



GC-10

**GREEN SEAL™ ENVIRONMENTAL CRITERIA FOR
FLEET VEHICLE MAINTENANCE**

**FIRST EDITION
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Green Seal, Inc. • 1001 Connecticut Ave. NW, Ste 872 • Washington, DC USA 20036-5525
(202) 872-6400 • FAX (202) 872-4324 • www.green Seal.org

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GREEN SEAL

Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education. Green Seal's mission is to work towards environmental sustainability by identifying and promoting environmentally responsible products, purchasing, and production. Through its standard setting, certification and education programs, Green Seal:

- identifies products that are designed and manufactured in an environmentally responsible manner;
- offers scientific analyses to help consumers make educated purchasing decisions regarding environmental impacts;
- ensures consumers that any product bearing the Green Seal Certification Mark has earned the right to use it; and
- encourages manufacturers to develop new products that are significantly less damaging to the environment than their predecessors.

The intent of Green Seal's environmental requirements is to reduce, to the extent technologically and economically feasible, the environmental impacts associated with the manufacture, use and disposal of products. Set on a category-by-category basis, Environmental Standards focus on significant opportunities to reduce a product's environmental impacts.

Green Seal offers certification to all products covered by its Standards. Manufacturers may submit their products for evaluation by Green Seal. Those which comply with Green Seal's requirements may be authorized to use the Green Seal Certification Mark on products and in product advertising. Manufacturers authorized to use the Green Seal Certification Mark on their product are subject to an ongoing program of testing, inspection, and enforcement.

For additional information on Green Seal or any of its programs, contact:

Green Seal
1001 Connecticut Avenue, NW, Suite 827
Washington, DC 20036-5525
(202) 872-6400
www.greenseal.org

Fleet Vehicle Maintenance (GC-10)

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1. Scope

This criteria document establishes environmental requirements for the maintenance of fleets of vehicles, primarily light-duty, used for services.

2. Definitions

- a. *Carcinogen*: Compound listed in the latest edition of the Annual Report on Carcinogens, U.S. Department of Health and Human Services, National Toxicology Program as known or reasonably anticipated to be carcinogenic.
- b. *Reproductively Toxic Compound*: Compound listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986, excluding ethanol (Cal. Code of Regulations, Title 22, Division 2, Subdivision 1, Chapter 3, Sections 12000 et seq.).
- c. *Re-refined Engine Oil*: Used petroleum-based lubricating oil which has been refined to remove physical and chemical impurities as well as spent and unspent additives.
- d. *Toxic, Highly Toxic, Extremely Flammable, Flammable, Combustible, Corrosive*: Product exhibiting potentially harmful characteristics as defined by Consumer Product Safety Commission regulations found at 16 CFR Chapter II, Subchapter C, Part 1500, and required to be labeled accordingly.
- e. *Volatile Organic Compounds (VOC)*: Compounds as defined by U.S. Environmental Protection Agency at 40 CFR Section 51.100(s),(s)(1).

3. Performance Requirements

All maintenance activities, including materials and services, should ensure acceptable vehicle performance for a duration commonly accepted in the industry.

4. Specific Environmental Requirements

Maintenance of vehicles shall be performed in accordance with the following requirements.

- a. *Motor and Mechanical Fluids and Filters*
 - i. *Engine Oil*: Re-refined engine oil is used for all oil changes. The re-refined oil component is at least 40% of the product. The re-refined oil meets appropriate performance specifications of the American Petroleum Institute and Society of Automotive Engineers.
 - ii. In lieu of meeting section 4.1.1, engines are equipped and maintained with an oil filter or equivalent system that significantly reduces (by at least 40%) the amount of oil required to be added in routine maintenance.
 - iii. *Used Oil*: Used oil is returned to an appropriate re-refiner or, if unacceptable for re-use, to a waste energy recovery facility.

- iv. *Oil Filters:* Used oil filters are drained of residual oil to the maximum extent practicable and metal parts are recycled. Used oil filters are not disposed of in landfills.
 - v. *Engine Coolant (Antifreeze):* Recycled propylene glycol is used for all additions to or replacements of the coolant. Used coolant is recycled for re-use.
 - vi. *Refrigerant:* Air-conditioned vehicles are serviced regularly to inspect for leaks of refrigerant, which are immediately repaired. Any refrigerant that is removed is recycled for use.
 - vii. *Windshield Washer Fluid:* Fluid used shall not be required to be labeled as toxic, highly toxic, extremely flammable, or corrosive; contains no carcinogens or reproductively toxic compounds; contains no phosphorus except as trace; and is biodegradable.
- b. *Tire Replacement*
- i. *Replacements:* Re-treaded tires are used to replace at least 70% of tires.
 - ii. Worn or Defective Tires are sent to retreading facilities or are used for waste to energy or for other rubber products. Used tires are not sent to landfills and are not disposed of improperly.
- c. *Parts Cleaning*
- i. *Cleaning Solution:* Only aqueous detergents or non-chlorinated solvents are used in a liquid-based cleaning system.
 - ii. Cleaning System reduces generation of hazardous waste compared to a static tank containing solvent that is replaced frequently. Systems meeting this criterion include, but are not limited to, recirculating, filtered systems on a strict maintenance schedule; ultrasonic washers; etc.
- d. *Vehicle Cleaning*
- i. *Washing of Vehicle Exterior*
 - 1. Detergent or cleaning product shall not be required to be labeled as toxic, highly toxic, extremely flammable, flammable, combustible, or corrosive; contains no carcinogens or reproductively toxic compounds; contains no phosphorus except as trace; and is biodegradable.
 - 2. Wastewater is contained and treated to separate out pollutants (e.g., oil, solvents, heavy metals, tar). Pollutants and remaining wastewater are properly disposed of.
 - ii. *Waxes, Polishes, Other Cleaners:* Product shall not be required to be labeled as toxic, highly toxic, extremely flammable, flammable, or corrosive; contains no carcinogens or reproductively toxic compounds; contains no phosphorus except as trace.
 - iii. *Bulk Vehicle Painting*
 - 1. *Application:* Only equipment with low overspray and high transfer efficiency is used, such as HVLP (high-volume, low-pressure) or LVLP (low-volume, low-pressure) applicators. Paint is applied in sealed booths with filters.

- Paint applicators are cleaned in an enclosure or other system designed to minimize air releases
2. *Paint*: Paint contains no carcinogens or reproductively toxic compounds. [Reserved: VOC limits]
 3. Waste Paint is recycled or properly disposed of.
- iv. Lite Machinery
1. *Hydraulic Lifts*: Existing in-ground lifts are inspected frequently for fluid spillage and put on a schedule for rebuilding with an encasement or containment system or for replacement with new lifts built above ground.
- v. Preventive Maintenance
1. Tires are checked routinely for wear and to maintain proper inflation.
 2. Engine is checked routinely for tuning; filters, fluids, and other functioning parts are changed as required by standard maintenance schedules.
 3. Exhaust Emissions are checked and corrected at least twice a year.
 4. Used Parts are recycled, remanufactured, or reused if practicable.
- vi. Grounds and Good Housekeeping
1. *General*: Facility is operated and maintained overall in a way that encourages clean operations, minimizes waste and pollution, and facilitates pollution prevention practices.
 2. Used Oil is stored in clearly marked tanks or drums that are properly maintained, have secondary or spill containment structures, and are kept free of contamination from other wastes such as solvents.
 3. *Drum Management*: Drums are clearly marked; hazardous and non-hazardous drums are separated; drums are checked frequently for damage; spill containment devices (e.g., containment pallets) are used. Drums are kept tightly capped; stored under cover from the elements; and protected from impacts.
 4. *Floor Drains*: Wastewater is directed into an oil/water separator or equivalent. Oil and sludge are separated from water. Pollutants and remaining wastewater are properly disposed of.
 5. *Uniforms and Rags*: Rags are stored in closed containers after free/excess liquid is removed; uniforms and rags are re-used wherever possible.
 6. *Packaging*: Cardboard, plastic, and other recyclable packaging is collected and recycled.
 7. Chemicals used in shop in small quantities (smaller than drums) are kept in discrete, controlled locations with a clear system identifying them; any on-floor storage of chemicals

for immediate access has limited amounts of clearly identified products. Efforts are made to use bulk dispensers and to substitute reusable pump sprays for aerosol cans.

8. *Recordkeeping*: Facility maintains accurate, complete, and up-to-date records of chemicals and materials received, used, and disposed of.

Appendix A: Labeling Requirements for Certification by Green Seal

5. The Green Seal Certification Mark may appear on vehicles regularly serviced at the facility, or in another form at or on the facility as approved in writing by Green Seal.
6. The Green Seal Certification Mark shall not be used in conjunction with any modifying terms, phrases, or graphic images that might mislead consumers as to the extent or nature of the certification.
7. Wherever the Green Seal Certification Mark appears, there must be a description of the basis for certification. The description shall be in a location, style, and typeface that are easily readable by the consumer. Unless otherwise approved in writing by Green Seal, the description shall read as follows:

"This vehicle maintained in accordance with Green Seal's environmental maintenance criteria."

or

"This facility meets Green Seal's environmental maintenance criteria."