the State DERA website.

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I. OVERVIEW

This document, the 2023-2024 Diesel Emissions Reduction Act (DERA) State Grants Program Guide, consolidates and streamlines the programmatic requirements applicable to all DERA State Grant awardees receiving FY23 and FY24 funding.

This document provides information to EPA Regions and to participating states and territories detailing how the Agency intends to exercise its discretion in awarding and managing DERA State Grant funds for 2023-2024. This guidance is designed to provide national policy on these issues. Some of the statutory provisions described in this document contain legally binding requirements. However, this document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it cannot impose legally binding requirements on EPA, states, territories, or the regulated community, and may not apply to a particular situation based upon the circumstances. Any decisions regarding a particular situation will be made based on the statutes and regulations, and EPA decision-makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. EPA will consider, on a case-by-case basis, waiver requests from programmatic terms and conditions of the assistance agreement. Waivers will only be considered for specific non-threshold and non-statutory requirements. States or territories must obtain EPA approval for any waiver request before conducting any work on a project involving a waiver request.

II. STATUTORY AUTHORITY

The Diesel Emissions Reduction Act Program is authorized by Title VII, Subtitle G of the Energy Policy Act of 2005, 42 USC 16131, et seq., as amended. DERA authorizes the award of grants to reduce diesel emissions and diesel emissions exposure, administered by eligible states or territories, particularly from fleets operating in areas designated by the Administrator as poor air quality areas. This program is referred to as both the *State Clean Diesel Grant Program* (the Program) and the *DERA State Grants*. While EPA has authority under DERA to support grant programs, EPA's authority to obligate grant funds is subject to the availability of appropriated funds.

III. ELIGIBLE RECIPIENTS

Eligibility to apply for and receive funds under the Program is limited to the 50 states, the District of Columbia, Puerto Rico, and the territories: U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands. For the purposes of this document, the term "state" will be used to describe these 56 entities.

EPA presumes that the state agency with jurisdiction over air quality will be the lead agency to receive these funds. If a state's circumstances dictate that another state agency administer the funds, then a letter from the state governor or designee to the Administrator of EPA is required to certify one state agency as the recipient of funds who has the legal and administrative authority to enter into a grant or cooperative agreement with EPA. Upon receipt, EPA will consider that agency the lead agency from that point forward. However, if there is a change, a new governor's letter to the Administrator must be submitted during the renewal process and the new agency would be considered the lead agency for future grants. A letter to identify an alternate lead

agency and provide specific contact information should be sent to the following contacts and be received before the state submits its application package through Grants.gov.

A scan of the signed letter must also be emailed to DERA@epa.gov.

Michael S. Regan

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W., Mail Code: 1101A
Washington, DC 20460

Cc: Stephanie Watson, Supervisor
Diesel Emissions Reductions Section
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W., Mail Code: 6406A
Washington, DC 20460
Phone: (202) 564–1409, Fax: (202) 343–2803, Email: watson.stephanie@epa.gov

IV. 2023- 2024 FUNDING SCHEDULE AND PROCEDURES

Table 1: Funding Schedule

Activity	FY 2023	FY 2024
EPA sends all eligible states the 2023-2024 program materials	**July 6, 2023**	**August 27, 2024**
Deadline for all participating states to submit a 2023-2024 Notice of Intent to Participate (NOIP) to EPA via email (DERA@epa.gov)	**July 21, 2023**	**September 10, 2024**
EPA will inform the states of their final allocation via email	**July 26, 2023**	**September 17, 2024**
Deadline for **s**tates and territories to submit Workplan and Budget Narrative and Fleet Description to their EPA Regional Office for review	**August 8, 2023**	**October 8, 2024**
Deadline for participating states to submit their application package to Grants.gov	**August 22, 2023**	**November 8, 2024**
Period of performance for 2023-2024 awards begins October 1, 2023.	**October 1, 2023**	**December 1, 2024**
FY24 Incremental amendments completed	**September 30, 2024**	**December 10, 2024**
2023-2024 Period of performance end date	**September 30, 2026**	**September 30, 2026**

Note: This schedule is subject to change, updated guidance will be provided directly to states and territories, as needed.

V. NOTICE OF INTENT

A. Notice of Intent to Participate: States that want to receive 2024 DERA State Grants funding must submit a Notice of Intent to Participate (NOIP).

1. **Submission of the NOIP**: The Notice of Intent to Participate can be submitted in one of two ways: 1) a state can fill out the form electronically or by hand, print and sign the document, scan the document, and return the document via email to DERA@epa.gov; or 2) a state can fill out the form electronically, digitally sign the document, save the document and return via email to DERA@epa.gov. The Notice must be signed by the Environmental Commissioner or other authorized official but does not need to be emailed from this person directly; the Notice can be emailed from the programmatic contact at the state.

2. **Review of the NOIP**: EPA's Office of Transportation and Air Quality (OTAQ) will forward the Notices to the appropriate EPA Regional Office for review. Regional offices will work with the states as necessary to resolve any identified issues.

B. Open 2022 and Earlier State Grants: Any state participating in the 2023-2024 DERA State Grants which has an open DERA State Grant from 2021-2022 or earlier must ensure that prior awards are closed out in a timely manner. Ideally, this means that vehicles/equipment should be delivered, technologies installed, and all other project work completed by September 30, 2023. If the state is unable to obligate and expend all 2022 and earlier funds by September 30, 2023, the state has two options. First, the state may request a no-cost time extension of the period of performance. Requests to extend previous awards and receive a new 2023-2024 award will be evaluated and approved by the EPA Regional program office on a case-by-case basis. Approval is dependent on the status of the project and unexpended funds, the ability to complete the project in less than 6 months, and the impact of the extension on the state's ability to implement its 2023-2024 workplan. Due to supply chain issues EPA anticipates offering leniency on no-cost time extensions in the event that equipment has been ordered but is facing manufacturing/delivery delays. Alternatively, if the state is unable to complete the grant in a timely manner (e.g., project partners backed out and new eligible vehicles have not yet been secured) the state may elect to close the grant and return any remaining funds to EPA.

C. Voluntary Match Incentive: The NOIP must indicate if the state intends to voluntarily contribute funding to the 2024 Program project budgets. The NOIP must also indicate the intended amount and sources of non-federal voluntary matching funds.

If a state provides a voluntary match equal to the base allocation offered by EPA, EPA will provide a matching incentive equal to 50 percent of the base allocation. For example: If EPA offers a base allocation of $200,000 to the state, the state could contribute $200,000 of state funding as a voluntary match and the state would receive an additional $100,000 in EPA funding as a matching incentive. The total project budget would then be $500,000, not including any mandatory cost-share funds.

The voluntary match may be satisfied by allowable costs incurred by the state (including in-kind contributions), or by cash donations of state funds or private funds. State voluntary matching funds included in the approved project budget are subject to the same terms and conditions and funding limits as the awarded DERA funds. A recipient is legally obligated to expend any voluntary match included in the approved project budget within the period of performance of that award.

Mandatory cost-share funds provided by the state and/or eligible third parties cannot count towards the state's voluntary matching funds to qualify for the matching incentive. See Section XI for additional information on mandatory cost-share requirements.

VI. ALLOCATION OF FUNDS

A. Allocation Formula: EPA was appropriated $100 million for the FY2023 DERA Programs. EPA was appropriated $90 million for the FY2024 DERA Programs. In accordance with 42 U.S.C. 16133, subject to the availability of appropriations, EPA makes 30 percent (approximately $30 million for fiscal year 2023 and $26 million for fiscal year 2024) of the DERA Program's annual allocation available to states and territories in the form of assistance agreements under the DERA State Grants. This 30 percent is divided: two-thirds is provided as a base allocation and one-third is provided as an incentive to match.

Each year, if all 50 states, the District of Columbia, and the five qualifying territories participate in the program, then the 50 states, the District of Columbia, and Puerto Rico will each receive 1.887 percent of the two-thirds of the annual funds set aside for the DERA State Grants as a potential base allocation. The remaining territories each qualify for 0.472 percent of the two-thirds of the annual funds set aside for the State Grants as a potential base allocation. If fewer than all 50 states, the District of Columbia, and the five qualifying territories submit a NOIP, then the population formula outlined in 42 U.S.C. 16133(c)(2)(B) will be applied to any unclaimed base funds, and these funds will be added to all the participating states and territories' base allocations. In that case, EPA will perform the allocation calculation using the most recent U.S. Census Bureau Data. Any unclaimed funds from the State Grants will revert to the DERA National Program.

Participating states and territories may choose to voluntarily match the EPA award amount. If a state or territory provides a state match equal to the base allocation awarded by EPA, EPA will provide a matching bonus equal to 50 percent of the base allocation. See Section V.C for additional information on the voluntary match incentive.

B. Allocation Notification: After receiving all NOIPs, EPA will calculate the final allocations and notify state contacts via e-mail. States must then complete (1) a Workplan and Budget Narrative and (2) a Fleet Description spreadsheet with best estimates on the number and type of equipment that will be impacted by the grant and send these documents to their EPA Region contacts for review. EPA will review the documents and provide comments so that the state or territory can correct any issues prior to submitting the documents in their application on Grants.gov.

VII. APPLICATION PACKAGE AND SUBMISSION INFORMATION

A. Content of Application Package: The application package must include all the following materials:

1. **Standard Form (SF) 424**, Application for Federal Assistance
2. **Standard Form (SF) 424A**, Budget Information
3. **Key Contacts Form**
4. **EPA Form 4700-4, Preaward Compliance Review**
5. **Work Plan and Budget Narrative.** States must use the template provided on the State DERA Website and should only submit this document on Grants.gov after it has been reviewed by their regional EPA DERA contacts.
6. **Fleet Description Spreadsheet.** States must use the template provided on the State DERA Website and should only submit this document on Grants.gov after it has been reviewed by their regional EPA DERA contacts.

B. Grants.gov Application Instructions

1. The electronic submission of your application to this funding opportunity must be made by an official representative of your organization who is registered with Grants.gov and is authorized to sign applications for Federal financial assistance. If the submit button is grayed out, it may be because you do not have the appropriate role to submit applications for your organization. Contact your organization's EBiz point of contact or contact Grants.gov for assistance at 1-800-518-4726 or support@grants.gov.

   Recipients need to ensure that the Authorized Organization Representative (AOR) who submits the application through Grants.gov and whose Unique Entity Identifier (UEI) is listed on the application is an AOR for the recipient listed on the application. Additionally, the UEI listed on the application must be registered to the recipient organization's SAM.gov account. If not, the application may be deemed ineligible.

2. Follow the steps below to download, complete, and submit an application package through Grants.gov. The application package requires forms 1-6 listed above.

   a. Go to Grants.gov and then hover your cursor over the "Applicants" tab in the horizontal row of blue tabs. A drop-down list will appear.
   b. Click on "How to Apply for Grants."
   c. Click on the red button titled, "Search for Opportunity Package," on the right-hand side of the page.
   d. Search by **Funding Opportunity Number: EPA-CEP-01**
   e. From the list of Opportunity Package(s) currently available, click on the "Apply" link corresponding with CFDA #: **66.040**
   f. Click on the red "Apply" button. You should be prompted to log-in. Follow the on-screen instructions to complete the application submission.
   g. After downloading an application and saving it, you do not need to be online to complete the application.
   h. When saving application files, please ensure that the following characters are not included in the file names: ~ " # % & * : < > ? / \ { | }. Including these characters can cause problems with application files.

i. Complete the required forms listed above, including uploading your final Work Plan, Budget Narrative and Fleet Description. **Note**: States and territories should have already received approval of their Work Plan, Budget Narrative and Fleet Description from their EPA Region prior to uploading this documentation in their application. While filling out the application package, be sure to save frequently by clicking the Save button on the cover page of the application package.

j. Click the Check Package for Errors button to ensure all the required portions of the application package are complete. Address any errors that are identified before submitting.

k. Click the Save & Submit button after completing the application package. The Save & Submit button will not be functional until the application is properly completed with no errors and saved.

VIII. SCOPE OF WORK

Title VII, Subtitle G, Section 793 of the Diesel Emissions Reduction Program (DERA) allows states to use funds provided under the DERA State Grants to develop and implement grant and rebate programs in the state as appropriate to meet state needs and goals relating to the reduction of diesel emissions, subject to the following eligibility limitations and funding priorities.

A. Period of Performance and Budget Period: The period of performance and budget period for 2023-2024 DERA State Grants is October 1, 2023, to September 30, 2026. FY2023 funds will be dispersed as new awards. FY2024 funds will be dispersed as an incremental amendment to existing 2023-2024 DERA State Grants or, if a state does not have a 2023 grant, a new award.

B. Eligible Diesel Vehicles, Engines, and Equipment: Projects may include the diesel emissions source type defined in Table 2, below:

Table 2: Eligible Diesel Vehicles, Engines, and Equipment

School Buses	Includes diesel powered school buses of Type A, B, C and D. A "school bus" is defined as a passenger motor vehicle designed to carry a driver and more than 10 passengers, that the Secretary of Transportation decides is likely to be used significantly to transport preprimary, primary, and secondary school students to or from school or an event related to school.
Transit Buses	Includes diesel powered medium-duty and heavy-duty transit buses (see definition of eligible Class 5-8 vehicles below).
Medium-duty or heavy-duty trucks	Includes diesel powered medium-duty and heavy-duty highway vehicles with gross vehicle weight rating (GVWR) as defined below: Class 5 (16,001 -19,500 lbs GVWR); Class 6 (19,501 – 26,000 lbs GVWR); Class 7 (26,001 – 33,000 lbs GVWR); Class 8 (33,001 lbs GVWR and over)

Marine Engines	Includes diesel powered Category 1, 2, and 3 marine engines and vessels.
Locomotives	Includes diesel powered line-haul, passenger, and switch engines and locomotives.
Nonroad engines, equipment, or vehicles	Diesel powered nonroad engines, equipment and vehicles including, but not limited to, those used in construction, handling of cargo[1] (including at ports and airports), agriculture, mining, or energy production (including stationary generators and pumps).

1. **Drayage Trucks**: Eligible heavy-duty trucks include drayage trucks. A "drayage truck" means any Class 8 highway vehicle operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading, or transporting cargo, such as containerized, bulk, or break-bulk goods. If a state is funding drayage trucks, the state will be required to establish guidelines to ensure that any existing truck replaced with grant funds has a history of operating on a frequent basis over the prior year as a drayage truck, and to ensure any new truck purchased with grant funds is operated in a manner consistent with the definition of a drayage truck, as defined above. Sample drayage truck guidelines can be found at the State DERA website.

2. **Transport Refrigeration Units**: Eligible nonroad equipment includes transport refrigeration units (TRUs). Please see the TRU Factsheet found at the State DERA website for information on TRUs and eligible TRU projects.

C. Diesel Emissions Reduction Solutions: Projects may upgrade existing diesel vehicles and equipment using the diesel emissions reduction solutions defined in Table 3, below.

Table 3. Diesel Emission Reduction Solutions

Certified Vehicle and Equipment Replacements	Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced with newer, cleaner vehicles and equipment. Eligible replacement highway vehicles include those certified by EPA and/or CARB to run on diesel or clean alternative fuel engines (including gasoline), electric generators (gensets), hybrid engines, and zero tailpipe emissions power sources (grid, battery, or fuel cell). Eligible replacement nonroad equipment, locomotives, and marine vessels include those powered by EPA and/or CARB certified diesel or clean alternative fuel engines (including gasoline), electric generators (gensets), hybrid engines; nonroad equipment, locomotives, and marine vessels powered by zero tailpipe emissions power sources (grid, battery,

[1] Eligible nonroad equipment includes transport refrigeration units (TRUs). Please see the TRU Factsheet found at on the State DERA website website for information on TRUs and eligible TRU projects.

	or fuel cell) do not require EPA or CARB certification.
Certified Engine Replacement	Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can have their engines replaced with newer, cleaner engines. Eligible replacement highway engines include those certified by EPA and/or CARB for use with diesel or clean alternative fuel (including gasoline), electric generators (gensets), and hybrid engines, and zero tailpipe emissions power sources (grid, battery, or fuel cell). Eligible replacement nonroad, locomotive, and marine engines include those powered by EPA and/or CARB certified diesel or clean alternative fuel engines (including gasoline), electric generators (gensets), and hybrid engines; Nonroad equipment, locomotives, and marine vessel engine replacement with zero tailpipe emissions power sources (grid, battery, or fuel cell) do not require EPA or CARB certification.
Certified Remanufacture Systems	Generally, a certified remanufacture system is applied during an engine rebuild and involves the removal of parts on an engine and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine. Some locomotives and marine engines can be upgraded through the application of a certified remanufacture system (i.e., kit). Engine remanufacture systems may not be available for all engines, and not all remanufacture systems may achieve an emissions benefit. Applications for EPA certified remanufacture systems should include a discussion of the availability of engine remanufacture systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the upgrade will result in a PM and/or NOx emissions benefit.
Verified Idle Reduction Technologies	An idle reduction project is generally defined as the installation of a technology or device that reduces unnecessary idling of diesel engines and/or is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or remains stationary. EPA SmartWay verified technologies currently include options to reduce idling for long haul Class 8 trucks equipped with sleeper cabs, school buses, transport refrigeration units, locomotives, and marine vessels.
Verified Retrofit Technologies	Diesel engine retrofits are one of the most cost-effective solutions for reducing diesel engine emissions. Retrofits include engine exhaust after-treatment technologies, such as diesel oxidation catalysts (DOCs), diesel particulate filters (DPFs), closed crankcase ventilation (CCV) filtration systems, and selective catalytic reduction systems (SCRs). Manufacturer engine upgrades which achieve specific levels of emissions

	reductions by applying a package of components have been verified as retrofits for some nonroad and marine engines. Several systems which convert a conventional diesel engine configuration to a hybrid-electric system have been verified as retrofits for some nonroad and marine engines. Some cleaner fuels and additives have been verified as retrofits by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine. Older, heavy-duty diesel vehicles that will not be retired for several years are good candidates for verified retrofit technologies. EPA suggests that applicants proposing to install verified retrofit technologies consult with suppliers to confirm that the proposed vehicles/engines and their duty-cycles are good candidates for the technology.
Clean Alternative Fuel Conversions	Existing highway diesel engines can be altered to operate on alternative fuels such as propane and natural gas by applying a certified alternative fuel conversion kit.
Verified Aerodynamic Technologies and Low Rolling Resistance Tires	To improve fuel efficiency, long haul Class 8 trucks can be equipped with EPA verified aerodynamic devices and/or low rolling resistance tires.

D. DERA Programmatic Priorities: The Diesel Emissions Reduction Act (DERA) allows EPA to prioritize certain applicants in the DERA State Grants. The statute enables the program to prioritize projects that maximize public health benefits, are the most cost-effective, that serve areas with the highest population density or that are poor air quality areas (including nonattainment or maintenance areas and areas with toxic air pollutant concerns), that serve areas that receive a disproportionate quantity of air pollution from diesel fleets, and those that use a community-based multistakeholder collaborative process to reduce toxic emissions. The state's workplan should discuss if and how the state will ensure that projects selected for funding support the programmatic priorities listed below.

Please note that these are funding priorities and are <u>not</u> eligibility factors. The term "project location" refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized.

a. Goods Movement Facilities: Priority may be given to projects based on whether the vehicles/engines/equipment targeted for diesel emissions reductions are located at, or service, goods movement facilities as defined below. Applicants should include the name of the specific port, airport, rail yard, terminal, or distribution center where the affected vehicles operate. Points will be based upon the percentage of time targeted vehicles operate at, and/or the percentage of the total targeted vehicles that operate at, goods movement facilities.

1) **Ports** - places alongside navigable water with facilities for the loading and unloading of passengers and/or cargo from ships, ferries, and other vessels
2) **Airports** - places where aircraft operate that have paved runways and terminals

which include cargo, baggage and/or passenger-movement operations

3) **Rail Yards** - a system of tracks, other than main tracks and sidings, used for making up trains, for storing cars, and for other purposes
4) **Terminals** - freight and passenger stations at the end of carrier lines, or that serve as junctions at any point with other lines, that have facilities for the handling of freight and/or passengers
5) **Distribution Centers** - facilities that perform consolidation, warehousing, packaging, decomposition, and other functions linked with handling freight, often in proximity to major transport routes or terminals, and which generate large amounts of truck traffic

b. Environmental Justice and Disadvantaged Communities: Environmental justice (EJ) is the just treatment and meaningful involvement of all people regardless of race, color, national origin, income, Tribal Affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment. Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. Meaningful involvement means people have an opportunity to participate in decisions about activities that may affect their environment and/or health; the public's contribution can influence the regulatory agency's decision; community concerns will be considered in the decision-making process; and decision makers will seek out and facilitate the involvement of those potentially affected.

The DERA statute enables the program to prioritize projects that serve poor air quality areas (including nonattainment or maintenance areas and areas with air toxic air pollutant concerns), and those that use a community-based multistakeholder collaborative process to reduce toxic emissions. This allows the program to target communities with potential environmental justice concerns, that is, communities adversely and disproportionately affected by environmental, climate change, and human health harms or risks, and support a broad geographic distribution of funds. Additionally, DERA has been identified as part of the Justice40 Initiative, which creates a goal that 40 percent of applicable federal benefits flow to disadvantaged communities.[2]

1. **Disadvantaged Communities**: For the purposes of the 2023-2024 DERA State Grants, "disadvantaged communities" are defined as meeting one or both of the following criteria.

    1) **Nonattainment or Maintenance Area**: These counties are identified as priority project locations for the DERA program because they are designated as nonattainment areas or maintenance areas for the following National Ambient Air Quality Standards. Data is sourced from EPA's Green Book of Nonattainment Areas for Criteria Pollutants.
        a) PM2.5 1997 Standard (Annual: 15 µg/m3, 24-hour: 65 µg/m3)
        b) PM2.5 2006 Standard (Annual: 15 µg/m3, 24-hour: 35 µg/m3)
        c) PM2.5 2012 Standard (Annual: 12 µg/m3, 24-hour: 35 µg/m3)
        d) Ozone (O3) 2008 Standard (8-hour: 0.075ppm)
        e) Ozone (O3) 2015 Standard (8-hour: 0.070ppm)

[2] *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg., 7619 (Feb. 1, 2021).

The term "project location" refers to the area(s) where the affected vehicles, engines or equipment operate. A list of counties that have been designated as priority project locations can be found on the State DERA website.

2) **Area of Air Toxics Concern**: These counties are identified as priority project locations for the DERA program because they contain at least one census tract where the modeled ambient diesel PM concentration from the 2019 Air Toxics Screening Assessment is above the 80th percentile (0.38 µg/m3 for 2019) for census tracts nationwide. The 80th percentile is a programmatic cutoff designed to help us evaluate those areas that are most likely to have higher concentrations of diesel PM in the year of analysis (i.e., the year for which data are available); this level was not chosen based on risk or other health-based criteria or thresholds. AirToxScreen is a screening tool and there are limitations and uncertainties associated with it; see: AirToxScreen Limitations.

These program criteria for "disadvantaged communities" are drawn from the prioritization authorization described in the DERA statute.[3] The methodology for calculating covered program benefits to disadvantaged communities may be updated in the future as additional funding opportunities are offered under the program.

2. **Community Engagement**: Priority may be given to projects which demonstrate engagement with the affected communities and/or populations, especially local residents, to ensure their meaningful participation with respect to the design, planning, and performance of the project. Meaningful involvement means people have an opportunity to participate in decisions about activities that may affect their environment and/or health; the public's contribution can influence the regulatory agency's decision; community concerns will be considered in the decision-making process; and decision makers will seek out and facilitate the involvement of those potentially affected.

3. **Project Sustainability**: Priority for funding may be given to projects which can demonstrate the ability of the recipient and project partners to promote and continue efforts to reduce emissions after EPA funding for this project has ended. Specifically, whether the state and/or its project partners:
   - **a.** have existing policies or new commitments to, by the end of the period of performance, adopt idle-reduction policies, adopt contract specifications requiring the use of cleaner, more efficient vehicles and equipment, complete an up-to-date mobile source equipment inventory, or adopt other strategies to promote and continue efforts to reduce diesel emissions.
   - **b.** have a publicly available baseline mobile source emission inventory for PM2.5 and/or NOx that was completed after 2019 or commit to completing one before the end of the period of performance.
   - **c.** have a publicly available plan finalized or updated after 2019 to reduce mobile source emissions that includes specific PM2.5 and/or NOx emission targets or commit to completing one before the end of the period of performance.
   - **d.** have established or commit to establishing before the end of the period of performance, a clear point of contact in a public platform (e.g., newsletter, website)

[3] https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter149/subchapter7/partF&edition=prelim

for community issues and complaints (specific to air quality or broader) and a publicly documented policy or process to engage communities and get their input on operations and projects that impact air quality. The process could be recent (within a year) or upcoming (before the end of the period of performance/or a policy or process to otherwise get input (e.g., a standing, citizens advisory committee.)

c. **Project Resilience to Climate Impacts**: Priority may be given to projects which demonstrate the ability to protect grant funded investments from severe weather events. EPA will evaluate projects based on the quality and extent to which the project assesses and implements adaptation considerations described below to help ensure that the project achieves its expected outcomes even as the climate changes.

   Adapting to climate change involves actions by individuals, businesses, governments, and others to build resilience and reduce vulnerability of human and natural systems to unavoidable climate impacts. Adaptation also reduces the long-term costs of responding to these impacts. Projects can demonstrate consideration of climate change adaptation through measures taken to anticipate, prepare for, and avoid adverse impacts of climate change. For example, assessing project vulnerability to climate impacts can be incorporated into project planning, such as siting decisions and operational plans. Measures taken to avoid damages could include ensuring fleets and equipment are protected from impacts such as flooding and sea level rise and protecting infrastructure from storm damage.

d. **Workforce Development:** Priority may be given to projects which demonstrate a plan to prepare the workforce for the project, such as conducting robust workforce planning to ensure current drivers, mechanics, electricians, and other essential personnel receive training to safely operate and maintain the new buses and infrastructure, as well as clarifying protections to ensure existing workers are not replaced or displaced because of new technologies.

IX. Environmental Results and Strategic Plan Information

Pursuant to Section 6.a. of EPA Order 5700.7A1, "Environmental Results under EPA Assistance Agreements," EPA must link proposed assistance agreements with the Agency's Strategic Plan. EPA also requires that grant applicants and recipients adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7A1, Environmental Results under Assistance Agreements). Recipients must include specific statements describing the environmental results of the proposed project in terms of well-defined outputs and, to the maximum extent practicable, well-defined outcomes that will demonstrate how the project will contribute to the Strategic Plan goals listed below.

1. **Linkage to EPA Strategic Plan:** The activities to be funded under this announcement support EPA's Fiscal Year (FY) 2022-2026 Strategic Plan. Awards made under this announcement will support Goal 1, "Tackle the Climate Crisis" Objective 1.1, "Reduce Emissions that Cause Climate Change," of EPA's Strategic Plan. All projects must support the goals and objectives above. For more information see EPA's FY 2022 - FY 2026 EPA Strategic Plan.

2. **Outputs:** The term "output" means an environmental activity, effort, and/or associated work product related to an environmental goal or objective that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.

   Expected outputs from the projects to be funded under this announcement include, but are not limited to:
   - Number of replaced or retrofitted engines/vehicles/equipment; and/or
   - Hours of idling reduced, if applicable.

   Progress reports and a final report will also be required outputs., as specified in Section XII.I.

   Other potential outputs may include, but are not limited to:

   - Engaging with local residents to ensure their meaningful participation with respect to the design, planning, and performance of the project
   - The project's inclusion in a broader-based environmental or air quality plan
   - The implementation of contract specifications requiring the use of cleaner vehicles and equipment
   - A documented commitment to continue to identify and address air quality issues in the affected community
   - Establishing a clear point of contact in a public platform for community issues and complaints
   - A publicly documented policy or process for getting community input on operations and projects that impact air quality
   - Adoption of an idle reduction policy
   - The completion of a baseline mobile source emission inventory for $PM_{2.5}$ and or $NO_{x;}$
   - Providing support to clean diesel coalitions by sharing information, working with interested fleets, and addressing specific geographic needs
   - Number of subawards; and/or
   - Dissemination of project/technology information via listservs, websites, journals, and outreach events

3. **Outcomes:** The term "outcome" means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related, or programmatic in nature, but should also be quantitative. They may not necessarily be achievable within an assistance agreement funding period.

   Expected outcomes from the projects to be funded under this announcement include, but are not limited to:
   - Tons of pollution reduced over the lifetime of the vehicles/engines/equipment, specifically:
     - fine particulate matter ($PM_{2.5}$)
     - nitrogen oxides (NO_x)
     - carbon monoxide (CO) and carbon dioxide (CO_2), and/or

- volatile organic compounds (VOCs)
- Tons of pollution reduced annually
- Lifetime total project cost effectiveness for NO_x and $PM_{2.5}$
- Lifetime capital cost effectiveness for NO_x and $PM_{2.5}$
- Net reduction in gallons of diesel fuel used
- Benefits to disadvantaged communities, including improvements to human health and the environment, the local economy, social conditions, and the welfare of residents in such communities.

States should follow the instructions in Appendix B of this announcement for calculating emissions reductions and cost effectiveness.

Other potential outcomes may include, but are not limited to:

- Community engagement and partnership
- Improved ambient air quality
- Health benefits achieved
- Changes in driver behavior regarding idling practices
- An increased understanding of the environmental or economic effectiveness of the implemented technology
- Increased public awareness of the project and results
- Widespread adoption of the implemented technology
- Demonstration and deployment of zero and near-zero emission vehicles and engines
- Emissions reductions along freight transportation corridors

4. **Performance Measures:** The state should also develop performance measures they expect to achieve through the proposed activities and describe them in their application. These performance measures will help gather insights and will be the mechanism to track progress concerning successful processes and output and outcome strategies and will provide the basis for developing lessons to inform future recipients. Additional details on reporting requirements are included in Section XII.I. It is expected that the description of performance measures will directly relate to the project outcomes and outputs.

   The description of the performance measures should directly relate to the project's outcomes and outputs, including but not limited to:

   - Overseeing subrecipients, and/or contractors and vendors
   - Tracking and reporting project progress on expenditures and purchases
   - Tracking, measuring, and reporting accomplishments and proposed timelines/milestones
   - Tracking and reporting project progress on installations/replacements by maintaining an accurate project fleet description
   - Measuring and reporting on outcomes by maintaining an accurate project fleet description and using EPA's diesel emissions quantifier
   - Efforts should be made to track, measure, and report the actual vehicle miles traveled, hours of use/operation, and fuel use for all vehicles and equipment involved in the project

The following are questions to consider when developing output and outcome measures of quantitative and qualitative results:

- What are the measurable short term and longer term results the project will achieve?
- How does the plan measure progress in achieving the expected results (including outputs and outcomes) and how will the approach use resources effectively and efficiently?

X. Eligible and Ineligible Activities

Activities must meet the following requirements to be eligible for funding:

A. Project Eligibility Criteria: Projects must meet the eligibility criteria defined in the tables below.

Table 4: Medium and Heavy-Duty Truck, Transit Bus, and School Bus Project Eligibility

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aero-dynamics	Vehicle or Engine Replacement: EMY 2021+ (2017+ for Drayage)	Vehicle or Engine Replacement: EMY 2021+ Zero Emission[2] or Low-NO_x[3]	Clean Alternative Fuel Conversion
older – 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 – 2009	No	No	Yes	Yes[1]	Yes	Yes	Yes
2010 - newer	No	No	No	Yes[1]	No	Yes	Yes

[1]Auxiliary power units and generators are not eligible on vehicles with EMY 2007 or newer.
[2]Eligible fuel cell projects are limited to hydrogen fuel cell engine replacements for eligible urban transit buses, shuttle buses and drayage trucks, and hydrogen fuel cell vehicle replacements for eligible urban transit buses, shuttle buses, and drayage trucks.
[3] Please see the Low-NO_x Engine Factsheet found on the DERA website for guidance on identifying engines certified to meet CARB's Optional Low NO_x Standards.

Table 5. Nonroad Engine Project Eligibility

Current Engine Tier	Vehicle/Equipment Replacement					Verified Retrofit
	Compression Ignition			Spark Ignition	Zero Emission[3]	
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
Unregulated – Tier 2	No	Yes[1]	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No
Current Engine Tier	**Engine Replacement**					**Verified Engine Upgrade**
	Compression Ignition			**Spark Ignition**	**Zero Emission[4]**	
	Tier 0-2	**Tier 3-4i**	**Tier 4**	**Tier 2**		

Unregulated – Tier 2	No	Yes[2]	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No

[1]Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2021 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).
[2]Tier 3 and Tier 4i engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section X.B., below.
[3]Eligible fuel cell projects are limited to hydrogen fuel cell equipment replacements for eligible terminal tractors/yard hostlers, stationary generators, and forklifts.
[4]Fuel cell engine replacement is not eligible.

Table 6: Marine Engine Project Eligibility

Engine Category	Engine Horsepower	Current Engine Tier	Engine & Vessel Replacement					Certified Remanufacture System[3]	Verified Engine Upgrade
			Compression Ignition			Spark Ignition	Zero Emission[2]		
			Tier 1-2	Tier 3	Tier 4				
C1, C2	<803	Unregulated – Tier 2	No	Yes	No	Yes	Yes	Yes	Yes
C1, C2	≥804	Unregulated – Tier 2	No	Yes[1]	Yes	Yes	Yes	Yes	Yes
C1, C2	<803	Tier 3	No	No	No	Yes	Yes	No	No
C1, C2	≥804	Tier 3	No	No	Yes	Yes	Yes	No	No
C1, C2	≥804	Tier 4	No	No	No	No	No	No	No
C3	All	Unregulated - Tier 2	No	Yes	No	No	No	No	No
C3	All	Tier 3	No	No	No	No	No	No	No

[1]Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section X.B., below. Over 800 HP, Tier 3 engines are not eligible for full vessel replacement.
[2]Fuel cell engine and vessel replacements are not eligible.
[3]Some marine engine projects may be subject to the restriction on mandated measures.

Table 7: Locomotive Engine Project Eligibility

Current Locomotive Tier	Engine & Locomotive Replacement				Verified Retrofit	Idle-Reduction[2] Technology	Certified Remanufacture System[4]
	Tier 0–2+	Tier 3	Tier 4	Zero Emission[1]			
Unregulated - Tier 2+	No	Yes[3]	Yes	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	No	Yes	No

[1]Fuel cell engine and locomotive replacements are not eligible.
[2]Automatic engine start-stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated, subject to the restriction on mandated measures.
[3]Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section X.B., below. Tier 3 is not eligible for locomotive replacement.
[4]Some locomotive engine projects may be subject to the restriction on mandated measures.

Note: Tier 0+, Tier 1+, Tier 2+, Tier 3, and Tier 4 represent locomotives manufactured or remanufactured under the more stringent Tier standards promulgated under the 2008 (current) locomotive and marine rule. Tier 0, Tier 1, and Tier 2 represent locomotives originally manufactured or remanufactured under the less stringent Tier standards promulgated in 1997.

B. Best Achievable Technology (BAT): All new nonroad and locomotive engines are now manufactured to meet the EPA Tier 4 standards. All new Category 1 and 2, 804 horsepower and above marine engines are now manufactured to meet the EPA Tier 4 standards. Recipients replacing these nonroad, marine, and locomotive engines must demonstrate that their projects commit to using Tier 4 engines if Tier 4 engines with the appropriate physical and performance characteristics are available. Recipients anticipating the use of Tier 3 engines should discuss their rationale for proposing lower tiered engine replacements.

If selected for funding, recipients must submit a best achievable technology analysis to EPA for approval before Tier 3 or Tier 4i vehicles, equipment, or engines can be purchased, as defined below. **The following analysis is not required at the time of project development.**

1. BAT Analysis Requirements:

- **a.** The analysis must be prepared by the engine manufacturer or installer.
- **b.** Using good engineering judgment, the engine manufacturer or installer must determine that no internal combustion engine certified to Tier 4 is produced by any manufacturer with the appropriate physical or performance characteristics to replace the existing engine in the equipment.
- **c.** If the engine manufacturer or installer determines that no internal combustion engine certified to Tier 4 is available with the appropriate performance characteristics, explain why certified Tier 4 engines produced by them and other manufacturers cannot be used as a replacement because they are not similar to the engine being replaced in terms of power or speed.
- **d.** If there are available internal combustion engines with the appropriate performance characteristics but the engine manufacturer or installer determines that no engine certified to Tier 4 is available with the appropriate physical characteristics, explain why certified internal combustion engines produced by them and other manufacturers cannot be used as a replacement because their weight or dimensions are substantially different than those of the engine being replaced, or because they will not fit within the equipment's engine compartment.
- **e.** In evaluating appropriate physical or performance characteristics, the engine manufacturer or installer may account for compatibility with equipment components that would not otherwise be replaced when installing a new engine, including but not limited to transmissions or reduction gears, drive shafts, cooling systems, operator controls, or electrical systems. If the engine manufacturer or installer makes their determination on this basis, they should identify the

equipment components that are incompatible with internal combustion engines certified to Tier 4 and explain how they are incompatible and why it would be unreasonable to replace them.

f. Identify the proposed Tier 3 or Tier 4i engines to be used and discuss the physical and performance characteristics of the engines that will ensure compatibility with the existing equipment. Quantify proposed emission reductions, PM cost effectiveness and NOx cost effectiveness for the proposed options.

g. DERA project eligibility or approval does not supersede any regulatory requirements for equipment owners, operators, manufactures, installers and others, including but not limited to 40 CFR §1068.240, §1042.615, and §1033.601.

h. Costs for design and engineering analysis may be included in the project budget.

C. Ownership, Usage and Remaining Life Requirements: To be eligible for funding, vehicles and equipment targeted for upgrades must meet certain ownership, usage, and remaining life requirements. States should demonstrate that all funded vehicles and equipment in their projects will meet the criteria defined in 1. – 5., below.

If selected for funding, participating fleet owners must attest to each criterion in 1. – 5., below in a signed eligibility statement which includes each vehicle make, model, year, vehicle identification number, odometer/usage meter reading, engine make, model, year, horsepower, engine ID or serial number, and vehicle/equipment registration/licensing number and state. This documentation must be submitted as part of the recipient's programmatic reporting to EPA to verify the eligible use of grant funds. A sample eligibility statement may be found on the State DERA Website. **The signed eligibility statement is not required at the time of project development.**

1. **Operational:** The existing vehicle, engine, or equipment must be fully operational. Operational equipment must be able to start, move, and have all necessary parts to be operational.

2. **Ownership:** The participating fleet owner must currently own and operate the existing vehicle or equipment and have owned and operated the vehicle during the two years prior to upgrade.

3. **Remaining Life:** The existing vehicle, engine, or equipment must have at least three years of remaining life at the time of upgrade. Remaining life is the fleet owner's estimate of the number of years until the unit would have been retired from service if the unit were not being upgraded or scrapped because of the grant funding. The remaining life estimate is the number of years of operation remaining even if the unit were to be rebuilt or sold to another fleet. The remaining life estimate depends on the current age and condition of the vehicle at the time of upgrade, as well as things like usage, maintenance, and climate.

4. **Highway Usage:** The mileage of two or more units may be combined to reach the thresholds below where two or more units will be scrapped and replaced with a single unit.

a. To be eligible for funding, the existing certified highway engine/vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade.

b. Exception: If a recipient can demonstrate that a certified highway engine/vehicle is being used in a predominately nonroad application (e.g. firetrucks or utility trucks that idle for long periods to power auxiliary apparatus), engine operating hours as defined below in "nonroad usage" may be used for application eligibility purposes. If selected for award, EPA will review and approve eligibility on a case-by-case basis.

5. **Nonroad Usage:** The engine operating hours of two or more units may be combined to reach the thresholds below where two or more units will be scrapped (see Section X.D.16., below) and replaced with a single unit.
   a. Agricultural Pumps: To be eligible for funding, certified nonroad agricultural pumps must operate at least 250 hours/year during the two years prior to upgrade.
   b. All Other Nonroad Engines: To be eligible for funding, certified nonroad engines should operate at least 500 hours/year during the two years prior to upgrade.
   c. Exception: If a recipient can demonstrate that a certified nonroad engine/vehicle is being used in a predominately highway application, vehicle mileage as defined above in "highway usage" may be used for application eligibility purposes. If selected for award, EPA will review and approve eligibility on a case-by-case basis.

6. **Locomotive and Marine Usage**: The engine operating hours of two or more units may be combined to reach the thresholds below where two or more units will be scrapped (see Section X.D.16., below) and replaced with a single unit. To be eligible for funding the existing certified locomotive and marine engines must operate at least 1,000 hours/year during the two years prior to upgrade.

D. Vehicle and Equipment Costs

1. **Vehicles, Engines, and Equipment**: Eligible project costs include the purchase price of eligible vehicles, engines and equipment as defined in Sections VIII and XI.

2. **Vehicle and Equipment Replacement Projects:**
   a. To be eligible for funding, replacement highway vehicles must be certified by EPA and/or CARB to meet applicable emission standards. To be eligible for funding, replacement nonroad equipment, locomotives and marine vessels must be powered by engines certified to EPA and/or CARB emission standards. However, zero tailpipe emissions nonroad equipment, marine vessels, and locomotives do not require EPA or CARB certification. EPA's annual certification data for vehicles, engines, and equipment may be found at EPA's Annual Certification Data for Vehicles, Engines, and Equipment website. EPA's engine emission standards may be found at EPA's All EPA Emission Standards website. Engines certified by CARB may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found on CARB's New Vehicle and Engine Certification website. Please see the Low NO_x Certified Engines Factsheet found on EPA's DERA State website for guidance on identifying engines certified to meet CARB's Optional Low NO_x Standards.

b. To be eligible for funding the replacement vehicle or equipment must be of similar type and gross vehicle weight rating or horsepower as the vehicle, engine, or equipment being replaced.
   1) Nonroad: Horsepower increases of more than 40 percent require specific approval by EPA prior to purchase, and the recipient may be required to pay the additional costs associated with the higher horsepower equipment.
   2) Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle. Exceptions may be granted for vocational purposes and require specific EPA approval prior to purchase.

c. The replacement vehicle, engine, or equipment must continue to perform similar function and operation as the vehicle, engine, or equipment that is being replaced.

d. The replacement vehicle must resemble the replaced vehicle in form and function. The cost of optional components or "add-ons" that significantly increase the cost of the vehicle may not be eligible for funding under the grant.

3. Battery Electric Powered Replacement Projects:

a. Eligible costs include the purchase and installation of one charging unit per vehicle, including the unit and charging cable, mount and/or pedestal.

b. Funding under this program cannot be used for power distribution to the pedestal, electrical panels and their installation, upgrades to existing electrical panels or electrical service, transformers and their installation, wiring/conduit and its installation, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation. Please note that although DERA grant funds and matching funds cannot be used for stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and DERA grant funds and matching funds cannot be used for on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation, recipients and their partners may add these components at their own expense outside the scope of the grant.

4. Grid Electric Powered Replacement Projects:

a. Eligible costs include the purchase and installation of certain equipment required for power delivery directly related to the new equipment. Eligible costs include design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.

b. Funding under this program cannot be used for power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g., batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation. Please note that although DERA grant funds and matching funds cannot be used for stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and DERA grant funds and matching funds cannot be used for on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation, recipients and their partners may add these components at their own expense outside the scope of the grant.

5. **Engine Replacement Projects:**
   - **a.** To be eligible for funding, replacement highway, nonroad, marine and locomotive engines must be certified to EPA and/or CARB emission standards. However, nonroad engine, locomotive engine, and marine engine zero tailpipe emissions engine replacements do not require EPA or CARB certification. Please reference EPA's Annual Certification Data for Vehicles, Engines, and Equipment, EPA's engine Emission Standards, and CARB's Executive Orders for Heavy-duty Engines and Vehicles. Please see DERA's Low-NOx Engine Factsheet for guidance on identifying engines certified to meet CARB's Optional Low NOx Standards.
   - **b.** Eligible costs include equipment and parts included in the certified engine configuration and/or are required to ensure the effective installation and functioning of the new technology such as design and engineering, parts and materials, and installation.
   - **c.** For engine replacement with battery, fuel cell, and grid electric, eligible costs include electric motors, electric inverters, battery assembly, direct drive transmission/gearbox, regenerative braking system, vehicle control/central processing unit, vehicle instrument cluster, hydrogen storage tank, hydrogen management system and fuel cell stack assemblies.
   - **d.** Funding under this program cannot be used to replace cabs, axles, paint, brakes, or mufflers.
   - **e.** To be eligible for funding the replacement engine must be of similar horsepower as the engine being replaced.
     - **1)** Nonroad: Horsepower increases of more than 40 percent require specific approval by EPA prior to purchase, and the recipient may be required to pay the additional costs associated with the higher horsepower equipment.
     - **2)** Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle. Exceptions may be granted for vocational purposes and require specific EPA approval prior to purchase.

6. **Engine Remanufacture System Projects:**
   - **a.** To be eligible for funding, remanufacture systems for locomotives and marine engines must be certified by EPA at the time of acquisition. The list of certified remanufacture systems are available at Annual Certification Data for Vehicles, Engines, and Equipment and additional information on remanufacture systems is available at EPA's Marine Remanufacturing Program: Maintaining Compliance when Rebuilding Category 1 and 2 Marine Diesel Engines.
   - **b.** Eligible costs include the associated labor costs for installation of the system.
   - **c.** Funding under this program cannot be used for the entire cost of an engine rebuild if a certified remanufacture system is applied at the time of rebuild; the funds may only be used for the cost of the certified remanufacture system and associated labor costs for installation of the kit.

7. **Idle Reduction Projects**:
   - **a.** Eligible costs for idle reduction technologies that are installed on the vehicle can include the associated labor costs for installation of the system.
   - **b.** To be eligible for funding technologies must be on EPA's SmartWay Verified Technologies list at the time of acquisition.

8. **Electrified Parking Space Projects:**
   - **a.** Eligible costs include the purchase and installation of certain equipment required for power delivery directly related to the new equipment such as electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.
   - **b.** Funding under this program cannot be used for power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g., batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.

9. **Locomotive Shore Power Connection Projects:**
   - **a.** Eligible costs include the purchase and installation of certain equipment required for power delivery directly related to the new equipment such as design and engineering, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.
   - **b.** Funding under this program cannot be used for power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g., batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.

10. **Marine Shore Power Connection Projects:**
    - **a.** Funding may support new installations, or expansions of existing shore power systems
    - **b.** To be eligible for funding, marine shore power projects must meet the following criteria:
      - **1)** Recipients must attest to compliance with international shore power design standards (IEC/ISO/IEEE 80005-1:2019/ AMD 1:2022 High Voltage Shore Connection Systems or the I IEC/ISO/IEEE 80005-1:2019/AMD 1:2022 Low Voltage Shore Connection Systems).
      - **2)** Shore power connection systems must be supplied with electricity from the local utility grid.
      - **3)** Demonstration that the proposed system has the capacity, demand, and commitment to be used for more than 1,000 megawatt-hours per year. Smaller projects will be considered if the recipient can demonstrate cost effectiveness.
      - **4)** Due to the unique nature and custom design of marine shore power connection systems, EPA must review and approve marine shore power connection systems on a case-by-case basis. If the project application is selected for funding, the final design of the marine shore power connection system requires specific EPA approval prior to purchase and installation.
      - **5)** Recipients must commit to reporting usage information to EPA for five years after the system is operational.
      - **6)** Shore power capable vessels docked at a berth where shore power is available must be required to turn off the vessel's engines and use the shore power system, with limited exceptions for extreme circumstances.

7) Eligible costs include the purchase and installation of the shore side equipment and certain equipment required for power delivery directly related to the new equipment such as design and engineering, cables, cable management systems, shore power coupler systems, distribution control systems, grounding switches, service breakers, capacitor banks, electrical panels, upgrades to existing electrical panels or electrical service, transformers, wiring/conduit, and installation.
8) Funding under this program cannot be used for shipside modifications to accept shore-based electrical power, power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation.

11. Retrofit Projects:

a. Eligible costs include the associated labor costs for installation of the system, design and engineering, DPF cleaning machines, extra DPFs for maintenance rotation, replacement CCV filters, and filter cleaning contracts during grant open period.
b. To be eligible for funding, verified retrofit technologies must be on EPA's or CARB's Verified Technologies lists at the time of acquisition, must be used only for the vehicle/engine application specified on the lists, and must meet any applicable verification criteria.
c. EPA will not fund stand-alone cleaner fuel/additive use. To be eligible for funding, verified fuels and additives must be for new or expanded use, and must be used in combination, and on the same vehicle, with a new eligible verified engine retrofit or an eligible engine upgrade or an eligible certified engine, vehicle, or equipment replacement funded under this program.

12. Alternative Fuel Vehicle Conversion Projects:

a. Eligible costs include the associated labor costs for installation of the system.
b. To be eligible for funding, alternative fuel conversion systems must be certified by EPA and/or CARB or must be approved by EPA for Intermediate-Age engines. See EPA's lists of "Certified Conversion Systems for New Vehicles and Engines" and "Conversion Systems for Intermediate-Age Vehicles and Engines" and CARB's list of "Approved Alternate Fuel Retrofit Systems."
c. To be eligible for funding, conversion systems for engine model years 2006 and earlier must achieve at least a 30% NO_x reduction and a 10% PM reduction from the applicable certified emission standards of the original engine.
d. To be eligible for funding, conversion systems for engine model years 2007 and newer must achieve at least a 20% NO_x reduction with no increase in PM from the applicable certified emission standards of the original engine. Applications for clean alternative fuel conversions should include a discussion of the availability of conversion systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the conversions result in the required emissions benefit.

13. Aerodynamics and Low Rolling Resistance Tire Projects:

a. Eligible costs include the associated labor costs for installation. Eligible costs can include single-wide wheels only when a fleet is retrofitting from standard dual tires to SmartWay-verified single-wide low rolling resistance tires.

b. Funding under this program cannot be used to replace steel wheels with aluminum wheels of the same configuration (singles or duals).

c. To be eligible for funding, technologies must be on EPA's verified aerodynamic technologies list and verified list for low rolling resistance new and retread tire technologies list at the time of acquisition, must be used only for the application specified on the lists, and must meet any applicable verification criteria.

d. EPA will not fund stand-alone aerodynamic technologies or low rolling resistance tires. To be eligible for funding, these technologies must be combined on the same vehicle with the new installation of an exhaust after-treatment retrofit funded under this program.

14. **Stationary Energy Storage and Power Generation Projects**: Funding under this program, including matching funds, cannot be used for stationary energy storage systems that power the equipment (e.g., batteries) and their installation or on-site power generation systems that power the equipment (e.g., solar and wind power generation equipment) and their installation. Recipients and their partners may add these components at their own expense outside the scope of the grant.

15. **Replacement Technologies**: Funding under this program cannot be used for the purchase of engine retrofits, idle reduction technologies, low rolling resistance tires or advanced aerodynamic technologies if similar technologies have previously been installed on the truck or trailer.

16. **Scrappage:** The vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within ninety (90) days of being replaced.

a. Cutting a three-inch-by-three-inch hole in the engine block (the part of the engine containing the cylinders) is the preferred scrapping method. Other scrappage methods may be considered and require prior EPA approval.

b. Disabling the chassis may be completed by cutting through the frame/frame rails on each side at a point located between the front and rear axles. Other scrappage methods may be considered and require prior written approval from the EPA project officer.

c. Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g., plow blades, shovels, seats, tires, etc.). If disabled engines, disabled vehicles, disabled equipment, or parts are to be sold, program income requirements apply.

d. Alternative Scrappage Options:

1) If a 2010 engine model year (EMY) or newer highway vehicle is replaced, the 2010 EMY or newer vehicle may be retained or sold if the 2010 EMY or newer vehicle will replace a pre-2009 EMY vehicle, and the pre-2009 EMY vehicle will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the 2010 EMY or newer vehicle currently operates, however alternative scenarios will be considered. All existing and replacement vehicles are subject to the funding restrictions in this guidance. All equipment

must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and requires prior EPA approval.

2) If a Tier 2, Tier 3, or Tier 4 locomotive, marine, or nonroad vehicle, equipment and/or engine is replaced, the units may be retained or sold if they will replace a similar, lower Tiered unit, and the lower Tiered unit will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the original Tier 2, 3, or 4 unit currently operates, however alternative scenarios will be considered. All existing and replacement equipment are subject to the funding restrictions in this guidance. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and requires prior EPA approval.

e. For tire replacement projects, the original tires must be scrapped according to local or state requirements.

f. Evidence of appropriate disposal is required in a final assistance agreement report submitted to EPA. Participating fleet owners must attest to the appropriate disposal in a signed scrappage statement. A sample scrappage statement may be found on EPA's DERA website. The scrappage statement must include:

1) Vehicle owner's name and address.

2) Vehicle make, vehicle model, vehicle model year, VIN, odometer reading or usage meter reading, engine make, engine model, engine model year, engine horsepower, engine ID or serial number, as applicable.

3) Name, address, and signature of dismantler.

4) Date engine and/or vehicle/equipment was scrapped.

5) Statement attesting to scrappage of vehicle/engine as defined above.

6) Signature of participating fleet owner.

7) Digital photos as follows:

- Side profile of the vehicle, prior to disabling.
- VIN tag or equipment serial number.
- Engine label (showing serial number, engine family number, and engine model year);
- Engine block, prior to hole.
- Engine block, after hole.
- Cut frame rails or other cut structural components, as applicable.
- Others, as needed

17. **Project Implementation Costs:** Eligible project costs include those costs directly related to the implementation, management, and oversight of the project, including recipient and subrecipient personnel and benefits, equipment, contractual, travel, supplies, subgrants and rebates, and indirect costs.

18. **Mechanic and Driver Training:** Eligible project costs can include mechanic/driver training related to the maintenance and operation of new technologies.

19. **Truck DPF Maintenance:** Eligible costs for truck replacement projects include the required/scheduled vehicle maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on

trucks. Funding for required maintenance is available for the duration of the period of performance.

20. **Federal Matching Funds**: Funding under this program cannot be included as a cost or used to meet cost sharing or matching requirements of any other federally financed grant, as required under 2 CFR 200.306(b)(5) and 2 CFR 200.403(f). This includes funds received under EPA's DERA State Grants Program and federal Supplemental Environmental Project funds.

21. **Expenses Incurred Prior to the Period of Performance**: Funding under this program cannot be used to cover expenses incurred prior to the project period of performance set forth in ny assistance agreement funded under this program, except for eligible pre-award costs as defined in 2 CFR 200.458 and as authorized by 2 CFR 200.309 and 2 CFR 1500.8.

22. **Emissions Testing**: Funding under this program cannot be used for emissions testing and/or air monitoring activities (including the acquisition cost of emissions testing equipment), research and development, or technology demonstration, commercialization, certification, or verification.

23. **Fueling Infrastructure**: Funding under this program cannot be used for fueling infrastructure, such as that used for the production and/or distribution of biodiesel, compressed natural gas, liquefied natural gas, and or other fuels.

24. **Mandated Measures**: Funding under this program cannot be used to fund the costs of emissions reductions that are mandated under federal law pursuant to 42 U.S.C. 16132(d)(2).

25. **Leasing**: Funding under this program cannot be used for leasing vehicles, engines, or equipment. If financing is necessary, the purchase should be financed with a conventional purchase loan.

26. **Buy America Requirements:** Certain projects under this program are subject to the Buy America Sourcing requirements under the Build America, Buy America (BABA) provisions of the Infrastructure Investment and Jobs Act (IIJA) (P.L. 117-58, §§70911-70917) when using Federal funds for the purchase of goods, products, and materials on any form of construction, alteration, maintenance, or repair of infrastructure in the United States. The Buy America preference applies to all of the iron and steel, manufactured products, and construction materials used for the infrastructure project under an award for identified EPA financial assistance funding programs. Please consider this information when preparing project and budget information.

    The recipient must implement these requirements in its procurements, and this article must flow down to all subawards and contracts at any tier. For legal definitions and sourcing requirements, the recipient must consult EPA's Build America, Buy America website.

    Under BABA, a Buy America preference only applies to articles, materials, and supplies

that are consumed in, incorporated into, or affixed to an infrastructure project.

On-highway vehicles/engines and non-road engines/equipment funded by this program are not considered "infrastructure." The following potentially eligible projects under this competition meet the definition of "infrastructure" and are subject to Buy America preference requirements under BABA:

- Structures, facilities, and equipment that generate, transport, and distribute energy - including electric vehicle (EV) charging equipment
- Any other permanent public structure that meets the infrastructure definition in M-24-02. Questions regarding BABA applicability to specific projects should be submitted to DERA@epa.gov.

When supported by rationale provided in IIJA §70914, the recipient may submit a request for a BABA waiver to EPA. If selected for funding, the recipient should request guidance on submitting a BABA waiver request to EPA from the EPA Project Officer. A list of approved EPA waivers is available on the Build America, Buy America website. Please continue to monitor this website for further BABA guidance or any future EPA-wide waivers that may impact the DERA State Grants program.

In additional to BABA requirements, all procurements under grants may be subject to the domestic preference provisions of 2 CFR 200.322. See "Build America, Buy America" clause in EPA Solicitation Clauses.

IX. COST-SHARE REQUIREMENTS

Any form of cost share, mandatory or voluntary, must be included in the budget detail portion of the project narrative, and the project must describe how and when the recipient will obtain the cost share and how the cost share funding will be used. Recipients may use their own funds or other sources for cost share if the standards of 2 CFR Part 200, as applicable, are met. **If the proposed cost share is to be provided by a named project partner, a letter of commitment is required**. Only eligible and allowable costs may be used for cost share.

The "DERA Funding Limits" (percentages) shown below represent the maximum portion of the equipment costs (parts and labor including sales tax) that can be covered with a combination of EPA DERA funds and any non-federal voluntary matching funds provided by the state. The portion of the costs that exceed the DERA Funding Limit is referred to as the "mandatory cost-share." Meeting the mandatory cost-share is ultimately the responsibility of the grantee, however the mandatory cost-share is typically provided by project partners (e.g., fleet owners). As discussed in Section V.C, states may contribute voluntary matching funds to the project to qualify for the matching incentive. In addition to a voluntary match provided by a state to receive the EPA matching incentive, a state may contribute a larger voluntary match to achieve additional diesel emission reductions under their DERA State Grant. Mandatory cost-share funds provided by the state and/or third parties cannot count towards the state's voluntary matching funds to qualify for the matching incentive.

Please note: DERA funds may not be used to meet mandatory cost sharing requirements for projects funded with environmental mitigation funds resulting from federal settlements (e.g.,

Volkswagen Environmental Mitigation Trust). Further, federal environmental mitigation funds may not be used to meet non-federal mandatory cost share requirements of any DERA grant.

Cost sharing and matching requirements under $200,000 for territory recipients (the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands) are waived as a matter of law as authorized by the Omnibus Territories Act, 48 U.S.C. Section 1469a. Territory recipients with applications that will require a cost share of $200,000 or more are advised to contact their EPA regional office to determine if cost share requirements will be waived in whole or in part.

A. Mandatory Cost Share Requirement: Projects are subject to the funding limitations and mandatory cost share requirements shown in Table 8, below.

Table 8: Cost Share Requirements

Eligible Technologies	EPA Funding Limit	Mandatory Cost Share
Drayage Truck Replacement	50%	50%
Vehicle or Equipment Replacement with EPA Certified Engine	25%	75%
Vehicle or Equipment Replacement with CARB Certified Low NOx Engine	35%	65%
Vehicle or Equipment Replacement with Zero-tailpipe Emission Power Source	45%	55%
Engine Replacement with EPA Certified Engine	40%	60%
Engine Replacement with CARB Certified Low NOx Engine	50%	50%
Engine Replacement with Zero-tailpipe Emission Power Source	60%	40%
EPA Certified Remanufacture Systems	100%	0%
EPA Verified Highway Idle Reduction Technologies when combined with new or previously installed exhaust after-treatment retrofit	100%	0%
EPA Verified Highway Idle Reduction Technologies without new exhaust after-treatment retrofit	25%	75%
EPA Verified Locomotive Idle Reduction Technologies	40%	60%
EPA Verified Marine Shore Connection Systems	25%	75%
EPA Verified Electrified Parking Space Technologies	30%	70%
EPA Verified Exhaust After-treatment Retrofits	100%	0%
EPA Verified Engine Upgrade Retrofits	100%	0%
EPA Verified Hybrid Retrofit Systems	60%	40%
EPA Verified Fuel and Additive Retrofits when combined with new retrofit, upgrade, or replacement	Cost differential between conventional diesel fuel	Cost of conventional diesel fuel
EPA Verified Aerodynamics and Low Rolling Resistance Tires when combined with new exhaust after-treatment retrofit	100%	0%

Alternative Fuel Conversion	40%	60%

Projects with mandatory cost share requirements must demonstrate on the SF-424 Application for Federal Assistance, on the SF-424A Budget Information for Non-Construction Programs, that the recipient will be able to meet the minimum mandatory cost share requirements. Specifically, the mandatory cost share funds must be indicated in at least one of the following blocks in Section 18, Estimated Funding, on the SF-424: b. Applicant; c. State; d. Local; or e. Other. The mandatory cost shared funds must also be indicated on the SF 424A in Section A Column (f), Section B columns (2), (3) and/or (4), and Section C.

Cost sharing and matching requirements under $200,000 for territory recipients (the U.S. Virgin Islands, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands) are waived as a matter of law as authorized by the Omnibus Territories Act, 48 U.S.C. Section 1469a. Territory recipients with applications that will require a cost share of $200,000 or more are advised to contact EPA to determine if cost share requirements will be waived in whole or in part.

B. Voluntary Cost Sharing: Voluntary cost sharing is when a recipient voluntarily proposes to legally commit to provide costs or contributions to support the project when a cost share is not required. Recipients who propose to use a voluntary cost share *must* include the costs or contributions for the voluntary cost share in the project budget on the SF-424 and SF-424A. If a recipient proposes a voluntary cost share, the following apply:

- A voluntary cost share is subject to the applicable provisions of 2 CFR § 200.306, *Cost sharing or matching*.
- A voluntary cost share may only be met with eligible and allowable costs.
- The recipient may not use other sources of federal funds to meet a voluntary cost share unless the statute authorizing the other federal funding provides that the federal funds may be used to meet a cost share requirement on a federal grant or cooperative agreement.

The recipient is legally obligated to meet any proposed voluntary cost share that is included in the approved project budget. If the proposed voluntary cost share does not materialize during the performance period of the grant or cooperative agreement, EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR Part 200.

X. WAIVER OF PROGRAMMATIC REQUIREMENTS

EPA will consider, on a case-by-case basis, waiver requests from programmatic requirements. Waivers will only be approved for non-statutory and/or non-regulatory requirements. Sufficient justification for the waiver must be provided by the state. States must obtain EPA approval for any waiver request before conducting any work or expending any funds on a project involving a waiver request. Any questions regarding waivers should be directed to the EPA Project Officer.

XI. AWARD ADMINISTRATION INFORMATION

A. Terms and Conditions: General administrative and programmatic terms and conditions

applicable to EPA assistance agreements under this Program may be viewed at: EPA Grant Terms and Conditions.

B. Funding to Other State Agencies: EPA's general policy, based on the definitions of the terms "Non-federal entity" (2 CFR §200.69), "Pass-through entity (2 CFR §200.74) "Recipient" (2 CFR §200.86) and "State" (2 CFR §200.90), is that the state itself is the legal entity that receives EPA funds even if one particular component of the state is named in the assistance agreement as the recipient. Transfers of EPA funds between state agencies to perform a particular financial assistance agreement would, therefore, be governed by state law. Additionally, 2 CFR §200.417 "Interagency Services" contemplates situations in which one agency provides services to another agency within the same unit of government as a direct cost of performing the EPA assistance agreement.

If utilizing interagency service agreements between state agencies under 2 CFR §200.417, the expenditures the state agency makes to carry out the Interagency Service Agreement should be shown in the corresponding direct cost categories (Personnel, Travel, Contractual etc.). If state law characterizes agreements under which one state agency provides services to another state agency as a procurement contract, then the costs would be placed in the contractual category. In interagency service situations, 2 CFR §200.417 provides the state may charge a pro-rated share of indirect costs for the service, or 10% of the ". . .direct salary and wage cost of providing the service (excluding overtime, shift premiums, and fringe benefits) may be used in lieu of determining the actual indirect costs of the service." Centralized services included in central service cost allocation plans subject to Appendix V of 2 CFR Part 200 are accounted for separately.

There may be situations in which state law provides that state agencies or instrumentalities are legally separate for the purposes of financial transactions between them or when state financial management policies for Federal assistance agreements require separate instruments for accounting purposes (e.g., due to differences in indirect cost rates). In those situations, a state may characterize appropriate funding transfers as subawards. Note, however, that if one state agency provides a subaward to another state agency the state agency acting as the pass-through entity must comply with applicable provisions of 2 CFR Part 200 (including 2 CFR §200.331), the National Term and Condition for Subawards, and the EPA Subaward Policy unless EPA provides an exception. The aggregate cost estimates for subawards to other state agencies or instrumentalities should be included as line items in the "Other" budget category.

C. In-Kind Assistance: The state may purchase equipment through blanket purchase agreements or some other mechanism that ensures a low price for the item. The state may then provide the equipment in lieu of money as in-kind assistance through a subaward.

D. Contract: As defined at 2 CFR §200.22, means a legal instrument by which a non-Federal entity purchases property or services needed to carry out the project or program under a Federal award. The term as used in this part does not include a legal instrument, even if the non-Federal entity considers it a contract, when the substance of the transaction meets the definition of a Federal award or subaward (see §200.92 Subaward).

E. Procurements: When procuring property and services under a Federal award, a state must

follow the same policies and procedures it uses for procurements from its non-Federal funds. The state will comply with §200.323 Procurement of Recovered Materials and ensure that every purchase order or other contract includes any clauses required by section §200.327 Contract provisions. All other non-Federal entities, including subrecipients of a state (other than another state agency), will follow §200.318 General Procurement Standards through §200.327 Contract Provisions.

F. Performance Partnership Grants: Funds awarded under this program are not eligible for inclusion with the state's Performance Partnership Grants.

G. State Notification: Executive Order 12372, Intergovernmental Review of Federal Programs, may be applicable to awards resulting from this announcement. EPA implemented the Executive Order in 40 CFR Part 29. EPA may require recipients selected for funding to provide a copy of their application to their State Point of Contact (SPOC) for review as provided at 40 CFR 29.7 and 40 CFR 29.8. on the Intergovernmental Review SPOC List.

H. Public Notification: Not later than 60 days after the date of the award of a subaward, rebate, or loan by a state, the state shall publish the following on the Web site of the state:

1. For subawards, rebates, and loans provided to the owner of a diesel vehicle or fleet, the total number and dollar amount of subawards, rebates, or loans provided, as well as a breakdown of the technologies funded through the subgrants, rebates, or loans; and
2. For other subawards, rebates, and loans, a description of each application for which the subaward, rebate, or loan is provided.

I. Reporting Requirements: Quarterly programmatic progress reports and a detailed final programmatic report will be required. Additional administrative and financial reporting may be required per the terms and conditions of the award.

1. **Progress Reports**: Progress reports summarizing technical progress, planned activities and a summary of expenditures are required. The schedule for submission of progress reports will be established by EPA, after the grants are awarded. A template for progress reports is available at the State DERA website.

2. **Final Reports**: The final report must include summary of the project or activity, emissions benefits and other outputs and outcomes achieved, and costs of the project or activity addition, the final report shall discuss the problems, successes, and lessons learned from the project or activity that could help overcome structural, organizational, or technical obstacles to implementing a similar project elsewhere. Award recipients may be provided with additional information and guidance on reporting performance measures and project progress after award. A template for the final report is available at the State DERA website. The final report shall be submitted to EPA within 120 calendar days of the completion of the period of performance. However, in order to facilitate awarding funds, the following fiscal year, it is recommended that the report be completed well before 120 days.

J. Additional Provisions for Recipients: Additional provisions that apply to awards made under this program can be found at EPA Solicitation Clauses. These provisions are important for applying to this solicitation and recipients should review them when preparing

applications for this solicitation.

K. Administrative and National Policy Requirements: A listing and description of general EPA regulations applicable to the award of assistance agreements may be found at EPA Policies and Guidance for Grants.

APPENDIX A – Further information Regarding Contracts, Subawards, and Participant Support Costs

I. Background

The Standard Form 424A (SF-424A) includes a separate row for "contractual" costs and "other" costs. As noted in the workplan template., the "other" cost category on the SF-424A should be used to cover both subawards and participant support costs. Depending on the project, these costs may be applicable to a DERA application. This appendix helps clarify these differences. Additional information about participant support costs is contained in RAIN-2018-G05, "EPA Guidance on Participant Support Costs."

Where the target fleets are owned and operated by the DERA grant recipient, the recipient may directly implement the project. The recipient is responsible for procuring all vehicles and equipment in accordance with applicable competitive procurement requirements in 2 CFR Part 200. The recipient's budget should reflect only those expenses incurred directly by the recipient organization for personnel, fringe, travel, supplies, equipment, contractual, other, and indirect.

If a recipient intends to fund the proposed project's technologies (i.e., vehicles, engines, equipment) that they do not directly own, the recipient may have the option to: (1) issue a contract; (2) make a subaward to an eligible entity; or (3) provide participant support costs to a program beneficiary. For options (2) and (3), the recipient may be able to fund technology and installation costs, but only subawards can be used to fund direct and indirect costs. If the grant recipient only intends to fund equipment and installation costs, the recipient may choose to provide participant support costs to a program beneficiary rather than a subaward. DERA recipients often use participant support costs to offer rebates or vouchers for vehicle costs.

II. Contracts

As described in 2 CFR § 200.331, a contract is for the purpose of obtaining goods and services for the recipient's own use and creates a procurement relationship with the contractor. Characteristics indicative of a procurement relationship between the recipient and a contractor are when the contractor:

- Provides the goods and services within normal business operations.
- Provides similar goods or services to many different purchasers.
- Normally operates in a competitive environment.
- Provides goods or services that are ancillary to the operation of the federal program; and
- Is not subject to compliance requirements of the federal program as a result of the agreement, though similar requirements may apply for other reasons.

Grant recipients that enter into procurement contracts, must comply with the applicable procurement provisions in 2 CFR § 200.317 through 200.327.

III. Subawards

Under 2 CFR § 200.1, subrecipient means a non-federal entity that receives a subaward from a grantee to carry out part of a federal program but does not include program beneficiaries receiving participant support costs; see Section IV. of this appendix below. Grant recipients may make subawards to subrecipients to carry out a portion of the grant project; in such case, the

grant recipient is also known as a "pass-through entity." Subawards establish a financial assistance relationship under which the subrecipient's employees and contractors implement programs and projects to accomplish the goals and objectives of the grant. It is important to bear in mind that subrecipients are subject to the same federal requirements as the pass-through entity.

Under this competition, a non-federal entity is eligible to receive a subaward even if it is not eligible to receive a grant from EPA directly. While there may be some situations in which a subaward to an individual may be appropriate, those situations are rare.

Subrecipients only receive reimbursement for their actual direct or approved indirect costs and do not "profit" from the transaction. For-profit entities participating in grant activities are typically contractors rather than subrecipients.

EPA's Award Official must approve subawards to for-profit entities and individuals on the basis of either a precise description of the subaward in the EPA approved budget and project narrative, or on a transaction-by-transaction basis.

The recipient's project narrative and budget narrative should include detailed descriptions of any proposed subawards and include cost estimates for subawards as line items under the "Other" budget category in the SF-424A. Should a recipient decide to make a subaward that was not described in the approved project narrative and budget, the recipient must obtain prior written approval from EPA's Award Official for the subaward.

If a recipient chooses to pass funds from its grant to other entities through subawards, the recipient must comply with applicable subaward provisions of 2 CFR Part 200, the EPA Subaward Policy, and EPA's National Term and Condition for Subawards. Note that under 2 CFR § 200.331 through 200.333, there are extensive requirements for subrecipient monitoring and management that apply to pass-through entities.

Many of the federal administrative grant regulations in 2 CFR Part 200 and 2 CFR Part 1500, as well as the grant terms and conditions in the assistance agreement, "flow down" to subrecipients receiving a subaward. Such requirements need to be identified in the written subaward agreement between the recipient and the subrecipient. Additionally, if a subrecipient intends to procure goods or services using targeted airshed grant funds, the subrecipient must comply with the applicable federal procurement standards in 2 CFR Part 200, 2 CFR Part 1500, and 40 CFR Part 33 as these requirements also "flow down" to subrecipients.

There is no requirement for recipients to compete subawards under this program; however, pass-through entities may choose to select subrecipients competitively provided this practice is consistent with applicable statutes, regulations, and the terms and conditions of their targeted airshed grant.

Recipients may use the subaward template contained in Appendix D of EPA's Subaward Policy to assist them in complying with the "subaward content" requirements; however, EPA does not mandate the use of this template.

IV. Participant Support Costs

Recipients may provide participant support costs (PSCs) to program beneficiaries to enable beneficiaries to participate in the recipient's program or project. PSCs include rebates, subsidies, stipends, or other payments to program beneficiaries by a recipient, subrecipient, or contractor. For example, PSCs might be used for the purchase of eligible technologies. Program beneficiaries, rather than the grant recipient, would own the new technology.

PSCs differ from subawards in that the beneficiary is participating in the grant recipient's project or program instead of implementing their own project or program. Program beneficiaries may include but are not limited to individual owner/operators, private or public fleet owners, or residents in the applicable area; however, program beneficiaries are not employees, contractors or subrecipients of the grant recipient.

Recipients may also use PSCs to make purchases on behalf of program beneficiaries. In some situations, this approach allows grant recipients to achieve economies of scale and/or take advantage of existing purchase contracts. Competitive procurement requirements apply to the grant recipient when the recipient takes this approach.

The federal administrative grant regulations in 2 CFR Part 200 and 2 CFR Part 1500, as well as the grant terms and conditions in the recipient's grant agreement, generally do not "flow down" to program beneficiaries receiving PSCs except that costs must be reasonable and incurred within the grant period of performance. Requirements for compliance with civil rights laws and ensuring that program beneficiaries are eligible to receive federal financial assistance are applicable as explained in *EPA Guidance on Participant Support Costs*. In addition, program beneficiaries must abide by requirements to ensure that the funds are used only for authorized purposes.

If a recipient, subrecipient, or contractor is issuing PSCs, it must have a written agreement in place. The written agreement should not be structured as a subaward agreement and should not refer to program beneficiaries as subrecipients consistent with 2 CFR § 200.1, "Subrecipient." In addition, the written agreement should not include language requiring the program beneficiary to comply with the federal grant regulations at 2 CFR § Part 200, 2 CFR § Part 1500, or the terms and conditions found in the award between the EPA and the recipient, other than requiring that the costs must be reasonable, necessary, and allocable. The written agreement should also include the following:

- A description of the activities and amounts that will be supported by the PSCs;
- The program and/or statutory requirements that the program beneficiary must abide by in order to ensure that the funds are used only for authorized purposes;
- Specify which party will have title to the technologies (e.g., vehicles, engines, equipment and/or appliances), if any, purchased with PSCs;
- Source documentation requirements to ensure proper accounting of the PSCs; and
- Any reporting that must be submitted by the program beneficiary.

EPA's Award Official must approve PSCs on the basis of either a precise description of the PSCs in the EPA approved budget and work plan, or on a transaction-by-transaction basis. The recipient's project narrative and budget narrative should include detailed descriptions of any proposed PSCs and include cost estimates for PSCs as line items under the "Other" budget category. Should a recipient decide to issue PSCs that were not described in the approved work

plan and budget, the recipient must obtain prior written approval from EPA's Award Official. Moreover, after a grant is awarded, should a recipient decide to modify the amount approved (upwards or downwards) for PSCs, prior written approval from EPA's Award Official is also required.

When creating budgets, recipients must exclude PSCs from Modified Total Direct Costs for calculation of indirect costs as required by 2 CFR § 200.1, "Modified Total Direct Costs."

Resources:
RAIN-2018-G05, "EPA Guidance on Participant Support Costs."

Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements

Grants Policy Issuance 16-01: EPA Subaward Policy for EPA Assistance Agreement Recipients, with attachments, includes:

- EPA Subaward Policy
- Appendix A: Distinctions Between Subrecipients and Contractors
- Appendix B: National Term and Condition for Subawards
- Appendix C: Model Programmatic Subaward Reporting Requirement
  Appendix D: Subaward Agreement Template

APPENDIX B – Quantifying Environmental Outcomes

Diesel Emissions Reductions for Most Project Types

To estimate the anticipated emissions reductions from your project, use the Diesel Emissions Quantifier (DEQ) found at https://cfpub.epa.gov/quantifier/index.cfm?action=main.home. After running the DEQ, results may be downloaded as a spreadsheet showing DEQ results and inputs. Recipients should include a printout of their DEQ results spreadsheet showing DEQ results and inputs as an attachment to their application.

Use the same vehicle/engine data you provided for the applicant fleet description to run the DEQ. Please note you can group similar entries together to minimize the number of DEQ runs required (model year, vehicle miles traveled, idling hours, usage rate, and horsepower). It is recommended that you "Register a New Account" and log in to use the DEQ so that you will have the ability to save scenario information and retrieve it in the future.

From the DEQ results page (example shown below), enter the annual amount reduced after upgrades, and the lifetime amount reduced after upgrades for each of the listed pollutants (NO_x, $PM_{2.5}$, HC, CO, CO_2) in the "Outputs and Outcomes," of your workplan.

To calculate CO_2 emissions reductions, you must input an amount for annual diesel gallons reduced (per engine), annual idling hours reduced (per vehicle), or annual hoteling hours reduced (per vehicle) when inputting technology information for the vehicle group.

Cost Effectiveness for Most Project Types

To estimate total cost effectiveness for the project**,** enter estimated total costs in the total project costs field on the create new project page in the DEQ. Total project costs reflect all costs related to this project, including EPA's share and any voluntary and mandatory cost shares. Total project costs entered into the DEQ should match the total project costs reflected in the budget detail and the SF424.

To estimate capital cost effectiveness for the project, enter the estimated upgrade cost per unit and labor cost per unit on the add an upgrade page in the DEQ. Be sure to enter costs for every upgrade/vehicle in your project or else the results will be skewed.

From the DEQ results page (example shown below), enter the lifetime capital cost effectiveness for NO_x and $PM_{2.5}$, and the total project cost effectiveness for NO_x and $PM_{2.5}$ in the "Outputs and Outcomes," of your work plan.

For further instruction on using the DEQ, please refer to https://cfpub.epa.gov/quantifier/index.cfm?action=main.home. Additional assistance is available by emailing DEQhelp@epa.gov.

Emission Results and Health Benefits for Project: Sample Project

Emission Results | Health Benefits

Emission Results

Here are the combined results for all groups and upgrades entered for your project.[1]

Annual Results (short tons)[2]	NO_x	PM2.5	HC	CO	CO_2	Fuel[3]
Baseline for Upgraded Vehicles	7.978	0.636	1.053	3.885	1,300.5	115,600
Amount Reduced After Upgrades	2.841	0.469	0.808	2.667	76.5	6,800
Percent Reduced After Upgrades	35.6%	73.7%	76.7%	68.6%	5.9%	5.9%
Lifetime Results (short tons)[2]						
Baseline for Upgraded Vehicles	46.414	3.660	6.085	22.447	7,650.0	680,000
Amount Reduced After Upgrades	15.795	2.660	4.637	15.223	612.0	54,400
Percent Reduced After Upgrades	34.0%	72.7%	76.2%	67.8%	8.0%	8.0%
Lifetime Cost Effectiveness ($/short ton reduced)						
Capital Cost Effectiveness[4] (unit & labor costs only)	$272,237	$1,616,781	$927,230	$282,468	$7,026	
Total Cost Effectiveness[4] (includes all project costs)	$200,572	$1,191,174	$683,142	$208,110	$5,177	

[1] Emissions from the electrical grid are not included in the results.

[2] 1 short ton = 2000 lbs.

[3] In gallons; fuels other than ULSD have been converted to ULSD-equivalent gallons.

[4] Cost effectiveness estimates include only the costs which you have entered.

Remaining Life	**doc+ccv:** School Bus | School Buses	6 years
	dpfs: School Bus | School Buses	6 years
	vehicles: School Bus | School Buses	6 years
	SB subgrant: School Bus | School Buses	6 years
	rebates: School Bus | School Buses	4 years
	electric: School Bus | School Buses	8 years

Downloading Spreadsheets

Results may be downloaded as a:

- Spreadsheet showing DEQ results and your inputs (click on 'yes' if you get an error message).

Alternative Methods

If you are unable to use the DEQ, you may use EPA's Motor Vehicle Emissions Simulator (MOVES) for calculating emissions reductions.

Other methods may be used as appropriate. If an alternative method is used, you must thoroughly describe and document your methods in an attachment to your project narrative.

Diesel Emissions Reductions Above and Beyond any Restriction for Mandated Measures

No funds awarded under this program shall be used to fund the costs of emissions reductions that are mandated under federal law. See Appendix C for more information on the restriction for mandated measures.

If the project takes place in an affected area, or includes affected vehicles, engines, or equipment, as described in Appendix C, emissions reduction benefits shall only be calculated for emissions reductions implemented prior to the effective date of the applicable mandate and/or emissions reduction benefits shall only be calculated for emissions reductions that are in excess of (above and beyond) those required by the applicable mandate.

Option 1: To calculate emissions reduction benefits for emissions reductions implemented prior to the effective date of the applicable mandate the recipient must use the following formula to calculate lifetime emissions benefits that may be claimed.

Follow the instructions above to run the DEQ. From the DEQ results page enter the **annual amount reduced** in the spaces provided below.

_____	_____	_____	_____	_____
NO_x (tons/yr)	$PM_{2.5}$(tons/yr)	HC (tons/yr)	CO (tons/yr)	CO2 (tons/yr)

Note: These are the annual results, not the lifetime results.

Retrofit Year = _____ Mandate Compliance Year = _____

Multiply the values for each pollutant by the difference of the mandate year and the retrofit year and enter the calculated lifetime emissions for each of the listed pollutants (NO_x, $PM_{2.5}$, HC, CO, CO_2) in the "Outputs and Outcomes," of your work plan.

For example, if the mandate is slated to occur in 2025 and the retrofit will take place in 2021, then multiply the values above by 4 (2025 - 2021=4) to calculate lifetime emissions that may be claimed prior to the mandate.

Recipients must thoroughly describe and document their methods in an attachment to the project narrative.

Option 2: To calculate emissions reduction benefits for emissions reductions that are in excess of (above and beyond) those required by the applicable mandate the recipient must use the following formula to calculate lifetime emissions benefits that may be claimed.

Follow the instructions above to run the DEQ using the target engines and the

technologies/emissions reductions that are required by the mandate. From the DEQ results page, enter the "**mandated" lifetime amount reduced** in the spaces provided below.

_____	_____	_____	_____	_____
NO_x (tons)	$PM_{2.5}$ (tons)	HC (tons)	CO (tons)	CO2 (tons)

Then, follow the instructions above to run the DEQ using the target engines and the technologies/emissions reductions that are proposed for the project (i.e. based on the vehicle/engine data you provided for the applicant fleet description). From the DEQ results page, enter the "**proposed project" lifetime amount reduced** in the spaces provided below.

_____	_____	_____	_____	_____
NO_x (tons)	$PM_{2.5}$ (tons)	HC (tons)	CO (tons)	CO2 (tons)

Subtract the mandated values for each pollutant from the proposed project values and then enter the calculated lifetime emissions for each of the listed pollutants (NO_x, $PM_{2.5}$, HC, CO, CO_2) in the "Outputs and Outcomes," of your workplan.

Recipients must thoroughly describe and document their methods in an attachment to the project narrative.

Diesel Emissions Reductions for Marine Shore Power Connection Systems

EPA developed a shore power technology assessment to review the availability of shore power at ports throughout the U.S., and to characterize the technical and operational aspects of shore power systems at U.S. ports. The assessment included compiling technical information working in partnership with ports that have installed shore power. The second part of the assessment presents a new methodology for estimating emissions reductions from shore power systems for vessels docked and connected to shore power. The calculator tool provided with this report can be used to estimate how diesel emissions could be reduced through the use of shore power systems.

The tool uses vessel and activity inputs, as well as the offsetting emissions of electrical power use from shore-side power to calculate emissions reductions.

The report, titled "Shore Power Port Assessment at US Ports 2022 Update Report,." and the calculator tool can be found here: www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports.

Step-by-step instructions to quantify emissions reductions using the recommended approach are provided in Appendix B of the Shore Power Port Assessment Report.

Recipients must thoroughly describe and document their methods in an attachment to the project narrative.

APPENDIX C – Mandated Measures Justification

No funds awarded may be used to fund emission reductions mandated by federal statute. The restriction applies when the mandate takes effect (the effective date) for any affected vehicles, engines, or equipment. This restriction does not apply to a mandate in a State Implementation Plan (SIP) approved by the EPA Administrator under the Clean Air Act. Voluntary or elective emissions reduction measures shall not be considered "mandated," regardless of whether the reductions are included in the SIP.

Specifically, projects involving locomotives and marine engines are not eligible for funding if the emissions reductions are required by EPA's locomotive and marine rule, "Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder." Also, projects involving stationary engines will not be considered for funding if the emissions reductions proposed for funding are required by EPA's RICE rule, "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ).

All recipients whose projects include locomotives and/or marine engines and/or stationary engines must demonstrate why/how the proposed project's emissions reductions are not subject to the restriction for mandated measures under this program. The justification must clearly demonstrate why/how:

- the engines are exempt from the requirements of EPA's rule; or
- emissions reductions funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule; and/or
- emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule but are in excess of (above and beyond) those required by the applicable mandate.

Recipients must provide sufficient information to support the justification, including copies of maintenance records, if applicable. Recipients are responsible for addressing all applicable parts of the rule in their justification for why/how the emissions reductions proposed for funding are not subject to the restriction for mandated measures under this program**.**

Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder

What is sufficient justification?

For locomotives, the justification must include, but is not limited to:

- The original build date of each locomotive.
- The model year of the existing engines for each locomotive.
- Whether the existing locomotive engines are the original engines that were installed in the locomotive by the locomotive manufacturer at the time of original manufacturer, or whether the original engines were ever replaced or upgraded (prior to the activities that are being proposed for funding). If so, when and what upgrades were made?

- The date that the power assemblies of each existing engine have been replaced, if ever.

As outlined above, certain locomotives and marine engines are exempt from the rule. This exemption may be based on the age and/or size of the locomotive or marine engines, or on the type or size and/or annual revenue of the owner/operator. In these cases, sufficient justification would include a summary of the rule applicability and an explanation of why each locomotive or marine engine is exempt from the rule. For example:

> *"EPA's Marine Remanufacture Program applies only to those commercial marine propulsion and auxiliary diesel engines which meet all of the following criteria:*
> *• C1 and C2 engines (i.e. per cylinder displacement up to 30 liters);*
> *• Greater than 600 kW (800 hp);*
> *• Tier 2 and earlier engines; and*
> *• Built in model year 1973 or later.*
>
> *Engines A, B, and C, as described fully in the previously submitted Applicant Fleet Description, are exempt from the requirements of EPA's marine rule because all three engines are of original model year 1972. Further, all three of these engines are 600 horsepower engines and are therefore exempt from the rule requirements.*

As outlined above, certain locomotives and marine engines may be subject to the rule requirements, but the recipient may be able to demonstrate that the emissions reduction funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule and/or emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule, but are in excess of (above and beyond) those required by the applicable mandate. In these cases, sufficient justification would include a summary of the rule applicability and an explanation of how the proposed emissions reductions from each locomotive or marine engine meet the criteria listed above. For example:

> *"Marine Engine D is a commercial C1 marine diesel engine of 900 hp, built in model year 1980, and is unregulated (please see previously submitted Applicant Fleet Description for full engine information including marine engine model and engine family name), therefore this engine is covered by EPA's Marine Remanufacture Program. We have conducted a thorough search of EPA's list of remanufacture systems (i.e. "kits", certified for use with Category 1 and 2 marine diesel engines according to the provisions of 40 CFR Part 1042, Subpart I) listed here www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, and have determined that at this time there are no certified kits available for this engine. Therefore, there are no applicable requirements under the rule for this engine at this time and the emissions reductions proposed for EPA funding are not subject to the Restriction for Mandated Measures under this program.*
>
> OR
>
> *"Marine Engine E is a commercial C1 marine diesel engine of 900 hp, built in model year 1980, and is unregulated (please see previously submitted Applicant Fleet*

Description for full engine information, including marine engine model and engine family name), therefore this engine is covered by EPA's Marine Remanufacture Program. We have conducted a thorough search of EPA's list of remanufacture systems (i.e. "kits", certified for use with Category 1 and 2 marine diesel engines according to the provisions of 40 CFR Part 1042, Subpart I) listed here www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, and have determined that at this time there is one certified remanufacture kit available for this engine: [insert kit info].

However, emissions reductions funded with EPA funds will not be used to satisfy any applicable requirements under the rule but are in excess of (above and beyond) those required by the applicable mandate. [The recipient should include a thorough discussion of the emissions reductions that could be achieved by the application of the certified kit to the existing engine and the emissions reductions that will be achieved by the activities proposed from funding under the grant. The recipient should calculate the difference between the required emissions reductions and the proposed emissions reductions and should be able to clearly demonstrate that emissions reductions funded with EPA funds are in excess of (above and beyond) those required by the rule.]

Therefore, the emission reductions proposed for EPA funding are not subject to the restriction for mandated measures under this program.

Additional Resources:

- Final Rule: www.gpo.gov/fdsys/pkg/FR-2008-06-30/pdf/R8-7999.pdf
- Fact Sheet: EPA Finalizes More Stringent Emissions Standards for Locomotive Engines and Marine Compression-Ignition Engines: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100094D.PDF?Dockey=P100094D.PDF
- Fact Sheet: Control of Emissions from Idling Locomotives EPA420-F-08-014, may be found at the National Service Center for Environmental Publications (www.epa.gov/nscep).
- Summary of locomotive emission standards: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA09.pdf
- Frequently Asked Questions from Marine Engine Owners and Rebuilders about EPA's Marine Remanufacture Program EPA420-F-09-003, may be found at the National Service Center for Environmental Publications (www.epa.gov/nscep).
- Summary of marine emission standards: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA0B.pdf
- Marine and Locomotive Certified Remanufacture Systems: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data