



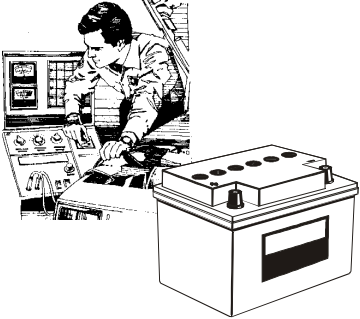
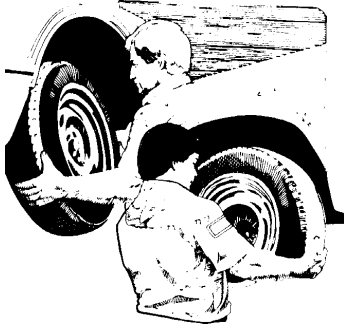

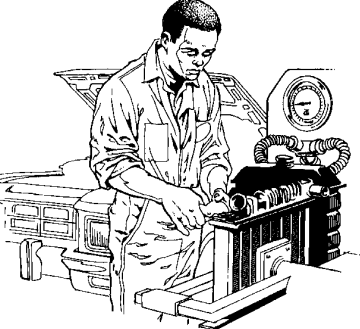



Automotive Waste Regulatory Reference

MATERIAL	REGULATORY ISSUES	POLLUTION PREVENTION OPTIONS
<p>USED MOTOR OIL</p> 	<p>Not regulated as a hazardous waste in N.C. if it is recycled or burned for energy recovery. Otherwise, generator must determine if it is a hazardous waste prior to disposal.</p> 	<ul style="list-style-type: none"> ☞ Change oil only when necessary. ☞ Use longer lasting oils. ☞ Consider by-pass filters to extend oil life. ☞ Recycle used oil, and collect from Do-It-Yourselfers to recycle their used oil. ☞ Consider burning used oil in an on-site space heater (up to 500,000 Btu/hour).
<p>USED OIL FILTERS</p> 	<p>Terne-plated oil filters, generally used in heavy-duty vehicles like transit buses and on- and off-road trucks, are considered hazardous due to the lead content. Non terne-plated used oil filters are not considered a hazardous waste if these filters have been gravity hot-drained by one of the following methods:</p> <ol style="list-style-type: none"> ① puncturing the filter anti drain-back valve or filter dome end and hot draining; ② hot-draining and crushing; ③ dismantling and hot-draining; or ④ any other equivalent hot-draining method that will remove used oil. 	<ul style="list-style-type: none"> ☞ Perform oil changes only when necessary to minimize the quantity of oil filters. ☞ Encourage the use of longer lasting synthetic oils to decrease frequency of oil changes. ☞ Crush filter or use another means (hot-draining, pressurized air) to remove as much oil as possible before recycling or landfilling. ☞ Consider reusable or by-pass oil filters. ☞ Consider recycling crushed oil filters.
<p>USED ANTIFREEZE</p> 	<p>Used antifreeze is not regulated as a hazardous waste as long as the metal content is not too high and is not corrosive (the pH must be great than 2 or less than 12.5). If the results from the Toxic Characteristics Leaching Procedure (TCLP) indicate metal contents that exceed the following, then the used antifreeze will be considered a hazardous waste:</p> <ul style="list-style-type: none"> • Cadmium 1.0 mg/L • Chromium 5.0 mg/L • Lead 5.0 mg/L <p>Do not mix used oil or other wastes in the antifreeze.</p> <p>Do not dispose of antifreeze in storm sewers or the trash, and do not dispose of antifreeze in a sanitary sewer without permission of the staff from the local wastewater treatment plant. Used antifreeze is banned from disposal in landfills and municipal incinerators.</p>	<ul style="list-style-type: none"> ☞ Determine if antifreeze needs to be changed by testing properties such as corrosion inhibition and freeze protection. ☞ Reuse antifreeze directly, i.e., without treatment, when possible. ☞ Recycle antifreeze on- or off-site and use recycled antifreeze in vehicles. ☞ On-site recycling systems available utilize filtration/centrifugation, ultrafiltration, chemical filtration, vacuum distillation, or ion exchange. ☞ Consider using propylene glycol to replace ethylene glycol. While propylene glycol is more expensive, it is less toxic to humans and animals.

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<p>LEAD-ACID BATTERIES</p> 	<p>Lead-acid batteries are considered a characteristic hazardous waste because of the lead and acid content and are banned from North Carolina landfills. However, lead-acid batteries that are reclaimed are not considered hazardous and do not count in the hazardous waste quantities generated per month.</p> <p>Lead-acid (and other hazardous waste batteries) batteries can also be managed as universal waste.</p>	<ul style="list-style-type: none"> 🔑 Service batteries regularly and change them only when necessary. 🔑 Use longer lasting batteries. 🔑 Recycle lead-acid batteries. Those not recycled must be disposed as hazardous or managed as a universal waste. 🔑 Store and secure batteries to prevent leakage of acid or hydrogen gas.
<p>USED TIRES</p>  	<p>Used tires are <i>not</i> currently classified as a hazardous waste in North Carolina. However, used whole tires were banned from landfills as of March 1990.</p> <p>Check with your county manager or county solid waste office for any special county ordinance concerning scrap tires.</p>	<ul style="list-style-type: none"> 🔑 Encourage customers to maintain proper air pressure, periodically rotate and balance tires, and check front-end alignment. 🔑 Prevent unnecessary tire changeouts. 🔑 Seek opportunities to reuse or retread any discarded tires. 🔑 Recycle scrap tires. Whole scrap tires may be used for retaining walls, dock buffers, or playground equipment. Tires can also be processed for door and gym mats or for erosion control.
<p>SMALL PARTS CLEANERS</p>  	<p>Small parts washers are used to clean automobile components during repair and maintenance activities. Many parts washers use petroleum based, low flash-point solvents such as mineral spirits. These flammable solvents must be handled as hazardous waste if the flash point is <math><140^{\circ}\text{F}</math> when recycled or disposed. Even if a spent solvent is a high flash-point solvent and is characterized as non-hazardous, the solvent must be handled through a solvent servicer for recycling, fuel blending, or incineration.</p> <p>Ignitable hazardous waste can be mixed in used oil and managed as a used oil if the mixture has a flash point of >math>140^{\circ}\text{F}</math> and the used oil hauler will accept it. If the waste is hazardous for any other reason (i.e. due to metal content or other TCLP constituent, exhibits another characteristic such as corrosivity, it's a listed waste) it cannot be mixed in with the used oil.</p>	<ul style="list-style-type: none"> 🔑 Increase solvent life by examining cleaning needs and avoiding cleaning parts when possible, using scrapers or other mechanical means before placing dirty part in the basin, or extending the time between solvent servicing. 🔑 Filter solvents to extend their useful life. 🔑 Utilize solvent alternatives with higher flash points (above <math>140^{\circ}\text{F}</math>) to eliminate the generation of hazardous waste. 🔑 Maintain the non-hazardous status of spent solvents by avoiding contamination with chlorinated (RCRA F-listed solvents such as 1,1,1-TCA or TCE) solvents or other chemicals that could lower the flash point, and review the type of material being cleaned so that metals contamination of the solvent does not make the solvent a hazardous waste. 🔑 Use an aqueous based cleaner instead of a solvent in parts washer units.