

DIESEL ENGINE EMISSION CONTROL

**The following provisions are for use on projects requiring diesel engine emission control.

**From Springfield STP ST CULV(5)

Areas highlighted in yellow should be addressed on a project basis.

The project Special Provisions may include an associated Notice to Bidders as follows:

- x. NOTICE TO BIDDERS - ULTRA-LOW SULFUR DIESEL FUEL. Regarding the requirement for using ultra-low sulfur diesel fuel under the provisions of DIESEL ENGINE EMISSION CONTROL of Section 900, diesel fuel suppliers in the Springfield area were contacted by the Agency. Based on the Agency's findings, there are many suppliers that will supply clear ultra-low sulfur diesel fuel and several suppliers who will deliver dyed ultra-low sulfur diesel fuel in quantities exceeding certain minimums. There appears to be a slight premium of five to ten cents per gallon for ultra-low sulfur diesel fuel when compared with low or high-sulfur diesel fuel. The Contractor shall be responsible for determining their supplier and costs associated with providing ultra-low sulfur diesel fuel under this Contract.

If taxed clear diesel fuel is used in non-taxable ways, the Contractor may apply for a tax refund by filing the Vermont Diesel Fuel Refund Application (form number TA-VP-035) available from the Vermont Department of Motor Vehicles or on their website at <http://www.dmv.state.vt.us/documents/TA/VP/TAVP035.pdf>.

- xx. DESCRIPTION. This work shall consist of retrofitting diesel-powered equipment used on the project with emission control devices, performing best practices with regards to equipment idling on the project, and providing ultra-low sulfur diesel fuel for fueling vehicles and equipment on site.
- xx. MATERIALS. Diesel fuel used to fuel all Contractor and subcontractor owned, leased, and rented diesel-powered vehicles and equipment used on the project and fueled on site shall be ultra-low sulfur (15 parts per million maximum sulfur content) diesel fuel.
- xx. EQUIPMENT. Retrofit emission control devices shall consist of diesel oxidation catalysts (DOCs) included on the *Verified Retrofit Technology List* published by the EPA or California Air Resources Board (CARB).
- xx. GENERAL REQUIREMENTS.
- (a) Equipment Retrofit. All Contractor and subcontractor owned, leased, or rented diesel-powered vehicles and equipment with engine horsepower (HP) ratings of 50 HP and above used on the project should have emission-control devices installed, such as oxidation catalysts or particulate filters, on the exhaust system side of the diesel combustion engine equipment.

In order to help meet this requirement for this project, payment will be made for qualifying expenses to retrofit one each of the following types of equipment: bulldozer, dump truck, and excavator.

The retrofit requirement for the type(s) of equipment listed above may be waived if:

- (1) the type of equipment listed above is not used on the project; or
- (2) it can be demonstrated that an approved DOC is not available for retrofitting the actual equipment used on the project.

For vehicles and equipment to be eligible for reimbursement of retrofit costs, they must be certified as being retrofitted prior to the equipment being moved to the project site. Certification shall consist of an invoice including the following information:

- (1) Contractor or subcontractor name, address, and primary contact information;
- (2) Vehicle or equipment type, make, model, year of manufacture, and Vehicle Identification Number (VIN) or Product Identification Number (PIN);
- (3) Emission control retrofit device type, make, model, year of manufacture, and EPA or CARB verification number;
- (4) Date of retrofit;
- (5) Reimbursable costs, including the emission control device, its installation, and all hardware and accessories necessary to complete the installation; and
- (6) Signature of the individual responsible for performing the retrofit.

- (b) Equipment Idling. For the purpose of reducing the emissions of particulate matter (PM) and oxides of nitrogen (NOx) from diesel-powered engines used on the project, the Contractor should perform best practices with regards to equipment idling.

In general, diesel-powered construction equipment should be turned off after three (3) minutes of idling or when idling time is expected to last for three (3) minutes or more.

The Contractor shall establish staging zones for vehicles that are waiting to load or unload at the project site. Such zones shall be located where the emissions from vehicles will have minimum impact on abutters and the general public.

All work shall be conducted to ensure that no harmful effects are caused to adjacent sensitive receptors. Sensitive receptors include but are not limited to hospitals, schools, daycare facilities, and elderly housing and convalescent facilities. Engine exhaust shall be located away from fresh air intakes, air conditioners, and windows.

The following are general exceptions to the "no idling" requirement:

- (1) A vehicle idles while required to remain motionless due to on-highway traffic, an official traffic control device or signal, or at the direction of official traffic control personnel or a law enforcement official;
- (2) When not as a part of a rest period, a vehicle idles while operating defrosters or heaters, or when installing or operating equipment solely to prevent a safety or health emergency;
- (3) Idling of the primary propulsion engine is necessary for maintenance, servicing, repairing, or diagnostic purposes, if idling is required for such activity(ies);
- (4) A vehicle idles as part of a state or federal inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection;
- (5) Idling of the primary propulsion engine is necessary to power work-related mechanical or electrical operations other than propulsion (e.g., concrete mixing or crane operation). This exemption does not apply when idling for cabin comfort or to operate non-essential on-board equipment;
- (6) A vehicle idles in order to bring the vehicle's engine to the manufacturer's recommended operating temperature;
- (7) When the outdoor temperature is below -7°C (20°F).

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Emission Control Device) of the Type specified to be measured for payment will be on a lump unit basis for reimbursable costs associated with retrofitting equipment specifically for use on this project. These costs will be limited to one of each type of equipment eligible for reimbursement and used on the project.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Emission Control Device) of the Type specified will be paid for as the total of all reimbursable costs associated with retrofitting equipment as specified.

Payment for Special Provision (Emission Control Device) of the Type specified shall be debited or credited against the Contract price (Lump Unit) bid for Special Provision (Emission Control Device) of the Type specified.

Payment for providing ultra-low sulfur diesel fuel for fueling vehicles and equipment on site will not be paid for separately, but will be considered incidental to the Contract.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.650 Special Provision (Emission Control Device, <u>Bulldozer</u>) (N.A.B.I.)	Lump Unit
900.650 Special Provision (Emission Control Device, <u>Dump Truck</u>) (N.A.B.I.)	Lump Unit
900.650 Special Provision (Emission Control Device, <u>Excavator</u>) (N.A.B.I.)	Lump Unit