AGENCY: ENVIRONMENTAL PROTECTION AGENCY (EPA)

TITLE: Projects to Improve Air Quality at Ports – 2013 Diesel Emissions

**Reduction Act (DERA) Funding Opportunity** 

**ACTION:** Request for Proposals (RFP)

**RFP NUMBER: EPA-OAR-OTAQ-14-02** 

## **CATALOG OF FINANCIAL DOMESTIC ASSISTANCE NUMBER: 66.039**

#### **IMPORTANT DATES**

December 11, 2013 RFP OPENS

February 13, 2014 RFP CLOSES – PROPOSALS DUE

March 2014 ANTICIPATED NOTIFICATION OF SELECTION

Spring 2014 ANTICIPATED AWARD

The closing date for receipt of proposals is **February 13, 2014**. All hard copies of proposal packages must be received by the EPA contact described in Section IV by **February 13, 2014, 4:00 EST** in order to be considered for funding. Electronic submissions submitted through <a href="https://www.grants.gov">www.grants.gov</a> must be received by **February 13, 2014, 4:00 p.m. EST**. Proposals received after the closing date and time will not be considered for funding. See Section IV of the RFP for further submission information.

#### **SUMMARY**

EPA's Office of Transportation and Air Quality (OTAQ) is soliciting proposals that achieve significant reductions in diesel emissions in terms of tons of pollution produced by diesel engines and diesel emissions exposure, from fleets operating at marine and inland water ports.

Eligible diesel emission reduction solutions include verified emission control technologies such as exhaust controls and engine upgrades, verified idle reduction technologies, certified engine repowers, and/or certified vehicle or equipment replacement. Please refer to Page 2 for a summary of important funding limits regarding these emission reduction solutions.

Eligible diesel vehicles, engines and equipment may include drayage trucks, marine engines, locomotives and nonroad engines, equipment or vehicles used in handling of cargo at a marine or inland water port.

Eligible entities include public port authorities with jurisdiction over transportation or air quality at a marine or inland water port. Community groups, local governments, terminal operators, shipping carriers, and other business entities involved in port operations are encouraged to participate through partnerships with eligible port authorities. See Section III for further eligibility information.

This solicitation is being offered in addition to EPA's annual National Clean Diesel Campaign (NCDC) Funding Assistance Program. EPA intends to make future awards under the NCDC Funding Assistance Program subject to the availability of funding.

#### **FUNDING / AWARDS**

The total estimated funding for this competition is approximately \$4 million. EPA anticipates awarding two to five cooperative agreements from this announcement, subject to availability of funds, the quality of proposals received, and other applicable considerations. Applicants cannot request more than \$2 million in federal funding – proposals requesting more than \$2 million in federal funds will not be reviewed. Funding will be in the form of cooperative agreements.

# **Summary of What EPA Will Fund**

- **Verified Exhaust Control Technologies**: EPA will fund up to 100% of the cost of eligible verified exhaust control technologies.
- **Verified/Certified Engine Upgrades**: EPA will fund up to 40% of the cost (labor and equipment) of eligible engine upgrades.
- Verified Idle Reduction Technologies:
  - **Verified Locomotive Idle Reduction Technologies**: EPA will fund up to 40% of the cost of eligible idle reduction technologies on locomotives.
  - **Verified Marine Shore Connection Systems**: EPA will fund up to 25% of the cost of eligible shore connection systems.
- **Certified Engine Repower**: EPA will fund up to 40% of the cost (labor and equipment) of an eligible engine repower.
- Certified Vehicle/Equipment Replacement:
  - Nonroad Diesel Vehicles and Equipment: EPA will fund the incremental cost of a newer, cleaner vehicle or piece of equipment powered by a 2013 or newer model year certified nonroad diesel engine, up to 25% of the cost of an eligible replacement vehicle or piece of equipment.
  - **Drayage Truck Replacement**: EPA will fund up to 50% of the cost of eligible drayage trucks with a 2010 model year or newer heavy-duty engine.
- Clean Alternative Fuel Conversions: EPA will fund up to 40% of the cost (labor and equipment) of an eligible clean alternative fuel conversion.

Pursuant to 42 USC 16132(d)(2), no funds awarded under this RFP shall be used to fund the costs of emission reductions that are mandated under federal law. Specifically, projects involving locomotives and marine engines will not be considered for funding under this RFP if the emissions reductions proposed for funding 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."

Proposals for emissions reductions from locomotives and/or marine engines that do not include a "Mandated Measures Justification and Substantiation Letter(s)" as an attachment to the proposal, as described in Section III.D.1 and Appendix D of this RFP, are not eligible and will not be reviewed.

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#### I. FUNDING OPPORTUNITY DESCRIPTION

## A. Background

Reducing emissions from diesel engines is one of the most important air quality challenges facing the country. In 2009, nationwide diesel emissions from mobile sources alone accounted for approximately 300,000 tons of directly emitted fine Particulate Matter (PM 2.5) and 6.4 million tons of oxides of nitrogen ( $NO_x$ ), which contribute to the formation of ozone and additional fine particles. Despite EPA's diesel engine and fuel standards for new engines, the eleven million diesel engines already in use continue to emit large amounts of  $NO_x$  and PM 2.5, which contribute to serious public health problems, including asthma, lung cancer and various other cardiac and respiratory diseases. These problems result in thousands of premature deaths, millions of lost work days, and numerous other negative health impacts every year.

Marine and inland water transportation is a key component of the U.S. national economy for both domestic and international trade. According to the U.S. Maritime Administration, more than 2.0 billion metric tons of goods were shipped via waterborne transportation in 2009. Several studies, including EPA's National Air Toxics Assessment, have identified high levels of diesel emissions at or near marine and inland water ports. Most of the country's busiest water ports are located in or adjacent to large metropolitan areas and, as a result, expose a significant number of citizens in nearby communities to high levels of diesel emissions. Additionally, many large water ports are located in non-attainment areas for ozone and particulate matter.

To protect public health and air quality by reducing port-related diesel emissions, the U.S. Environmental Protection Agency (EPA) has initiated a dialogue with port stakeholders. The purpose of this dialogue is to help promote clean air strategies by working with fleet operators, air quality professionals, environmental and community organizations and state and local officials to reduce diesel emissions. This effort supports EPA's goal of furthering environmental justice by prioritizing emission reductions in areas receiving disproportionate impacts from diesel fleets to provide an environment where all people enjoy the same degree of protection from environmental and health hazards.

The Diesel Emissions Reduction Act (DERA), codified at 42 U.S.C. 16131 *et seq.*, authorizes EPA to offer funding assistance to eligible entities on a competitive basis. Fiscal Year (FY) 2008 was the inaugural year of funding for the DERA program, and since then EPA has awarded funds to over 500 projects to reduce diesel emissions nationwide. Specific information on these funded projects can be found at: www.epa.gov/cleandiesel/projects/.

# B. Scope of Work

The goal of this Request for Proposals (RFP) is to fund projects that will result in significant reductions of diesel emissions at marine and inland water ports in areas of poor air quality, promote partnerships of port-related stakeholders to work together to create long-term sustainable plans for further reducing emissions, and benefit the health of communities surrounding ports. A single proposal may target multiple fleets, fleet types and/or diesel emission reduction solutions.

In order to achieve the objectives of the program, proposals must address the following three elements:

- **1.** Eligible Diesel Vehicles, Engines and Equipment: Projects are limited to diesel emission reduction solutions from the following heavy-duty diesel emission source types:
  - **a.** Drayage trucks<sup>1</sup>;
  - **b.** Marine vessels;
  - c. Locomotives; and
  - **d.** Nonroad engines, equipment or vehicles used in the handling of cargo at a marine or inland water port.
- **2.** Eligible Diesel Emission Reduction Solutions: Projects must include one or more of the following diesel emission reduction solutions that utilize a certified engine configuration and/or a verified technology.

A "retrofit" project is defined broadly to include any technology, device or system that, when applied to an existing diesel engine, achieves emission reductions beyond what is currently required by EPA regulations at the time of the engine's certification.

Additional information about the diesel emission reduction solutions listed below, as well as technical tips and important points to consider, is available at <a href="https://www.epa.gov/cleandiesel/documents/420p11001.pdf">www.epa.gov/cleandiesel/documents/420p11001.pdf</a>. Technology changes may not be allowed after a proposal has been selected. If technology compatibility issues arise, EPA may elect to terminate the cooperative/assistance agreement, at which time assistance funds must be returned to EPA.

a. Exhaust Controls: Exhaust Controls include pollution control devices installed in the exhaust system (such as oxidation catalysts and particulate matter filters), or systems that include crankcase emission control (like a closed crankcase filtration system). This funding can cover up to 100% of the cost (labor and equipment) for an eligible verified emission control. EPA suggests that each applicant requesting diesel particulate filters datalog the exhaust temperature of all vehicles to be considered before the application is submitted, so that there is evidence that the fleets can accommodate the technology. Datalogging for drayage trucks is particularly important because the low speed of operation and extended idling periods may not be compatible with certain diesel particulate filter devices.

A list of eligible, EPA verified exhaust control technologies is available at: <a href="https://www.epa.gov/cleandiesel/verification/verif-list.htm">www.epa.gov/cleandiesel/verification/verif-list.htm</a>; a list of eligible, California Air Resources Board (CARB) verified exhaust control technologies is available at: <a href="https://www.arb.ca.gov/diesel/verdev/vt/cvt.htm">www.arb.ca.gov/diesel/verdev/vt/cvt.htm</a>. The types of technologies proposed for funding under this category must be on one of these lists for the specific vehicle/engine application specified in the proposal at the time of proposal submission to EPA. If selected for funding, verified technologies used by the grant recipient must be specifically named on EPA or CARB's Verified Exhaust Control Technologies lists at the time of acquisition, and used

<sup>&</sup>lt;sup>1</sup> Definition of Drayage Truck: any Class 8b in-use on-road vehicle with a gross vehicle weight rating (GVWR) of greater than 33,000 pounds 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.

only for the vehicle/engine applications specified on the list, in order to be eligible for funding.

b. Engine Upgrades: Generally, an engine upgrade involves the removal of parts on an engine during a rebuild and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine. Some nonroad and marine engines are able to be upgraded to reduce their emissions by applying manufacturer upgrades that are retrofits currently verified by EPA or CARB as a package of components demonstrated to achieve specific levels of emission reductions. Some locomotives and marine engines are able to be upgraded through the application of a certified remanufacture system that is used to rebuild the engine to represent a cleaner engine configuration. Engine upgrades may not be available for all engines, and not all upgrades may achieve an emissions benefit. Proposals for upgrades should include a discussion of the availability of engine upgrade kits/systems and indicate the pre- and post-project emission standard levels of the engines in order to demonstrate that the upgrade will result in an emissions benefit.

Funding can cover up to 40% of the cost (labor and equipment) of an eligible nonroad, locomotive or marine engine upgrade. To be eligible for funding, the upgrade must either be a verified retrofit as described above, or a certified remanufacture system that will result in an emissions benefit by rebuilding the engine to a cleaner engine configuration. For an engine to be eligible for an upgrade, the engine must be currently operating and performing its intended function. If a certified remanufacture system for a locomotive includes a full engine replacement, the requirements in Section I.B.2.d.2 (Repower Criteria) and Section I.B.2.f (Repower and Replacement Restrictions), below, apply.

A list of eligible, EPA verified engine upgrade technologies is available at: <a href="https://www.epa.gov/cleandiesel/verification/verif-list.htm">www.epa.gov/cleandiesel/verification/verif-list.htm</a>. Lists of certified remanufacture systems for locomotives and marine engines, and additional information on remanufacture systems, are available at: <a href="https://www.epa.gov/otaq/certdata.htm">www.epa.gov/otaq/certdata.htm</a>. Verified or certified upgrades must exist for the specific vehicle/engine application specified in the proposal at the time of proposal submission to EPA. If selected for funding, verified technologies used by the grant recipient must be specifically named on EPA's list of certified remanufacture systems or EPA or CARB's Verified Exhaust Control Technologies lists at the time of acquisition, and used only for the vehicle/engine applications specified on the lists, in order to be eligible for funding.

Note: Projects involving locomotives and marine engines will not be considered for funding under this RFP if the upgrade/remanufacture proposed for funding is 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," Proposals for emission reductions from locomotives and/or marine engines that do not include a "Mandated Measures Justification and Substantiation Letter(s)" as an attachment to the proposal, as described in Section III.D.1 and Appendix E of this RFP, are not eligible and will not be reviewed.

**c. 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 vehicles or

equipment 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 equipment or vessel is temporarily parked or remains stationary. The reduction in idling will conserve diesel fuel and must also lower emissions.

The technology categories eligible for funding under this solicitation include: marine shore power connection systems and alternative maritime power, and verified idle reduction technologies for locomotives.

Please note that technologies for the electrification of engines/vehicles/equipment other than those specifically listed below, cannot be considered verified idle reduction technologies, but may be eligible as a Repower (removal of a diesel engine and its replacement with an electric power source, see Section f, below) or a Replacement (replacement of a diesel powered engine/vehicle/equipment with an eligible electric engine/vehicle/equipment, see Section g, below).

1) Verified Idle Reduction Technologies on Locomotives: Funding can cover up to 40% of the cost (labor and equipment) of the installation of eligible verified idle reduction technologies on locomotives. A list of verified Automatic Shut-down/Start-up Systems, Auxiliary Power Units and Generator Systems, and Shore Power Connection Systems for Locomotives can be found at:

http://epa.gov/smartway/forpartners/technology.htm#tabs-4.

Verified idle reduction technologies for locomotives must exist for the specific vehicle/engine application specified in the proposal at the time of proposal submission to EPA. If selected for funding, verified idle reduction technologies for locomotives used by the grant recipient must be specifically named on EPA's SmartWay Verified Technologies list at the time of acquisition, and used only for the specific vehicle/engine applications specified on the list, in order to be eligible for funding.

Note: Projects involving locomotives will not be considered for funding under this RFP if the technology installation proposed for funding is required by EPA's locomotive rule, "Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder." Proposals for emission reductions from locomotives and/or marine engines that do not include a "Mandated Measures Justification and Substantiation Letter(s)" as an attachment to the proposal, as described in Section III.D.1 and Appendix E of this RFP, are not eligible and will not be reviewed.

2) Marine Shore Power Connection and Alternative Maritime Power (SPC/AMP): A marine SPC/AMP system allows maritime vessels to "plug into" an electrical power source instead of using its diesel auxiliary engines while at port. Funding can cover up to 25% of the cost (labor and equipment) of verified marine SPC/AMP systems, including various components such as cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Funding may only be used to cover the cost of shore-side connection systems and cannot be used for ship-side modifications to accept shore-based electrical power.

A list of verified marine SPC/AMP systems can be found at: http://epa.gov/smartway/forpartners/technology.htm#tabs-4.

Shore power connection systems must be supplied with electricity from the local utility grid and meet the technical requirements necessary for connection with vessels equipped to receive shore power. Applicants proposing marine shore power connection systems should provide a project description that includes, but is not limited to, the number of ship visits per year, average hotelling (or idling) time per visit, hotelling load requirements (kW), estimate annual ship visits using electrical power, estimate annual hotelling hours, and information about the fleet of vessels that have the ability to use shore-side connection system.

In order to be eligible for funding, shore connection systems must be utilized for more than 2,000 MW-hours per year.

- d. Certified Engine Repowers: "Repower" refers to replacing an existing engine with a newer, cleaner engine that is certified to a more stringent set of engine emission standards. Repower includes, but is not limited to, diesel engine replacement with an engine certified for use with a clean alternative fuel and/or the replacement of a nonroad engine with a highway engine. Proposals for repowers should include the pre- and post- project standard emission levels of the engines to be repowered, in order to ensure that the repower will result in a net emissions reduction. This funding can cover up to 40% of the cost (labor and equipment) of an eligible engine repower. Please see Section III.B of this RFP for additional information on cost-share requirements. All-electric (i.e zero emission) repowers do not require EPA or CARB certification.
  - 1) Electric Generator Repower:
    - **a)** For a repower that involves the replacement of an existing diesel propulsion engine with a stationary or auxiliary diesel powered electric generator (genset), the electric generator and the newer, cleaner engine comprising the genset are both eligible costs of the repower, subject to the cost-share requirement defined above.
    - **b**) Repower of an existing genset involves replacing the existing diesel engine in the genset with a newer, cleaner engine. Only the newer, cleaner engine (labor and equipment) is an eligible cost of the repower, subject to the cost-share requirement defined above.
  - 2) Repower Criteria: Repower projects are eligible for funding on the condition that the following criteria are satisfied:
    - **a)** The repowered vehicle, engine or equipment must continue to perform the same function as before the repower.
    - **b**) The replacement engine must be of similar horsepower as the engine being replaced. Horsepower increases of more than 10 percent will require specific approval by EPA prior to purchase.
    - c) Repower Scrappage: Evidence of appropriate disposal (such as a photograph of the scrapped engine), including the engine serial number, is required in a final cooperative/assistance agreement report submitted to EPA.

- i. The engine being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to the cleanest certified emission standard possible.
- **ii.** Drilling a hole in the engine block and manifold is an acceptable scrapping method. Other methods may be considered and will require prior EPA approval.
- **iii.** If scrapped or salvaged engines are to be sold, program income requirements may apply.

Note: Projects involving locomotives and marine engines will not be considered for funding under this RFP if the repower proposed for funding is 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." Proposals for emission reductions from locomotives and/or marine engines that do not include a "Mandated Measures Justification and Substantiation Letter(s)" as an attachment to the proposal, as described in Section III.D.1 and Appendix E of this RFP, are not eligible and will not be reviewed.

- e. Vehicle and Equipment Replacements: Nonroad and highway diesel vehicles and equipment can be replaced under this program with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and use engines certified by EPA and, if applicable, CARB to meet a more stringent set of engine emission standards. Replacement projects can include the replacement of diesel vehicles/equipment with newer, cleaner diesel, battery electric, hybrid or alternative fuel vehicles/equipment. All-electric (i.e. zero emission) vehicles and equipment do not require EPA or CARB certification.
  - 1) Nonroad Diesel Vehicles and Equipment: This funding can cover the incremental cost of a newer, cleaner vehicle or piece of equipment powered by a 2013 model year or newer certified nonroad engine, up to 25% of the cost of an eligible replacement vehicle/equipment. Nonroad engine emission standards are on EPA's website at:

    www.epa.gov/otaq/standards/nonroad/index.htm. Please see Section III.B for additional information on cost-share requirements.
    - a) Electric Generator Replacement: For stationary or auxiliary diesel powered electric generator (genset), replacement means the removal of the entire genset and its replacement with a newer, cleaner genset. The electric generator in a genset together with the newer, cleaner engine is an eligible cost of the replacement, subject to the cost-share requirement defined above.
  - 2) Replacements for Drayage Vehicles: EPA will fund up to 50% of the cost of eligible drayage trucks.
    - a) Definition of Drayage Truck: A "Drayage Truck" means any Class 8b in-use on-road vehicle with a gross vehicle weight rating (GVWR) of greater than 33,000 pounds 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.
    - **b)** Vehicle Eligibility Requirements: EPA will fund up to 50% of the cost of eligible drayage trucks with a 2010 model year or newer heavy-duty engine equipped with a diesel particulate filter (or catalyst equipped in the case of a CNG engine).

- c) Scrappage Requirements for Drayage Vehicles: The purchaser of the eligible drayage truck must scrap an existing drayage truck, following the Replacement Criteria described in Section I.B.2.g.3, below. If the proposal is selected for funding, the grant recipient will be required to establish guidelines to ensure that the scrapped vehicle has a history of operating on a frequent basis over the prior year as a drayage truck. For an example of sample guidelines, see:

  www.epa.gov/cleandiesel/documents/fy13-sample-drayage-operating-guidelines.pdf
- **d)** Drayage Operating Guidelines: If a proposal for the replacement of drayage trucks is selected for funding, the grant recipient will be required to establish guidelines to ensure that all drayage trucks purchased with grant funds are operated in a manner consistent with the definition of a drayage truck, as defined above. For an example of sample guidelines, see <a href="www.epa.gov/cleandiesel/documents/fy13-sample-drayage-operating-guidelines.pdf">www.epa.gov/cleandiesel/documents/fy13-sample-drayage-operating-guidelines.pdf</a>
- e) Required/Scheduled Maintenance: EPA will fund 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 drayage trucks. Funding for required maintenance is available for the duration of the project period.
- 3) Replacement Criteria: Replacement projects are eligible for funding on the condition that the following criteria are satisfied:
  - a) The replacement vehicle/equipment must be of the same type and similar gross vehicle weight rating or horsepower as the vehicle/equipment being replaced. Horsepower increases of more than 10 percent will require specific approval by EPA prior to purchase.
  - b) The replacement vehicle/equipment must perform the same function as the vehicle/equipment that is being replaced (e.g., an excavator used to dig pipelines would be replaced by an excavator that continues to dig pipelines).
  - c) Replacement Scrappage: Evidence of appropriate disposal (such as a photograph of the scrapped vehicle/equipment), including engine serial number and vehicle identification number (VIN), is required in a final cooperative/assistance agreement report submitted to EPA.
    - i. Nonroad Vehicles and Equipment: The vehicle/equipment being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to the cleanest certified emission standard possible.
    - **ii.** Drayage Vehicles: The vehicle being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to engine MY 2007 or newer certified emission standard.
  - **iii.** Drilling a hole in the engine block and manifold and disabling the chassis is an acceptable scrapping method. Other methods may be considered and will require prior EPA approval.
  - **iv.** Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g. seats, tires, etc.). If scrapped or salvaged vehicles/parts are to be sold, program income requirements may apply.
- **f. Repower and Replacement Restrictions:** These restrictions apply to all repower and replacement projects as defined above in Sections d (Certified Engine Repowers) and e

(Vehicle and Equipment Replacements) above. The following activities **are not eligible** for funding under this RFP:

- 1) Repowers or replacements that would have occurred through normal attrition are considered to be the result of normal fleet turnover and are not eligible for funding under this program. Normal attrition is generally defined as a replacement or repower that is scheduled to take place within 3 years of the project start date. Normal attrition is typically defined by the vehicle or fleet owner's budget plan, operating plan, standard procedures, or retirement schedule. For example, if a drayage truck owner plans to retire or replace a truck within the next three years, the truck replacement is not eligible for funding. If the truck owner intends to operate the truck for four or more years, the truck replacement is eligible for funding. Normal attrition does not include repowers or replacements that must occur due to a State or Local mandate. Proposals which include repowers and replacements must include a detailed discussion of the fleet owner's normal attrition schedule and must explain how the proposed emission reductions are not a result of vehicle/equipment replacements or repowers that would have occurred through normal attrition/fleet turnover within three years of the project start date.
- 2) The purchase of new vehicles or equipment to expand a fleet is not covered by this program.
- 3) Fuel cells are not eligible as repowers or replacements under this solicitation.
- 4) Additional funding restrictions for repower and replacement projects are described in Section III.D.
- g. Clean Alternative Fuel Conversions: Conventional, original equipment manufacturer (OEM) highway diesel vehicles and engines that are altered to operate on alternative fuels such as propane, natural gas, alcohol, or electricity are classified as aftermarket clean alternative fuel conversions. Clean alternative fuel conversions are accomplished by applying a certified or compliant alternative fuel conversion "kit" to an existing highway diesel engine. Funding can cover up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion. Proposals 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 in order to demonstrate that the conversion will result in an emissions benefit.

In the United States, all clean alternative fuel conversions (except pure battery electric) must meet applicable EPA standards pursuant to 40 CFR Parts 85 and 86. Lists of certified and compliant clean alternative fuel conversion systems, and additional guidance, can be found at <a href="http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm">http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm</a>. Vehicles operating in California must follow conversion rules issued by CARB. Fuel cells are not eligible as conversion under this solicitation. Clean alternative fuel conversions must be "dedicated" or "mixed fuel", meaning the engine runs only on the alternative fuel, or uses a small amount of diesel mixed with the alternative fuel. Dedicated or mixed fuel engines do not have the ability to operate solely on diesel fuel. "Dual fuel" or "bi-fuel" conversions, meaning the engine can switch between fuel sources and still has the capability of running on 100% diesel are not eligible for funding under this solicitation.

3. **Eligible Project Locations:** Projects must reduce diesel emissions at a marine or inland water port located in an area of poor air quality. A list of eligible counties and areas can be found at:

<u>www.epa.gov/otaq/ports/documents/fy13-ports-county-area-list.pdf</u>. Proposals for projects not located in an eligible area will not be considered for funding.

The term "project location" as used in this RFP, 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.

These counties and areas have been identified as areas of poor air quality because they are:

- 1) Designated as Particulate Matter (PM) 2.5 or 8-Hr Ozone Nonattainment Areas or 8-Hr Maintenance Areas;
  - EPA's Green Book of Nonattainment Areas for Criteria Pollutants: www.epa.gov/oaqps001/greenbk/
- 2) Areas where all or part of the population is exposed to more than  $2.0 \,\mu\text{g/m}^3$  of diesel particulate matter emissions;
  - 2005 National-Scale Air Toxics Assessment: www.epa.gov/ttn/atw/nata2005/
- 3) Designated as Federal Class I areas; and/or
  - www.epa.gov/visibility/class1.html
- **4**) Participants in EPA's Ozone or PM Advance Program by the close of this RFP, February 13, 2014.
  - http://www.epa.gov/ozoneadvance/participants.html
  - http://www.epa.gov/ozoneadvance/participantsPM.html

# **C. Programmatic Priorities**

In addition to the requirements of Section I.B, proposals should also demonstrate how the project will address the following five elements:

1. Benefits to Communities and Public Health: Proposals should address how the project will benefit communities surrounding the marine or inland water port, including minority or low-income communities as well as others that are, or historically have been, disproportionately impacted by diesel emissions originating from port operations. Proposals should identify the affected communities, their proximity to the project area, and the impacts diesel emissions have had on the health and environmental conditions of the communities. Proposals should describe the population and identify groups with increased sensitivity to air pollution that are impacted by diesel emissions originating from the project area, as well as how the proposed project will benefit the surrounding communities and maximize public health benefits. Applicants may refer to Appendix C for information about quantifying environmental outcomes and public health benefits.

Proposals should also describe how the applicant will engage surrounding communities in the development and implementation of the project. Examples of community engagement include but are not limited to soliciting input from community groups on efforts to reduce emissions, conducting public outreach events, and providing publically accessible information about the proposed project, the applicant's air quality improvement plans, and/or the applicant's progress toward reducing diesel emissions/exposure from port operations.

**2. Partnerships:** Proposals should identify partnerships with relevant port stakeholders. Partnerships between port authorities, terminals, communities, shipping carriers, and other non-profit and private stakeholders can greatly benefit from one another's experience, and help to ensure longer-term emissions reductions.

If a working partnership already exists or is under development, the proposal should identify all parties involved, as well as provide a clear description of the roles of each partner in the project's components/tasks and how each partner will contribute to the success of the project. The applicant's proposal package should include letters of commitment from all existing partners. Letters of commitment should describe the extent to which the partner will engage with the applicant to help effectively complete the project.

If a partnership does not yet exist, proposals should describe how the applicant plans to engage partners and establish working partnerships to successfully complete the project. If the applicant does not intend to have partners, then an explanation should be provided on how it will effectively perform the project without partners.

- 3. Promote and Sustain Efforts to Reduce Emissions from Port Areas: Proposals should address how the project will promote and sustain ongoing efforts to reduce emissions from port operations after EPA funding for this project has ended. Examples include but are not limited to the project's inclusion in a broader-based port environmental or air quality improvement plan, a documented commitment to continue to identify and address air quality issues at the port, the availability of a port emissions inventory and a plan for regular updates, and/or implementation of idling control plans. Promotion of ongoing efforts should include opportunities for public/community input, reporting components to ensure the plans are implemented, and emissions reductions are lasting.
- **4. Diesel Reduction Effectiveness:** Proposals will be evaluated on the project's effectiveness at reducing diesel emissions, based on the expected life and activity level of the vehicle or equipment, and the cost and effectiveness of the emissions reduction strategy applied to the vehicle or equipment. See Appendix D for additional information.

# D. EPA Strategic Plan Linkage, Anticipated Outputs/Outcomes and Performance Measures

EPA Order 5700.7, "Environmental Results under EPA Assistance Agreements," requires that all assistance agreements (and cooperative agreements) be aligned with the Agency's Strategic Plan. EPA requires that grant applicants and recipients adequately address environmental outputs and outcomes to be achieved under assistance agreements. Grantees will be expected to report progress toward the attainment of project outputs and outcomes during the performance period. Applicants will be evaluated on the effectiveness of their plan for tracking and measuring progress toward achieving anticipated outputs and outcomes.

EPA Order 5700.7, Environmental Results under Assistance Agreements, may be found at: http://www.epa.gov/ogd/epa\_order\_5700\_7a1.pdf

1. Linkage to EPA Strategic Plan: All proposals must support EPA's 2011-2015 Strategic Plan Goal 1, 'Take Action on Climate Change and Improve Air Quality'; Objective 1.2 'Improve Air Quality', which states, "Achieve and maintain health-based air pollution standards and reduce

risk from toxic air pollutants and indoor air contaminants." Specifically, the proposed activities will reduce emissions from diesel fleets, thereby reducing local and regional air pollution.

EPA's Strategic 2011 - 2015 Strategic Plan may be found at: <a href="https://www.epa.gov/planandbudget/strategicplan.html">www.epa.gov/planandbudget/strategicplan.html</a>.

**2. Outputs:** The term "output" means an environmental activity, effort and/or associated work product related to an environmental goal and 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 a cooperative/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.

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

- adoption of an idle reduction policy; and/or
- dissemination of project/technology information via community engagement events, list serves, websites, journals and outreach events.

Progress reports and a final report will also be required outputs, as specified in Section VI.C of this RFP.

**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 qualitative and environmental, behavioral, health-related or programmatic in nature, but must also be quantitative. They may not necessarily be achievable within a cooperative/assistance agreement funding period.

Expected outcomes from the projects to be funded under this announcement include, but are not limited to:

## **Intermediate Outcomes:**

- net reduction in annual pounds or tons of fine particulate matter (PM 2.5), nitrogen oxides (NO<sub>x</sub>), greenhouse gases (GHG) such as carbon dioxide (CO<sub>2</sub>) and black carbon, and/or volatile organic compounds (VOCs); and/or
- net reduction in gallons of diesel fuel used.

#### End Outcomes:

- improved ambient air quality; and/or
- health benefits achieved

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

- additional and/or accelerated progress toward implementing existing air quality improvement plans;
- new or strengthened partnerships that support future progress toward improved air quality;

- changes in driver behavior regarding idling practices;
- an increased understanding of the environmental or economic effectiveness of the implemented technology;
- increased public awareness of project and results; and/or
- widespread adoption of the implemented technology.
- 4. **Performance Measures.** The applicant should also develop performance measures for tracking, measuring and reporting its progress towards achieving the proposed outputs and outcomes, and describe them in their proposal. It is expected that the description of performance measures will include the following:
  - oversight of project partners, subgrantees, and/or contractors and vendors;
  - tracking and reporting project progress on expenditures, purchases, and other fiscal activities:
  - tracking and reporting actual accomplishments versus proposed outputs/outcomes and proposed timelines/milestones;
  - tracking and reporting project progress on installations/replacements by maintaining an accurate Project Fleet Description; and
  - measuring and reporting on outcomes by maintaining an accurate Project Fleet Description and using EPA's Diesel Emission Quantifier.

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 this project support the port's ongoing air quality improvement objectives?
- 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?

## E. Supplementary Information

The Diesel Emissions Reduction National Program (DERA) is authorized by Title VII, Subtitle G of the Energy Policy Act of 2005 (Public Law 109-58), as amended and reauthorized by the Diesel Emissions Reduction Act of 2010 (Public Law 111-364) and codified at 42 USC 16131 *et seq*.

#### II. AWARD INFORMATION

#### A. Available Funding

EPA anticipates awarding a total of approximately \$4 million under this announcement, subject to the availability of funds, the quality of proposals received, and other applicable considerations. Applicants are advised not to request more than \$2 million in federal funding – proposals requesting more than \$2 million in federal funds will not be reviewed.

EPA reserves the right to make additional awards under this announcement, consistent with Agency policy and other applicable considerations, if additional funding becomes available after the original selections. Any additional selections for awards will be made no later than six months from the date of the original selections.

In addition, EPA reserves the right to reject all proposals and make no awards under this announcement or to make fewer awards than anticipated.

# **B.** Partial Funding

In appropriate circumstances, EPA reserves the right to partially fund proposals by funding discrete portions or phases of proposed projects. If EPA decides to partially fund a project, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the proposal or portion thereof, was evaluated and selected for award, thereby maintaining the integrity of the competition and selection process.

## C. Project Period

The estimated project period for awards resulting from this solicitation is expected to begin on May 1, 2014, with an expected project completion date no later than September 30, 2016.

# **D.** Funding Type

The funding for selected projects will be in the form of a cooperative agreement. Cooperative agreements permit substantial involvement between EPA and the selected applicants in the performance of the work supported. Although EPA will negotiate precise terms and conditions relating to substantial involvement as part of the award process, the anticipated substantial federal involvement for these projects will be:

- close monitoring of the successful applicant's performance to verify the results proposed by the applicant;
- collaboration during performance of the scope of work;
- in accordance with 40 CFR 31.36(g), review of proposed procurement;
- approving qualifications of key personnel (EPA will not select employees or contractors employed by the award recipient); and
- review and comment on reports prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient).

## E. Technology Compatibility

Technology changes may not be allowed after a proposal has been selected. If technology compatibility issues arise, EPA may elect to terminate the cooperative/assistance agreement, at which time assistance funds must be returned to EPA.

## III. ELIGIBILITY INFORMATION

## A. Eligible Entities

Under this solicitation, only public port authorities with jurisdiction over transportation and air quality at a marine or inland water port are eligible for funding.

A public port authority is generally defined as a governmental or quasi-governmental public authority formed by a legislative body to operate ports, harbors, and other transportation infrastructure.

Community groups, local governments, terminal operators, shipping carriers, and other business entities involved in port operations are encouraged to participate through partnerships with eligible port authorities. EPA award funds may be used to make subawards and subgrants to project partners, provided that the recipient complies with applicable requirements contained in 40 CFR Parts 30 or 31, as appropriate. See Section IV.F for additional information.

# B. Cost-Share Requirement and Voluntary Cost-Share

Cost-share information must be included in the Budget Detail portion of the Work Plan, and the proposal must describe how and when the applicant will obtain the cost-share and how the cost-share funding will be used. Applicants may use their own funds or other sources for cost-share if the standards of 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. If the proposed cost-share is to be provided by a project partner, a letter of commitment is required. Only eligible and allowable costs may be used for cost-share. Other federal grants may not be used as cost-share under this RFP 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.

- 1. **Mandatory Cost-Share Requirement:** Projects involving engine upgrades, certain idle reduction technologies, shore connection systems, certified engine repowers, clean alternative fuel conversions, or certified vehicle/equipment replacements, as defined in Sections I.B.2.b, c, d, e, f, and g of this RFP, are subject to the following funding limitations and mandatory cost-share requirements:
  - **a.** Engine Upgrades: EPA will fund up to 40% of the cost (labor and equipment) of an eligible engine upgrade (i.e. applicants are responsible for cost-sharing at least 60% of the cost of an eligible engine upgrade).
  - **b.** Idle Reduction Technologies on Locomotives: EPA will fund up to 40% of the cost (labor and equipment) of an eligible idle reduction technology on a locomotive (i.e. applicants are responsible for cost-sharing at least 60% of the cost of an eligible idle reduction technology on a locomotive).
  - **c.** Shore Connection Systems: EPA will fund up to 25% of the cost (labor and equipment) of an eligible shore connection system (i.e. applicants are responsible for cost-sharing at least 75% of the cost of an eligible shore connection system).
  - **d.** Certified Engine Repower: EPA will fund up to 40% of the cost (labor and equipment) of an eligible engine repower (i.e. applicants are responsible for cost-sharing at least 60% of the cost of an eligible engine repower).
  - e. Certified Vehicle/Equipment Replacement:
    - 1) Nonroad Diesel Vehicles and Equipment: EPA will fund the incremental cost of a newer, cleaner vehicle or piece of equipment powered by a 2013 model year or newer certified nonroad diesel engine, up to 25% of the cost of an eligible replacement vehicle or piece of equipment (i.e. applicants are responsible for cost-sharing at least 75% of the cost of an eligible replacement vehicle or piece of equipment).
    - 2) Drayage Vehicle Replacement: EPA will fund up to 50% of the cost of eligible drayage trucks with a 2010 model year or newer heavy-duty engine equipped with a diesel particulate filter (or diesel oxidation catalyst in the case of a CNG engine). (i.e. applicants are responsible for cost-sharing at least 50% of an eligible drayage replacement vehicle).

**f.** Clean Alternative Fuel Conversions: EPA will fund up to 40% of the cost (labor and equipment) of an eligible clean alternative fuel conversion (i.e. applicants are responsible for cost-sharing at least 60% of the cost of an eligible clean alternative fuel conversion).

Proposals that include projects to which these mandatory cost-share requirements apply must demonstrate, by the proposal submission date, on the SF-424 Application for Federal Assistance, on the SF-424A Budget Information, and in the project narrative how the applicant will be able to meet these minimum mandatory cost-share requirements if they are selected for an award, **or the proposal may be disqualified during the threshold eligibility review.** 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 in Section A, Section B line 6.d, and Section C of the SF-424A.

There is no requirement for a cost-share contribution from applicants for projects involving Verified Emission Control Technologies as defined in Section I.B.2.a.

2. **Voluntary Cost-Share:** While it is not required that an applicant provide a voluntary cost-share (or overmatch if a mandatory cost share applies) beyond EPA's funding and/or any mandatory cost-share as described above, applicants may provide a voluntary cost-share or overmatch to improve the environmental outputs and outcomes of the project.

If proposed, the voluntary cost-share or overmatch 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 voluntary cost-shared or overmatch funds must also be indicated in Sections A-C of the SF-424A and final approved project workplan. If EPA accepts an offer for a voluntary cost-share or overmatch, applicants must meet this funding commitment as a legal condition of receiving EPA funding. The recipient is legally obligated to meet any proposed voluntary cost-share or overmatch that is included in the approved project budget because the grant agreement includes the voluntary cost-share or overmatch. If an applicant proposes a voluntary cost-share or overmatch, the following apply:

- a. A voluntary cost-share or overmatch is subject to the match provisions in the grant regulations (40 CFR 30.23 or 40 CFR 31.24, as applicable).
- b. A voluntary cost-share or overmatch may only be met with eligible and allowable costs.
- c. The recipient is legally obligated to meet any proposed voluntary cost-share or overmatch that is included in the approved project budget. If it does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 40 CFR Parts 30 or 31 as applicable.

## C. Threshold Eligibility Criteria

Only proposals from eligible applicants (see Section III.A of this RFP) that meet all of these threshold eligibility criteria by the time of proposal submission will be evaluated against the ranking criteria in Section V of this RFP. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

## 1. Proposal Content and Submission

- a. Proposals must substantially comply with the proposal submission instructions and content requirements set forth in Section IV and Appendix B of this RFP or else they will not be reviewed.
- b. Where a page limit is expressed in Section IV of this RFP with respect to the Project Narrative, pages in excess of the page limitation will not be reviewed.
- c. Proposals must be received by EPA or grants.gov through one of the specified methods in Section IV of this RFP on or before the submission deadline published in Section IV of this RFP. Proposals received after the deadline will be considered late and returned to the sender without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems associated with <a href="https://www.grants.gov">www.grants.gov</a>. For hard copy submissions, where Section IV of this RFP requires proposal receipt by a specific person/office by the deadline, receipt by an agency mailroom is not sufficient. Applicants should confirm receipt of their proposal with the EPA contact identified in Section IV of this RFP as soon as possible after the deadline; failure to do so may result in your proposal not being reviewed.
- d. Hard copy proposals will only be accepted via an express delivery service. Proposals will NOT be accepted via electronic mail (e-mail), fax, standard 1st class mail delivery by U.S. Postal Service, or hand delivery.
- 2. Proposals for projects that do not reduce emissions at a marine or inland water port, as defined in Section I, will not be reviewed.
- 3. Proposals that do not meet the eligibility requirements set forth in Section I.B.1-3 of this RFP are not eligible and will not be reviewed. This includes the eligible project location requirement in I.B.3.
- 4. Proposals which request EPA assistance funds in excess of \$2 million, as specified in Section II.A of this RFP, are not eligible and will not be reviewed.
- 5. Applicants can submit one (1) proposal under this RFP. If an applicant submits more than one (1) proposal to EPA, the applicant will be contacted prior to EPA review of any of the proposals to determine which proposal(s) the applicant will withdraw from the competition. A single proposal may target multiple fleets, fleet types and/or diesel emission reduction solutions.
- 6. Proposals must support Goal 1 of EPA's 2011-2015 Strategic Plan, Take Action on Climate Change and Improving Air Quality; Objective 1.2: Improve Air Quality. (See Section I.D)
- 7. Proposals for emission reductions from locomotives and/or marine engines that do not include a "Mandated Measures Justification and Substantiation Letter(s)" as an attachment to the proposal, as described in Section III.D.1 and Appendix E of this RFP, are not eligible and will not be reviewed.

## **D.** Funding Restrictions

If a submitted proposal includes the following ineligible activities, that portion of the proposal will be ineligible for funding and may, depending on the extent to which it impacts the whole proposed project, render the entire proposal ineligible for funding.

1. **Restriction for Mandated Measures:** Pursuant to 42 U.S.C. 16132(d)(2), no funds awarded under this RFP shall be used to fund the costs of emission reductions that are mandated under federal law. 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 approved by the Administrator under the Clean Air Act. Voluntary or elective emission reduction measures shall not be considered "mandated," regardless of whether the reductions are included in the State Implementation Plan.

Specifically, projects involving locomotives and marine engines will not be considered for funding under this RFP if the emissions proposed for funding 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." Proposals which include locomotives and/or marine engines must include a clear and concise justification for why/how the proposed emission reduction are not subject to the Restriction for Mandated Measures under this RFP. The justification must clearly demonstrate that:

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

Applicants must provide sufficient information to support the justification, including maintenance records, if applicable. The justification must also include a signed letter (Substantiation Letter) from the owner/operator of the subject locomotive(s) and/or marine engine(s) attesting to the accuracy of the information. This information should be included as an attachment to the proposal, and does not count towards the 10-page limit for the project narrative. Please see Appendix E for additional information.

If applicable, emission reduction benefits shall only be calculated for the period preceding the effective date or compliance deadline. Please see Appendix C for instructions on calculating emission reductions.

- 2. No funds awarded under this RFP shall be used for matching funds for other federal grants, lobbying, or intervention in federal regulatory or adjudicatory proceedings, and cannot be used to sue the Federal Government or any other government entity.
- 3. No funds awarded under this RFP shall be used for retrofit technologies on EPA's or CARB's, "Formerly Verified Technologies" lists. EPA's formerly verified list can be found at: <a href="https://www.epa.gov/cleandiesel/verification/deleted-list.htm">www.epa.gov/cleandiesel/verification/deleted-list.htm</a>, and CARB's formerly verified lists can be found at: <a href="https://www.arb.ca.gov/diesel/verdev/vt/fv1.htm">www.arb.ca.gov/diesel/verdev/vt/fv2.htm</a>, and <a href="https://www.arb.ca.gov/diesel/verdev/vt/fv3.htm">www.arb.ca.gov/diesel/verdev/vt/fv3.htm</a>. No funds awarded under this RFP shall be used for idle reduction technologies on EPA's "Technologies No Longer Verified" list that can be found at: <a href="http://epa.gov/smartway/forpartners/technology.htm#tabs-4">http://epa.gov/smartway/forpartners/technology.htm#tabs-4</a>. No funds awarded under this RFP

shall be used for technologies on the Emerging Technologies list which can be found at: www.epa.gov/cleandiesel/verification/emerg-list.htm.

- 4. No funds awarded under this RFP shall be used for emissions testing and/or air monitoring activities (including the acquisition cost of emissions testing equipment), or research and development.
- 5. No funds awarded under this RFP shall 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.
- 6. No funds awarded under this RFP shall be used to retrofit, repower, upgrade, convert or replace a drayage truck that is a model year 1989 vehicle or older.
- 7. With regard to drayage trucks, no funds awarded under this RFP shall be used to retrofit model year 2007 or newer engines with DOCs or DPFs, or retrofit model year 2010 or newer with SCR, or repower or convert model year 2007 or newer engines. Refer to Table 1 for further explanation.

**Table 1: Drayage Trucks** 

Current Engine Model Year	DOC	DPF	SCR	Replace with 2010 or Newer	Repower or Conversion of Engine to Higher Certification Level	Repower or Conversion to All-Electric
1990-2003	Yes	Yes	Yes	Yes	Yes	Yes
2004 to 2006	Yes	Yes	Yes	Yes	Yes	Yes
2007 to 2009	No	No	Yes	No	No	No
2010 to current	No	No	No	No	No	No

- 8. No funds awarded under this RFP shall be used to retrofit, repower, upgrade or replace a nonroad engine or equipment that has less than seven years of useful life remaining or has an engine size smaller than 50 hp. A table distinguishing which nonroad engine model years EPA has determined to have at least seven years of useful life remaining, based on the type and age of vehicle, can be found at <a href="https://www.epa.gov/cleandiesel/documents/fy13-nonroad-remaining-useful-life.pdf">www.epa.gov/cleandiesel/documents/fy13-nonroad-remaining-useful-life.pdf</a>.
- 9. No funds awarded under this RFP shall be used to retrofit, repower, replace or upgrade nonroad engines and equipment that operate less than 500 hours per year.
- 10. No funds awarded under this RFP shall be used to repower or replace nonroad Tier 0 (unregulated) engines to a nonroad Tier 1 or lower nonroad engine standard or from a Tier 2 nonroad engine standard to a Tier 3 or lower nonroad engine standard. Refer to Table 3 for further explanation.

**Table 3: Nonroad Engine Funding Restrictions** 

Cument Engine Ties	Ammal Usaga (hwakun)	Repowered or Replaced New Certified Engine					
<b>Current Engine Tier</b>	Annual Usage (hrs/yr)	Tier 0	Tier 1	Tier 2/3	Tier 4	All-Electric	
Tier 0 / 1	500 to 1,000	No	No	Yes	Yes	Yes	
Tier U / I	>1,000	No	No	Yes	Yes	Yes	
Tier 2 / 3	500 to 1,000	No	No	No	Yes	Yes	
	>1,000	No	No	No	Yes	Yes	

- 11. No funds awarded under this RFP shall be used to retrofit, repower, replace, upgrade or install idle reduction technologies on eligible locomotives or marine engines that operate less than 1000 hours per year.
- 12. No funds awarded under this RFP shall be used to repower, replace or upgrade Tier 3 or Tier 4 marine engines, or to repower or replace marine engines from Tier 1 marine engine standard to Tier 1 marine engine standard, or from a Tier 2 marine engine standard to a Tier 2 or lower marine engine standard. Refer to Table 4 for further explanation.

**Table 4: Marine Engines Funding Restrictions** 

Current Engine Tier	Repowered or Replaced New Certified Engine		Certified Engine Upgrade (Remanufacture	Verified Engine Upgrade		
g	Tier 1	Tier 2	Tier 3	Tier 4	System)	opg. www
Unregulated	Yes	Yes	Yes	Yes	Yes	Yes
Tier 1	No	Yes	Yes	Yes	Yes	Yes
Tier 2	No	No	Yes	Yes	Yes	Yes
Tier 3 and Tier 4	No	No	No	No	No	No

- 13. No funds awarded under this RFP shall be used for marine shore connection system projects that are expected to be utilized less than 2,000 MW-hr/year.
- 14. No funds awarded under this RFP shall be used to retrofit unregulated or Tier 0 locomotives with SCR, or to upgrade, repower or replace locomotives from: Tier 0+/1 to Tier 0+ or lower; Tier 1+/2 to Tier 1+ or lower; Tier 2 to Tier 1+ or lower; or, from Tier 2+ to Tier 2+ or lower. Additionally, no funds awarded under this RFP shall be used upgrade, repower or replace line-haul locomotives from Tier 2 to Tier 4, or to upgrade, repower or replace line-haul locomotives from Tier 2+ to Tiers 3 and 4. Refer to Table 5 for further explanation.

**Table 5: Locomotive Engines Funding Restrictions** 

Current Locomotive Tier	Annual Usage Rate		New Locomotive Tier				
		Tier 0+	Tier 1+	Tier 2+	Tier 3	Tier 4	SCR
Unregulated	1,000 - 2,000	Yes	Yes	Yes	Yes	Yes	No
and Tier 0	2,000+	Yes	Yes	Yes	Yes	Yes	No
Tier 0+ and Tier 1	1,000 - 2,000	No	Yes	Yes	Yes	Yes	Yes

	2,000+	No	Yes	Yes	Yes	Yes	Yes
Tier 1+	1,000 - 2,000	No	No	Yes	Yes	Yes	Yes
	2,000+	No	No	Yes	Yes	Yes	Yes
Tier 2	1,000 - 2,000	No	No	Yes	Yes	Yes*	Yes
Tiel 2	2,000+	No	No	Yes	Yes	Yes*	Yes
Tier 2+	1,000 - 2,000	No	No	No	Yes*	Yes*	Yes
	2,000+	No	No	No	Yes*	Yes*	Yes

<sup>\*</sup>Applies to switcher locomotives only

Note: Tier 0+, Tier 1+, and 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.

- 15. No funds awarded under this RFP shall be used to install Automatic Engine Start-Stop technologies on locomotives currently certified to Tier 0+ or higher.
- 16. No funds awarded under this RFP shall be used for locomotive shore connection system projects that are expected to be utilized less than 1,000 hours/year.

## IV. PROPOSAL AND SUBMISSION INFORMATION

# A. How to Obtain a Proposal Package

Applicants can download the individual grant application forms (Application for Federal Assistance SF-424, and Budget Information for Non-Construction Programs SF-424A) from EPA's Office of Grants and Debarment website at: <a href="www.epa.gov/ogd/AppKit/application.htm">www.epa.gov/ogd/AppKit/application.htm</a>.

Please refer to the Proposal Submission Checklist in Appendix F to ensure that all required information is included in your proposal package.

To obtain a hard copy of materials, please call 1-877-NCDC-FACTS (1-877-623-2322) or email <u>cleandiesel@epa.gov</u>.

### **B.** Proposal Submission

All applicants have the following options to submit their proposals: a) hard copy by express delivery service to the specified EPA contact listed below, or b) electronically through <a href="https://www.grants.gov">www.grants.gov</a> as explained in Appendix A. **Proposals will NOT be accepted via e-mail, fax, standard 1st class mail delivery by U.S. Postal Service, or hand delivery.** 

All proposals must be prepared, and include the information, as described in Section IV.C and Appendix B of this RFP, regardless of mode of submission.

**1. Hard Copy Submission**: Hard copy submissions must be sent using an express delivery service, such as FedEx, UPS, DHL, etc., to the appropriate EPA contact mailing address listed

<u>below</u>. Please provide one original of the proposal package (including signed and completed SF-424 and SF-424A forms), as well as two photocopies of the complete proposal package. Binders or spiral binding will not be accepted. All hard copies of proposal packages must be <u>received</u> by the appropriate headquarters contact listed below by February 13, 2014, 4:00 p.m. EST.

# **Proposal Submission Contact:**

Jennifer Keller Office of Transportation and Air Quality U.S. Environmental Protection Agency 1310 L Street, NW Mail Code: 6406J Washington, DC 20005

# 2. Grants.gov Submission: Please see Appendix A, Grants.gov Submission Instructions

Proposal Submission Deadline: Your organization's authorized official representative (AOR) must submit your complete proposal electronically to EPA through Grants.gov (www.grants.gov) no later than February 13, 2014, 4:00 p.m. EST.

Applicants are advised that they must send in their proposals through one, and only one, of the two methods identified above by the submission deadline. The same proposal should not be submitted through different means. In addition, if an applicant submits a proposal before the submission deadline and then wants to revise it and resubmit it before the submission deadline, then it must indicate that the resubmittal replaces the original submission.

# C. Content of Proposal Package

The proposal package *must* include all of the following materials:

#### 1. Grant Application Forms:

**a.** Standard Form (SF) 424, Application for Federal Assistance. Complete the form (available at: <a href="www.epa.gov/ogd/forms/forms.htm">www.epa.gov/ogd/forms/forms.htm</a>). Please be sure to include the Applicant organization fax number and email address in Block 5 of the Standard Form 424.

Please note that the organizational Dun and Bradstreet (D&B) Data Universal Number System (DUNS) number must be included on the SF-424. Organizations may obtain a DUNS number at no cost by calling the toll-free DUNS number request line at 1-866-705-5711.

**b. Standard Form (SF) 424A , Budget Information.** Complete the form (available at: <a href="https://www.epa.gov/ogd/forms/forms.htm">www.epa.gov/ogd/forms/forms.htm</a>). There are no attachments. The total amount of federal funding requested for the project period should be shown on line 5(e) and on line 6(k) of SF-424A, the amount of indirect costs should be entered on line 6(j). The indirect cost rate (i.e., a percentage), the base (e.g., personnel costs and fringe benefits), and the amount should also be indicated on line 22.

- **2. Project Narrative**: The Project Narrative must substantially comply with the specific instructions, format and content as defined in **Appendix B**. The Project Narrative includes the following components:
  - a. Cover Page
  - **b.** Work Plan (Sections 1-12)

The Project Narrative (including the cover page) shall not exceed ten (10) single-spaced pages in length. Pages refer to one-side of a single-spaced typed page. Font size should be no smaller than 10 and the proposal must be submitted on 8 ½" x 11" paper. Pages in excess of the 10-page limit will not be considered. Supporting materials, such as resumes, letters of support and/or commitment, and fleet description information can be submitted as attachments and are not included in the 10-page limit. A sample format for the Project Narrative may be downloaded at: <a href="https://www.epa.gov/otaq/ports/documents/fy13-ports-narrative-sample.doc">www.epa.gov/otaq/ports/documents/fy13-ports-narrative-sample.doc</a>

3. Applicant Fleet Description: This information does not count toward the 10-page limit. The purpose of the Applicant Fleet Description is to describe in detail the specific vehicles and engines targeted for emission reductions as well as the diesel emission reduction solution(s) to be implemented under the proposed project. Information provided in the Applicant Fleet Description will be used to help determine project eligibility based on the funding restrictions identified in Section III.D of this RFP. Applicants must describe, to the extent possible, the fleet(s) targeted for the proposed project, including: target fleet type (e.g., construction, locomotive, marine, stationary, other)), number of vehicles, vehicle class or equipment type, serial/VIN# of engine/vehicle, engine make, engine model, engine model year, engine family name, horsepower, displacement, current tier level or emission standards, fuel type, amount of fuel used, annual miles travelled or annual usage rate, and annual idling hours. Applicants must describe, to the extent possible, the diesel emission reduction solution(s) applied to each targeted vehicle/engine, including (where applicable): year of retrofit action, new technology type, new technology make, new technology model, new engine family name, new engine model year, new horsepower, new displacement, new tier level or emission standards, new fuel type, annual idling hours reduced, and technology unit and installation costs. This information may be presented in a table format. A sample format for the Applicant Fleet Description may be downloaded at: <a href="https://www.epa.gov/otaq/ports/documents/fy13-ports-afd-">www.epa.gov/otaq/ports/documents/fy13-ports-afd-</a> sample.xls

Applicants will also be scored under Section V, Criterion #11, Applicant Fleet Description, on the degree to which detailed information is provided within the Applicant Fleet Description. The information provided within the Applicant Fleet Description should be used to estimate the anticipated emission reductions from the project and should be consistent with the information presented in Section B.2 of the Project Narrative (see Appendix B for additional information). Applicants may refer to information in the applicant fleet description to demonstrate how the proposal addresses Section V, Criterion #7, Diesel Reduction Effectiveness (see Appendix D for additional information).

**4. Cost-Share Commitment Letters**: If applicable, project partners who are providing in-kind or monetary assistance must demonstrate their specific commitment to meet the proposed cost-share. This information does not count towards the 10-page limit.

- 5. Mandated Measures Justification and Substantiation Letter(s): If applicable, proposals must include a clear and concise justification for why/how the emission reductions proposed for funding are not subject to the Restriction for Mandated Measures under this RFP. Applicants must provide sufficient detail and information to support the justification, including maintenance schedules and history, if applicable. The justification must also include a signed letter (Substantiation Letter) from the owner/operator of the subject locomotive(s) and/or marine engine(s) attesting to the accuracy of the information. Please see Section III.D.1 and Appendix E for more information. This information does not count towards the 10-page limit.
- **6. Optional Attachments:** These are not included in the 10-page limit.
  - **a.** Resumes: Provide resumes or curriculum vitae for all principal investigators and any other key personnel.
  - **b.** Letters of Partnership Support: Specifically indicate how partner organizations will assist in the project.

#### **D.** Submission Dates and Time

All hard copies of proposal packages must be received by the EPA contact defined in Section IV.B.1 of this RFP by Thursday, February 13, 2014, 4:00 p.m. EST in order to be considered for funding. All <a href="www.grants.gov">www.grants.gov</a> submissions of proposal packages must be received electronically through Grants.gov (<a href="www.grants.gov">www.grants.gov</a>) by Thursday, February 13, 2014, 4:00 p.m. EST in order to be considered for funding.

# E. Pre-Proposal Assistance and Communications

All applicants are encouraged to review the Frequently Asked Questions (FAQ) document posted at www.epa.gov/otag/ports/ports-dera-rfp.htm for further clarification of this Request for Proposals.

Applicants may email written questions to: <u>cleandiesel@epa.gov</u>. Please type "Ports RFP Question" in the subject line of your email. All questions and answers will be posted in the FAQ document at <u>www.epa.gov/otaq/ports/documents/fy13-ports-dera-faq.pdf</u>.

All questions submitted via email by 5:00 pm Eastern Standard Time (EST) each Friday during the RFP open period will be answered and posted in the FAQ document the following week. The deadline for submitting questions via email is Wednesday, February 5, 2014 at 5:00 pm EST. The estimated final posting of the FAQ document will be Friday, February 7, 2014 at 5:00 pm EST.

In addition, EPA will host two Information Sessions regarding this Request for Proposals via teleconference/webinar, based on the schedule below. EPA will attempt to answer any appropriate questions in these public forums. Information for the two webinars can be found at: <a href="https://www.epa.gov/otaq/ports/ports-dera-rfp.htm">www.epa.gov/otaq/ports/ports-dera-rfp.htm</a>.

## **Webinar Sessions**

Wednesday, December 18, 2013 at 2:00 p.m. (EST) Thursday, January 9, 2014 at 2:00 p.m. (EST)

Questions and answers from these webinars will also be posted in the FAQ document at: www.epa.gov/otaq/ports/ports-dera-rfp.htm.

#### F. Contracts and Subawards:

# 1. Can funding be used for the applicant to make subawards, acquire contract services, or fund partnerships?

EPA awards funds to one eligible applicant as the recipient even if other eligible applicants are named as partners or co-applicants or members of a coalition or consortium. The recipient is accountable to EPA for the proper expenditure of funds.

Funding may be used to provide subgrants or subawards of financial assistance, which includes using subawards or subgrants to fund partnerships, provided the recipient complies with applicable requirements for subawards or subgrants including those contained in 40 CFR Parts 30 or 31, as appropriate. Applicants must compete contracts for services and products, including consultant contracts, and conduct cost and price analyses, to the extent required by the procurement provisions of the regulations at 40 CFR Parts 30 or 31, as appropriate. The regulations also contain limitations on consultant compensation. Applicants are not required to identify subawardees/subgrantees and/or contractors (including consultants) in their proposal. However, if they do, the fact that an applicant selected for award has named a specific subawardee/subgrantee, contractor, or consultant in the proposal EPA selects for funding does not relieve the applicant of its obligations to comply with subaward/subgrant and/or competitive procurement requirements as appropriate. Please note that applicants may not award sole source contracts to consulting, engineering or other firms assisting applicants with the proposal solely based on the firm's role in preparing the proposal.

Successful applicants cannot use subgrants or subawards to avoid requirements in EPA grant regulations for competitive procurement by using these instruments to acquire commercial services or products from for-profit organizations to carry out its assistance agreement. The nature of the transaction between the recipient and the subawardee or subgrantee must be consistent with the standards for distinguishing between vendor transactions and subrecipient assistance under Subpart B Section .210 of OMB Circular A-133, and the definitions of subaward at 40 CFR 30.2(ff) or subgrant at 40 CFR 31.3, as applicable. EPA will not be a party to these transactions. Applicants acquiring commercial goods or services must comply with the competitive procurement standards in 40 CFR Part 30 or 40 CFR Part 31.36 and cannot use a subaward/subgrant as the funding mechanism.

# 2. How will an applicant's proposed subawardees/subgrantees and contractors be considered during the evaluation process described in Section V of the announcement?

Section V of this RFP describes the evaluation criteria and evaluation process that will be used by EPA to make selections under this RFP. During this evaluation, except for those criteria that relate to the applicant's own qualifications, past performance, and reporting history, the review panel will consider, as appropriate and relevant, the qualifications, expertise, and experience of:

a. an applicant's named subawardees/subgrantees identified in the proposal if the applicant demonstrates in the proposal that if it receives an award that the subaward/subgrant will be properly awarded consistent with the applicable regulations in 40 CFR Parts 30 or 31. For

- example, applicants must not use subawards/subgrants to obtain commercial services or products from for profit firms or individual consultants.
- b. an applicant's named contractor(s), including consultants, identified in the proposal if the applicant demonstrates in its proposal that the contractor(s) was selected in compliance with the competitive Procurement Standards in 40 CFR Part 30 or 40 CFR 31.36 as appropriate. For example, an applicant must demonstrate that it selected the contractor(s) competitively or that a proper non-competitive sole-source award consistent with the regulations will be made to the contractor(s), that efforts were made to provide small and disadvantaged businesses with opportunities to compete, and that some form of cost or price analysis was conducted. EPA may not accept sole source justifications for contracts for services or products that are otherwise readily available in the commercial marketplace.

EPA will not consider the qualifications, experience, and expertise of named subawardees/subgrantees and/or named contractor(s) during the proposal evaluation process unless the applicant complies with these requirements.

# G. Additional Provisions for Applicants Incorporated Into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to confidential business information, contracts and subawards under grants, and proposal assistance and communications, can be found at <a href="https://www.epa.gov/ogd/competition/solicitation\_provisions.htm">www.epa.gov/ogd/competition/solicitation\_provisions.htm</a>. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

## V. PROPOSAL REVIEW INFORMATION

Only those proposals from eligible entities that meet the threshold criteria in Section III.C of this RFP will be evaluated according to the criteria set forth below. Applicants should directly and explicitly address these criteria as part of their proposal submittal. Each proposal will be rated using a point system. Proposals will be evaluated based on a total of 100 points possible.

#### A. Evaluation Criteria

Criteria	Points
Project Narrative	
1. Project Summary and Overall Approach: Under this criterion, applicants	
will be evaluated based on:	
a. (2 points) the extent and quality to which an applicant addresses the	
requirements in Section I.B.2, "Eligible Diesel Emission Reduction	
Solutions";	9
b. (3 points) the extent and quality to which the applicant addresses the	9
requirements in Appendix B, Sub-Section 1 "Project Summary" of the	
Work Plan;	
c. (4 points) the extent and quality to which the proposal includes a well-	
conceived, logical strategy for achieving the anticipated results associated	

	with the project, by the project end date.	
2.	Results – Outcomes and Outputs: Under this criterion, applicants will be	
	evaluated based on:	
	a. (5 points) the extent and quality to which the applicant identifies and	
	quantifies the expected project outputs and outcomes, including those	
	identified in Section I.D and Appendix C of the RFP.	10
	b. (5 points) the effectiveness of the applicant's plan for tracking and	
	measuring its progress toward achieving the expected project outputs and	
	outcomes, including those identified in Section I.D and Appendix C of	
	the RFP.	
3.	Benefits to Communities and Public Health: Applicants will be evaluated,	
	as described in Section I.C.1, based on:	
	a. (10 points) the extent to which the project will benefit communities	
	surrounding the marine or inland water port; and	15
	b. (5 points) the extent to which they engage communities surrounding the	
	marine or inland water port in performance of the project and efforts to	
	reduce diesel emissions from port operations.	
4.	<b>Partnerships:</b> Under this criterion, applicants will be evaluated based on	
	their ability to demonstrate the use of existing and new partnerships with	
	relevant port-related stakeholders to successfully complete the project, as	
	described in Section I.C.2, including whether they have provided	
	commitment letters from any named partners or stakeholders. If an applicant	10
	does not intend to include project partners, then the applicant will be	
	evaluated based on their explanation of how the project will be successfully	
	completed without the use of partnerships.	
5	Promote and Sustain Efforts to Reduce Emissions from Port Areas:	
<i>J</i> .	Under this criterion, applicants will be evaluated based on the extent and	
	quality to which the applicant can demonstrate its ability to promote and	
	continue efforts to reduce emissions from port operations after EPA funding	
	for this project has ended, as described in Section I.C.3. This could include,	
	but is not limited to, the project's inclusion in a broader-based port	10
	environmental or air quality plan, a documented commitment to continue to	10
	identify and address air quality issues at the port, and/or the availability of a	
	port emissions inventory. Applicants will also be evaluated based on their	
	plans for tracking and measuring progress toward reducing emissions from	
	port operations after EPA funding for the proposed project has ended.	
6.	Diesel Emissions Reduction Effectiveness: Under this criterion, applicants	
υ.	will be evaluated based on the extent to which the project effectively reduces	
	diesel emissions. See Appendix D for general guidance on how many points	
	each specific vehicle/equipment and technology combination could receive.	
	These scores are based on the age and annual operating hours of the vehicle,	20
	and the effectiveness and cost of the control strategy. If a single proposal	<b>4</b> U
	includes more than one vehicle, each vehicle will receive a score under this	
	criterion, and those individual scores will be averaged to create one score for the criterion.	
7		
7.	Past PerformanceProgrammatic Capability and Reporting on Results:  Under this criterion, applicants will be avaluated based on their technical	o
	Under this criterion, applicants will be evaluated based on their technical	8
	ability to successfully complete and manage the project, taking into account	

#### their:

- a. (4 points) past performance in successfully completing and managing the federally funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) identified in the proposal that are similar in size, scope, and relevance to the proposed project performed within the last three years;
- b. (2 points) history of meeting the reporting requirements under the federally funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) identified in the proposal that are similar in size, scope, and relevance to the proposed project performed within the last three years and submitting acceptable final technical reports under those agreements; and
- c. (2 points) past performance in documenting and/or reporting on progress toward achieving the expected outcomes and outputs (e.g., results) under the federally funded assistance agreements (including federal grants and cooperative agreements but not federal contracts) identified in the proposal that are similar in size, scope and relevance to the proposed project performed within the last three years; and, if such progress was not made whether the documentation and/or reports satisfactorily explained why not.

Note: In evaluating applicants under this factor, the Agency will consider the information provided by the applicant and may also consider relevant information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). If you do not have any relevant or available past performance or reporting information, please indicate this in the appropriate section of the Work Plan and you will receive a neutral score for these factors under Section V of this RFP. A neutral score is half of the total points available. If you do not provide any response for this item, you may receive a score of zero (0) for these factors.

- 8. <u>Staff Expertise/Qualifications</u>: Under this criterion, applicants will be evaluated on their organizational experience, staff expertise/qualifications, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the project.
- 4
- 9. **Budget/Resources:** Under this criterion, applicants will be evaluated based on:
  - a. (2 points) the extent and quality to which the applicant addresses the requirements in Appendix B for Section 9 "Budget Detail" of the Work Plan; and
- 4

5

- b. (2 points) whether the project budget is appropriate to accomplish the proposed goals, objectives, and measurable environmental outcomes.
- 10. Expenditure of Awarded Grant Funds: Under this criterion, applicants will be evaluated based on their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.

11. Applicant Fleet Description: Under this criterion, applicants will be	
evaluated based on the degree to which detailed information on the target	5
fleet (vessel(s), vehicle(s), engine(s) and/or equipment) is provided.	

#### **Review and Selection Process**

Proposals will first be reviewed by EPA's Office of Transportation and Air Quality (OTAQ) for threshold eligibility purposes as described in Section III. Proposals that pass the threshold eligibility review will then be evaluated by a review panel(s) comprised of staff from OTAQ and EPA Regional Offices.

Preliminary funding recommendations will be provided to the OTAQ Approving Official based on the panel review(s) and rankings. Cooperative agreements funded under this announcement will be awarded and managed by the appropriate EPA grants office.

#### **B.** Other Factors

Funding decisions will be made by the EPA Approving Official based on the rankings and preliminary recommendation of the review panel. In making the final funding decisions, the EPA Approving Official may also consider sector (fleet type) diversity, technology diversity, and geographic diversity.

Once final decisions have been made, a funding recommendation will be developed and forwarded to the appropriate EPA Award Official for approval. Once selected, applicants are expected to perform their projects as proposed and evaluated, and no fundamental changes in the scope of work will be allowed. Technology changes may not be allowed after a proposal has been selected. If technology compatibility issues arise, EPA may elect to terminate the cooperative agreement, at which time assistance funds must be returned to EPA.

#### VI. AWARD ADMINISTRATION INFORMATION

#### A. Award Notices

Following evaluation of proposals, all applicants will be notified regarding their status.

- 1. Successful Applicants: EPA anticipates notification to successful applicants will be made via telephone, electronic or postal mail by Friday, March 28, 2014. The notification will be sent to the original signer of the proposal or the project contact listed in the proposal. This notification, which informs the applicant that its proposal has been selected and is being recommended for award is not an authorization to begin work. The official notification of an award will be made by the EPA Award Official. Applicants are cautioned that only a grants officer is authorized to bind the Government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization, funding or other issues discovered during the award process may affect the ability of EPA to make an award to the applicant. The award notice, signed by the EPA Award Official, is the authorizing document and will be provided through electronic or postal mail. The successful applicant may need to prepare and submit additional documents and forms (e.g. work plan), which must be approved by EPA, before the grant can officially be awarded. The time between notification of selection and award of a grant can take up to 90 days or longer.
- **2.** Unsuccessful Applicants: EPA anticipates notification to unsuccessful applicant(s) will be made via electronic or postal mail by Friday, March 28, 2014. The notification will be sent to the original signer of the Standard Form 424, Application for Federal Assistance.

## B. Administrative and National Policy Requirements

A listing and description of general EPA Regulations applicable to the award of assistance/cooperative agreements may be viewed at: <a href="http://www.epa.gov/ogd/competition/solicitation\_provisions.htm">http://www.epa.gov/ogd/competition/solicitation\_provisions.htm</a>.

Executive Order 12372, Intergovernmental Review of Federal Programs, may be applicable to awards resulting from this announcement. Applicants selected for funding may be required to provide a copy of their application to their State Point of Contact (SPOC) for review, pursuant to Executive Order 12372, Intergovernmental Review of Federal Programs. This review is not required with the initial proposal submission, and not all states require such a review. A listing of State Point of Contacts (SPOC) may be viewed at: www.whitehouse.gov/omb/grants\_spoc

For the purpose of responding to this RFP, applicants may choose to not respond to question #19 on the SF 424 form; EPA will provide additional guidance on the intergovernmental review process to those applicants selected for funding.

## C. Reporting Requirement

Quarterly progress reports and a detailed final report will be required. Quarterly reports summarizing technical progress, planned activities for the next quarter and a summary of expenditures are required. The final report shall be submitted to EPA within 90 calendar days of the completion of the period of performance. The final report must include: summary of the project or

activity, advances achieved and costs of the project or activity. In 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. The schedule for submission of quarterly reports will be established by EPA, after the grants are awarded. Award recipients may be provided with additional information and guidance on reporting performance measures and project progress after award.

## **D.** Disputes

Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) located on the web at: <a href="www.epa.gov/ogd/competition/resolution.htm">www.epa.gov/ogd/competition/resolution.htm</a>. Copies of these procedures may also be requested by contacting Faye Swift at <a href="swift.faye@epa.gov">swift.faye@epa.gov</a>.

# E. Program Income

In accordance with 40 CFR 30.24(b)(1) or 40 CFR 31.25(g)(2), as applicable, the applicant shall use program income to carry out activities described in the scope of work for the cooperative/assistance agreement and under the same terms and conditions of the agreement.

## F. Additional Provisions for Applicants Incorporated Into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to DUNS, SAM, copyrights, disputes, and administrative capability, can be found at

http://www.epa.gov/ogd/competition/solicitation\_provisions.htm. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

# VII. AGENCY CONTACTS

Faye Swift

Phone: (202) 343-9147 Email: swift.faye@epa.gov

Tyler Cooley

Phone: (415) 972-3937 Email: cooley.tyler@epa.gov

#### **APPENDIX A**

# Grants.gov Proposal Submission Instructions For Announcement Number EPA-OAR-OTAQ-14-02

# **General Application Instructions**

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information on the registration requirements that must be completed in order to submit an application through grants.gov, go to <a href="http://www.grants.gov">http://www.grants.gov</a> and click on "Applicants" on the top of the page and then go to the "Get Registered" link on the page. If your organization is not currently registered with Grants.gov, please encourage your office to designate an Authorized Organization Representative (AOR) and ask that individual to begin the registration process as soon as possible. Please note that the registration process also requires that your organization have a DUNS number and a current registration with the System for Award Management (SAM) and the process of obtaining both could take a month or more. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through grants.gov and should ensure that all such requirements have been met well in advance of the submission deadline. Registration on grants.gov, SAM.gov, and DUNS number assignment is free.

To begin the application process under this grant announcement, go to <a href="http://www.grants.gov">http://www.grants.gov</a> and click on "Applicants" on the top of the page and then "Apply for Grants" from the dropdown menu and then follow the instructions accordingly. Please note: To apply through grants.gov, you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit <a href="http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html">http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html</a>

You may also be able to access the application package for this announcement by searching for the opportunity on <a href="http://www.grants.gov">http://www.grants.gov</a> and then click on "Search Grants" at the top of the page and enter the Funding Opportunity Number, EPA-OAR-OTAQ-14-02, or the CFDA number that applies to the announcement (CFDA 66.039), in the appropriate field and click the Search button. Alternatively, you may be able to access the application package by clicking on the Application Package button at the top right of the synopsis page for the announcement on <a href="http://www.grants.gov">http://www.grants.gov</a> and click "Browse Agencies" in the middle of the page and then go to "Environmental Protection Agency" to find the EPA funding opportunities.

**Proposal Submission Deadline:** Your organization's AOR must submit your complete application package electronically to EPA through Grants.gov (<a href="http://www.grants.gov">http://www.grants.gov</a>) no later than February 13, 2014. Please allow for enough time to successfully submit your application process and allow for unexpected errors that may require you to resubmit.

Please submit *all* of the proposal materials described below using the grants.gov application package that you downloaded using the instructions above. For additional instructions on completing and submitting the electronic application package, click on the "Show Instructions" tab that is accessible within the application package itself.

# **Application Materials**

# The following forms and documents are required under this announcement:

# **Mandatory Documents:**

- 1. Application for Federal Assistance (SF-424)
- 2. Budget Information for Non-Construction Programs (SF-424A)
- 3. Narrative Proposal (Project Narrative Attachment Form)-prepared as described in Section IV.C and Appendix B of the announcement

# Optional/Other Required Documents

4. Other Attachments include the Applicant Fleet Description (required), Cost-Share Commitment Letters (if applicable), Mandated Measures Justification and Substantiation Letters (if applicable), and Optional Attachments prepared in accordance with the instructions in Section IV.C and Appendix B of the announcement. The documents included in the Other Attachments section should be readable in PDF format and consolidated into a single file. Even though the Other Attachments form is listed as an optional document in grants.gov, it must be used to attach any required documents such as the Fleet Description.

Applications submitted through grants.gov will be time and date stamped electronically. If you have not received a confirmation of receipt from EPA (not from grants.gov) within 30 days of the application deadline, please contact Tyler Cooley, at (415) 972-3937. Failure to do so may result in your application not being reviewed.

#### APPENDIX B

# **Project Narrative Instructions, Format, and Content**

**Instructions:** The Project Narrative must substantially comply with the specific instructions, format and content defined below. It must also address the evaluation criteria in Section V of the RFP.

The Project Narrative must not exceed a maximum of 10 single-spaced typewritten pages, including the Cover Page. Pages in excess of the 10-page limit will not be considered. Supporting materials, such as resumes, letters of support and/or commitment, and the Applicant Fleet Description information can be submitted as attachments and are not included in the 10-page limit.

# **A. Cover Page:** The cover page must include the following information:

- Project Title
- Applicant Information
  - Applicant (Organization) Name
  - Address (Street, City, State, Zip)
  - Office Phone and Fax Numbers
  - Contact Name, Email address and Website (if applicable)
  - DUNS number
- Eligible Entity
  - Using the criteria outlined under Section III.A of this RFP, explain how you are an eligible entity.
- Project Location
  - Specify the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized.
  - If a single proposal includes vehicles operating in more than one county or area, this section of the work plan should indicate where each vehicle will be operating.
- Total Project Cost
  - Specify total cost of the project
  - Identify amount of funding requested from EPA
  - Identify amount of mandatory match if applicable (including in-kind resources). See Sections I.B.2 and III.B.1.
  - Identify amount of voluntary cost-share (including in-kind resources), if any. Please refer to Section III.B.2.
  - Additionally, specify the total number of engines, vehicles, and/or pieces of equipment affected by the project.
- Technology
  - Specify the technologies that will be used in the grant proposal from the following list, as referenced in Section I.B.2.
    - Diesel Oxidation Catalyst (includes all oxidation catalyst combinations with closed crankcase ventilation and/or biodiesel blends)
    - Diesel Particulate Filter (includes all particulate matter filter combinations with closed crankcase ventilation and/or biodiesel blends)
    - Selective Catalytic Reduction
    - Other Verified Exhaust Control or After-treatment Device
    - Engine Upgrade

- Marine Shore Power
- Verified Idle Reduction Technology for Locomotives
- Engine Repower/Replacement
- Vehicle Replacement
- Hybrid Replacement
- Clean Alternative Fuel Conversion
- Short Project Description
  - Briefly describe your project (1-2 sentences), especially noting the number of vehicles for each type of fleet, and the technology used.

**B. Work Plan**: Applicants must ensure that the Work Plan addresses evaluation criteria 1-11 in Section V.A of this announcement by using the section headings 1-11 below which correspond with the evaluation criteria in Section V.A of this RFP.

# Section 1. Project Summary and Overall Approach

This section of the work plan must contain a detailed project description, including the following information:

- The means by which the project will achieve a significant reduction in diesel emissions.
- All verified and/or certified technologies to be used or funded by the applicant and a detailed description of the work to be performed.
- The number, types and typical use, and ownership of vehicles, engines and/or equipment targeted for emission reductions.
- A discussion of how the applicant has weighed the available/eligible technology options for the target fleet and has arrived at the chosen diesel emission reduction solution(s).
- A detailed timeline for the project, including milestones for specific tasks, such as bidding, procurement, installation and reports. Applicants should schedule time for Final Report preparation into the project timeline.
- The roles and responsibilities of the applicant organization and any other project partners, contractors, or subgrantees.
- Information on the sustainability of the project beyond the cooperative/assistance agreement period, including a discussion of whom or what organization(s) will retain ownership of any vehicles, engines and/or equipment purchased with funding from this project.
- Proposals which include repowers and replacements must include a detailed discussion of the fleet owner's normal attrition schedule and must demonstrate that the proposed emission reductions are not a result of vehicle/equipment replacements or repowers that would have occurred through normal attrition/fleet turnover within three years of the project start date.

## **Section 2. Results – Outputs and Outcomes**

This section of the work plan must include a discussion of the outputs and outcomes of the project as defined in Section I.D of this RFP. Specific outputs and outcomes should be included. In addition, applicants must describe what performance measures will be used to track, measure and report progress toward achieving the expected outputs and outcomes and how the results of the project will be evaluated.

Applicants should follow the instructions in **Appendix C** of this announcement for calculating emission reductions. It is suggested that the applicant fill out and include the following table, or something similar, in this section of the work plan.

Anticipated Outputs and Outcomes					
Activities Outputs Outcomes					

**Example Outputs and Outcome Table** 

Anticipated Outputs and Outcomes						
Activities	Outputs	Outcomes				
Replace 100 drayage trucks	100 drayage trucks replaced with trucks powered by MY 2010 or newer engines	Lifetime Emission Reductions = 1500 tons NOx 70 tons PM 80 tons HC				

**Section 3. Benefits to Communities and Public Health:** This section should identify communities affected by diesel emissions from port operations, describe how the project will benefit communities and maximize public health, and provide a description of the applicant's plan to engage affected communities in the development and implementation of the project, as described in Section I.C.3.

**Section 4. Partnerships:** Proposals should identify existing partnerships with relevant port stakeholders to successfully conduct the project, as described in Section I.C.4.

If a working partnership already exists or is under development, the proposal should identify all parties involved, as well as provide a clear description of the roles of each partner in the project's components/tasks and how each partner will contribute to the success of the project. The applicant's proposal package should include letters of commitment from all existing partners. Letters of commitment should describe the extent to which the partner will engage with the applicant to help effectively complete the project.

If a partnership does not yet exist, proposals should describe how the applicant plans to engage partners and establish working partnerships to successfully complete the project. If the applicant does not intend to have partners, then an explanation should be provided on how it will effectively perform the project without partners.

Section 5. Promote and Sustain Efforts to Reduce Emissions from Port Areas: Proposals should address how the project will promote and sustain ongoing efforts to reduce emissions from port operations after funding for this project has ended, as described in Section I.C.5. This could include, but is not limited to, the project's inclusion in a broader-based port environmental or air quality improvement plan, a documented commitment to continue to identify and address air quality issues at the port. Such examples should include reporting components to ensure the plans are currently in-use, and emissions reductions are lasting.

**Section 6. Diesel Reduction Effectiveness**: This section of the work plan must address the extent to which the project effectively reduces diesel emissions by maximizing the useful life and annual operating hours of any certified engine configuration or verified technology, as described in Section I.C.6 and **Appendix D** of this announcement.

## Section 7. Past Performance-Programmatic Capability and Reporting on Results

This section of the work plan must include a list of federally funded assistance agreements similar in size, scope and relevance to the proposed project that your organization performed within the last three years. Assistance agreements include federal grants and cooperative agreements but not federal contracts. Please reference no more than three assistance agreements. EPA agreements are preferred. For each agreement listed, include the Project Title, Assistance Agreement Number, Funding Agency and CFDA Number, and fully address the following evaluation criteria:

- whether, and how, the applicant was able to successfully complete and manage those agreements;
- the applicant's history of meeting the reporting requirements under those agreements including submitting acceptable final technical reports; and
- how the applicant documented and/or reported on whether it was making progress towards achieving the expected results (e.g., outputs and outcomes) under those agreements. If the applicant was not making progress, please indicate whether, and how, the applicant documented its reason for the lack of progress.

Please Note: In evaluating applicants under the factors as described in Section V.A.7 of this RFP, EPA will use the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and information from current and prior federal agency grantors to verify and/or supplement the information provided by the applicant.

If you do not have any relevant or available past performance or reporting information, please indicate this and you will receive a neutral score for these factors under Section V.A.7 of this RFP. A neutral score is half of the total points available. If you do not provide any response for this item, you may receive a score of zero (0) for these factors.

## **Section 8. Staff Expertise/Qualifications**

This section of the work plan must include information on the applicant's organizational experience for timely and successfully achieving the objectives of the proposed project, staff expertise/qualification, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project.

EPA will not consider the qualifications, experience, and expertise of named subawardees/subgrantees and/or named contractor(s) unless certain conditions/requirements are met. For additional information see Section IV.F of this RFP.

### Section 9. Budget Detail

This section of the work plan is a detailed description of the budget found in the SF-424A, and must include a detailed discussion of how EPA funds will be used. Applicants must <u>itemize</u> costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs.

If the project budget includes any mandatory or voluntary cost-share (or overmatch), the budget detail portion of the work plan must include a detailed description of how the applicant will obtain the cost-share and how the cost-share funding will be used. If EPA accepts an offer for a voluntary cost-share or overmatch, applicants must meet their sharing commitment as a legal condition of receiving EPA funding. If the proposed cost-share is to be provided by a third-party, a letter of commitment is required. Any form of cost-share included in the Budget Detail must also be included on the SF 424 and SF 424A. Please see Section III.B of this RFP for more detailed information on cost-share.

Applicants should use the following instructions, budget object class descriptions, and example table to complete the Budget Detail section of the work plan.

- Personnel List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period. This category includes only direct costs for the salaries of those individuals who will perform work directly for the project (generally, paid employees of the applicant organization). If the applicant organization is including staff time (in-kind services) as a cost-share, this should be included as Personnel costs. Personnel costs do not include: (1) costs for services of consultants, contractors, consortia members, or other partner organizations, which are included in the "Contractual" category; (2) costs for employees of subrecipients under subawards, which are included in the "Other" category; or (3) effort that is not directly in support of the proposed project, which may be covered by the organization's negotiated indirect cost rate. The budget detail must identify the personnel category type by Full Time Equivalent (FTE), including percentage of FTE for part-time employees, number of personnel proposed for each category, and the estimated funding amounts.
- Fringe Benefits Identify the percentage used, the basis for its computation, and the types of benefits included. Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to the cost of leave, employee insurance, pensions and unemployment benefit plans.
- Travel Specify the mileage, per diem, estimated number of trips in-state and out-of-state, number of travelers, and other costs for each type of travel. Travel may be integral to the purpose of the proposed project (e.g. inspections) or related to proposed project activities (e.g. attendance at meetings). Travel costs do not include: (1) costs for travel of consultants, contractors, consortia members, or other partner organizations, which are included in the "Contractual" category; (2) travel costs for employees of subrecipients under subawards, which are included in the "Other" category.
- Equipment Identify each item to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year. Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts. These types of proposed costs should be included in the "Other" category. Items with a unit cost of less than \$5,000 should be categorized as supplies, pursuant to 40 CFR 31.3 and 30.2. The budget detail must include an itemized listing of all equipment proposed under the project.
- Supplies "Supplies" means all tangible personal property other than "equipment." The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or

- office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the "Other" category.
- Contractual Identify each proposed contract and specify its purpose and estimated cost. Contractual/consultant services are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. Leased or rented goods (equipment or supplies) should be included in the "Other" category. The applicant should list the proposed contract activities along with a brief description of the scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or non-competitive), if known.
- Other List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost. This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and subaward costs. Subawards (e.g., subgrants) are a distinct type of cost under this category. The term "subaward" means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Subcontracts are not subawards and belong in the contractual category. Applicants must provide the aggregate amount they propose to issue as subaward work and a description of the types of activities to be supported.
- Indirect Charges If indirect charges are budgeted, indicate the approved rate and base. Indirect costs are those incurred by the grantee for a common or joint purpose that benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant must have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or must have submitted a proposal to the cognizant federal or state agency. Examples of Indirect Cost Rate calculations are shown below:
  - o Personnel (Indirect Rate x Personnel = Indirect Costs)
  - o Personnel and Fringe (Indirect Rate x Personnel & Fringe = Indirect Costs)
  - o Total Direct Costs (Indirect Rate x Total direct costs = Indirect Costs)
  - Direct Costs, less distorting or other factors such as contracts and equipment
     (Indirect Rate x(total direct cost distorting factors) = Indirect Costs)

# **Example Budget Table**

Line Item and Itemized Cost	EPA Funding	**Cost-Share
Personnel		
(1) Project Manager @ \$40/hr x 10 hrs/week x 52 wks		\$20,800
(1) Project Staff @ \$30/hr x 40 hrs/week x 40 wks	\$48,000	
TOTAL PERSONNEL	\$48,000	\$20,800
Fringe Benefits		
20% of Salary and Wages	20%(48,000)	20%(20,800)
- Retirement, Health Benefits, FICA, SUI	\$9,600	\$4,160
TOTAL FRINGE BENEFITS	\$9,600	\$4,160
Travel		

Local mileage for Project Manager: 100 mi/mo @ \$0.17/mi x 12 mos.	\$204	
Local mileage for Project Staff: 200 mi/mo @ \$0.17/mi x 12 mos.	\$408	
TOTAL TRAVEL	\$612	
Equipment		
25 DOCs + CCV@ \$5000 per unit	\$125,000	
25 DPFs with installation kit @ \$6,000 per unit	\$150,000	
10 New vehicles for Replacement @ \$100,000 per unit	\$250,000	\$750,000
10 Engines for Repower @ \$50,000 per unit	\$250,000	\$250,000
TOTAL EQUIPMENT	\$ 775,000	\$1,000,000
Supplies		
100 Replacement CCV filters @ \$10 per unit	\$1,000	
TOTAL SUPPLIES	\$1,000	
Contractual		
Retrofit Installation Services Contract	\$10,000	
TOTAL CONTRACTUAL	\$10,000	\$10,000
Other		
5 Subgrants to drayage truck owners for truck replacements. Each Subgrant @ \$50,000	\$250,000	
TOTAL OTHER	\$250,000	
Indirect Charges		
Federal Negotiated Indirect Cost Rate = 10% (Indirect Rate x Personnel = Indirect Costs)	\$4,800	\$2,080
TOTAL INDIRECT	\$4,800	\$2,080
TOTAL FUNDING	\$1,099,012	\$1,037,040
TOTAL PROJECT COST	\$2,136,052	

<sup>\*\*</sup> Cost-share funds must also be included on the SF-424A as detailed in Section III.B of this RFP.

**Section 10. Expenditure of Awarded Grant Funds:** Under this section, applicants should provide information about their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.

**Section 11. Applicant Fleet Description:** The proposal must also contain an Applicant Fleet Description section. This information does not count toward the 10-page limit. See Section IV.C.3 of this RFP for detailed instructions on completing the Applicant Fleet Description portion of the Project Narrative. A sample format for the Applicant Fleet Description may be downloaded at <a href="https://www.epa.gov/otaq/ports/ports-dera-rfp.htm">www.epa.gov/otaq/ports/ports-dera-rfp.htm</a>.

Cost-Share Commitment Letters, Mandated Measures Justification and Substantiation Letter(s), and Optional Attachments: This information does not count towards the 10-page limit. See Section IV.C.4 and 5 for detailed instructions and applicability.

### APPENDIX C

# **Quantifying Environmental Outcomes and Public Health Benefits**

### **Diesel Emission Reductions**

To estimate the anticipated emission reductions from your project, use the Diesel Emissions Quantifier (DEQ) found at <a href="www.epa.gov/cleandiesel/quantifier">www.epa.gov/cleandiesel/quantifier</a>. Based on the vehicle/engine data you provided for the Applicant Fleet Description (described in Section IV.C.3 of this RFP) enter the same data into the DEQ. For assistance getting started, please review the DEQ Frequently Asked Questions document found at <a href="www.epa.gov/cleandiesel/quantifier">www.epa.gov/cleandiesel/quantifier</a>. Please note you can group entries together to minimize the number of DEQ runs required (model year, vehicle miles traveled, idling hours, usage rate, and horsepower). While it is not required that you log in to use the Quantifier, it is recommended that you "Register a New Account" and log in to use the Quantifier 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 Lifetime Amount Reduced for each of the listed pollutants (NO<sub>x</sub>, PM, HC, CO, CO<sub>2</sub>) in Section 2 "Results – Outputs and Outcomes," of your work plan.

. 20 11						
Lifetime	NOx (tons)	PM (tons)	HC (tons)	CO (tons)	CO2 (tons)	Diesel- Equivalent (gallons)
Baseline of Entire Fleet	7.8325	0.1885	0.0786	1.4534	112.3719	10,123.592
Baseline of Engines Retrofitted	7.8325	0.1885	0.0786	1.4534	112.3719	10,123.592
Percent Reduced(%)	0.0%	0.2%	0.5%	0.3%	0.0%	0.0
Amount Reduced	0.0000	0.0004	0.0004	0.0044	0.0000	0.000
Amount Emitted After Retrofit, Retrofitted Engines	7.8325	0.1882	0.0782	1.4490	112.3719	10,123.592
Amount Emitted After Retrofit, Entire Fleet	7.8325	0.1882	0.0782	1.4490	112.3719	10,123.592
Capital Cost Effectiveness (\$/ton), Retrofitted Engines	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
Total Cost Effectiveness (\$/ton), Retrofitted Engines	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

**Note:** The lifetime results are dependent on each vehicle group's remaining life. To determine the remaining life for each vehicle group, divide the lifetime results by the annual results using the Detailed Results tables below.

Note: "ton" refers to a short ton; a unit of mass equal to 2,000 pounds (907.18474 kg).

### **Public Health Benefits Determination**

The extent that a project will maximize public health benefits depends on both the population that will experience improvements in air quality due to the project, and the amount of emissions reductions that will take place. Proposals should therefore describe both the population that will be affected by the project and the emissions reductions that will result from the project. Applicants should provide current information about the population affected including relevant demographics such as population density, race, income, and existing health information. Proposals should also identify groups with increased sensitivity to air pollution that are impacted by diesel emissions in the project area. Health benefits can be quantified using the Diesel Emissions Quantifier (DEQ). However, the DEQ does not include quantification of the health benefits for all types of projects and

types of emissions. The DEQ can quantify health benefits from particulate matter (PM) emissions reductions, but cannot quantify benefits from emissions reduction of NOx, CO, HC, or CO<sub>2</sub>.

For further instruction on using the DEQ, please refer to <a href="www.epa.gov/cleandiesel/quantifier/">www.epa.gov/cleandiesel/quantifier/</a>.

### **Alternative Methods**

If you are unable to use the DEQ, you may use the following alternative methods for calculating emission reductions:

- Motor Vehicle Emissions Simulator (MOVES) www.epa.gov/otaq/models/moves/index.htm
- National Mobile Inventory Model (NMIM) www.epa.gov/oms/nmim.htm
- Mobile Model (on-road vehicles) <a href="https://www.epa.gov/OMS/mobile.htm">www.epa.gov/OMS/mobile.htm</a>
- Nonroad Model (nonroad engines, equipment, and vehicles) www.epa.gov/OMS/nonrdmdl.htm

If an alternative method is used you must thoroughly describe and document your methods within Section 2 "Environmental Results," of your work plan.

### Restriction for Mandated Measures – Emissions Reduction Worksheet

No funds awarded under this RFP shall be used to fund the costs of emission reductions that are mandated under federal law. See Section III.D.1 of this RFP 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, emission reduction benefits shall only be calculated for emission reductions implemented prior to the effective date of the applicable mandate and/or emission reduction benefits shall only be calculated for emission reductions that are in excess of (above and beyond) those required by the applicable mandate.

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

Follow the instructions above to run the DEQ. From the DEQ results page (example shown below), enter the Annual Amount Reduced Per Year in the spaces provided below.

Summary Emissions Results De						
Annual	NOx (tons/year)	PM (tons/year)	HC (tons/year)	CO (tons/year)	CO2 (tons/year)	Diesel- Equivalent (gallons/year)
Baseline of Entire Fleet	7.7369	0.1862	0.0776	1.4356	111.0000	10,000.0000
Baseline of Engines Retrofitted	7.7369	0.1862	0.0776	1.4356	111.0000	10,000.0000
Percent Reduced (%)	0.0%	0.2%	0.5%	0.3%	0.0%	0.0%
Amount Reduced Per Year	0.0000	0.0004	0.0004	0.0043	0.0000	0.0000
Daily	NOx (kg/day)	<b>PM</b> (kg/day)	HC (kg/day)	CO (kg/day)	CO2 (kg/day)	Diesel- Equivalent (gal/day)
Kilograms Reduced Per Day (kg/day)	0.0000	0.0009	0.0010	0.0107	0.0000	0.0000

Note: "ton" refers to a short ton; a unit of mass equal to 2,000 pounds (907.18474 kg).

NO<sub>x</sub> (tons/yr) PM (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<sub>x</sub>, PM, HC, CO, CO<sub>2</sub>) in Section 2 "Results," of your work plan.

For example, if the mandate is slated to occur in 2015 and the retrofit will take place in 2013, then multiply the highlighted values above by 2 (2015 - 2013=2). Thus, the calculated lifetime emissions would be as follows:

0.000*2=	0.027*2=	0.095*2=	0.259*2=	0.000*2=
0.00	0.054	0.190	0.518	0.000
$NO_x$ (tons)	PM (tons)	HC (tons)	CO (tons)	CO <sub>2</sub> (tons)

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

Follow the instructions above to run the DEQ using the target engines and the technologies/emission reductions that are required by the mandate. From the DEQ results page, enter the mandated Annual Amount Reduced Per Year in the spaces provided below.

PM (tons/yr) HC (tons/yr) CO (tons/yr) CO2 (tons/yr)  $NO_x$  (tons/yr)

Note: These are the Annual results, not the Lifetime Results.

Then, follow the instructions above to run the DEQ using the target engines and the
technologies/emission 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 Annual Amount Reduced Per Year in the spaces provided below.

 $\overline{NO_x}$  (tons/yr)  $\overline{PM}$  (tons/yr)  $\overline{HC}$  (tons/yr)  $\overline{CO}$  (tons/yr)  $\overline{CO2}$  (tons/yr) Note: These are the Annual results, not the Lifetime Results.

Subtract the mandated values for each pollutant by the proposed project values and then enter the calculated lifetime emissions for each of the listed pollutants ( $NO_x$ , PM, HC, CO,  $CO_2$ ) in Section 2 "Results," of your work plan.

### APPENDIX D

#### **Diesel Reduction Effectiveness**

Evaluation criterion #6 (Section V.A.6) provides a maximum score of 20 points to assess the diesel reduction effectiveness of each proposal. The primary factors used by EPA to evaluate effectiveness include the expected life and activity level of the vehicle or equipment, and the cost and effectiveness of the control strategy. The following tables are designed to provide applicants with a vehicle-by-vehicle guide for how EPA will score proposals for the "Programmatic Priority – Diesel Reduction Effectiveness" criterion. These tables provide scores for different types of vehicles and equipment by emission control strategy. Grant proposals frequently include a suite of vehicle types, ages and control strategies. If a single proposal includes more than one vehicle, each vehicle will receive a score under this criterion, and those individual scores will be averaged to create one score for the Diesel Reduction Effectiveness criterion for the entire proposal, for a maximum of 20 points. Information about each specific vehicle will be taken from the proposal's Applicant Fleet Description, described in Section IV.C.3.

Certain vehicles/engines, and vehicle/engine and technology combinations, are not eligible for funding under this RFP, as described in **Section III.D "Funding Restrictions"**. If a submitted proposal includes ineligible activities, that portion of the proposal will be ineligible for funding and may render the entire proposal ineligible for funding.

# A. Drayage Trucks<sup>1</sup>

Target Fleet	Current Vehicle Engine Model Year	DOC	DPF	SCR	Replace with 2010 or Newer	Repower or Conversion of Engine to Higher Certification Level	Repower or Conversion to All-Electric
	1990	10	15	15	5	5	10
	1991	10	15	15	10	5	15
	1992	10	15	15	10	5	15
	1993 to 1994	10	20	20	15	5	20
Drayage	1995	10	20	20	20	5	20
Trucks	1996 to 2003	10	20	20	20	5	20
	2004 to 2006	10	20	20		15	20
	2007 to 2009			20			
	2010 to						
	current						

**Scoring Methodology:** Factors that were used to develop these scores include total emissions reduced over the life of the projects and cost of the control strategy. Emission reduction calculations

were based on standard DEQ assumptions. Cost estimates were based on data reported to EPA from DERA final grant reports.

<sup>1</sup>If new or expanded use of a cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified exhaust control or an eligible clean alternative fuel conversion or an eligible certified engine repower or an eligible certified vehicle/equipment replacement, add one point to the score, up to a maximum of 20 points.

# B. Nonroad Engines and Equipment<sup>1</sup>

Annual Usage Rate		fied Exh Control	Verified Engine	
	DPF	DOC	SCR	Upgrade <sup>4</sup>
500 to 1,000 hr/yr	15	10	15	10
More than 1,000 hr/yr	20	15	20	15

Current Engine Tier	Annual Usage	Repowered or Replaced New Certified Engine <sup>4</sup>					
	(hrs/yr)	Tier 0	Tier 1	Tier 2/3	Tier 4	All- Electric	
Tier 0 / 1	500 to 1,000			10	15	15	
	>1,000			15	20	20	
Tier 2 / 3	500 to 1,000				5	15	
	>1,000				10	20	

**Scoring Methodology:** Factors that were used to develop these scores include total emissions reduced over the life of the projects and cost of the control strategy. Emission reduction calculations were based on standard DEQ assumptions. Cost estimates were based on data reported to EPA from DERA grant close-out reports.

<sup>1</sup>If new or expanded use of a cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified exhaust control or an eligible engine upgrade or an eligible certified engine repower or an eligible certified vehicle/equipment replacement, add one point to the score, up to a maximum of 20 points.

<sup>&</sup>lt;sup>4</sup>If a new eligible verified exhaust control technology is added to a newly repowered, replaced, or upgraded nonroad engine, that engine will receive the points for the repower, replacement, or upgrade plus the point for the exhaust control technology, up to a maximum of 20 points.

# C. Locomotives (Line-haul and Switchers)<sup>5</sup>

Current Locomotive Tier	Annual Usage Rate		New Locomotive Tier					
		Tier 0+	Tier 1+	Tier 2+	Tier 3	Tier 4	SCR	
Unregulated	1,000 - 2,000	10	10	10	10	15		
and Tier 0	2,000+	15	15	15	15	20		
Tier 0+ and Tier 1	1,000 - 2,000		10	10	15	15	15	
Tiel 0+ and Tiel 1	2,000+		15	15	20	20	20	
Tier 1+	1,000 - 2,000			10	15	15	15	
	2,000+			15	20	20	20	
Tier 2	1,000 - 2,000			5	10	15 <sup>6</sup>	15	
Her Z	2,000+			10	15	$20^{6}$	20	
Tier 2+	1,000 - 2,000				$10^{6}$	15 <sup>6</sup>	15	
	2,000+				15 <sup>6</sup>	$20^{6}$	20	

	Annual Idling Hours	Idle Reduction Strategies <sup>7</sup>			
Current Locomotive Tier		Locomotive Shore Connection Systems, Auxiliary Power Unit (APU) or Fuel Operated Heater (FOH)	Automatic Engine Start-Stop (AESS)		
Unregulated	1,000 - 2,000	15	15		
and Tier 0	2,000+	20	20		
Tier 1-3	1,000 - 2,000	15			
	2,000+	20			

**Locomotive Scoring Methodology:** Factors used to score these projects included total emissions over the life of the project and the cost of the control strategy. For locomotives that are repowered or have engines replaced that bring the locomotives to higher tier levels than that required by the rule, the associated scoring is based on the annual usage rate and the related improvement associated with emission levels of the higher tier.

<sup>&</sup>lt;sup>5</sup>Tier 0+, Tier 1+, and 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.

<sup>&</sup>lt;sup>6</sup>Applies to switcher locomotives only.

<sup>&</sup>lt;sup>7</sup>If a new eligible verified idle reduction technology or shore connection system is added to a newly repowered, replaced, or upgraded locomotive engine, that locomotive engine will receive 20 points under this criterion.

D. Marine Engines<sup>8</sup>

Current Engine Tier	Repowered or Replaced New Certified Engine		Certified Engine Upgrade (Remanufacture System)	Verified Engine Upgrade		
	Tier 1	Tier 2	Tier 3	Tier 4		
Unregulated	5	15	20	20	15	15
Tier 1		15	20	20	15	15
Tier 2			15	20	15	15

<b>Current Engine Tier</b>	MW-hr/year	Shore Connection Systems <sup>9</sup>
	2,000 – 3,000	10
Unregulated, Tier 1, Tier 2	3,000 – 4,000	15
1101 2	4,000+	20

Marine Engine Scoring Methodology: EPA's 2008 marine engine regulations require that upgraded or repowered marine engines must meet certain emission requirements. Therefore, DERA funds can only be used to pay for upgrades or repowers that exceed the required emission standards. The scores for marine engines posted above are based on the additional emission reductions that would be achieved by upgrading or repowering a marine engine to its next Tier above the required emission standards. Points for shore connection systems are based on the projected annual MW-hr used by the vessels at the project location. Applicants should include information on MW-hr usage in their proposal, which may be obtained from local port officials.

<sup>&</sup>lt;sup>8</sup>No funds awarded under this RFP shall be used to retrofit, repower, replace, upgrade or install idle reduction technologies on marine engines or locomotives that operate less than 1000 hours per year.

<sup>&</sup>lt;sup>9</sup>If a new eligible verified shore connection system is added to a newly repowered, replaced, or upgraded marine engine, that marine engine will receive 20 points under this criterion.

### **APPENDIX E**

As stated in Section III.D.1 of this RFP, projects involving locomotives and marine engines will not be considered for funding under this RFP if the emission reductions proposed for funding 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."

All proposals which include locomotives and/or marine engines must include a clear and concise justification for why/how the proposed emission reduction are not subject to the Restriction for Mandated Measures under this RFP. The justification must clearly demonstrate why/how:

- a. the target locomotives and/or marine engines are exempt from the requirements of EPA's locomotive and marine rule; or
- b. emission reductions funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule; and/or
- c. emission 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.

Applicants must provide sufficient information to support the justification, including copies of maintenance records, if applicable. Applicants are responsible for addressing all applicable parts of the rule in their justification for why/how the emission reductions proposed for funding are not subject to the Restriction for Mandated Measures under this RFP. The justification must also include a signed letter (Substantiation Letter) from the owner/operator of the subject locomotive(s) and/or marine engine(s) attesting to the accuracy of the information. This information should be included as an attachment to the proposal, and does not count towards the 10-page limit.

What is Sufficient Justification?

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

- 1. The original build date of each locomotive.
- 2. The model year of the existing engines for each locomotive.
- **3.** 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?
- **4.** The date that the power assemblies of each existing engine have been replaced, if ever.

As outlined above, and in Section III.D.1 of this RFP, 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 engine are 600 horsepower engines and are therefore exempt from the rule requirements. Please see the attached "Substantial Letter" signed by the vessel owner attesting to the accuracy of this information."

As outlined above, and in Section III.D.1 of the RFP, certain locomotives and marine engines may be subject to the rule requirements, but the applicant may be able to demonstrate that the emission reduction funded with EPA funds will be implemented prior to the effective date of any applicable requirements under the rule and/or emission 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 emission 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 <a href="http://www.epa.gov/otaq/certdata.htm">http://www.epa.gov/otaq/certdata.htm</a>, 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 emission reductions proposed for EPA funding are not subject to the Restriction for Mandated Measures under this RFP. Please see the attached "Substantial Letter" signed by the vessel owner attesting to the accuracy of this information."

## 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 <a href="http://www.epa.gov/otaq/certdata.htm">http://www.epa.gov/otaq/certdata.htm</a>, and have determined that at this time there is one certified remanufacture kit available for this engine: [insert kit info].

However, emission 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 applicant should include a thorough discussion of

the emission reductions that could be achieved by the application of the certified kit to the existing engine and the emission reductions that will be achieved by the activities proposed from funding under the grant. The applicant should calculate the difference between the required emission reductions and the proposed emission reductions, and should be able to clearly demonstrate that emission 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 RFP. Please see the attached "Substantial Letter" signed by the vessel owner attesting to the accuracy of this information."

Please note that failure to submit the required "Mandated Measured Justification and Substantiation Letter" will render the applicant's entire proposal ineligible and the proposal will not be reviewed.

### Additional Resources:

- Final Rule: http://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: http://www.epa.gov/otaq/regs/nonroad/420f08004.pdf
- Fact Sheet: Control of Emissions from Idling Locomotives: http://www.epa.gov/otaq/regs/nonroad/locomoty/420f08014.pdf
- Summary of locomotive emission standards: http://www.epa.gov/otaq/standards/nonroad/locomotives.htm
- Frequently Asked Questions from Marine Engine Owners and Rebuilders about EPA's Marine Remanufacture Program: http://www.epa.gov/otaq/regs/nonroad/marine/ci/420f09003.pdf
- Summary of marine emission standards: http://www.epa.gov/otaq/standards/nonroad/marineci.htm
- Marine and Locomotive Certified Remanufacture Systems: http://www.epa.gov/otaq/certdata.htm

The information that follows is provided purely for informational purposes to highlight certain parts of the rule that may be of most interest to applicants, such as applicability, exemptions, and remanufacture requirements. This information is not all-inclusive and is not meant as a substitute for the actual rule. There may be applicability, exemptions, and requirements under the rule that are not highlighted below.

### **Affected Entities and Engines**

Entities potentially affected by this rule are those that manufacture, remanufacture or import locomotives or locomotive engines; and those that own or operate locomotives and companies and persons that manufacture, sell, or import into the United States new marine compression ignition engines, companies and persons that rebuild or maintain these engines, companies and persons that make vessels that use such engines, and the owners/operators of such vessels.

The rule addresses all types of diesel locomotives—line-haul, switch, and passenger rail, and all types of marine diesel engines below 30 liters per cylinder displacement (hereafter referred to as "marine diesel engines"). These engines are used to power a wide variety of vessels, from small fishing and recreational boats to large tugs and Great Lakes freighters. They are also used to generate auxiliary vessel power, including on ocean-going ships.

# **Locomotives**

The rule affects locomotives currently regulated under 40 CFR parts 92 or 1033. With some exceptions, the locomotive regulations apply for all locomotives originally built in or after 1973 that operate in the United States.

Class III Railroads are exempt from the remanufacture standards for existing fleets. The rule limits the category of small railroads which are exempt from the Tier 0, 1 and 2 remanufacturing requirements for existing fleets to those railroads that qualify as Class III railroads and that are not owned by a large parent company. Under the current Surface Transportation Board classification system, this exemption is limited to railroads having total revenue less than \$36,212,260 per year in 2012.

EPA estimates that nearly all of the locomotives in the Class I railroad fleets were originally manufactured in or after 1973 and are already subject to the Tier 0 or later standards.

Intercity passenger or commuter railroads are not included as railroads that are small businesses, and are therefore subject to the rule.

### **Definitions**

"new locomotive" or "new locomotive engine" – a locomotive or engine that has never been transferred to an ultimate purchaser or put into service; a locomotive or engine also becomes new if it is remanufactured or refurbished. Locomotives and engines that were originally manufactured before January 1, 1973 are not considered to become new when remanufactured unless they have been upgraded (as defined by the rule). Locomotives that are owned and operated by a small railroad and that have never been certified (i.e. manufactured or remanufactured into a certified configuration) are not considered to become new when remanufactured.

"remanufacture" - 1) To replace, or inspect and qualify, each and every power assembly (i.e cylinder) of a locomotive or locomotive engine, whether during a single maintenance event or cumulatively within a five year period; or 2) To upgrade a locomotive or locomotive engine; or 3) To convert a locomotive or locomotive engine to enable it to operate using a fuel other than it was originally manufactured to use; or 4) To install a remanufactured engine or a freshly manufactured

engine into a previously used locomotive; or 5) To repair a locomotive engine that does not contain power assemblies to a condition that is equivalent to or better than its original condition with respect to reliability and fuel consumption. Remanufacture also means the act of remanufacturing.

"remanufactured locomotive" - either a locomotive powered by a remanufactured locomotive engine, a repowered locomotive, or a refurbished locomotive.

"upgrade" - one of the following types of remanufacturing: 1) Repowering a locomotive that was originally manufactured prior to January 1, 1973; or 2) Refurbishing a locomotive that was originally manufactured prior to January 1, 1973 in a manner that is not freshly manufacturing; or 3) Modifying a locomotive that was originally manufactured prior to January 1, 1973 (or a locomotive that was originally manufactured on or after January 1, 1973, and that is not subject to the emission standards of this part), such that it is intended to comply with the Tier 0 standards.

"repowered locomotive"- a locomotive that has been repowered with a freshly manufactured engine.

"freshly manufactured locomotive" – a new locomotive that contains fewer than 25 percent (by value) previously used parts (i.e. contains 75% or more brand new parts); includes when an existing locomotive is substantially refurbished including the replacement of the old engine with a freshly manufactured engine.

"refurbished locomotive" - a locomotive which contains more unused parts than previously used parts (i.e. contains 50% to 75% brand new parts). Note: Locomotives built before 1973 become "new" and thus subject to emission standards when refurbished (i.e. are not exempt from the rule requirements due to age of locomotive). In general, the rule requires refurbished switch locomotives to meet the Tier 0+ standards, and refurbished line-haul locomotives to meet Tier 2+/Tier 3 standards, even if the original locomotive was manufactured before 1973.

<u>Remanufactured Locomotives:</u> The rule sets new standards for the existing fleet of Tier 0, Tier 1, and Tier 2 locomotives, to apply at the time of remanufacture, if a certified remanufacture system is available.

To avoid confusion between the old standards and the new standards, EPA has adopted a simple approach whereby a Tier 0 locomotive remanufactured under the more stringent Tier 0 standards adopted in the 2008 (current) rule will be designated a Tier 0+ locomotive. The same approach applies for Tier 1 and Tier 2 locomotives. That is, those remanufactured under the new standards would be called Tier 1+ and Tier 2+ locomotives, respectively. However, in many contexts, including a number of places in the final rule, there is really no need to make distinctions of this sort, as no ambiguity arises. In these contexts it would be perfectly acceptable to drop the "+" designation and simply refer to Tier 0, 1, and 2 locomotives and standards.

<u>Switch Locomotives:</u> The rule includes standards and other provisions aimed at encouraging the replacement of old high-emitting units with newly-built or refurbished locomotives powered by very clean engines developed for the nonroad equipment market. For example, a provision applicable to switch locomotives allows a streamlined certification process.

<u>Reduction of Locomotive Idling Emissions:</u> The rule requires that an Automatic Engine Stop/Start System (AESS) be used on all new locomotives (see definition of "new locomotive" above).

<u>Voluntary Emission Reductions:</u> The rules allow locomotive owners to voluntarily subject their pre-1973 locomotives to the Tier 0 standards or to include in the locomotive program low-horsepower locomotives that would otherwise be excluded based on their rated power. Additionally, the rule allows Tier 0 switch locomotives, which are normally not subject to line-haul cycle standards, to be voluntarily certified to the line-haul cycle standards. Also, the rule allows any locomotives to be voluntarily certified to a more stringent tier of standards. In doing so, the locomotives then become subject to the new remanufactured engine standards, at the point of first remanufacture under the new standards.

## **Marine Engines**

The rule (marine existing fleet program) affects marine diesel engines and vessels regulated under 40 CFR parts 94 or 1042.

The marine existing fleet program applies only to those commercial marine propulsion and auxiliary diesel engines which meet 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.

Small vessel operators are exempt from the new standards for existing fleets. The requirements of the marine existing fleet program do not apply to owners of marine diesel engines or vessel operators with less than \$5 million in gross annual sales revenue. This threshold includes annual sales revenue from parent companies or affiliates of the owners/operators.

EPA estimates that about 4 percent of all C1 and C2 engines are subject to the marine existing fleet program and are likely to have certified kits available at the time of remanufacture.

### **Definitions**

"remanufacture" of a marine engine - the removal and replacement of all cylinder liners, either during a single maintenance event or over a five-year period. It should be noted that marine diesel engines are not considered to be remanufactured if the rebuilding process falls short of this definition (i.e. the cylinder liners are removed and replaced over more than a five-year period).

<u>Remanufactured Marine Engines</u>: When an engine is remanufactured, it must be certified as meeting the emission standards for remanufactured engines (by using a certified remanufacture system) unless there is no certified remanufacturing system available for that engine. If there is no certified system available at that time, there is no requirement.

A certified marine remanufacture system must achieve a 25 percent reduction in PM emissions compared to the engine's measured baseline emissions level (the emission level of the engine as rebuilt according to the manufacturer's specification but before the installation of the remanufacture system) without increasing NO<sub>x</sub> emissions (within 5 percent).

If several certified systems are available, we will allow any of them to be used.

For engines on a rolling rebuild schedule (i.e., cylinder liners are not replaced all at once but are replaced in sets on a schedule of 5 or fewer years, for example 5 sets of 4 liners for a 20-cylinder engine on a 5-year schedule), the requirement is triggered at the time the remanufacture system becomes available, with the engine required to be in a certified configuration when the last set of cylinder liners is replaced. Any remanufacturing that occurs after the system is available needs to use the certified system, including remanufacturing that occurs on a rolling schedule over less than five years following the availability of the remanufacturing system. If the components of a certified remanufacture system are not compatible with the engine's current configuration, the program allows the owner to postpone the installation of the remanufacture system until the replacement of the last set of cylinder-liners, which would occur no later than five years after the availability of the system. At that time, all engine components must be replaced according to the certified remanufacture system requirements.

In general, remanufactured engines are considered to be "new" engines, and they remain new until sold or placed back into service after the replacement of the last cylinder liner. The standards do not apply for engines that are rebuilt without removing cylinder liners. For a new engine to be placed into service, it must be covered by a certificate of conformity.

Replacement with a Freshly Manufactured Engine: Under the marine diesel engine program, an engine manufacturer is generally prohibited from selling a marine engine that does not meet the standards that are in effect when that engine is produced. However, manufacturers are allowed to produce a new engine which meets an earlier tier of standards if the engine manufacturer makes a determination that an engine compliant with the current standards would not fit a particular vessel.

Specifically, in making the feasibility determination the engine manufacturer is required to consider all previous tiers and use any of their own engine models from the most recent tier that meets the vessel's physical and performance requirements. If an engine manufacturer can produce an engine that meets a previous tier of standards representing better control of emissions than that of the engine being replaced, the manufacturer would need to supply the engine meeting the tier of standards with the lowest emission levels. For example, if a Tier 1 engine is being replaced after the Tier 3 standards go into effect, the engine manufacturer would have to demonstrate why a Tier 2 as well as a Tier 3 engine cannot be used before a Tier 1 engine can be produced and installed. Similarly, for an engine built prior to 2004, the engine manufacturer would have to demonstrate why a Tier 1, Tier 2, or a Tier 3 engine cannot be used. It should be noted, in the case of Tier 0 engines, that MARPOL Annex VI prohibits replacing an existing engine at or above 130 kW with a freshly manufactured engine unless it meets the Tier 1 standards.

Tier 4 engines equipped with aftertreatment technology to control either  $NO_x$  or PM are not required for use as replacement engines for engines from previous tiers in accordance with this regulatory replacement engine provision. Note, however, that Tier 4 engines will be required to be used as replacement engines if the original engine being replaced is a Tier 4 engine.

Replacement with an Existing Engine: The remanufacture requirements of the rule apply whether the owner is obtaining an identical existing (used) replacement engine due to an engine failure or through an engine exchange for a periodic engine rebuild. These requirements also apply if a vessel

owner is obtaining a different model existing (used) replacement engine, for whatever reason. This means if the existing engine (greater than 600 kW that are built after 1973) that is the replacement engine is rebuilt and has all of its cylinder liners replaced, it will be required to be remanufactured using a certified remanufacture system if one is available for that engine.

# **APPENDIX F**

# **Proposal Submission Checklist**

The proposal package *must* include all of the following materials. Use this checklist to ensure that all required materials have been included in your proposal package.

☐ Standard Form SF 424 – Application for Federal Assistance
☐ Standard Form SF 424A – Budget Information
☐ Project Narrative (no more than 10 pages)
☐ Cover Page
□ Work Plan
☐ 1. Project Summary and Overall Approach
☐ 2. Results – Outcomes and Outputs
$\ \square$ 3. Benefits to Communities and Public Health
☐ 4. Partnerships
$\ \square$ 5. Promote and Sustain Efforts to Reduce Emissions from Port Areas
☐ 6. Diesel Reduction Effectiveness
☐ 7. Past Performance
☐ 8. Staff Expertise/Qualifications
☐ 9. Detailed Budget Narrative
☐ 10. Expenditure of Awarded Grant Funds Narrative
☐ Applicant Fleet Description information (not included in page limit)
☐ Cost-Share Commitment and Partnership Letters, if applicable (not included in page limit)
☐ Mandated Measures Justification and Substantiation Letter(s), if applicable (not included in page limit)
☐ Optional Attachments (not included in page limit)