

Fuel efficiency plans and idle reduction policies

Overview

The Non-Road Diesel Emissions Program (NRDE) requires all responsible parties to develop a fuel efficiency plan for their operations in order to be eligible for a fee rebate. The purpose of such a plan is to manage fuel costs and improve fuel efficiency. A central component of a fuel efficiency plan is an idle reduction policy. The fuel efficiency plan serves to:

- protect health of operators and people in the vicinity of the equipment
- save money by saving fuel and reducing engine wear
- improve ambient air quality
- reduce emissions and limit contributions to climate change
- conserve energy

Idling

Idling is running an engine for non-operational purposes. Unnecessary idling wastes fuel, contributes to air pollution and climate change and increases engine wear. An idling diesel engine produces much higher emissions than it would while using the same amount of fuel under load. Extended idling causes a build-up of soot inside the engine and results in a puff of black smoke when the engine revs.

Examples of unnecessary idling on port lands include:

- equipment running during staff breaks, while completing paperwork, or making phone calls
- engine warming – modern equipment warms up faster by being used than idling
- permitting equipment to run during breaks in active operation
- unnecessarily leaving equipment on standby

Common myths

It's good for the engine to idle.

Diesel engines don't burn much fuel at idle.

Diesel engines must idle or they won't restart.

Shutting down and restarting your equipment is hard on the engine and uses more fuel.

Did you know?

- excessive idling wastes money and fuel
- idling generates harmful emissions
- idling creates unnecessary noise
- fuel contamination of lube oil is higher at idle
- idling reduces engine life
- idling time of about 3-5 minutes is all that is required to properly cool an engine after being under heavy load
- idling can be minimized through education and implementation of an idle reduction policy

Idle reduction policy

An effective idle reduction policy starts with raising awareness about how small operational changes can lead to reduced fuel and maintenance costs and improved air quality and human health. Port operations are dynamic and unique, requiring consideration of operational context.

Example policy

Definition

Idling means the operation of a vehicle or machine while not in motion or being used to operate auxiliary equipment that is essential to the operation of the vehicle or equipment.

Purpose

The purpose of the policy is to establish guidelines for unnecessary idling of vehicles and equipment. Limiting idling times contributes to a healthier work environment, reduces noise and air pollution, reduces fuel consumption and reduces engine wear.

Procedures

- Always follow the manufacturer's recommendations around idling.
- No operator shall idle the engine in excess of 5 minutes.
- Diesel fueled vehicles should be turned off after enough time has passed to allow the proper circulation and cooling of the engine oil, coolant and turbochargers, not to exceed five minutes.
- If the engine must be left running for any reason the operator should remain in the vehicle.

Exceptions

- Idle times of up to 5 minutes are permitted during initial warm up and when the vehicle or machine is being restarted after prolonged shut down.
- Where engine power is necessary for an associated need such as power take off devices, auxiliary hydraulics, compressed air and/or electrical power.
- As required for defrosting or de-icing windows and/or as may be required for operator warmth, during periods of extreme cold.
- In situations where safety may be compromised by shutting down the engine.
- If required during maintenance and servicing.
- When in accordance with the manufacturer's operations manual or requirements.

Web resources

Natural Resources Canada <http://fleetsmart.nrcan.gc.ca/index.cfm?fuseaction=fleetsmart.idle>
Idle Free BC <http://www.idlefreebc.ca/>